Positive Steps
To a Steady State Economy

Edited by Haydn Washington
For CASSE NSW

Cartoons by Polyp
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For CASSE NSW
Cartoons by Polyp
2017
Acknowledgments

CASSE NSW would like to thank the many people who were part of bringing this book to fruition. Firstly, we would like to thank all our 21 authors, who took the time (and put in the energy) to make thoughtful contributions. Secondly, we would like to thank the cartoonist ‘Polyp’ for his permission to use his cartoons (see: www.polyp.org.uk). Thirdly, we would like to thank our editor, Haydn Washington, for putting in the time to pull together what turned out to be a substantial book! Finally, we express our thanks to Dick Smith, Matthew Washington and Robert Dolk, who donated funds to make this book more polished.

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Dedication

For Herman Daly, whose vision and deep insights provided the inspiration to act!

Cover Photo: This is Bidalina, a sacred mound-spring on the Oodnadatta Track in South Australia. It symbolises a ‘steady-state’, the release of water from the Great Artesian Basin over many aeons. Its significance as a sacred place reflects the urgent need discussed in the book to change to an ecocentric worldview that sees the rest of life not just as ‘resources’ but as our brothers and sisters. Photographer: Haydn Washington
Foreword

I am enough of a Platonist to suspect that ideas exist in their own realm, and sometimes reach down into the lower world and grab some of us by the scruff of our necks and won't let go until we advocate and proclaim them to our fellow humans. The idea of a steady-state or stationary economy grabbed the Classical Economists, especially John Stuart Mill, and has never entirely let go of economists, although its grip was severely loosened by the growthist ideas of the Neoclassical and Keynesian economists. However, the steady state idea is making a comeback now, thanks to its own rational power to convince reasonable minds, plus the increasing weight of the real world facts of finitude, entropy, unjust distribution of income, and satiability of legitimate wants. It is especially encouraging that the idea of a steady state economy has descended from the Platonic realm to such an impressive number of Australians, who, as this collection illustrates, have sharpened, developed, and polished the basic idea. Let us hope that steady state economics continues to take root in Australia and spread throughout the rest of our growth-threatened Earth.

Professor Herman Daly
Emeritus Professor at the University of Maryland, School of Public Policy
CASSE Economist Emeritus
Winner of the 2014 Blue Planet Prize
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword, Prof Herman Daly</td>
<td>4</td>
</tr>
<tr>
<td>Biographies of authors (organized by surname)</td>
<td>8</td>
</tr>
<tr>
<td>Concept map of the steady state economy, Haydn Washington</td>
<td>16</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>19</td>
</tr>
<tr>
<td>Introduction, Haydn Washington</td>
<td>23</td>
</tr>
<tr>
<td><strong>Section I - Major Positive Steps</strong></td>
<td>32</td>
</tr>
<tr>
<td>Chapter 1 - What is the steady state economy?, James Magnus-Johnston</td>
<td>32</td>
</tr>
<tr>
<td>Chapter 2 - Growth in what?, Haydn Washington</td>
<td>45</td>
</tr>
<tr>
<td>Chapter 3 - What would it be like to live in a steady state economy? Haydn Washington</td>
<td>50</td>
</tr>
<tr>
<td>Chapter 4 - Stabilising population in a Steady State Economy, Haydn Washington</td>
<td>58</td>
</tr>
<tr>
<td>Chapter 5 - Private preference and public policy – considering an ‘inherent right to populate’, B. Ward Powers</td>
<td>74</td>
</tr>
<tr>
<td>Chapter 6 – Reducing overconsumption, consumerism and throughput of resources, Haydn Washington</td>
<td>83</td>
</tr>
<tr>
<td>Chapter 7 - Reducing Economic Inequality: a key element in the transition, Frank Stillwell</td>
<td>101</td>
</tr>
<tr>
<td>Chapter 8 - Relating the Steady State Economy to the Green and Circular Economies, Paul Twomey and Haydn Washington</td>
<td>119</td>
</tr>
<tr>
<td>Chapter 9 - Ecologically Sustainable Energy, Mark Diesendorf</td>
<td>138</td>
</tr>
<tr>
<td>Chapter 10 - The worldview and ethics of economics, Haydn Washington</td>
<td>145</td>
</tr>
<tr>
<td>Chapter 11 - Tax and Subsidy Shifting, Matthew Washington</td>
<td>164</td>
</tr>
<tr>
<td>Chapter 12 - Capitalism and the Steady State: Uneasy Bedfellows, Joshua Farley</td>
<td>182</td>
</tr>
<tr>
<td>Chapter 13 - Employment in a steady state economy, Haydn Washington</td>
<td>197</td>
</tr>
<tr>
<td>Chapter 14 - De-growth, Robert Perey</td>
<td>205</td>
</tr>
</tbody>
</table>
Chapter 15 - Voluntary Simplicity and the Steady State Economy, Samuel Alexander and Mark A. Burch 217
Chapter 16 - Could a universal basic income help?, Mike Dowson 226

Section II – Other Positive Steps 234
Chapter 17 - Sustainable Buildings as part of the steady state economy, Anna Schlunke 234
Chapter 18 - Gaining meaningful dialogue, Haydn Washington 247
Chapter 19 - ‘Decoupling’ – a desperate need and/or the excuse to continue business-as-usual growth?, Haydn Washington 256
Chapter 20 - A note about debt, Haydn Washington 262
Chapter 21 - Climate change action and the steady state economy, Haydn Washington 267
Chapter 22 – Divestment, Kara Nicholson 274
Chapter 23 - Steady State Economics as a Counter-Hegemony, Greta Werner 284
Chapter 24 - Corporate Reform and Corporate Governance, Matthew Washington 294
Chapter 25 - The Role of the Banking System, Paul Twomey 314
Chapter 26 - The Genuine Progress Indicator: An indicator to guide the transition to a steady-state economy, Philip Lawn 324
Chapter 27 - Sustainability tariff structure, Paul Twomey 336
Chapter 28 - The Steady State Economy and High School Education, Phil Jones 343
Chapter 29 - Democracy in the digital age, Eva Schlunke 350
Chapter 30 - Communicating to inspire mainstream commitment to transition to a Steady State Economy, Andrew Gaines 363
Chapter 31 - The Sharing economy and its relation to the steady state economy, Haydn Washington 367
Chapter 32 - Local Government and the steady state economy, Haydn Washington 379
Chapter 33 - Equity between Nations and the Steady State Economy, Phil Jones  384

Chapter 34 - GreenPrints: an Earth-centred approach for living within our ecological limits and creating a steady state economy, Michelle Maloney  395

Chapter 35 - Consumer, citizen or a new definition? The necessity to change both the term and our behaviour, Sabrina Chakori  411

Conclusion, Haydn Washington  420

Table of Positive Steps  423
Biographies of authors (organized by surname)

**Samuel Alexander** is a lecturer and researcher at the University of Melbourne, Australia, teaching a course called ‘Consumerism and the Growth Economy: Interdisciplinary Perspectives’ into the Master of Environment. He is also co-director of the Simplicity Institute (www.simplicityinstitute.org). An advocate of degrowth, permaculture and voluntary simplicity, his recent books include *Just Enough is Plenty: Thoreau’s Alternative Economics* (2016); *Prosperous Descent: Crisis as Opportunity in an Age of Limits* (2015); *Sufficiency Economy: Enough, for Everyone, Forever* (2015); and *Entropia: Life Beyond Industrial Civilisation* (2013); he is also editor of *Voluntary Simplicity: The Poetic Alternative to Consumer Culture* (2009) and co-editor of *Simple Living in History: Pioneers of the Deep Future* (2014). In 2016 he also released a documentary called *A Simpler Way: Crisis as Opportunity*, co-produced with Jordan Osmond of Happen Films. Alexander blogs at www.simplicitycollective.com

**Mark A. Burch** is a Canadian author, speaker and transformational educator. He has published seven books about voluntary simplicity and sustainable livelihood including *Stepping Lightly: Simplicity for People and the Planet*, *The Simplicity Exercises: A Sourcebook for Simplicity Educators* and most recently, *The Hidden Door: Mindful Sufficiency as an Alternative to Extinction*. His short fiction garnered first prize in the Lady Eaton Short Story competition and *Stepping Lightly* was nominated for the Nautilus Award in non-fiction. *Euterra Rising* is his debut novel.

**Sabrina Chakori** holds a bachelor in Biology from the University of Geneva and a Master in Environmental Economics from the University of Queensland. She redirected her interests from science to economics, convinced that to solve the interlinked social and ecological crises that we are facing, we need to change the root of our economic system. Although young in age, over the last 10 years Sabrina has been active in many parts of the world, including Europe, Australia, Kenya, Mexico and Ecuador. From plastic campaigns to the organization of events focused on new economic systems, Sabrina has built a solid experience in many different fields, such as activism, politics and journalism. She is also the youngest certified Caring Economy Advocate in Australia, through the Center for Partnership Studies (USA), an organisation that aims to integrate the value of social and environmental care into a new economic index. At the moment as Greenpeace plastic campaigner in
Queensland, she is working on a law to ban single-use plastic bags. Sabrina keeps nourishing her life through international action, last year she represented the Young European Greens at the COP22 (UNFCCC) in Morocco, and at the local level, she broadcasts for the local community Eco-radio show 4ZZZ.

Mark Diesendorf is Honorary Associate Professor in Interdisciplinary Environmental Studies at UNSW Australia (formerly the University of New South Wales). Previously, at various times, he was a Principal Research Scientist in Australia's national research organisation, CSIRO; Professor of Environmental Science and Founding Director of the Institute for Sustainable Futures at University of Technology Sydney; and Director of Sustainability Centre Pty Ltd. Currently his principal research is on rapid mitigation of global climate change and, in particular, integrating renewable energy on a large scale into electricity supply-demand systems. He also researches the assessment of energy technologies (environmental, economic and social equity impacts), energy policy and ecological economics, especially steady state economics. His most recent books are Sustainable Energy Solutions for Climate Change (Routledge-Earthscan and UNSW Press, 2014) and Climate Action: A campaign manual for greenhouse solutions (UNSW Press 2009). Website: http://www.ies.unsw.edu.au/our-people/associate-professor-mark-diesendorf.

Mike Dowson is a management consultant, productivity analyst, writer and systems theorist. His particular interest is the dynamics of collective enterprise and the influence of systems and technology on the ways people think and do things together. Mike has many years of experience in business and working for technology companies. He has consulted to a diverse range of organisations, private, public and not-for-profit, of all sizes, in many industries, within Australia and overseas. In recent years, Mike has begun to integrate an interest in theories and research into complex adaptive systems and transpersonal psychology, in particular the theory of Spiral Dynamics, with emerging technological trends in communication, automation and augmentation. His aim is to uncover ways that existing systems and institutions may be artfully transformed and repurposed to support well-being in the face of rapid planetary change. Among other things, he is currently contributing to public policy formulation around the economy, technology and society.
Phil Jones is a Science teacher/lecturer at a foundation college preparing Physics students for the University of Sydney. He gained his Honours degree from the same university, majoring in Zoology. He has a long history as an activist for social justice and human development, particularly in regard to developing countries. He was actively involved in the Action for World Development during the 1970s and was a board member of the World Development Tea Cooperative during that time. As a high school teacher he introduced social justice into the teaching programs at schools where he taught. He became concerned about the impacts of Climate Change and of environmental degradation generally as the seriousness of its impact became more apparent. He recognised the link between economic growth and the damage being done to the environment and as a consequence became an active member of the NSW Chapter of the CASSE. In recent years he has been the convener of a network of Catholic parish Social Justice Groups in the Diocese of Broken Bay, in the northern regions of Sydney and the Central Coast.

Joshua Farley is an ecological economist, Professor in Community Development & Applied Economics, Fellow at the Gund Institute for Ecological Economics at UVM, and Special Visiting Researcher at the Universidade Federal de Santa Catarina. He holds degrees in biology (BA), international affairs (MIA) and economics (PhD). He has previously served as program director at the School for Field Studies, Centre for Rainforest Studies, as Executive Director of the University of Maryland International Institute for Ecological Economics, and as visiting professor at the Federal Universities of Santa Catarina (UFSC) and Bahia (UFBA), and the University of the West Indies, Cave Hill. His broad research interests focus on the design of economic institutions capable of balancing what is biophysically possible with what is socially, psychologically and ethically desirable. His most recent research focuses on agroecology, farmer livelihoods and ecosystem services in Brazil’s Atlantic Forest, redesigning finance and monetary systems for a just and sustainable economy, the just distribution of wealth and resources, and transdisciplinary problem solving that integrates research and teaching. He has conducted problem-based courses in ecological economics on 6 continents. He is co-author with Herman Daly of Ecological Economics, Principles and Applications, 2nd ed. Island Press (2010).

Andrew Gaines is the instigator of the Great Transition Initiative (www.GreatTransitionInitiative.net), a citizen led educational movement to
inspire thoughtful mainstream commitment to doing everything required to transition to a life-sustaining society, rather than continuing on our present course of ecological self-destruction. Andrew has worked professionally as a Feldenkrais practitioner, creativity trainer and psychotherapist. His academic background includes engineering, philosophy and conflict resolution. He is trained in The Natural Step principles of environmental sustainability, and trained with Matt Taylor on facilitating DesignShops. He has also done extensive experiential work in Synectics, improvisational acting, visualization, Tai Chi, and Aikido. Andrew was a principal organizer of the Creative thinking forum on transitioning to a viable society in Sydney (2010) and the National Summit on whole system change to a life-sustaining society in Geelong (2011). Andrew is the author of the Kitchen Table Conversations Manual and Creative Conversations. His articles include Applying design thinking to large-scale social change and The Witness: the gateway to self-development.

**Philip Lawn** is an ecological economist who has produced eight books, around 40 book chapters, and over 50 journal articles on sustainable development; green national accounting; international trade and the environment; ecological macroeconomics; and issues concerning the perceived conflict between environmental conservation and employment. His latest book is on the ecological economics of climate change. Philip is a member of the International Society for Ecological Economics (ISEE) and served on the executive of the Australia and New Zealand Society for Ecological Economics (ANZSEE) – a chapter of ISEE – from 2003 to 2008. During this period, Philip was involved in the organisation of three ANZSEE conferences and a pre-conference workshop on sustainable development indicators for the Asia-Pacific region in New Delhi in 2006. In 2004, Philip became the inaugural editor of the International Journal of Environment, Workplace, and Employment (Inderscience) and currently serves on the Editorial Board of a number of academic journals. Besides his academic duties, Philip provides advice to policy-makers and regularly offers his services as a speaker at public speaking forums.

**James Magnus-Johnston** is the Director of the Centre for Ecological and Economic Resilience (CEER) at Canadian Mennonite University, where he teaches social entrepreneurship and ecological economics. He also serves as the Canadian Director of the Centre for the Advancement of the Steady State
Economy (CASSE), and as a board member for a number of community organizations. James promotes the transition to a steady state economy through low-impact living strategies, financial reform, and social entrepreneurship, spearheading enterprise development in partnership with community stakeholders. He previously worked in finance, communications, and public policy, and has an MPhil in land economy from Cambridge University.

**Michelle Maloney** (BA/LLB, PhD) is a lawyer and Earth advocate and is the Co-Founder and National Convenor of the Australian Earth Laws Alliance, or AELA (www.earthlaws.org.au). AELA advocates for a transition to Earth-centred law, governance and ethics in order to transition modern societies towards a more harmonious relationship with the natural world and a happier, and more sustainable human existence. Michelle is a Member of the IUCN World Commission on Environmental Law; Australia’s representative on the Executive Committee of the Global Alliance for the Rights of Nature (http://therightsofnature.org/) and the Chairperson of the Environmental Defenders Office Queensland (http://www.edoqld.org.au/). Michelle lives in Brisbane, Australia. For further information about her work and publications, please visit — http://www.earthlaws.org.au/about-us/aela-team/michellemaloney/

**Kara Nicholson** recently completed the Master of Environment (Governance, Policy and Communications) program at Melbourne University. Her thesis ‘Fossil fuel divestment in Australia: opportunities and obstacle’ provided a preliminary critical review of the fossil fuel divestment campaign in Australia based on an academic literature review and several interviews with key informants. The research formed the basis of an issues paper published by the Melbourne Sustainable Society Institute titled ‘Fossil Free: The Development and Significance of the Fossil Fuel Divestment Movement’.

**Robert Perey** is a researcher and trainer with a background in management and organizational change and development. Robert has worked on projects ranging through biodiversity awareness in Culturally and Linguistically Diverse Communities (CALD); sustainability case study development for inclusion in MBA programs; and is currently working on the CSIRO Wealth from Waste Cluster lead by ISF, investigating emerging business models, which promote circular flows of resources that now include waste as a valuable product. His research interests centre on organisational & societal
change, ecological sustainability, complexity, social imaginaries and aesthetics. In recent years he has run numerous workshops on the degrowth economy.

**B. Ward Powers** is an Anglican theologian with a deep concern about issues of the environment and overpopulation. He has taught about these matters in his ethics lectures at two Christian colleges for the past quarter of a century. He holds six university degrees, one of which is the Ph.D. of the University of London for his thesis on the teaching of the Bible about marriage, sex, and population. This was published as *Marriage and Divorce* (Sydney: Family Life Movement, 1987) which contains a chapter on ‘Birth Control Issues’ plus Appendix D on ‘Birth Control and World Population’. He was one of the founding members of Zero Population Growth Australia when a branch was set up in Australia. His emphasis is that those who share his belief in a God who made all of Creation should also embrace the responsibility to care for Planet Earth and its inhabitants — and that this will include an understanding of the damage caused by endless economic growth, profligate use of resources, and overpopulation. All people of faith should be encouraged to see the connection between their recognition of a Creator and how we all treat our planet.

**Anna Schlunke** is Co-Director of the NSW Chapter of the Centre for the Advancement of the Steady State Economy (CASSE NSW). She is a chemical engineer with a PhD in reaction kinetics and is interested in all aspects of the steady state economy. Anna splits her time between modelling the water and energy use of buildings; urban farming for Panania Free Rangers; and looking at how Australia could transition to a steady state economy.

**Eva Schlunke** is an Australian born artist and illustrator, who now lives in Manchester, UK. Eva is a former co-director of CASSE NSW with a background in business administration and eco-tourism, having worked for several years managing and consulting for eco-tourism lodges in the Amazon Rainforest, Peru, including work with Rainforest Action Network and Peru Verde. She is co-author and illustrator of children’s book *Little Worm’s Big Question* and has painted cover images for graphic novels and campaign booklets. She is also a partner in Agitprops which designs and builds high impact props for campaign groups.
Frank Stilwell is Professor Emeritus in Political Economy at the University of Sydney. He is a public critic of conventional economics and an advocate of alternative economic strategies that prioritise equity, economic security and ecological sustainability. He taught for over 40 years at the University and twice been awarded the University's Award for Excellence in Teaching. He is the author of eleven books on economic theory, economic policies, economic inequality and the political economy of cities and regions, and the co-editor of five other books on political economic issues. He is the co-ordinating editor of the Journal of Australian Political Economy, and is on the editorial boards of Regional Studies, Social Alternatives, and Australian Options. He is an elected Fellow of the Academy of Social Sciences in Australia. For many years he has been Vice President of the Evatt Foundation. He has also served as Vice President of the Council for Peace and Conflict Studies and as a member of the City of Sydney's working party to develop a policy for Social Sustainability.

Paul Twomey is a senior research fellow at the Faculty of Built Environment at UNSW in Australia. He is currently a principal researcher for a low-carbon transitions project called ‘Visions and Pathways 2040’, which is funded by the CRC for Low Carbon Living, a national research and innovation hub that brings together industry, government, universities and civil society to find ways of creating a globally competitive low-carbon built environment. He has worked on climate and energy policy and environmental economics at the University of Cambridge, European University Institute (Florence) and UNSW. His research interests include robustness in policy mixes, carbon policy interactions, renewable energy policy and is currently focused on policies and governance structures for a more sustainable built environment.

Haydn Washington is an environmental scientist and an Adjunct Lecturer, PANGEA Centre, Biological and Environmental Sciences, UNSW, Australia. Haydn was variously worked in CSIRO, as Director of the Nature Conservation Council of NSW, as an environmental consultant, and as Director of Sustainability in local government. He has a four decades involvement with environmental NGOs in Australia. Haydn is the author of six books on the environment - ‘Ecosolutions: environmental solutions for the world and Australia’ (1991), ‘A sense of Wonder’ (2002), ‘The Wilderness Knot’ (2009), ‘Climate Change Denial: Heads in the Sand’ (2011), ‘Human Dependence on Nature’ (2013) and ‘Demystifying Sustainability: Towards
Real Solutions’ (2015). Haydn is the Co-Director of the NSW Chapter of the Center for the Advancement of a Steady State Economy, and was a major organiser of the 2014 Fenner Conference on the Environment ‘Addicted to Growth?’ at UNSW, and was lead editor of the book ‘A Future Beyond Growth’ (2016).

Matthew K Washington has a MA hons from Sydney University in Philosophy and a Masters of Taxation from the University of NSW. His philosophical interests are in the areas of social philosophy, epistemology and the philosophy of science. He joined the Australian Taxation Office in 1987 and for 25 years worked in the compliance areas of the Sydney Office. For the last 14 of those years his work involved reviewing and auditing large multinational corporations and engaging with participating corporations in devising and developing ‘Advance Pricing Arrangements’. He was a Technical Leader and Team Manager, working with Transfer Pricing issues across a range of industries. Now retired from the ATO, he is Treasurer of CASSE NSW, an incorporated association. He takes active interest and supports conservation groups, and assists part time managing a small IT business.

Greta Werner is a PhD candidate in the Department of Sociology and Social Policy at The University of Sydney. Her current research examines the social processes that inform urban development including transport and residential infrastructure. Her research has included interviewing senior public servants, politicians, industry experts and planning academics to support her theoretical work. Her theoretical work compares historical materialist theories with Bourdieusian views to critique and extend the theoretical literature in the sociology of urban development. Werner’s interest in these processes is informed by a background in self-organized urban entertainment and sustainable design and architecture. Her experience in music and event production has informed her understanding of the tensions inherent in self-organized community events within capitalist liberal democratic cities and the politics of urban space. This was consolidated through a course in Events and Entertainment design, for which she won a TAFE NSW state medal in 2002. From 2003 to 2008 she established a sustainable kitchen design business. She has advocated for sustainable design practices through work for not for profit organizations supporting students and practitioners interested in sustainability, and has taught sustainable interior design. Her current research builds on this experience by providing sociological explanations for economic and political processes of urbanization.
Positive Steps

1) Sustainable Population (C4)
   - Sustainable population ecologically
   - Strategies to reach (non-coercive)
   - Living within limits
   - Denial of issue by Right and Left
   - Immigration vs net birth rate change

2) Low throughput of resources (C6)
   - Severance tax on mining
   - Resource Depletion Quota
   - Rethink, Reduce, Reuse, Recycle
   - End ‘Planned Obsolescence’
   - Extended Producer Responsibility (EPR)
   - Factor 5
   - Decoupling and circular economy

3) Equity and Equality of Income (C7)
   - Maximum income
   - Universal basic income
   - Equality of income (Gini coefficient)

Sustainable solutions
   - Great Transition (e.g. Transition towns) (C31)
   - Sustainable building (C17)
   - GPI and not GDP (C26)
   - Climate change action (C21)
   - Divestment (C22)
   - Renewable energy (C9)
   - Ecologically sustainable agriculture/permaculture
   - Ecovillages
   - Sharing economy (C31)

Assumptions of neoclassical economics
   1) Strong anthropocentrism
   2) The free market is a god
   3) The economy can grow forever
   4) Refusal to accept any biophysical limits to growth
   5) Circular theory of production and consumption
   6) Ignores 2nd Law of Thermodynamics
   7) Environmental damage just an ‘externality’
   8) All forms of capital can be substituted

Overconsumption (C6)
   - Can never have enough ‘things’
   - Grew hugely from 1950s
   - Driven by $600 billion advertising industry

Overpopulation (C4, C5)
   - Silence of denial
   - More assumed to be better

Denial (C18)
   - Key problem in human psyche
   - Of reality and limits
   - Of overpopulation
   - Of debt bubble
   - Of unsustainable growth
   - Types of (e.g. implicatory denial)

Unsustainable worldviews (C10)
   - Modernism and consumerism
   - Capitalism and neoliberalism
   - Utilitarian ethics
   - Nature ‘just a resource’ ideology
   - Technocentrism
Concept map of the steady state economy
Haydn Washington

The preceding page shows a concept map of the steady state economy (SSE). Note that the concept map shows relevant chapter numbers in the book (e.g. C7) for that aspect. Concept maps are graphical tools for organizing and representing knowledge. They include concepts, usually enclosed in circles or boxes, and relationships between concepts. The concept map here contrasts two economic systems:

- The neoclassical growth economy
- The steady state economy.

It shows (on the right side) aspects that feed into the growth economy, key of which are the 8 assumptions of neoclassical economics, as identified in the booklet ‘Addicted to Growth?’ (Washington 2014). That document noted about these assumptions:

Looking at them from the viewpoint of environmental science, the above assumptions are actually absurd (Washington, 2014). The above assumptions deserved to be challenged, and some economists and scientists have been doing so for over 40 years. ... the eight assumptions above remain in control of the neoclassical economic synthesis still being taught by economics faculties at universities, and still being promoted by governments.

The other key drivers of the growth economy are overpopulation, overconsumption, denial of ecological limits, and unsustainable worldviews. CASSE NSW (and CASSE in general) seek a ‘Great Transition’ from the neoclassical growth economy to the steady state economy. The central and left hand side of the concept map shows the steady state economy and the aspects that feed out from this idea. This has three key distinguishing elements:

- Sustainable population
- Low throughput of resources
- Greater equity and equality of income.
It indicates that we have to clarify ‘Growth in what?’. A corollary of low throughput of resources is that we have to deal with consumerism and redesign the consumer culture. The world economy (especially Western nations) is too big, way beyond ecologically sustainable size. Hence we need degrowth of the economy before it moves into a steady state. We also desperately need corporate reform as well as changes to taxation and subsidies, as shown. The steady state economy (SSE) also has links to other types of economy, as indicated. Employment is a key consideration. The SSE fits in with many sustainable solutions, and these are shown. The centrality of changing worldview in a SSE is made clear through the box ‘Ecocentrism as solution’, for if we change our worldview then so many other solutions become easier. Finally, the SSE requires champions to undertake the politics of change and these make up two other important boxes in the concept map.
Executive Summary
Haydn Washington

‘Positive steps to a Steady State Economy’ builds on the previous publication ‘Addicted to Growth?’. It goes further in that it looks more closely at the positive steps needed to reach a steady state economy. It is in two sections, the first is ‘Major Positive Steps’ and comprises 16 chapters. The second is ‘Other positive steps’ and comprises 19 (generally shorter) chapters.

In Section I (Major Positive Steps), Chapter 1 considers what exactly is the steady state economy and why it differs from most other economies. Chapter 2 clarifies what we are talking about in terms of ‘growth’ (i.e. growth due to increasing population and resource use). Chapter 3 examines what it would be like to live in a steady state economy, concluding that overall it would be a positive experience. Chapter 4 considers the thorny issue of overpopulation, a topic often ignored or denied (even by environment groups!), yet one that must be confronted if we are to reach a sustainable future. Chapter 5 builds on the population debate, analyzing the issue of whether one has a ‘right’ to have as many children as one likes. Chapter 6 discusses consumerism and overconsumption and the need to drastically lower resource use. Chapter 7 tackles the issue of reducing economic inequality, something we must do to succeed in transforming our economy. Chapter 8 relates the SSE to two key other economies often suggested as solutions - the Green and circular economies. It shows that while these have positive aspects, they also fail to tackle two central issues that the SSE does (overpopulation and consumerism). Chapter 9 considers the key issue of ecologically sustainable energy, where a rapid transition to 100% renewable energy is a win/win situation on many fronts. It also argues that, even with 100% renewable energy, there must be limits to growth in energy consumption. Chapter 10 tackles the key issue of worldview and ethics in terms of our economy. Only by a major change in worldview from anthropocentrism to ecocentrism are we likely to move to a SSE.

Chapter 11 looks at two key changes needed, shifts in taxation and subsidies. We should be taxing the ‘bads’ and subsidizing the ‘goods’, both as a means of moving to a SSE, but also to solve the environmental and climate crises. Chapter 12 considers the related ideologies of neoliberalism and capitalism,
and whether they are compatible with a SSE. It concludes that neoliberalism definitely is not, while capitalism may be (in some form) but that its underlying ideas (e.g. competition) are at odds with those of a SSE (e.g. cooperation). Chapter 13 briefly looks at the issue of employment, as this is often the main attack on a SSE, that we must have growth to have jobs. It argues that this so-called ‘given truth’ is in fact incorrect, and that the growth economy actually does not provide full employment, and that unemployment may in fact reduce in a SSE. Chapter 14 discusses de-growth as a transition strategy to a SSE. Chapter 15 canvasses how a ‘Voluntary Simplicity’ strategy can be a key part of transitioning to a SSE. Chapter 16 wonders whether a ‘universal basic income’ could help us move to a SSE, and concludes it would be a useful (and feasible) tool.

Section II – Other Positive Steps is made up of generally shorter chapters. Chapter 17 looks at sustainable building as a key strategy needed in a transformation to a SSE (and for sustainability in general). Chapter 18 discusses the need for meaningful dialogue about the SSE, and how hard (yet essential) it can be to gain such. Chapter 19 discusses the fascinating topic of ‘decoupling’, where the idea is you grow your economy but with much less (or no) environmental impact. It is a necessary strategy to reduce resource and energy use (for many reasons), however decoupling runs the risk of subversion, where people speak of decoupling, yet simultaneously stay committed to further growth (which cancels out the savings made). Chapter 20 is a short chapter about the debt bubble, the size of which is surprisingly hard to pin down. However, we know it is large and growing, and we know all previous debt bubbles historically have burst. If we let ours continue to grow then the impact of its collapse could be huge.

Chapter 21 discusses the essential topic of climate change action, but it takes a slightly different slant than most books. It looks at the deep denial of the drivers of climate change – overpopulation, overconsumption and the growth economy. Amazingly, silence about these topics (and strong denial) exists even within the science and environmental activist communities. Yet the chances of solving climate change without also addressing these key drivers are slim. Chapter 22 is on divestment, clearly showing that one of the best actions we can take on climate change is to stop investing in fossil fuel companies. This is a critical step that any sustainable economy must take
immediately. Chapter 23 looks at how the SSE can be a ‘counter-hegemony’ to traditional growth economics. What is a counter-hegemony? It has been described as ‘predominance obtained by consent rather than force of one class or group over other classes’. Others might call this a ‘meme’, which is an infectious idea. The growth economy is an unsustainable meme that has infected society. This chapter argues that steady state advocates need to counter this with a positive infectious idea – the steady state economy. Chapter 24 discusses corporate reform, a key strategy needed to reach a SSE. It looks at the negatives of corporations and suggests positive corporate entities we should use instead, such as not-for-profits and cooperatives.

Chapter 25 discusses the role of the banking sector in moving to a SSE. There is dispute (even amongst ecological economists) currently about the centrality of moving from fractional reserve banking to full reserve banking. The issue is complex, and this is one topic where members of CASSE may disagree (indeed the editor goes further in the box than the author of the chapter). Such disagreement of course is part of any meaningful dialogue, and is a positive thing. Chapter 26 explains the Genuine Progress Indicator, the indicator we should use instead of the flawed GDP. Chapter 27 considers a sustainability tariff structure, and points out that while ‘free trade’ has become a mantra everyone praises, it has problems. Free trade can support unsustainable practices, so if a nation adopts the SSE and acts sustainably, it may need to apply a sustainable tariff to stop it being disadvantaged by nations who do not (and sell products more cheaply). Chapter 28 looks at how high school education can assist the transformation to a SSE. In Australia (and probably most nations) the SSE is not discussed at all in the Federal curriculum or in State syllabuses. The growth economy itself is similarly not analysed. However, there are many places in the curriculum that relate to this, and where both could (and should) be discussed to create the dialogue needed for change. Chapter 29 considers how democracy in the digital age can assist moving to a SSE. Key amongst this is deliberative (or participatory) democracy, and the strategies put forward within this. It brings everyday people into decision-making. It thus aids dialogue and breaks down denial. Such an approach can give ‘teeth’ to the grassroots change underway.

Chapter 30 Introduces the Great Transition Initiative, a platform to support proactive education about systemic change to a steady state economy. It
describes innovative communication tools and a methodology for enrolling massive numbers of citizen educators. Chapter 31 examines the sharing economy and looks at its strengths, but also its weaknesses. Chapter 32 considers how local government (councils) can assist moving to a SSE. Councils operate at the ‘coal face’ of public engagement, so can easily encourage dialogue on the issue. One particular institution suggested is the creation of ‘Life Centres’ in each council to discuss issues of sustainability. Chapter 33 returns to the issue of equity, this time looking at equity between nations. Much of the developing world is impoverished by crippling debt owed to the developed world, to the extent they cannot fund sustainability programs. Solutions such as ‘Debt Jubilee’ can assist here. Finally, Chapter 34 considers ‘GreenPrints’ as an approach for how society can live within ecological limits, working on the bioregion scale. Chapter 35 returns to the topic of consumerism and considers how we need to rethink the term ‘consumer’.

So …35 chapters is a lot! But then the steady state economy is a huge undertaking, involving many strands. We do not suggest we have covered every possible positive step to a steady state economy (that would perhaps be impossible as new ideas continuously emerge). However, CASSE NSW believes the book is a useful contribution to the field for those who are seeking ways to implement the steady state economy. The positive steps have been gathered together at the end of the book after the conclusion. They are in a table for those who want to consider all the steps proposed by our 21 authors. The suggested steps dove-tail together well into a positive and exciting (if challenging!) strategy to move to a steady state economy and a truly sustainable future.
**Positive Steps - 23**

**Introduction**

Haydn Washington

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**Can you fight city hall?**

Haydn Washington

There is an American phrase ‘You can’t fight city hall!’

meaning it is no use trying to change the system. Is this true? No! Many community movements have forced governments to act to improve the world. Whether one looks at national parks (and I have been closely involved in the creation of some, in particular the 500,000 ha Wollemi NP) or at legislation (such as the US Clean Air Act), or saving a wild river from being dammed (e.g. the Franklin in Tasmania) – it is community lobbying that forced government to act ‘for the common good’. Governments are political animals, and they respond to community pressure. When The Colo Committee started its campaign to protect the Colo river in 1974, nobody knew where it was, and the NSW government had no interest in protecting this, the largest wilderness in NSW. Five years later in 1979, after a major community campaign, being deluged by thousands of letters, and with businessman Dick Smith publishing a full page ad in the Sydney Morning Herald – the Premier, Neville Wran, personally visited to camp out on the Colo river to declare the park would be gazetted on Dec 14th (Washington 2004). It should also be noted of course that not all the positive steps discussed here require government or corporate action, some are readily undertaken by the general community.

The list of successful campaigns goes on, campaigns that changed things for the better. Sure, developers tend to have the money and the political connections, but the community has two key weapons – numbers and enthusiasm. Get enough people to threaten to change their votes and the government will change its actions. Not every campaign is successful of course (e.g. Lake Pedder in Tasmania was flooded by a huge dam, though an active restoration campaign is underway), but many do succeed. Now the NSW Chapter of the Center for the Advancement of the Steady State Economy (CASSE NSW) realises that nothing is as hard as challenging the growth economy (when all branches of government support it). Seemingly they cannot conceive of anything else. But people are starting to break through the idea that ‘growth is always good’. It is clearly nuts to think we can grow forever physically on a finite planet, and it’s also not ethical nor sustainable. The Australian Academy of Sciences approved our application to run the 2014 Fenner Conference on the Environment on the topic ‘Addicted to Growth?’. I think that five years previous they would not have done so. So people are starting to question the false ‘given truth’ that growth is always good. Dialogue is increasing and it is the antidote to denial. So it is far from hopeless, there are positive steps we can take to change things, to alter our society and our economy so that they are truly sustainable in the long term. It is not hopeless, we can change things for the better. This book lists many of the positive steps for that change.

We know that endless material growth on a finite planet is impossible. Any group of children can tell you so. Any group of adults too – if they are not in denial. Our planet is in the process of coping with the fact that society has
exceeded ecological limits, causing an environmental crisis, whether we wish to acknowledge this fact or not (Washington 2015). Yet our politicians and mainstream economic faculties remain committed to endless growth. As Daly and Cobb (1994) note:

We find it hard to suppress a cry of anguish, a scream of horror. We humans are being led to a dead end, we are living by an ideology of death and accordingly we are destroying our own humanity and killing the planet. … Before this generation is the way of life and the way of death.

In terms of environmental science, the ‘ideology of death’ is not hyperbole but reality, as we risk two thirds of multi-cellular life going extinct by the end of the century (Raven et al 2011). Our growth economy has become the key cause of ecocide. As James Magnus-Johnston notes in Chapter 1:

... a steady state economy needs to be initiated by a cultural, spiritual, and political value shift towards simplicity, sufficiency, sharing, community, and a deep respect for the natural world.
So we need to desperately change, to move to an ‘ecological economics’ system that operates \textit{within} ecological limits. The acceptance of the need for this goes back to Nicholas Georgescu-Roegen (1971) and then to Herman Daly (e.g. 1977, 1991, 1996) and his many books and publications on the \textit{steady state economy}. What \textit{is} a steady state economy? We discuss this in an early chapter, but essentially it’s an economy with three key features:

- A stable and ecologically sustainable population
- A low use of resources
- Equitable distribution of wealth (Magnus-Johnston 2016).

As we shall see in a later chapter, GDP is a ‘dumb’ index (the Genuine Progress Indicator is much better), but even if you use GDP, a steady state economy can still grow if it is due to being \textit{more creative or smarter}, but not due to endlessly increasing population growth and use of resources (nor by becoming less and less equitable as is currently happening, Wilkinson and Pickett 2010).

Now CASSE NSW (as for CASSE in general) is all about \textit{getting dialogue on the steady state economy, and how to get there}. Mosley (2010) considers the SSE in terms of social sectors (such as trade, energy governance, etc.) and considers the situation today; in the steady state economy; and also the steps needed to move there. The previous document I produced for CASSE NSW for the 2014 Fenner Conference on the Environment ‘Addicted to Growth?’ set out the \textit{vision} of a SSE\textsuperscript{1}. It noted in brief some ideas to get to a SSE. This current document builds on that document by focusing on the positive steps to a steady state economy. Some are easier and are being (or have been) used in places around the world. Others are harder, and are not being carried out, but should be. We do not pretend that we have \textit{all} the answers. Most of those who write chapters here are not economists – and nor should they be, given the unsustainable assumptions of traditional economics (Washington 2014). However, we welcome dialogue with all disciplines (including mainstream economists). The problem is that dialogue requires \textit{two sides} to meet respectfully and productively (see Chapter on Gaining meaningful dialogue).

\textsuperscript{1}It is available from: https://steadystatensw.files.wordpress.com/2015/01/addictedtogrowthdocfinalboxesprintfinaloct17th.pdf
This has failed to happen in regard to most economic faculties at universities, and that failure is one of the barriers to moving to a steady state economy (SSE). Most economic faculties will not do the following:

- Accept that the Earth has biophysical limits, and that these have been exceeded, causing the environmental crisis
- Accept that overpopulation and overconsumption are key drivers of unsustainability and require action
- Tolerate criticism of the endless growth neoclassical economy, and talk about alternatives
- Consider a better indicator than GDP, which rises with both ‘goods’ (say building a school) and ‘bads’ (e.g. major deforestation, pollution remediation).

CASSE NSW finds this situation deeply frustrating, yet we remain unsure just how to break this communication barrier. Other, that is, than to keep talking about the insanity of endless growth unrealistically propped up by a reliance on a constantly growing population, a constantly increasing use of resources (and hence pollution), and a constantly increasing amount of debt. We also understand that dialogue beats denial, so we hope that the more people who are willing to question the neoclassical growth economy, the more that denial will weaken in neoclassical economists, and the greater the dialogue will be about alternatives such as ecological economics and the SSE. We welcome those who can join us and facilitate such a dialogue. The more economists (as well as those from other disciplines) who involve themselves in working on alternatives to the current growth economy, the sooner we will find solutions and ways forward.

I believe we have to ask whether we want to move to a non-growth world in an orderly and fair manner, where we develop new institutions and social practices in which people can flourish, or do we just want to wait until it is imposed upon us in a chaotic and potentially destructive manner? The purpose of this document is to set out a series of steps to move to an alternative - a steady state economy. This book is a forum for discussion. The chapters are written by many authors, and CASSE NSW does not necessarily endorse all the ideas put forward here. Having a vision is the most vital step in the policy process, yet vision is almost entirely missing from current policy
and our whole culture (Meadows 1994). At the same time, humanity has a regrettable penchant for denying its environmental problems (Washington 2015). However, it is time to accept the need for change. We need to break our addiction to growth.

Meadows et al (2004) note that the global economy is already so far above sustainable levels that there is very little time left for the fantasy of an infinite globe. They suggest we can step back and acknowledge that the current system as structured is unmanageable and has overshot its limits, and is headed for collapse. We can then seek to change the structure of the system itself. As Jackson (2009) has noted, the world faces a future with an economy that is ‘fundamentally broken’, and in need of renewal. He notes that the truth is that there is no credible, socially just, ecologically sustainable scenario of continually growing incomes for a world of 9 billion or more people. Arguably, economic growth as we have known it is over (Heinberg 2011), where ‘growth’ is the expansion of the overall size of the economy (with more people being served and more money changing hands) and the quantities of energy and material good flowing through it. It is time for an alternative vision if we are to reach a sustainable future. Heinberg notes that we can survive the end of growth (and perhaps thrive through it), but only if we recognise it for what it is and act accordingly. As growth ends, the managers of the economy will sooner or later be forced to ‘try other approaches’, and we need to have the conceptual tools lying around that in a crisis could be used speedily. This document seeks to canvas such tools.

Australia used to call itself the ‘lucky country’. And it is true that the last century has brought many benefits for most of Australian society, greater health care, more ability to travel, a higher standard of living, etc. However, if we are to maintain our well-being (and ensure the future well-being of Australians), then our ‘luck’ needs to be based on accepting reality. Society cannot continue to pretend that everything can continue as it has over the last few decades. We have all of us grown up within a growth economy, but this cannot continue, as the ideology of ‘endless growth’ breaks basic physical laws, as well as ecological reality. Australia is ‘lucky’ however in that it can still make choices. We don’t have to cling to the old failed ideology of a growth economy, we can become a leader in changing over to a ‘steady state economy’. Australia could move to an ecologically sustainable population that
consumes far less. Businessman Dick Smith (2011) has long been a champion for dialogue about population, and also acknowledges that our growth economy is fundamentally unsustainable. So understanding of the need to talk about such issues is spreading. Indeed, the broad outline of ‘what to do’ to reach this is more or less known (see population chapter). Any meaningful ‘sustainability’ has to be about ‘living within our means’ (MEA 2005). Australia is in a better position to do this than many other countries – provided we accept we have a problem.

CASSE is the Washington-based ‘Center for the Advancement of a Steady State Economy’ (see http://steadystate.org/), which has a NSW Chapter (see http://steadystatensw.wordpress.com/). CASSE NSW has scoped out and sought the chapter authors of this book. This book canvases steps whereby Australia could move from a growth economy to a steady state economy. The first step in that vision is to move past denial and accept that change is needed, to accept that endless growth on a finite planet is not possible (Washington 2015; Washington and Twomey 2016). The second step is to deal with the twin issues that underlie the growth economy: overpopulation and overconsumption. Do these affect Australia? Yes they do, for we live in the driest inhabited continent in the world, with the thinnest and most nutrient poor soils. There are good grounds to believe that Australia has already exceeded its ecologically sustainable population (certainly at current consumption levels) as the population chapter discusses. We also have a problem ecologically in the rapidly worsening environmental crisis. We have a problem socially in that the current system has not made us a happier society (quite the opposite). And we have a problem in that neoclassical growth economics is simply not sustainable, and leads to a cycle of ‘booms’ but also ‘busts’, and the social and environmental damage they cause.

However, what do we do immediately? Many people acknowledge that endless growth on a finite planet is impossible, yet they don’t know ‘what to do’, they cannot see the ‘first steps’ to take. Many of these are listed here. Some can be done immediately, and some of them fairly easily. Others will encounter major opposition. Opposition and denial, however, will not change the fundamental need for change. If we accept our problems, then we can start making changes that will improve things. This is not a vision of ‘doom and gloom’, quite the opposite. Proceeding blindly with the growth economy has brought us to the
edge of the abyss. Staying blindfolded now is not an option. Inaction will lead to collapse, as past civilisations found out to their cost (Diamond 2005). As Catton (1982) noted thirty years ago: ‘But believing crash can’t happen to us is one reason why it will’.

This document is in two parts, the first is ‘Major steps’ while the second is ‘Other positive steps’. This is not to imply that some of the second section actions are not major or are of minor significance, for many are also essential steps. However, with so many issues involved, CASSE NSW felt it had to prioritise key issues in the first section and devote more space to these.

This is an action document that scopes out the steps to a SSE. As such it remains a ‘work in progress’, and CASSE NSW accepts that there remains a lot of work to be done in working out how to best transition to a steady state economy. However, it does show the broad themes needed in such a transition. We understand that a steady state economy is a challenge, but it is a positive challenge (and an opportunity) that is both practical and ethical. It will help us to reach a socially-responsible society that is in balance with the nature that supports us. It will likely improve social cohesion and inclusion, equity and equality, and should lead to a happier society. It will protect the unique natural heritage of Australia, which we should all feel we are custodians of. That is a vision worth talking about and taking the positive steps to bring it to a reality.

Positive steps

You will find that most chapters end with a ‘positive steps’ section in regard to that topic. Those disinclined to read the whole chapter can thus turn right to the positive steps suggested. A table at the end of the book summarises all positive steps.

References


Section I - Major Positive Steps

Chapter 1 - What is the steady state economy?
James Magnus-Johnston

As we witness the declining health of the planet and worsening social inequality, there is considerable skepticism that economic growth in high-income countries will continue to transform lives for the better or deliver modest social gains like a reduction in poverty. Meanwhile, the singular pursuit of economic growth continues to exacerbate threats to human life, including climate disruption, mass extinction, and other symptoms of decline in the planet’s carrying capacity. We are facing a choice: reduce the scale of economic activity or risk irreversible ecological damage and unimaginable future costs. How can societies organize their economic affairs with the goal of improving well-being and restoring the health of the planet?

The two sides of the growth debate

The answer you get depends on who you ask. The conventional neoclassical economist would be inclined to tell you that there have always been measurable efficiency, income, and quality of life improvements under conditions of economic growth. If the economy continues to grow, so their theory goes, ecological limits will be overcome with technological solutions and a structural shift towards a post-industrial knowledge economy. In economic jargon, this ideal trajectory is called ‘decoupling growth from material input’ or ‘dematerialization,’ as each unit of GDP requires fewer and fewer material inputs. Some theorists, such as Voluntary Simplicity proponent Samuel Alexander (see chapter here), calls this view ‘techno-optimism,’ and this issue remains the crux of the growth debate (Alexander 2014).

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2 In this chapter, I’ll emphasize the perspective of the steady state economist since the conventional neoclassical economist is well represented in existing economic discourse and policy. To some extent, these hard positions are constructions in order to provide a fair level of contrast. In reality, there is plenty of ambiguity, and healthy academic debate between the concrete positions outlined in this chapter.

3 The information economy has several synonyms and related concepts, including angelised growth, as well as the value-added, ethereal, ephemeral, post-industrial, or simply new economy.
Many other economists – and an increasing number of thinkers across the arts and sciences – would suggest that economic growth is the proverbial ‘elephant in the room’. The economy’s aggregate material footprint, especially in high-income regions, continues to climb despite technological innovation, efficiency gains, and structural economic changes, and marches in lock-step with growth in GDP. Moreover, growth doesn’t necessarily improve well-being, and the gains aren’t shared equitably with those who could benefit from them the most, especially in the world’s poorest regions. This in turn means that we should do what many economists would consider the unthinkable: actually produce and consume less, strive for a more fulfilling and less materialistic life, and tailor policies to address specific ecological, social, and financial challenges. This scenario would require that we foster social and technological innovation without growth, and transition to a steady state economy (SSE).
What is a steady state economy?

A steady state economy is a dynamic market economy that efficiently allocates goods and services but uses the lowest feasible rates of natural capital depletion to achieve a high quality of life. A SSE features:

- A sustainable population size for the carrying capacity of its region,
- A distribution of wealth which is fair and equitable on an intergenerational basis.
- Low resource use.

The term may apply to a city, region, nation, or to a global economy that fits within the carrying capacity of the planet’s biosphere. Daly & Farley (2004) summarize the three objectives of an SSE as optimal scale, fair distribution, and efficient allocation, in that particular order.

Contrast these three steady state objectives with the rather narrow scope of neoclassical economics, which is the efficient allocation of goods. Questions related to scale are left almost entirely unconsidered in conventional economics and public policy, while the question of fair distribution is a secondary consideration. Steady state proponents don’t see how it’s possible to avoid questions of economic scale and wealth distribution in the context of present-day social, economic, and ecological challenges. Towards the end of this chapter, we will very briefly examine some of the policies that may already signal the glimmerings of a transition towards a steady state economy.

An economics that respects the physical sciences

While the term ‘steady state’ has been criticized for sounding technical, it bears a particular significance and history that respects physics and ecology (Cato 2010). Herman Daly, building upon the foundational work of his mentor Nicholas Georgescu-Roegen (1971), integrated the term ‘steady state’ into economics from the empirical sciences. It reflects the laws of thermodynamics, the finite nature of the earth, and the characteristics of an economy as a complex adaptive system.

The concept of thermodynamic irreversibility was applied to economics initially by Nobel Prize winning chemist Frederick Soddy, and then by
Nicholas Georgescu-Roegen (1971), the latter of whom is credited for identifying that neoclassical economic theory either fails or avoids the satisfaction of the first and second thermodynamic laws. These two laws include (1) mass balance; and (2) the entropy law. Mass balance refers to the condition that matter and energy are never destroyed, they merely change state. The entropy law states that when matter-energy changes state through an irreversible chemical conversion, it degrades. The implications for the economy are fairly straightforward: each industrial conversion begins with a higher-quality natural resource input and spits it out as lower quality material, in the form of waste.

The terms and concepts of neoclassical economics were imported from Newtonian physics, long before important discoveries had been made in ecology, physics, and systems sciences. The term ‘steady state’ modernizes our economic vocabulary to respect a century of developments in the empirical sciences. It more accurately reflects the characteristics of an economy in a finite and complex economy-environment system of unified thermodynamic integrity.

*Locating steady state theory in ecological economics*

Daly (1991, 1996) and Georgescu-Roegen are among the foundational theorists of ecological economic discourse, which explores the intersections between economics and ecology, as well as politics, ethics, and philosophy. The field was influenced by the earlier foundational work of thinkers such as Frederick Soddy, E.F. Schumacher and Kenneth Boulding, all of whom emphasized the need for an alternative to the growth paradigm. The term ‘steady state’ has a number of related concepts in the discourse of ecological economics, including ‘degrowth’ H.T. Odum’s ‘Prosperous Way Down’ (Odum and Odum 2001); Peter Victor’s description of an economy that is ‘slower by design, not disaster’ (Victor 2008); Andrew Simms’ ‘dynamic equilibrium’ (Simms 2010), or the even more general ‘new economy’, as promoted by the New Economy Coalition. The latter, however, is sometimes confused with a post-industrial service economy rather than a low or non-growing economy.
'Ecological economics’ is an economics that acknowledges the ecological limits of the planet, that considers interactions between economic systems and ecological systems (Common and Stagl 2005). Faber (2008) states that ecological economics is defined by its focus on nature, justice, and time. Issues of intergenerational equity, irreversibility of environmental change, uncertainty of long-term outcomes, and sustainability all guide the research of ecological economics. Ecological economics can therefore be delineated from *environmental* economics, the latter of which is a sub-branch of standard neoclassical growth economics. Environmental economists emphasize optimal pricing for waste and emissions and are more inclined to embrace the conventional techno-optimist perspective on growth.

Given the transdisciplinary breadth of ecological economics, however, there is still quite a bit of room for debate. For one to embrace the term ‘steady state economy,’ would be to reflect some acceptance of Daly’s theoretical synthesis and the key points defined earlier, though like-minded proponents of ‘degrowth’ emphasize a more radical reduction in the scale of economic activity and a shift away from capitalism and mass consumerism. Degrowth, a term that has been attributed to Georgescu-Roegen, is a largely European social movement and emerging body of literature that explores ‘a downscaling of production and consumption that increases human well-being and enhances ecological conditions’ (Schneider et al 2009).

While steady state theorists accept the need to shrink the economy so that fits within the limits of the biosphere, they note that degrowth is not sustainable in the long run. ‘Degrowth’ (see separate chapter) of production and consumption has a limit, just as growth has a limit. Canadian economist Peter Victor points out that ‘it is not intended that degrowth continue indefinitely; rather that it is a transformative path leading to a steady-state at a reduced level of economic output’ (Victor 2012).

*Earliest theoretical proponents*

The earliest glimmers of steady state thinking can be found in the writings of John Stuart Mill, one of the most prominent philosophers of the 19th century. Mill predicted that growth would be followed by what he called a ‘stationary state’. In *Principles of Political Economy*, Mill (1848) writes that:
... the increase of wealth is not boundless. The end of growth leads to a stationary state... 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 it being improved, when minds ceased to be engrossed by the art of getting on.

Likewise, John Maynard Keynes, the influential twentieth century economist, considered the day when society could focus on desirable ends such as happiness and well-being, rather than economic means, including economic growth and individual pursuit of profit. Keynes writes that:

... 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 behavior and religion (Keynes 1945).

Keynes also noted that in a post-growth economy, the rate of return (or interest) must consequently be minimised. He said that a person ‘would still be free to accumulate his earned income with a view to spending it at a later date. But [the] accumulation would not grow’ (Keynes, 1936, p. 199). This is an especially poignant remark today, as investments in assets like fossil fuels and real estate require growth in order to provide a return, but neither of these investments are sustainable in the long run (Rubin 2012).

Each of these foundational thinkers emphasize the need to move beyond economics in the narrowest sense, towards moral and social progress, increased happiness, wellbeing, and human fulfilment. Indeed many ecological economists emphasize growth in culture, knowledge, goodness, and ethics, rather than growth in materialism and consumption (see Czech 2000, 2013; Victor 2008; Jackson 2009; Simms et al 2010; Heinberg 2011; Dietz and O’Neill 2013).

Key initiatives for a steady state economy

If economic growth is failing and no longer materially feasible, how can we transition to a prosperous steady state economy? There is an inherent difference gearing our institutions for impossible growth, and gearing institutions for a steady state economy by design. As Victor (2008) aptly calls it, the SSE is an economy that’s ‘slower by design, not disaster’. I would like to cover three catalyst initiatives that may be politically feasible within our lifetime. Many initiatives can be introduced painlessly, and some are being considered seriously due a confluence of factors, including tax-shifting to environmental ‘bads,’ and establishing a guaranteed annual income. Other initiatives are well-understood imperatives among ecological economists, like developing ‘cost’ and ‘benefit’ categories for GDP, stabilizing population and throughput levels with a combination of policies limiting the use of non-renewable resources, and reforming international trade institutions. Currently, the World Bank, the IMF, and the World Trade Organization have too much power to block the kind of development that is necessary for a steady state economy.

Limit income inequality

Growth is said to improve income inequality because it provides new opportunities for the poorest members of society, but over the last decade, growth has not been shared equitably with our poorest citizens and is starting to grow out-of-control. Reducing poverty and ensuring social cohesion and stability require meaningful income redistribution. By permitting wealth disparities where some of the richest members of society earn 500 times more than the poorest earners, the sense of community necessary to foster a just and democratic society is impossible. Daly notes that ‘rich and poor separated by a factor of 500 have few experiences or interests in common, and are increasingly likely to engage in violent conflict’ (Daly 2013).

In the United States, the civil service and academia manage with a limited range of inequality, by a factor of 15 or 20 times the minimum, while corporate America has a range of 500 or more. Many industrial nations are below a factor of 25. Czech (2013) argues for an upper limit of 15 times the minimum earners, citing the example of professional league ‘salary caps,’ as well as the Mondragon cooperative, which has a maximum pay of 9 times the minimum (Dietz and O’Neill 2013). Daly (2013) argues that even starting at a limit of 100 would be better than present-day, which means that while a minimum of 20 thousand dollars per year would make subsistence, a maximum of two million per year would be allowed to reward initiative. Those who enjoy their work at a minimum level of income could live simply – as many do today – and devote their extra time to personal enjoyment or public service.

*Increase work flexibility*

While full-time employment for all might be hard to provide without growth, it’s also true that growth already provides too much employment for some, and not enough for others. Intergenerationally, baby boomers maintain high-income jobs and continue accumulating earnings while the next generation explores the virtues of working less, partly due to concerns over income stagnation, poor employment prospects, high debt loads, and fears that climate change will interfere catastrophically with the economy in their retirement years. More millennials are abandoning the rat race and consuming less, in favour of indulging more life-affirming and creative pursuits.

The industrialized world’s ‘forty-hour work week’ and the ‘nine-to-five’ workday are relatively recent inventions that many of us see as a ‘norm’ rather than a variable that we have freedom and control over. An international study found that 41 per cent of workers would prefer to spend less time working and earn less rather than the inverse (Dietz & O’Neill 2013). There are examples of successful alternatives. Germany’s Kurzabeit job-sharing program, which saw 1.4 million workers and 63,000 employers participate in 2009, has lowered unemployment rates while effectively reducing the number of hours worked per person. There are similar success stories in France, the Netherlands, and the US state of Utah. By creating greater work flexibility,
people are likely to consume less, which simultaneously improves their quality of life and takes some pressure off the biosphere.

Reform banks and reduce debt

One of the greatest institutional barriers to the steady state economy is a banking system (see chapter on role of banking) that has been foolishly engineered to collapse if it does not grow. Since the 1970s, the percentage of money created as debt by private banks (rather than by national governments), has been steadily increasing. Today, 97% of money is created electronically as debt by private banks, which in turn means that interest needs to accrue on 97% of all money. Thus, the economy must grow through either inflation (increasing prices) or expansion (increasing production and consumption), simply to finance growth in the money supply. The only way debt can be ‘paid’ is by increasing prices or increasing production, but debt must always outpace income growth!

What can we do to fix the financial mess? First, we have to put control of the money supply back in the hands of central banks. Until recently, the dividends that private banks now cash out to corporate interests were used by governments to invest in schools, hospitals, and roads. Second, we have to build our financial system to thrive on savings rather than debt by requiring banks gradually increase the amount of money they have in reserve.

Currently, banks may have as little as 1% of the money they claim to ‘lend out,’ because money is simply created electronically when a borrower applies for a loan or buys a house. With 100% reserves, every dollar loaned to a borrower would be a dollar previously saved by a depositor, thereby re-establishing the balance between savings and investment. In a savings-based financial system, borrowing will be done more carefully, and there would be fewer systemic risks to banks. Gradually, inflation rates and prices would become lower and more stable. Your savings would hold its value and assets like homes would become more affordable, which would also have the effect of reducing the gap between the richest and poorest citizens. This is how the banking system functioned during the prosperous post-war period, and the idea has been tested more recently on a smaller scale through the establishment of savings banks, including the JAK Members Bank of Sweden.
Conclusion

Much of the discourse surrounding the steady state economy sounds policy-oriented and technical, but the real initiating factors are much more profound than mere economics. As John Stuart Mill (1884) foreshadowed, a steady state economy needs to be initiated by a cultural, spiritual, and political value shift towards simplicity, sufficiency, sharing, community, and a deep respect for the natural world. Change like that will take time, and unfortunately – as steady state theorists are well aware – time is not on our side.

Nevertheless, signals of meaningful change are as present as the alarms of decline, including the rise of the ‘benefit corporation’ and not-for-profit economy in business; the rise of planet-restoring permaculture and agro-ecology; and the emergence of Voluntary Simplicity (see chapter on this) and neighbourhood-based transition initiatives. Taken together, the paradigm shift towards a steady state economy may seem like a difficult one in the context of today’s planet-ravaging economic framework, and the SSE will also undoubtedly need further development and study. However, none of these ideas are exactly ‘radical,’ and some refinements simply can’t be studied without implementation in the real world. On the bright side, the vast majority of the initiatives listed above have already been tested, and are being suggested precisely because they work.

For some, mere knowledge of severe climate instability and mass extinction will be enough to impel them to action; others need to bear witness to the consequences. Still others will always have trouble understanding cause-and-effect. In the rich world, we are beginning to witness the costs of growth outpace benefits, ushering in an era of ‘uneconomic’ growth (Daly 1991). However events unfold over the coming years and decades, it’s clear that the status quo is less realistic and potentially more violent than a mindful transition to a steady state economy. While it may be too late to avoid the inevitable consequences of growth, while we endure the long, slow decline, we should meditate on the principles that might help guide the reinvention and reconstruction of our future.
Positive steps

In regard to this chapter, the positive steps are:

- Understand what the SSE is in terms of its three key components (sustainable population; low use of resources; greater equity)
- Talk about the unsustainability of the growth economy and its sustainable alternative – the SSE.

(Note – adapted from Magnus-Johnston 2016)

References


The question of ‘Growth in what?’ is central to the debate about a SSE. This is a key question, one rife with confusion about what we mean. We should put to rest any confusion about what is meant by ‘growth.’ The rhetoric of growth is everywhere in our news and politics, and has many positive associations, like the growth of a garden or that of a young child. Constant and unyielding growth beyond sufficiency, however, bears negative associations with cancer, or with indulgent obesity. When ecological economists refer to economic growth, they are referring to an increase in the production and consumption of goods and services (as measured by GDP). Growth, as defined by Daly & Farley (2011) in ‘Ecological Economics’, is:

... an increase in throughput, which is the flow of natural resources from the environment, through the economy, and back to the environment as waste. It is a quantitative increase in the physical dimensions of the economy or of the waste stream produced by the economy. This kind of growth, of course, cannot continue indefinitely, as the Earth and its resources are not infinite. While growth must end, this in no way implies an end to development, which we define as qualitative change, realization of potential, evolution toward an improved but not larger structure or system.

This is thus differentiating between an increase in GDP due to an increase in population or resource use per capita (which Daly and Farley define as ‘growth’) and an increase in the GDP from someone being more creative or clever in how they do things (and which is not due to population increase or increased use of resources). Environmental scientists point out (logically) that growth in ‘population’ and the ‘throughput of resources’ cannot continue forever in a finite world. It was these two points that were used by Herman Daly (1991) to define a ‘steady state economy’: a stable sustainable population and a low sustainable throughput of resources. This is what environmental scientists focus on, the stresses created by increasing population, clearing of land, mining of resources to put through industry and create more ‘things’ (and hence more pollution). The continuing growth of these has created the environmental crisis, so that we are ‘living beyond our means’ (MEA 2005).
However, is this the only way an economy can grow? Gittins (2013) points out that all economists don’t necessarily mean this by ‘growth’ in GDP, that growth comes from both the goods but also the services we trade. Certainly, increasing the number of people and resource throughput grows GDP, but increases in efficiency and the way we turn inputs into outputs (productivity) also increase GDP. Many economists believe we can increase GDP through productivity (and non-physical services we trade, such as computer programs and art) without increasing resource use. In this way the economy in a SSE would not be ‘stagnant’, and humanity would not stop striving to improve the true quality (not quantity) of our lives. For example, we would not stop striving to cure cancer in a SSE (Gittins 2013). This improvement of the human condition (and human well-being), which does not rely on an increase in people or resource use (and the pollution thereby created), has been called ‘economic development’ as opposed to economic ‘growth’ (Victor 2008). To create a SSE, we will most definitely need to use our imagination, creativity and intelligence to reach a sustainable future.

So can the GDP still increase under a SSE? This is a debatable point. Daly (1991) noted it was an illusion to think that growth could continue by becoming ever less materially intensive and ever more service-oriented (the approach championed by the circular economy). Czech (2013) believes there still remains a ‘fundamental conflict’ between economic growth and biodiversity conservation. Welzer (2011) concludes that the decoupling debate maintains the illusion that we can ‘just make minor adjustments’. In theory GDP probably ‘can’ still increase, provided it is not due to increasing our ecological footprint and environmental impact through increasing our numbers and our use of resources. Can it do so forever however? Some such as Gittins (2013) and Randers (2013) believe it could. However, the last 200 years have been driven by economic growth through ‘more’ – more people and more consumption of resources. It is these two drivers of the growth that society has been addicted to, and which must now end. So the GDP can increase through greater efficiency, appropriate technology with lower impact, more services, greater creativity, and cultural activities. However, it is very unlikely that it can continue to grow as fast as it has been in recent decades (though the possibility exists that for some decades that the changeover to renewable energy systems may increase GDP). So GDP in a SSE can continue to grow,
but not as fast as in the last century. Some traditional economists agree with this, as they can see the need for change.

Another point to consider is that GDP is actually a *lousy measure of human well-being*. It includes both expenditure on positive things (e.g. building a new school) as well as the real costs, such as controlling pollution. We shall see that other indices such as the Genuine Progress Indicator (GPI) are better (see chapter this book). Growing GDP should not remain a key goal. Growing human well-being (in balance with the ecosystem services that sustain us) however is a much more meaningful and worthy goal. Now people tend to *value what they measure*. This is why governments now need to report on the GPI and also the Happy Planet Index as well as the GDP. Some countries do this, and the Australian Bureau of Statistics has just revamped what it reports on – but still refuses to report on either the GPI or HPI. So we can change the way we grow, and not grow the economy due to unsustainable numbers and throughput of resources. However, let us not fool ourselves, there will be huge opposition to stopping growth in population and resource use.

**Does growth improve well-being?**

A growing economy may improve well-being, or it may feature *uneconomic* growth, in which rates of natural resource use increase without a corresponding increase in a population’s quality of life (Daly 1991, 2014). Canada’s economy has grown while its ranking on the human development index (HDI) has toppled from 1st to a low of 11th place in 2013, due to Canada’s relative decline in income equality, education, and life expectancy. For every $100 of global economic growth that occurred between 1990 and 2001, Woodward and Simms (2006) estimate that only 60 cents went to people who make less than a dollar a day.

While many neoclassical economists attribute improved life conditions – from healthcare to communication technologies – to an increase in production and consumption, steady state theorists attribute these innovations instead to the human drive for *qualitative* improvement (see Lispsey et al 2005).\(^6\) Innovation, after all, has been a feature of all human civilizations, including

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\(^6\) For a techno-optimist perspective of the growth debate, see “Economic Transformations: General Purpose Technologies and Long-Term Economic Growth” by Richard Lipsey et al.
those that existed prior to the industrial revolution. Contemporary economic growth in high-income countries has also fostered mass consumerism, sedentary lifestyles, an obesity epidemic, and an overall decline in emotional and spiritual fulfillment. In the US, the percentage of people that report being ‘very happy’ has modestly declined since 1955, despite a steady rise in GDP per capita. Several studies now suggest that beyond a limit (ranging from $20,000 to $35,000 per person), income does not improve happiness (Dietz & O’Neill 2013). Can’t we shift our market economy away from unsustainable neoliberalism so that it produces and consumes only as much necessary to improve development and stabilize the biosphere? Might we not also focus on true ‘quality of life’ rather than the ‘standard of living’ measured by the GDP? A SSE has as a fundamental requirement for greater equity and equality of income (see Stillwell chapter). It will be based on cooperation not competition. It will be based on respect for others and nature, not a blind mantra of endless growth. A steady state economy is thus much more likely to improve well-being, both human and of the rest of life that we share this planet with.

Positive steps

It would be a key positive step to know what we speak of, that while there may still be GDP growth due to being cleverer or more creative in a SSE, there will not be GDP growth due to increasing population or resource use. Jackson (2009) has called this ‘prosperity without growth’. GDP may still grow (being cleverer and more creative) but not as fast as recent decades. The other positive step would be to cease measuring GDP and instead measure the Genuine Progress Indicator (GPI).

(I would like to acknowledge that I drew on Magnus-Johnston (2016) in regard to ‘Does growth improve well-being?’)

References


Chapter 3 - What would it be like to live in a steady state economy?
Haydn Washington

What would it be like living in a steady state economy? A major change in our economy can cause fear. Would we still have jobs? Would we have to live in caves? Would there still be roads and infrastructure? Would agriculture still function to feed and clothe us? Those advocating a SSE need to understand that talking about the need for a SSE will generate fear. And we should remember that when afraid people tend to go into denial or lash out (Washington and Cook 2011). The first thing to remember is that for most of humanity’s history, we did not live in a growth economy, or growth was so slow it was virtually unnoticeable (Victor 2008). Hunter-gatherer societies lived in a ‘steady state’ or balance with the natural world of which they were a part (Washington 2013; Gowdy 2014). Agricultural societies grew larger, but grew slowly and still had to maintain a balance with the land that supported them (or they collapsed). It was only with the advent of the industrial revolution in the last 200 years that humanity has embarked on the roller-coaster ride of the growth economy, ignoring the ‘Wisdom of the Elders’ (Knudtson and Suzuki 1992) of past cultures. Now the roller-coaster has run out of track.

A SSE would not be based on continually increasing population growth. That means the demands on growing food production and on infrastructure (such as more transport, more water supply, more electricity lines, more roads) would be much less (O’Sullivan 2012). A stable population would thus increase the quality of life of those living in cities, with less congestion and pollution. In a SSE, there would be a somewhat smaller building sector, and it would be ‘sustainable building’, focusing more on repairs than on new construction, and using low ‘embedded energy’ materials and low energy technology (Godfaurd et al 2005). There would be less demand for new schools with a stable population. While the absolute capacity for aged care would be increased for a while, it would be increased at a slower rate than in a growing population (so overall the need for infrastructure would be less). Such a demographic transition has of course already occurred for much of Europe, and for Japan (ET 2016), and life has gone on quite happily.
BUSINESS AS USUAL
Would we still have jobs? There is a chapter here on this topic. Clearly this is a major concern. Yes, the evidence is that a SSE (set up intelligently) can not only maintain jobs, but also reduce the unemployment rate (Victor 2008). Working hours may change, and salaries may be more modest (especially at the top end), but then the cost of living may also be lower. So a SSE can still provide full employment (see chapter on employment). With a SSE powered by renewable energy, there would be more jobs in country areas than today (to build and service wind farms and solar and biofuel systems). There would still be retail jobs, as a SSE still requires that people trade food, fibre and materials, though perhaps not at the frenetic pace of the last hundred years. There would be less overall ‘throughput’ of materials, which means less mining. Of course mining actually only provides 1.9% of jobs in Australia in any case, less than that in the fast food industry (Lucas 2013). There would be less junk, less cheap shoddy products, and less big flashy cars (which must happen anyway due to peak oil). In a SSE there would be more public transport (and the jobs this provides). There would also be far more sharing of products and services (see chapter on the sharing economy).

How would we provide energy in a SSE? There is a chapter here on ecologically sustainable energy. The climate crisis means we cannot power it with fossil fuels. The dangers and costs of nuclear power mean it will not be an option (Diesendorf 2014). Luckily, an economic alternative does exist, with much lower environmental impact, and which provides many more jobs – renewable energy and energy efficiency and conservation (see Diesendorf chapter). It is perfectly feasible and economic to make a transition to 100% renewable energy within a few decades (Diesendorf 2014). The climate crisis demands this. However, we cannot continue to grow our current massive energy use, where we waste far too much. We need to at least halve our current overall use, and then keep it there (and preferably cut it by 80%). Endless growth in the economy is not possible, nor is endless growth in energy use (even with renewables). We have splurged on energy by stealing energy from past sunlight trapped in fossil fuels (Hartmann 1999). It is time now to tighten our belt (especially in the West) and live within our means.

And what of our agriculture? With the decline of oil and the cheap fertilisers it produces, our agriculture will face problems (one more reason for stabilising population). Huge tractors and combine harvesters will become impractical, as
will large scale agribusiness. This will mean a need to move to smaller integrated farming that is predominantly organic in nature, with integrated pest management and much lower levels of fertilisers and energy inputs (Brown 2011). Such agriculture would require less energy inputs, cause less toxification and (if done properly) require less fertilisers. Food will have to be grown closer to cities and rail links, as cheap trucking by road will fade away. Much of the urban sprawl around our cities will need to be returned to agriculture, while sprawling suburbs will have to be re-planned for denser living (built around public transport hubs and cycle ways). Community gardens will increase. All of this transformation will of course provide considerable employment (and new sources of satisfaction and new enterprises, such as new service industries).

And what of our societies? A SSE will have less inequality of income, which means it is likely to have far greater social cohesion and actually be happier (Wilkinson and Pickett 2010). The chapter here by Frank Stillwell discusses this topic. Greed and selfishness will no longer be seen as ‘praiseworthy’, rather the thrifty, the sustainable, the equitable and the ethical will be seen as worthy of praise. There will still be good education, social welfare, medical coverage and aged care in a SSE. There will probably be a greater real sense of well-being through living sustainably and equitably with both nature and other people. Is this possible? Well Cuba has already been doing much of this over several decades (Murphy and Morgan 2013).

So a vision of a SSE is not a world of broken people cowering in caves. That actually is the future towards which an ecologically-impossible ‘endless growth’ economy is pushing us. Rather, a SSE is likely to lessen many of the current drivers of conflict and war (over-population, inequality of income, control of fossil fuel reserves). The SSE will be a smaller society, with an ecologically sustainable and stable population. It will not use fossil fuels (or in minute amounts). It will use far less energy overall due to energy conservation and this will be provided by renewable energy. It will use sustainable building. It will use far less materials overall, and will require far less mining. Reuse and recycling will be much greater. ‘Planned obsolescence’ of products will be a thing of the past (see consumption chapter). A ‘cradle to cradle’ approach for products will be mandatory (Braungart and McDonough 2008). The finance industry will be based around managing accounts, without ‘fractional reserve
banking’ (which drives the unsustainable debt bubble, Costanza et al 2013). Interest rates on deposits will not be zero, but will be lower than today (Daly 2008). The advertising industry will be smaller also, focused primarily on providing information (Victor 2008). It would be taxed and strictly regulated.

Thus, under a SSE, people will still be fed, educated and cared for medically and into their old age. There will still be jobs, and they may be more fulfilling. Wasteful and conspicuous over-consumption will be a thing of the past. Thrift and sustainability will be highly valued. Is this such a terrible vision for the future? It may be for some who promote ‘endless growth’, as they wish only to maximise their profits (such as some large corporations, Sukhdev 2013). However, the current endless growth vision is what has caused the environmental crisis and is leading society towards disaster, as what booms in a finite world must also bust (Assadourian 2013). A SSE is a much saner alternative and, for the average person in society, will almost certainly lead to a more sustainable and happier future. Will a SSE solve all problems? No, of course it will not. We have many environmental and social problems that will still need to be solved. However, a SSE removes two key drivers of the environmental crisis – too many people and too many things. A SSE is thus a vision worth encouraging and working towards, a key ‘Great Work’ (Berry 1999) of our times. Many groups such as ‘Transition Towns’, the Global Eco Village Network and ‘Voluntary Simplicity’ are already working towards such a vision.

**Positive steps**

Positive steps to conveying what it would be like to live in a SSE are:

- Ask people to consider that the future is not fixed, not ‘set in stone’, that we can change it for the better.
- Ask people to envisage a world where the population is stable and ecologically sustainable, where resource use is minimised to avoid pollution and environmental degradation, where equity is greater and hence social health also is better.
- If you have some time, ask people to imagine the world they would like the future to be, then work back and ask them how to get there (this is called ‘backcasting’). Along the way you may need to mention
issues such as human dependence on nature, species extinction and ecosystem decline, current rapid soil loss, the fact that Wilkinson and Pickett (2010) show that greater inequality brings greater social problems.

- Ask people to consider what the *ethics* of economics should be if we are to live sustainably?
- Ask people to carry out the ‘seven generations’ test (http://www.pbs.org/warrior/content/timeline/opendoor/roleOfChief.html). What would people seven generations in the past have thought of the way we treat the world through our neoliberal economic system. Ask them next to consider what our descendants in the future may think about our economic system and the way we treat the world. If they conclude they would be horrified at our approach, might not we change?

References


website, see: http://www.ecology.com/2013/02/18/japans-sustainability-lessons/


Chapter 4 - Stabilising population in a Steady State Economy
Haydn Washington

Explanatory note: The problem of ‘guilt by association’

A nasty form of sophistry is the use of the ‘guilt by association’ argument. For example, the Nazis were interested in organic gardening, therefore organic gardening is somehow ‘a Nazi idea’. This of course is logically silly, but is still commonly used. CASSE NSW recognizes the sensitivity of the population issue, however society cannot continue to keep this a taboo topic it ignores. We also as a society cannot continue the ‘guilt by association’ arguments that occur around population. The return of Senator Pauline Hanson to Parliament has focused attention on her racist (and Islamaphobic) arguments for limiting immigration (e.g. https://newmatilda.com/2016/09/19/the-stunning-racist-innovation-in-pauline-hansons-maiden-speech/ ). CASSE NSW’s reasons for limiting immigration are totally different to hers, and focus not on race (or religion), but on the environmental impact further major immigration will have on the natural heritage of Australia. This impact was demonstrated by the 2013 Fenner Conference on the Environment (see: https://population.org.au/fenner-conference-2013-summing). CASSE NSW does not agree with the arguments of Senator Hanson, and while we may both talk about reducing Australia’s high immigration intake, it is for very different reasons. We thus hope readers will avoid any mistaken conclusion of ‘guilt by association’. Australia is beyond its ecologically sustainable population (e.g. Lowe 2016). We thus urgently need to have a rational and ethical dialogue on this topic and move to a population stabilization strategy for Australia under a SSE.

Introduction

One key defining aspect of the steady state economy is a stable and ecologically sustainable population. This topic sadly is also a major taboo in society, one that almost ranks with that around the growth economy. While it should appear obvious that on a finite planet, more people equals more impact, for decades society (including many scholars) have been denying or avoiding this issue. The same unfortunately can be said for many activist environment organisations, scientific organisations and the UN itself, where UNEP’s vaunted ‘Green economy’ essentially ignores the dimension of overpopulation (as does the circular economy, Twomey and Washington 2016). Society thus
faces a *key blindness and silence* around this topic. However, overpopulation is a key driver of *unsustainability*, and any truly ‘sustainable’ economy cannot ignore the issue.

**Overpopulation**

Population growth exacerbates most environmental problems, and is a key underlying part of the growth economy. Apart from daring to question the growth economy, nothing else seems to raise such passion as suggesting we should ‘limit our numbers’. Into it comes issues such as religion, racism, social and environmental justice, equity, and poverty. There is also no more ‘taboo’ issue politically than population (with the exception of questioning the growth economy!). Collectively, the public and governments have been shying away from it for decades. Yet Hulme (2009) notes that if there is a ‘safe’ level of greenhouse gases to avoid runaway climate change, then ‘is there not also a desirable world population?’. Between 1960 and 2012 the human population more than doubled from 3 billion to over 7 billion (and the global economy went up 7-fold, Crist 2012). In environmental science, controversy has raged as to whether consumption or population growth is most culpable. We shall see here that this is a false dilemma, for the answer is *both*. Yet in the last two
decades, population has become something of a non-issue (or even a taboo word), so that a key driver of the environmental crisis is often ignored (Crist 2012).

A common knee-jerk reaction to raising the issue of population is to call those who raise it ‘anti-human’ or ‘racist’ (Collins 2010). The concept of ‘race’ of course is dubious genetically. In terms of the environmental crisis, the ethnic origin of people is not the point. The total numbers and distribution of people (and their impact on the Earth’s carrying capacity) is the point. Unsustainable population growth pushes the world beyond its carrying capacity (Catton 1982). The world is finite, and we know that human numbers have grown exponentially, so that they are now larger than ever before. Our global population is now more than 7.4 billion people. Various projections indicate that by 2050 the population will grow to between 8.3 and 10.9 billion people (UN 2012), with a predicted medium figure being 9.6 billion by 2050. However, while some people seem to think population will stabilize at 9 billion (and thus be a lesser problem), Gerland et al (2014) in Science note there is a 70% chance it could reach 11 billion by 2100. Given the environmental crisis underway, we cannot afford to add another 4 billion people to an already overloaded planet. It thus would make a big difference to our sustainability prospects if policy changes ensured the lowest possible figure. So the idea that the population explosion is ‘over’ often portrayed in the media is simply wrong (Campbell 2012). However, if we take appropriate action, we could in fact halt our population at 8 billion (Engelman 2012a, 2016) (and then reduce it to an ecologically sustainable level).

In 1968 Paul Ehrlich published ‘The Population Bomb’, which alerted the world to the dangers of exponentially growing population. He was later part (Ehrlich, Ehrlich and Holdren 1977) of coining the equation:

\[ I = PAT \]

Environmental Impact equals Population x Affluence x Technology. Our impact on the Earth is thus the number of people times their affluence (per capita consumption of resources) times the technology we use. Of course, like most environmental scientists, one must accept that most of the impact from pollution and carbon emissions are currently coming from the consumers in the developed world (Monbiot 2009). However, the developing world is
rapidly seeking to catch up. If this is done using traditional carbon-polluting industry, then the result will be steeply accelerating global carbon emissions, resource consumption, and other pollution. Indeed, this is already happening. The technology used to ‘catch up’ will thus be a critical factor, as will the question of whether the developing world seeks to catch up to the incredibly wasteful American (or Australian) level. However, improving technology or reducing affluence can only reduce our impact so far. In the end the numbers of people themselves count. The sheer number of consumers matters as much as the fact that many are now consuming more. A big population has a big impact, especially as the developing world expands its economy. Despite a 30% increase in resource efficiency, global resource use has expanded by 50% over 30 years (Flavin 2010). This is mainly due to the increasing affluence of the large populations in the developing world. This is why China is now the world’s biggest carbon polluter, while India now ranks sixth (Assadourian 2010). Accordingly, we need to target all three components of I = PAT if we seek to reduce human impact: containing population, limiting affluence and cleaning technology in terms of pollution and GHG emissions. These are key tasks of any meaningful interpretation of what sustainability should be.

Why is population such a diabolical policy issue? Because it cuts at the heart two million years of human evolution, where ‘more’ people was always better (Washington 1991). ‘More’ meant we could gather more food, cut down more forest, hunt more animals, defend ourselves better, and ostensibly gather more taxes for the State. ‘More people’ as a concept until the last 100 years has always been seen as a ‘good thing’ for society. Clearly people love babies, so it goes against the grain to say we should have fewer. Even authors of sustainability classics such as ‘Cradle to Cradle’ (Braungart and McDonough 2008) balk at discussing stabilising population. Collins (2010) believes that at the core of the population problem is a ‘conflict of rights’ - the right of the individual to reproduce, and the right of other species to continue to exist (see also next chapter). It is very hard for us to understand in our hearts that now ‘more’ is no longer better. Add to this the religious discouragement of birth control methods (e.g. the Catholic Church). Add to that the fundamental desire of governments to have more citizens and greater power. Population ecologist Meyerson (see Hartmann et al 2008) explains:
Conservatives are often against sex education, contraception and abortion and they like growth – both in population and in the economy. Liberals usually support individual human rights above all else and fear the coercion label and therefore avoid discussion of population growth and stabilisation. The combination is a tragic stalemate that leads to more population growth.

Crist (2012) points out also that environmentalists and the political Left have both blundered badly in failing to face up to population growth. In 1994 the UN ‘Cairo’ conference stopped talking about ‘family planning’ and instead spoke of ‘women’s reproductive health’ (funding for family planning then dropped worldwide). At that time population became something of a taboo word, as it was portrayed as infringing on ‘women’s rights’. Many in the Left have referred to the failed forced sterilisation program in India, suggesting (erroneously) that most family planning was coercive (Campbell 2012). In fact family planning is about giving women the choice as to when to use their ‘right’ to have children. In fact if family planning and contraceptives were made universally available, the evidence is that population growth would stabilise and then start to decline (Engelman 2012a). Another problem has been a common (if not universal) trend in feminism and the political Left to argue against population control as being coercive (Kolankiewicz and Beck 2001), though this may be starting to change (Weeden and Palomba 2012).

Population increase exacerbates all other environmental problems. Butler (2012) notes that both climate change and the extinction crisis are merely symptoms of ecological overshoot by an obese humanity. Overpopulation means cutting more forest for farmland, over-farming land so that it erodes, killing more ‘bush meat’ (wild animals) for food, over-fishing the rivers and seas. It means burning more fossil fuels as a way of fueling ‘development’. Many scholars write of the need for a ‘smaller ecological footprint’, but as Dietz and O’Neill (2013) point out: ‘we need smaller footprints, but we also need fewer feet’. And yet despite all this, talking about overpopulation is still controversial. As Chris Rapley, the Director of London’s Science Museum notes:

So controversial is the subject that it has become the “Cinderella” of the great sustainability debate – rarely visible in public, or even in
private. In inter-disciplinary meetings addressing how the planet functions as an integrated whole, demographers and population specialists are usually notable by their absence. (BBC 2006)

It is worth considering what an ecologically sustainable population number for the Earth might be. Crist (2012) points out that this question should really be what is the number (and at what level of consumption) that can live on Earth without turning it into a human colony founded on the genocide of the non-human. Biocapacity data suggest that if we made no change at all to consumption patterns, we could currently sustain a population of 4 to 5 billion. Our ecological footprint suggests no more than 4.7 billion people (Engelmann 2013), but not if every one of those lived at the US standard, where the Earth could sustain only a quarter of today’s population, or 1.75 billion people (Assadourian 2013). If everybody on Earth shared a modest standard of living, midway between the richest and the poorest, that figure would be around 3 billion (PM 2010). If we stabilise world population at 8 billion we could reduce it to 6 billion by the end of the century and to a sustainable 2-3 billion by the end of the following century (Staples and Cafaro 2012). Collins (2010) concludes that human population numbers are now so far beyond sustainability as to render the concept irrelevant. The world is already overpopulated. We cannot live in harmony with nature when our numbers are degrading the world’s life support systems.

To feed all the worlds people by 2050, given rising populations and incomes, food production must increase by 70% according to a FAO report, but at the same time this report noted 25% of the worlds land is degraded and water is becoming increasingly scarce and polluted, both above and below ground (FAO 2011). It is hard to see how it is possible in the future to adequately feed 9 or 10 billion people, given the many accelerating and interconnected environmental problems that food production now faces (Brown 2012). It would only perhaps be possible by destroying much of our remaining natural areas and biodiversity to increase cropland by a fifth (Erb et al 2009). Even if everyone lived at the China standard, we would need slightly more than one Earth to supply them (Moore and Rees 2013). Engelmann (2012a) argues we could stabilise world population at 8 billion if we applied the strategies laid out below. Then we would need to reduce overall population over time towards a lower, ecologically sustainable number, at least half that (possibly 2
billion would be a more responsible and ecologically realistic figure, Ehrlich (2013). While population remains in the 7-8 billion range, greenhouse gas and material use will have to come way down from Western levels to rapidly reduce the overall impact (Engelman 2013b).

Note that I (or other environmental scientists) are *not* suggesting compulsory sterilisation or forced euthanasia for the old. These are myths promulgated by those who deny the problem, and seek to label population realists as anti-human. The fact that humane and non-coercive strategies (such as the nine listed later) can work is attested to by the fact that Iran was able to halve its population growth rate from 1987 to 1994 (Brown 2011). Brazil, Iran, Japan, Sri Lanka and Thailand have achieved replacement fertility levels in a matter of a decade after strong government communication campaigns, combined with affordable family planning (Ryerson 2012). Population Media (www.populationmedia.org) has also had great success through education in many nations. Currently, Australia is trapped in the idea that it is ‘empty’ when, as the driest inhabited continent on Earth, it is actually almost certainly overpopulated (as our extinction crisis and other indicators suggest). Groups such as Sustainable Population Australia (https://population.org.au/) are leading the way for Australia to stabilize its population.

If we are going to accept reality then we need to *accept all of it*. Population growth is a key contributor to the environmental crisis. Our planet is overpopulated by humans and we cannot reach sustainability with our current numbers, let alone increasing numbers. We need to stop denying this and develop rational, ethical, humane and non-coercive, ecologically-based, population policies. To deny this just exacerbates denial of the causes of the environmental crisis (O’Connor and Lines 2008). Limiting human numbers will not guarantee we reach sustainability, but Kolankiewicz (2012) observes that not doing so means certain failure. ‘More people’ is no longer ‘better’, but far worse. It keeps us from reaching a truly sustainable future. We cannot reach a steady state economy unless we have dialogue about, and act on, overpopulation.

**Does the Bible encourage overpopulation?**

Some Christians are opposed to any efforts to curtail population growth because it is stated in the Bible that the Creator said: ‘Be fruitful and multiply
and fill the earth with your descendants’. Therefore they draw the implication that using contraceptives is a sin because it is interfering with the purpose of sexual relations, which is to conceive children. However, Anglican theologian Dr B. Ward Powers (2010) has pointed out:

But we need to take careful note of precisely what God said in his command to our first parents: It was “Be fruitful and multiply and fill the earth”. The command to multiply ceases to be a command when we have done it, and filled the earth. . . . If we take note of the present world situation we can see that this Creation Mandate has been well and truly fulfilled. . . . To continue to appeal to the Creation Mandate as applicable to any of us today is to ignore the inbuilt limitation in it: that it only applies until the earth is filled.

Powers (2010) continues,

Numerous scholars have undertaken extensive research into the history of the use of contraception, and have noted its widespread use amongst the ancient Egyptians, and in New Testament times as well. In those days it was not particularly well informed, nor effective, but it was widely practised.

In particular, Powers cites the authoritative book Contraception (1965) by Professor J. T. Noonan, who writes:

The existence of contraceptive technique in the pre-Christian Mediterranean world is well established. The oldest surviving documents are from Egypt. . . . The desire to prevent pregnancy by artificial means will be found even more characteristic of the society the Christians knew.

Noonan then devotes several pages to presenting details of its wider practice in those days, and an explanation of the various methods which were employed. Powers (2010) draws the conclusion:

There is strong condemnation, in both Old Testament and New Testament, for a wide range of sexual sins - but contraception is not included amongst them. Why not, if such a well-known practice was
Wrong? Neither the church nor any individual Christian has the right to add this practice to the Bible’s list of sexual sins. . . . Biblical ethical values will indicate to us that contraception is God’s provision for us to use in our present world crisis.

He then cites the summation given by Professor John Guillebaud (2000):

In my view, modern methods of birth control should be seen as a gift from God, both in helping many couples in their home lives, and in preventing a disaster of there being more people on the Earth than can live in harmony with God’s creation. . . . Surely, birth-planning is right. It will allow the couple to fulfil God’s great first purpose of marriage (the act that creates one flesh) without its second purpose of procreation eventually destroying their Garden of Eden.

There is thus no reason to believe that the Bible bans birth control, or that contraception is against Christian teachings, or those of any other major religion.

An ecologically sustainable population for Australia

In Australia, with an annual population growth rate of almost 1.4% (ABS 2016), we are the second fastest growing OECD country in the world, with only the anomaly of the small nation of Luxembourg being higher due to a year of high immigration (OECD 2016). Most (55%) of Australia’s growth comes from net immigration (ABS 2016). The key solutions to stabilising our population will come from two sources. Most importantly, we must reduce our Net Overseas Migration (NOM) from some 180,000 (ABS 2016) to around 60,000 (Lowe 2005) or 50,000 (O’Connor 2012) or 70,000 as suggested by the federal Labor MP Kelvin Thomson (2009) in his 14-Point plan for stabilising Australia's population. This would slow population growth and lead to a non-growing stable population (Lowe 2016). Note that this could still allow for a doubling of our refugee intake on humanitarian grounds, a strategy probably needed in a climate change (and an increasingly politically unstable) world. Somewhat similar proposals are made in recent books by O'Connor and Lines (2008), Dick Smith (2011) and Ian Lowe (2012).
However, in the world’s driest inhabited continent (due to become drier with less predictable weather due to climate change), with the thinnest and most nutrient poor soils, our numbers are already too great. So we need to slowly reduce them over time, which may mean decreasing immigration intake (or our own fertility rate). These steps are obvious, but they have been mostly ignored or denied. However, an increasing number of Australians and environment organisations are coming to realise that, given Australia is one of the most urbanised country in the world, our increasing population is over-crowding our cities, reducing the quality of life, and damaging our remaining natural heritage (e.g. NCC 2011). Way back in 1994, the ‘Joint statement of the 2040 population working party’ (PWG 1994) from the ‘Population 2040: Australia’s Choice’ conference of the Australian Academy of Sciences noted:

\[
\text{In our view, the quality of all aspects of our children's lives will be maximised if the population of Australia by the mid-21st Century is kept to the low stable end of the achievable range, that is to approximately 23 million.}
\]

Australia is now past that figure, and should seek to stabilise its population as soon as possible. The 2013 Fenner Conference on ‘Population, Resources and Climate Change’ at the Australian Academy of Sciences saw speaker after speaker make this point (SPA 2013a; Goldie and Betts 2014). The Declaration from that conference (SPA 2013b) stated:

Recognising:

- the inextricable links between population, resources and climate change
- that human economic systems are dependent on natural ecological systems
- that a sustainable future depends on widespread ecological literacy
- that we are fast approaching the limits to resource (particularly oil) availability and scale of use
- that we face the prospect of catastrophic climate change that will affect society and the economy irrevocably
- that the world must keep four-fifths of fossil fuels in the ground, and
that global population continues to grow by 80 million, and Australia’s by 400,000 annually of which 60 per cent comes from net overseas migration.

We therefore call on Australians and their governments to:

- develop policies to stabilise Australia’s population
- end destruction of habitat
- develop plans to maintain domestic power, food production and distribution systems, and water and sanitation systems as fossil fuels peak and decline
- decarbonise our energy supply as a matter of urgency and develop clean energy renewable systems
- stop coal exports and end subsidies for exploration of oil, gas and coal
- incorporate the principle of ecological sustainability into core curricula at all levels
- make contraceptives more freely available and significantly increase the family planning component within Australia’s foreign aid budget.

It is time to wake up and realise that ‘more’ is not always better, and can become far worse. There is an ethical middle ground of 50 or 60,000 Net Overseas Migration (NOM) that would stabilize population but allow a continuing (indeed expanded) refugee intake. Hence an Australian SSE could move to a stable population figure without having to wrestle with the question of ceasing refugee immigration on humanitarian grounds. Currently however, the high immigration quotas into Australia are justified on grounds that we need them to continue growth. However, given that we need to tame the growth economy and turn it into a SSE, the justification for high immigration vanishes, especially given its escalating environmental impact (Goldie and Betts 2014).

**Positive steps forward on population**

Overpopulation can be tackled by nine humane (non-coercive) strategies (Engelman 2012a):

- Assure access to contraceptives and family planning.
- Guarantee education through secondary school for all (with particular focus on girls).
• Eradicate gender bias from laws, economic opportunity, health and culture.
• Offer age-appropriate sexuality education for all.
• End all policies that reward parents financially based on their number of children (such as the former ‘Baby Bonus’ in Australia).
• Integrate teaching about population, environment and development into all school curricula.
• Put full pricing on environment costs and impacts.
• Adjust to population ageing, rather than trying to delay it through government programs aimed at boosting birth rates.
• Convince leaders to commit to ending population growth through the exercise of human rights and human development.

Positive steps for Australia would be:

• Talking about the issue of overpopulation, rolling back denial and accepting we need positive policies to reach a responsible and ecologically sustainable population figure
• Limiting Net Overseas Migration (NOM) to 60,000 a year, at which figure our population would stabilise provided we do not increase our birth rate.
• Aiming to move to an ecologically sustainable population of 15 million via the 9 non-coercive strategies listed above.
• Ensuring that the Baby Bonus is not re-instated in Australia to encourage higher birth-rates.
• Creating a Sustainability Commission that is independent of government and oversees and reports on strategies to move to the ecologically sustainable population target.

(The author would like to thank Ward Powers for input on the section ‘Does the Bible encourage overpopulation?’)

References

ABS (2016) ‘6 million Victorians’, see:


Chapter 5 - Private preference and public policy – considering an ‘inherent right to populate’

B. Ward Powers

Today, just like on every other day of the year, it is certain that, without taking any steps to prevent pregnancy, more than five million couples will be engaged around the world in making love together. In bed, in the fields, in the car, wherever they have a bit of privacy. Some couples may possibly even do it more than once today — who knows? Why can we be certain of this? And how would we know how many? We know it because of the very public outcome: the birthrate. We see the evidence. The consequences. The result. The increasing world population.

The world birthrate is very public knowledge. Our world records show that this birthrate is about 131.4 million babies a year, an average of 360,000 born per day (http://www.ecology.com/birth-death-rates/). And those who calculate such things estimate that approximately one in fifteen acts of intercourse results in a conception, a pregnancy, a birth. So to get the total, we take the daily birthrate — 360,000 — and multiply by fifteen. We cannot be completely certain of this figure of one in fifteen of course — it represents an estimation and a calculation — but it seems that it is reasonably within sight of whatever the actual figure would be (Powers 2016).

This is the number of couples who are engaging in ‘open’ intercourse each day of the year— ‘open’, that is, to the possibility of pregnancy. Some of these will have the deliberate hope and wish and intention of conceiving a child, while a great many others are giving this no particular thought at the time. And world fertility rates being what they are, some 360,000 women will become pregnant before the day is out — greater than this number if you also take account of pregnancies ended in abortion.

The majority of these people will tell you — if you are ever brash enough to raise the question with them — that they have ‘every right to decide how many children they will have’ (whether by deliberate decision or simply by leaving it open to see what happens). Indeed they claim the right to have as many as they choose. Because what they do in their bedroom (or wherever
else) is their private business, and nothing to do with you. That is, they lay claim to an inherent right to populate.

So what happens is that 360,000 new babies are born every day of every year.

But is it really such a private and personal matter as such a great many people are claiming? For what happens next when another baby comes to birth? It rather depends on the community where the mother is living. In the developing countries and poorer communities, there are community helpers who can assist. In some countries you call for the midwife to come. In affluent economies you expect to have a bed in a maternity hospital with quite an array of medical services available to care and provide for the new arrival. And there will be quite an outcry whenever all of this is not at once available upon request.

In years gone by in most parts of the world, the outcome was that quite a significant number of the newborns died before reaching their first birthday. But these days such an outcome is increasingly rare, and most infants will now survive and grow into children (who then need schooling), and then into young adults (who will need to find employment or some other form of support). Plus transport (by which to travel to such hospitals, schools, and jobs). Plus all the necessities of life: food and water, clothing and shelter. And entertainment for them. And all the other varied accessories of living on Earth. Together with all the shops and stores and venues that will be called on to provide these things.

All of this is totally obvious. But those couples who are currently producing today’s tally of 360,000 new Earth citizens (or the next day’s, and the next) need to reflect thoughtfully on this, for here is the sharp point: the number of these newcomers is more than twice the average daily death-rate of the Earth’s existing citizenry (151,600). This means that there is a net increase of the world’s population of (on average) more than 208,400 per day (http://www.ecology.com/birth-death-rates/). Every day. That’s about 76 million more people on Earth in a year (http://www.geohive.com/earth/his_history3.aspx). Every year.
The inflow of each of these newcomers will require a marginal growth in the infrastructure of the community into which they are born. And the sum total of all these will place increasing demands upon the Earth’s resources (O’Sullivan 2010). When the Earth’s population increases in this way, the Earth’s resources do not increase in tandem. Actually, they do not increase at all. For, while the planet’s numbers are increasing out of control, the planet’s resources are finite (or actually are declining as we are ‘living beyond our means’, MEA 2005). Advances in technology can improve the way in which we use our resources (and that issue, and how to improve things, is very thoroughly discussed within this book), but two basic facts remain:

- Firstly, an indefinitely increasing population will not fit onto a finite planet;
- Secondly, the per capita share of the Earth’s resources (the share of the total resources of the planet thought of in terms of each individual’s part) decreases with each day’s increase in the total population. The more people to share the cake, the smaller the slice for each one.

In assessing the present state of the planet, there are of course many more factors to consider as well as population increase. These are all addressed in this book, and we do not prioritize between them: we recognize the crucial importance of all of them. This book shows how to move forward on all of these separate fronts. But the need to face, and respond to, the population factor has to be seen as the critical issue that it is.

But many couples around the world are acting irresponsibly, as if what they do just doesn’t matter. But it does matter — it matters very much. Because when couples are engaged in private participation, there are public consequences. Very public. Is it true then that in the real world (that is, in the way people actually behave) that it is nobody’s business but mine how many children I have? No, that most certainly is not the case. Every extra child I add to my family increases the cumulative demand placed upon the entire society in which I live (whoever I am and wherever I live in the world). Every child is to be valued (and who can say what this next arrival will be able to contribute to the world in due course?). But the sober fact is — and needs to be fully
recognized — that each new child *comes at a cost* to the community where it arrives. To the country. To the world.

Producing more children than your replacement is an act of blind, thoughtless, *selfishness* — it is laying claim to, and appropriating, a larger share of the Earth’s future resources for the benefit of your children (and in turn, their descendants) than they are entitled to on an ‘equal share basis’. Moreover, in a finite planet, when you thus lay claim to a larger ‘slice of the cake’, you reduce the size of the remaining cake available to the rest. When you say: ‘But I can afford it’, you are taking advantage of the fact that you have greater economic clout than others in the world’s economy, and you are using this like a big bully to grab yourself a larger slice, to the disadvantage of those less favoured wealth-wise than yourself.

When you say: ‘What this all means is that we need a larger cake — then everyone can have more’, you are closing your mind to the fact that a larger cake would require additional ingredients but that on a finite planet the supply of ingredients is limited. When you say: ‘Improved technology will enable us to stretch what we can produce out of what we do have’, you mindlessly overlook the cold hard facts that there are *physical limits* to what technology can achieve: technology cannot produce something out of nothing, and technology right now is failing to solve the increasing problems of the world’s need. As the population grows, and the world’s need to provide for it grows with this population, technology will ever increasingly be neutralized in its benefits by the operation of the inevitable and irresistible law of entropy and the law of diminishing returns (in the field of thermodynamics).

This is a matter of ethics. And fairness. And *justice*. Because each of us individually has to face the fact that what I do is having serious consequences for the entire planet. And for the future of everybody else on Earth. Seeing that we all are sharers together in this one world, and that, together, right now, we are engaged in *deciding its future*. And the future of our children. And our grandchildren. Lots of us carefully attend to the health of these children. Their education. Their development. Their welfare and well-being across the board. But how carefully are we engaged in giving due thought to what kind of a world they will inherit from us? That is, how many of them overall are there
going to be who are coming into this world? Are we one of those saying: ‘It is my right to indulge my preference as to how many children I will produce.’?

When it comes to a question of our population numbers — basically how many people it would be best for our country (and the world) should be conceived and born — we are raising an issue where private preferences can collide with responsible public policy. Responsible, that is, from the perspective of the planet as a whole and its inhabitants. Wisdom indicates — in the light of the obvious finite size of our planet and the limited extent of its resources — that the present population growth of 76 million persons per annum (this is the annual birth rate of 131.4 million less the annual death rate of 55.3 million) far exceeds a sustainable number of inhabitants. Those who are aware of the reality of these things recognize that this cannot continue indefinitely. The longer it continues the more seriously dangerous the situation becomes.

But isn’t this children/population issue a matter for Parliament to decide?

The personal characteristics and general circumstances that result in one candidate (rather than another) being elected to parliament are not necessarily those that will ensure parliament is filled with people who are the wisest and the best-informed in our country to decide on these issues. Yet that is the task we are inclined to place upon their shoulders. Their life, training, and experience, may or may not have equipped them adequately for such a role.

Further, this is not a situation in which a Parliament can simply pass an appropriate law. True, there are indeed some things Parliament can do that it would be wise to do. But the moment there is a sniff of any idea of ‘population control’ there is a screaming rebellion from those who protest fiercely at such an infringement of personal freedom of choice, the ‘right’ to make up our own minds individually how many children we want to have. The result: population growth continues out of control in place after place around the globe (though there are indeed numerous places where awareness about this issue is growing apace). Yet the Parliament — with the press, and social media — could point the way for the whole country to move in the right direction.

So then: does each couple have the right, the absolute right, to decide for themselves how many children they will have? And thus, what demands their
particular progeny are going to place upon the Earth’s resources in the years to come? Whether or not they are entitled (or not) to exercise such a right is currently a moot point anyway, for they — each of them — are actually exercising such a right, whether or not it is ‘right’ for them to do so. But seeing that we are sharing a finite planet together with a great many other people — plus a menagerie of other creatures — the consequence is that what I and my family use of the Earth’s resources are thus rendered as ‘unavailable’ to any other potential users. And there is a need for justice here. And a sense of responsibility and ethics; and a dose of love for other people – and the planet.

But if we responded to all these things, would it be enough?

Imagine, if you can, that it became possible for people throughout the world to recognize the importance of having just two children per couple, and that simultaneously products were being manufactured to last instead of having a life of only months to perhaps just two or three years. Imagine our stuff was being repaired, recycled, and reused so that there was a significant reduction in the level of waste we produced. In other words, if a stable world population were acting responsible in their overall use and distribution of the world’s resources - would these various changes bring solutions to the world crises that we face?

It would certainly make a huge difference to the speed at which we are now hurtling towards catastrophe. It would mean that we held the overuse of resources and the destruction of the planet, and the creation of our wastes to more or less their present levels. But the solemn fact is that at our present levels the world’s population is using up each year 1.6 times what the planet can sustainable provide (GFN 2017). In describing this, Professor Ian Lowe (2009, p.31) likens our situation to a farmer who is continuously operating at a loss:

... he sells a piece of the farm each year to counter-balance [it]. . . . 
[If] shareholders in a company are paid dividends out of the capital assets, [then] In the short term, all appears well and the investors receive their dividends, but at the cost of the viability of the operation in the longer term.
What more then, can we do about this? Bill McKibben (1999) has produced a thought-provoking book *Maybe One* written to set before us a challenging proposal: that instead of having two children per couple, parents chose to have *only one child*. He explains (p.12): ‘I’m not saying, then, that everyone should stop at one child, just that if many more of us did so, it would help’. He acknowledges (p.65) that when one is contemplating a decision to have only one child: ‘there are many deep factors involved in that decision’. In particular, he and his wife Sue carefully examined the widely-held belief that an only-child is at a disadvantage in comparison with children who had other siblings, and his book (p.45) shows clear evidence that this is not so. He expresses the hope that his research, and his book: ‘at least helps end this particular prejudice. It’s simply not true’.

McKibben (1999, pp. 129-132) examines the consequence to the future of this planet if ‘many people’ (in the western world, particularly) were to have (on average) 1.5 children per woman, down from the present figure of more than 2 per woman. He notes: ‘That would mean a large number of couples deciding to have a single child instead of two or three’. If China, North America, and the countries of western Europe and Japan aim for lower birthrates:

... and their populations begin to shrink slightly, too, it would open a little window for luck and ingenuity. We’d give ourselves a margin. That’s all this book is about. ... *If we can open up a bit more margin by having fewer kids, that will help.* (McKibben’s italics).

What should be the outcome of our thinking about, and discussing, and assessing, all these issues? First of all, it should lead us to a realization that there is no such thing as having a ‘right’ to whatever number of children we ‘want’. Or, that ‘just turn up’, as a result of our indifference or carelessness, or irresponsibility. The sober fact is, our ‘private, personal, individual’ decision concerning our children has significant repercussions affecting the community, the country, indeed the entire world, through the effect that the number of children whom we produce will have on this planet. True, this is a very personal issue: but we are each part of a wider whole that will be changed as a result of what we do.

As this present book is showing, there really is a planet-wide crisis of which the question of numbers on the planet is a crucial component. An ill-
considered choice about our contribution to planetary numbers is a quiet vote for planetary catastrophe.

Positive steps

This book points out that there are many problems facing this world, and therefore many goals at which to aim through positive solutions. But amongst them should be:

- Because of the additional cost caused to the wider community (especially in the provision of utilities and all other forms of infrastructure), ‘fair means’ be sought through which this cost be identified, recognized, and attributed to those who have more than two children, as being one of all the extra costs which they incur through their decision to have more than ‘replacement birth children’. Numerous ‘special’ situations will need to be addressed, such as those widowed, divorced, remarried; split and blended families, couples where the second birth happens to be twins or triplets, families with both natural and adopted children, and so forth. However, these are simply points of detail which do not affect the principle which should be followed. This is that those who produce an additional child (or children) more than their own replacement should pay the additional cost placed upon the community (however understood) because of such child/children.

- It should be explained from childhood up that ‘fair-share’ for a person relates also to their fair share of the space and the resources of this planet, and that people producing more than replacement population means that that family is laying claim to more than their legitimate entitlement: and this is a very selfish thing to be doing.

- The concept of ‘Maybe only one’ should be considered and discussed and assessed, as an alternative to having two or three children in a family. Bill and Sue McKibben themselves had such a discussion, and then after the birth of their first child Sophie, Bill had a vasectomy.

There is no coercion envisaged in these proposals, but there is definitely the intention to steer people in the direction that provides a fair outcome for all. So it is a very private matter for each individual couple as to whether or not they will take adequate steps to ensure that (for the common good) they give
birth between them to no more than two children. Or - *maybe only one*. There were times in the history of the world when large families were a national asset and of really benefit to a society. Those times and those circumstances have now clearly passed. It is time to choose wisely what to do in the different circumstances of today.

**References:**


Chapter 6 - Reducing overconsumption, consumerism and throughput of resources
Haydn Washington

We all know that the Earth is finite (unless we are in deep denial), so clearly we cannot keep using more and more resources. First there is the source issue, do we have enough mineral reserves to do this? Second there is the sink issue – where do the byproducts from getting these resources go, and what damage do they do to the ecosystems that support society? These should be obvious questions - if humanity operated rationally. However, sadly we do not. Firstly, the ideology of ‘resourcism’ turns the whole wonder of the living world into just a ‘resource’ for human use (Crist 2012). Secondly, neoclassical economics has refused to admit limits exist and often insists that resources are just a product of our minds. As Thomas Berry (1988) has noted:

We can pollute the air with acids, the rivers with sewage, the seas with oil - all this in a kind of intoxication with our power for devastation .... And why? To increase the volume and speed with which we move natural resources through the consumer economy to the junk pile or the waste heap. Our managerial skills are measured by our ability to accelerate this process. ... If the environment is made inhospitable for a multitude of living species, then so be it.

This is quite a remarkable position that society has talked itself into. Some indigenous cultures talked of the impact of their actions seven generations hence, yet ours seems intent on using up all the Earth’s resources in just a century. Perhaps no country highlights this so clearly as Australia, the miner’s toy, where we have always tried to flog off our resources as quickly as humanly possible. We still do. Nothing could be more short-sited. Our mindset of ‘evermoreism’ (Boyden 2004) ignores limits and praises the extraction and blatant wasting of resources. What about the future? Will people in a thousand years not want oil to produce a small amount of plastics? Will people in ten thousand years not want to use platinum or neodymium in some form of appropriate technology? Clearly future generations should ethically have a claim on the throughput of resources we use today, just as nature should have the right not to be destroyed by resource extraction. The steady state economy accepts this, while neoclassical economics does not. However, our current
mad splurging of resources is impoverishing both the current ecosystems of the Earth, as well as impoverishing our descendants. There is no such thing as ‘100% recycling’, so the options of future cultures are being removed right now by our wasteful ideology of resourcism. Our society has become a consumer culture, and overconsumption is a key driver of unsustainability (Washington 2015).

Humanity’s indigenous cultures in the past (and today still in places) had worked out how to manage the commons sustainably (Ostrom 1990). However, modern humanity has been plagued by the ‘Tragedy of the Commons’ (Hardin 1968), which one can describe as free access and unrestricted demand for a finite resource that ultimately depletes it. Hence modern society has overgrazed pastures, over-logged forests and overfished our fisheries. Similarly, we are now mining resources and creating pollution far beyond what natural systems can detoxify. Our lifestyles and our consumption are on a violent collision course with Nature, so we cannot continue to live as we have (Wijkman and Rockstrom 2012). What drives this irrational behaviour that ultimately decreases society’s well-being? At the heart of this is the unsustainable idea of endless growth. The growth economy is broken and fundamentally unsustainable. Had economists collapsed in deepest shame on being shown in the 1930s or the 1970s that their theories fell down against the Second Law of Thermodynamics, we would have made a great deal more progress to sustainability today (Zencey 2013). However, they did not, and most still in fact refuse to admit that growth economics violates the basic ecological realities of the Earth. Hulme (2009) notes there is a paradox at the heart of economic analyses of climate change: ‘the presumption of growth’. Yet many believe that the fixation on growth and the assumption that ‘increasing consumption’ is the path to well-being is precisely why we have an environmental crisis.

The UN Department of Economic and Social Affairs notes that so many of the components of existing economic systems are locked into the use of non-green and non-sustainable technology, while simultaneously so much is at stake in terms of the high cost of moving out of them. The result is ‘policy paralysis’ (Moore and Rees 2013). The key (and poorly discussed) problem of our growth economy is consumerism and overconsumption. After all, environmental impact comes from population times consumption. As Paul
Ekins (1991) has noted, a sustainable ‘consumer society’ is a contradiction in terms. Even in the 1950s, retail analyst Victor Lebow (1955) concluded:

*Our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction and our ego satisfaction in consumption. ... We need things consumed, burned up, worn out, replaced and discarded at an ever-increasing rate.*

For some people today, consumption has become the meaning of life, the ‘chief sacred’, the ‘mystery before which one bows’ (Ellul 1975). Yet the same consumption that has lately become the ‘meaning of life’ is now revealed as the greatest hazard to life. Ultimately, we cannot roll back denial of the environmental crisis unless we roll back our consumer worldview (Starke and Mastny 2010). Consumer cultures exaggerate the forces that have allowed human societies to ‘outgrow’ their environmental support systems (Assadourian 2010). We have not in fact outgrown the ecosystem services that support us (and simply cannot). Humanity remains completely dependent on nature (Washington 2013). Hamilton (2010) argues that many of us have constructed a ‘personal identity’ through shopping and consumerism. We have substituted consumerism for meaning (Collins 2010). Asking people embedded in the consumer myth to change their consumerism may thus be like asking them to change their identity. The issue is further complicated in that the oft-stated aim to ‘end global poverty’ has become synonymous with the spread of a high consumption standard of living (Crist 2012). However, it is time to openly discuss the urgent need to alter today’s consumer consciousness. It is neither healthy, ethical, nor sustainable.

The consumer ethic, seen as ‘natural’ by consumers, is actually a *cultural teaching*, a purposeful social construct (Assadourian 2010). Following World War II, the US was ‘blessed’ with great industrial capacity, and large numbers of under-employed workers (returned soldiers). To take advantage of this abundant labour and break people out of their wartime habit of thriftiness, industry organized to legitimise profligate consumption, to make it a ‘spiritual activity’ (Rees 2008). In fact, people resisted the throwaway society when it was first promulgated, as they believed in *thriftiness*. Three sectors aided the spread of consumerism: the car industry, the pet industry and the fast food
industry (Assadourian 2013). The notion of ‘perpetual growth’ is thus a social construct vastly escalated as a transition strategy to reboot the economy after WWII. It has now (well and truly!) run its useful course. What society has constructed it can theoretically deconstruct and replace. The time has come for a new social contract that recognises humanity’s collective interest in designing a better form of prosperity for a world with ecological limits (Moore and Rees 2013). This is a challenge, but it is also an opportunity to get things right for a sustainable future.

Tacey (2000) points out that consumers in Western society are spiritually empty, so shopping temporarily fills this void. Mass consumption requires that consumer demand remains insatiable (Westra 2008). Preventing the collapse of human civilisation requires nothing less than a wholesale transformation of dominant consumer culture (Flavin 2010). Consumption has gone up six-fold since 1960, but numbers have only grown by a factor of 2.2. Consumer expenditure per person has almost tripled (Assadourian 2010). According to the Global Footprint Network, humanity now uses the resources and services of 1.6 Earth’s (GFN 2017), an unsustainable situation. If all the world were to adopt American (or Australian) lifestyles, we would need at least 4 more planets to supply them (Graff 2010). Assadourian (2010) suggests three goals to tackle consumerism. First, consumption that undermines well-being has to be discouraged. Second, we need to replace private consumption of goods with public consumption of services (e.g. libraries, public transport). Third,
necessary goods must be designed to last and be ‘cradle to cradle’ recyclable. Wilkinson and Pickett (2010) point out also that if we improve ‘equality of income’ in our societies, then consumer pressure will decline.

Consumer cultures will have to be reengineered into a culture of sustainability, so that living sustainably as a ‘citizen’ feels as natural as living as a consumer does today. It will not be easy, and will be forcefully resisted by a myriad of interests, such as the fossil fuel industry, big agribusiness, food processors, the fast food industry, car manufacturers, advertisers, etc. However, either we find ways to wrestle our cultural patterns out of the grip of vested interests, or Earth’s ecosystems will decline further, and bring down the consumer culture in a much crueler way. To break free of consumerism, we will need to use all our social institutions: business, media, marketing, government, education, social movements, and social traditions (Assadourian 2013). We will need to engage the public in a conversation about the growing and unsustainable costs of the consumer society (Assadourian 2013). ‘Choice editing’, or strategies for sustainability where you don’t provide people with some ‘high impact’ products will be needed. Consumer choice editing or restriction of unsustainable products can help eliminate unsustainable choices (Kopnina and Blewitt 2015).

The ‘finger of blame’ can validly be pointed directly at the main agent of the ‘brown’ economy: corporations and the rules that govern their operations (Sukhdev 2013). Corporations are responsible for 60% of world GDP (Prugh 2013). Better policies are needed regarding accounting practice, taxation, financial leverage and advertising (see chapter on corporate reform). These could result in a ‘new corporate model’, an agent for tomorrow’s sustainable economy. We need:

- Tax shifting.
- Rules and limits to govern financial leverage.
- Advertising norms and standards that make it more responsible and accountable.
- All major corporate externalities (positive or negative) must be measured, audited and reported in annual statements (Sukhdev 2013).
We also need to ask what drives today’s unsustainable consumption? It is no exaggeration to say that corporate advertising is the biggest single force driving consumer demand today. Daly (2008) suggests an Advertising Tax to reduce advertising pressure. Victor (2008) argues advertising must now return to strictly factual information. Sukhdev (2013) suggests four strategies for more accountable advertising:

- Disclose lifespan of products in all ads.
- Disclose countries of origin.
- Recommend on the product ‘how to dispose of it’.
- Voluntarily submit a 10% development donation on total advertising spent in developing countries to support local sustainability projects.

**Dematerialising our economy**

Clearly, an important part of reducing humanity’s impact on society is using less materials and energy. Meadows et al (2004) note that the ‘good news’ is that current high rates of throughput are not necessary to support a decent standard of living for all the world’s people. However, the bad news is that many crucial ‘sources’ of natural capital (such as forests, fisheries etc.) are emptying or degrading and many ‘sinks’ (i.e. the ability to clean up pollution) are filling up or overflowing. The reality that we need to dematerialise and use less energy is hardly novel, as in 1993 the Business Council for Sustainable Development concluded that the industrialised world would require reductions in ‘material throughput, energy use and environmental degradation of over 90%’ by 2040 for reasons of equity and living within the planets means (BCSD 1993).

Daly (1990) lists three rules we should apply to help define the sustainable limits to material and energy throughput:

- For a **renewable resource** (soil, water, forest, fish, etc.), the sustainable rate of use can be no greater than the rate of regeneration of its source.
- For a **non-renewable resource** (fossil fuel, high grade mineral ore, fossil groundwater, etc.), the sustainable rate of use can be no greater
than the rate at which a renewable resource (used sustainably) can be substituted for it.

- For a pollutant, the sustainable rate of emission can be no greater than the rate at which that pollutant can be recycled, absorbed, or rendered harmless in its ecosystem ‘sink’ (where it ends up).

However, as a civilisation we have generally ignored these rules. Indeed, in Australia we have traditionally sought to sell off our mineral resources \textit{as quickly as we can}. World governments, lobbied by the fossil fuel denial industry, ignore the third rule for carbon dioxide. Accelerating climate change is the result, with huge impacts (IPCC 2014). Conservation of non-renewable resources thus will not happen without rethinking the dominant model of consumer-driven economies. It will require a ‘new conservation ethic’. The challenge is to reverse incentives, rules and other structures that cause us to be myopic users of resources, and replace them with principles and practices that would make our children (and their children) grateful and proud (Gardner 2013).

So how do we control ‘throughput’, the growth in use of resources, both non-renewable and renewable? For \textit{non-renewable} resources a depletion quota has been suggested (Daly 1991) or a ‘severance tax’ at the mine-mouth or well-head (Daly 2008). A depletion quota operates by restricting supply of a resource. The first stage would be a government auction of rights to purchase resources. The total amount of purchase rights to be auctioned in a given year would be determined by legislative decision. A severance tax increases the cost of a resource, encouraging conservation of that resource. Severance taxes can be revenue neutral, by phasing them in while phasing out regressive payroll or sales taxes (Costanza et al 2013). However, while severance taxes in modest form do exist (often we call them ‘royalties’), depletion quotas are resisted by governments and are rare. This seems to reflect a fundamental denial of resource scarcity, and the need to limit throughput for both ecological reasons and ethical reasons (regarding intergenerational equity and environmental ethics).

For \textit{renewable resources}, proper holistic pricing of ecosystem services can also reduce overuse (Kumar 2010). However, mostly the ecosystem services benefits are not priced into renewable resources as sold in the free market. In
positive steps

many (probably most) cases these public benefits to society outweigh the private market value of a renewable resource (MEA 2005). As the market mostly doesn’t consider the monetary value of ecosystem services, versus their current private market price, often renewable resources are degraded and decrease overall well-being. The task of getting society to value and price-in ecosystem services into the free market economy remains an essential (if too slow) work in progress (Kumar 2010).

So we can seek to limit throughput from the production end by depletion quotas and higher severance taxes. However, we can also take action from the consumption end. We often hear of ‘dematerialisation’ of the economy, and the need for the highest possible decoupling of the economy from resource use (see decoupling chapter). This means that we reduce the amount of materials used to make a unit of GDP. How far can we go with this process? Many nations are wasteful in their use of both energy and resources. A key part of dematerialisation is the realisation that we can use much less energy and materials and still have a similar quality of life. This has been variously called Factor 4 (use only 25% current energy and materials, von Wiedzesacker et al 1998), Factor 5 (use only 20%, von Wiedzesacker et al 2009) and Factor 10 (use only 10%, http://www.factor10-institute.org/). Factor 4 or 5 is certainly possible (if difficult). Business can make a major contribution here by adopting a goal of Factor 5 in their use of materials and energy. However (as the chapter on decoupling discusses), the idea that we can totally decouple our economy from resource use (UNEP 2011) would seem impossible. Another key aspect of reducing material use is to plan products from ‘cradle to cradle’, so that a product is not just produced to be trashed later. Products must be produced with a view to how they will be reused or recycled into a new product. We should see pollution as a ‘symbol of design failure’ (Braungart and McDonough 2008). Kopnina and Blewitt (2015) summarise the three key principles of ‘cradle to cradle’ which should inform human design, being: waste equals food; use current solar income (to power a sustainable society), and celebrate nature’s diversity (and learn from it, e.g. biomimicry). Braungart and McDonough (2008) point out we need a process of industrial re-evolution, where we use eco-effectiveness to commit to a new paradigm rather than incrementally improve the old.
The cradle to cradle process and the idea of a ‘circular economy’ seek to eliminate toxins and non-renewables; eliminate waste; recreate the cycle between urban and agricultural areas, securing mutual nutrient flows; find a dynamic balance between organic and technologically produced products; and identify strategic opportunities for business to engage in the closed loop production on the global scale (Kopnina and Blewitt 2015). To this end we need to prohibit ‘planned obsolescence’. This repugnant and wasteful philosophy has gained ground in the last few decades as a ‘clever’ way of increasing sales. Thus our clothes wear out faster, our tools break, electronic goods don’t last as long – all so that we have to buy more. Going on with a system that generates massive amounts of waste in the endless spiral of production and consumption, only prolongs the faulty system (Braungart and McDonough 2008). In a full world where population is still increasing (as is energy use from fossil fuels), and where our civilisation has an ecological footprint of 1.6 Earth’s, such a strategy is fundamentally unethical and completely unsustainable.

As a society, we also need to put priority on the use and reuse of materials already mined. Braungart and McDonough (2008) note we need the ‘4 Rs’ – ‘Reduce, Reuse and Recycle and Regulate’. But they point out we need a fifth - ‘rethink’, we need to rethink as to whether we need to produce the product in that form in the first place (using an eco-effectiveness approach). They point out that recycling is really the aspirin to alleviate our collective hangover of overconsumption. We need to reject throwaway products, and we need to plan for reuse before recycling. More importantly, we need to rethink about whether we want to make a product that pollutes in its production and disposal, and can only be ‘downcycled’ into less valuable products. So in summary, it is thus possible to dramatically reduce the throughput of materials (and reduce the pollution involved in making things) in our society. However, we need the political will.

Beyond ‘triple bottom line’, ‘eco-efficiency’ and the ‘small and easy’ approach

Dematerialisation of our society has the potential to reduce environmental impact, but only if we also stop endless growth in population and resource use and our current increasing consumption. If we don’t, then any moves to
dematerialisation (greater efficiency of resource use) will be swamped by increasing consumption and numbers of consumers. Indeed this has been the case. If we are to demystify sustainability in regard to overconsumption, then we must examine some of the key terms put forward as the ‘sustainability solutions’ proposed by business. The term ‘triple bottom line’ was made famous by John Elkington (1998) in ‘Cannibals with Forks’, who also described it as ‘People, Planet, Profit’. These three have often been described as the three pillars of sustainability. The triple bottom line (TBL) is commonly portrayed as the key solution to sustainability and certainly underpins business sustainability. TBL is an accounting framework with three dimensions: social, environmental (or ecological) and economic.

A final point with TBL is that often it is the ‘Trojan Horse’ for tokenism. Many organisations have TBL policies and claim their decisions are made using this, when in fact the real decisions are decided first and foremost on economic determinants, with ecological or social considerations an afterthought (Braungart and McDonough 2008). Kopnina and Blewitt (2015) conclude that sometimes the 3P’s (People, Profit, and Planet) simply cannot be balanced, as it is impossible to have your cake and eat it too.

It may thus not be surprising that TBL has been operating for decades, yet we have gone backwards overall regarding sustainability. ‘Eco-efficiency’ is the other key term and has been proposed as a key strategy to promote a transformation from unsustainable development to one of ‘sustainable development’ (Braungart and McDonough 2008). It is clearly important in terms of how we dematerialise society. It is based on the concept of creating more goods and services while using fewer resources and creating less waste and pollution. The term was coined by the World Business Council for Sustainable Development (WBCSD) in ‘Changing Course’ (Schmidheiny 1992) and at the 1992 Earth Summit ‘eco-efficiency’ was endorsed as a way for companies to implement Agenda 21. Kopnina and Blewitt (2015) note that eco-efficiency might not be the long-term solution, for it only works to make the destructive system a bit less so (Braungart and McDonough 2008). In the worst cases, eco-efficiency can make the system (that results in overexploitation) become more pernicious, because its workings become more subtle and long-term. Braungart and McDonough (2008) advocate instead ‘eco-effectiveness’ which is an alternative design and production concept,
advocating a positive agenda for the conception and production of goods and services by focusing on the development of products and industrial systems that maintain or enhance the quality and productivity of materials through subsequent life cycles.

Eco-efficiency is part of the broad term ‘ecological modernisation’, which is grounded in the belief in the ability to solve problems by technological advancement. It argues that on the basis of ‘enlightened self-interest’, supposedly economy and ecology can be favourably combined (Ayres and Simonis 1994). It operates in the belief that environmental problems are caused by poverty and that economic growth, prosperity and equitable distribution of resources are going to solve these problems (Kopnina and Blewitt 2015). Environmental productivity (i.e. productive use of natural resources) is thus seen as a source of future growth and development. Ecological modernisation includes increases in energy and resource efficiency (eco-efficiency) as well as product and process innovations (e.g. supply-chain management, clean technologies). The trap here of course is that without an acceptance of ecological limits (now exceeded) and a recognition that population and consumption cannot keep growing, using these tools may not make much difference. As Kopnina and Blewitt (2015) conclude: ‘the rhetoric of ecological modernization tends to downplay the essentially insatiable appetites of an increasingly global consumer class’.

One of the consequences of neoliberalism is the belief that the market-based solutions will correct environmental problems, focusing political attention on consumer choice and lifestyles (Kopnina and Blewitt 2015). Together, the approaches of TBL, ecological modernisation and eco-efficiency are often portrayed as the ‘easy’ way to sustainability, that we can get there in ‘small and easy’ steps. However, if this was correct, then we would be further along the path to sustainability. Kopnina and Blewitt (2015) point out that if the key problems are overpopulation and overconsumption, then without action on these, eco-efficiency ‘results only in tinkering at the margins of the problem without addressing its root causes’. They argue that the ‘rebound effect’ (or Jevons paradox) suggests that eco-efficiency ultimately leads to more consumption. This paradox is where the consumer response to the introduction of new eco-efficient technologies or products (which save the consumer money) it to actually increase their consumption.
There is a vigorous debate about whether ‘greening’ our daily individual actions really does actually lead people to deeper engagement where they make meaningful changes, or instead lulls them into false security and accomplishment. Are these individual small acts the ‘on-ramps’ to greater engagement or are they ‘dead ends’ (Leonard 2013)? Foster (2008) points out that people and organisations often operate in ‘bad faith’ by setting strong targets they secretly know they will not meet. Hill (1992) describes the small and easy approach as ‘shallow sustainability’, while Rees (2010) notes that most sustainability campaigns emphasize ‘simple and painless’ solutions. He notes however these are actually marginal and ineffective. Maniates (2013) points out that social change does not happen through mass uncoordinated shifts in lifestyles or consumption choices. Hence Maniates notes that ‘small and easy’ is attractive, plausible – and dead wrong. To deal with consumerism is not just a matter of green marketing, green products and greenwash. Beder (2000) devotes a chapter to the ‘corporate subversion of the green movement’ and of how environmental NGOs have been drawn into ‘greenwash’.

Rather than the ‘small and easy’ and greenwash approaches, dealing with consumerism will require strong regulation of corporations (see chapter on corporate reform), involving:

- Banning planned obsolescence
- Enforcing ‘cradle to cradle’ products
- Enforcing ‘take back’ laws and ‘Extended Producer Responsibility’
- Clamping down on wasteful packaging
- Constraining rampant advertising
- Applying choice-editing to prohibit the worst products.

It will be neither small nor easy, but it is necessary, and it is feasible. So do we need eco-efficiency? Clearly we do, and this is a key part of moving to dematerialisation and using less energy and producing less greenhouse gases. We must however also go beyond convenient buzz words. They are open to co-option that hides continuing business-as-usual based on endless growth in consumption and resource use. TBL and eco-efficiency are useful tools if used properly, but only when they are tools used on the understanding that there are global ecological limits we have exceeded, so that we cannot keep growing as we have been. Sustainability requires that understanding, and without this
Positive Steps

TBL and eco-efficiency become mere tokenism. Hence why we need to look beyond the terms.

There are however promising signs of corporate change. By 2008 some 80% of the world’s largest corporations were producing Corporate Social Responsibility (CSR) reports under the Global Reporting Initiative (GRI) (Sukhdev 2013). KPMG (2011) reports that from 2008 to 2011 the percentage of 378 companies (around the world) pursuing a sustainability strategy went up from 50% to 62%. The task is now to convert corporate sustainability strategies from tokenism to true reform and action. This is the real task of ‘Third Wave’ sustainability for corporations, to reinvent themselves, accept the need for a steady state economy, and aid sustainability, not hinder it. The end of the consumer culture will come, willingly or unwillingly, and sooner than we would like to believe. The only question is whether we greet it with a series of alternative ways of orienting our lives and cultures to maintain a good life, even as we consume much less (Assadourian 2013). The challenge will be to convince more and more people speedily that further efforts to promote a consumer culture are truly a step in the wrong direction, and that the faster we use our talents and energies to promote a culture of sustainability, the better off humanity will be.

Alternatives to the consumer society

Is there an alternative to the consumer society, while still keeping a decent quality of life? In 1960 Cuba was blockaded by the US (the ‘Special Period’) and exports dropped by 75%. It had to adapt to severe shortages of oil, medicine and food. However, Cuba now serves as an example of a country that has thrived despite having limited fossil fuels. Cuba has low per capita income, yet in quality of life it excels. It is a materially-poor country with ‘First World’ education, literacy and health care. It has maintained its human services programs, free education, old age support, and basic nutrition. The WWF Living Planet Report rated Cuba in 2006 as the only country to have genuine sustainable development (Murphy and Morgan 2013). Cuba represents an alternative, where material success (as measured by energy consumption) is secondary, while quality of life is given priority. The message is clear, humanity can survive (and even thrive) in a resource-constrained world if it learns from Cuba’s example (Murphy and Morgan 2013). So it’s not a case of having to go back and ‘live in caves’. We can live a sustainable
life with far less consumerism, less ‘things’, a much smaller ecological footprint – and still have a ‘good life’.

**In Summary**, the SSE argues for a low and more sustainable use of resources. However, to reach this we must not just dematerialise our society we **must tackle the overconsumption of our consumer throwaway society**. That means reining in advertising and the ‘shop till you drop’ mentality that people have been conditioned to think is ‘normal’ in Western society. This is a matter of worldview and ethics as much as policy. However, we can go back to a conserver society, one our forebears knew. ‘Thriftiness’ was the goal of our grandparents, and can (and must again) become our key goal. **Waste not, want not.**

**Positive steps**

There are many positive steps we can take in regard to consumerism and overconsumption in terms of moving to a SSE. These are:

- Talk about consumerism and overconsumption – how it is both unsustainable and unethical.
- Defy the ‘shop till you drop’ consumerism the media bombards us with. Instead support ‘thriftiness’ and living simply with less.
- Demand ‘cradle to cradle’ products, Extended Producer Responsibility for products, that there should be ‘Take back’ laws for all products you buy.
- Insist that ‘planned obsolescence’ of products be banned as this is designed to waste materials.
- Practice the 4 Rs – **rethink** if you need something, **reduce** what you use, **reuse** what you can or find a reused product, and **recycle** what you cannot reuse.
- Support a ban on advertising, both outdoor (as Sao Paolo in Brazil has done) and via the media. An alternative is that ads be purely factual about products, and cease making ridiculous claims.
- Demand monitoring and management of renewable resources to prevent degradation through over-use. This could include ‘holistic pricing’ of renewable resources that prices in ecosystem services.
- Support the creation of ‘depletion quotas’ and higher severance taxes on non-renewable resources.
- Demand much stronger regulation of corporations (see chapter on corporate reform).
- Demand ‘choice editing’ of especially bad products (i.e. they are banned).

References


Chapter 7 - Reducing Economic Inequality: A key element in the transition
Frank Stilwell

Introduction

Does the achievement of a steady state economy (SSE) require a diminution of economic inequality? Most SSE proponents (e.g. Czech 2013; Daly 2014; Washington 2016) focus on the unsustainability of current processes of economic growth. This is understandable and reasonable. Infinite economic growth is not a sustainable process, especially when associated with continuing global population growth, deletion of non-renewable resources and the (mis)use of the physical environment as a receptacle for the waste products of a consumerist society. In making the case for a transition to a SSE, however, it is equally important to stress the distributional arguments for change. It is the glaring inequality in how the fruits of economic growth are shared that currently compounds the social, economic and environmental problems of modern capitalism. It is the benefits of having a more equal society that strengthens the case for a fundamental change to the prevailing economic system and the embrace of a more secure, stable and sustainable social order.

This chapter explores these issues, drawing on evidence of the socio-economic effects of existing inequalities, and exploring the political economic challenges involved in reducing inequality. It begins by looking at why the overall rate of economic growth, rather than its distribution, has been accorded such primacy. Consideration then turns to reasons for reversing this priority to give more attention to the distribution of incomes and wealth. Six reasons for seeking greater equality are identified and explored. These concern the creation of happier societies, the reduction of social problems and environmental stresses, and the pursuit of democracy, peace and productivity. The chapter then turns to the policies that could be implemented for this egalitarian purpose. Finally, the picture is rounded out by some concluding reflections on the prospects for a more egalitarian steady state economy.
Why is the economic growth objective still so dominant?

Economic growth continues to be given primacy in most economic analyses and policy prescriptions. This is evident from the professional literature of the economics profession. It is a feature of the curriculum in most university economics teaching. It also pervades public policy pronouncements by political leaders. For example, at the time of writing this chapter, the Australian government had recently been re-elected (by a very slender margin) after a campaign in which the promise to deliver more ‘jobs and growth’ was the central theme.

But the durability of the economic growth priority (some even call it the economic growth ‘assumption’) does need explaining. During the second half of the last half-century, starting long before awareness of the climate change threat emerged, there was a continual stream of critical observations about the inappropriateness or futility of that single-minded focus in economic concerns. Political economist J.K. Galbraith wrote a best-seller about the need for the ‘affluent society’ to switch from maximising production towards redressing poverty, reducing over-consumption and redressing social imbalance (Galbraith 1962). In the early 1970s the Club of Rome dropped its bombshell report that demonstrated the unsustainable character of prevailing rates of
economic growth (Meadows et al. 1972). Prominent mainstream economists Ezra Mishan (1969) and Tibor Skitovsky (1976) added their voices to the growing chorus of concern about the downsides of economic growth, emphasising its ‘social costs’ and ‘joyless’ consequences. Political leaders enthusiastically took up the theme. US President J.F. Kennedy (1961) said that ‘economic growth without social progress lets the great majority of people remain in poverty, while a privileged few reap the benefits of rising abundance’; and his brother Robert Kennedy (1968) subsequently chimed in with the memorable statement that GDP ‘measures everything in short except which makes life worthwhile’.

Similar expressions of concern have continued to reverberate among leading social and environmental scientists in every country. In Australia, for example, Clive Hamilton and Richard Denniss (2003, 2005) have explored the irrationalities of ‘growth fetishism’ and ‘affluenza’, while Ted Trainer (1995, 2010) has relentlessly continued to argue that we have long since surpassed the environmental limits to growth. The CSIRO undertook a major interdisciplinary project on the diverse structural changes necessary for a transition to sustainable urban development (Newton 2008). For those who like their evidence distilled into quantitative time-series, the measurement of ‘genuine progress indicators’ (Eckersley 1988) showed that more economic growth, measured in GDP terms, invariably overstates actual progress.

So why is increasing economic growth still accorded the top priority? Are economists responsible or is it ‘the system’? The former is a common refrain and it has powerful resonance. Critics of mainstream economics commonly point out that its practitioners measure success in GDP terms, whether as the total value of outputs or as the corresponding incomes. Indeed, this works well in economic models which, in order to be capable of making quantitative predictions, require simple assumptions about what matters. An economic growth measure serves that purpose. But that assumption is not conjured from thin air. As the economists say in their own defence, their concern is to understand the existing economic system. That existing system is a capitalist system, organised according to market principles and propelled by business enterprises whose primary motivation is the pursuit of profit. While some business-people may have more complex motives, any failure on their part to generate profits will tend to drive them out of the market, according to the
harsh logic of competition. It is because the profit-seeking behaviour leads to capital accumulation that the system is geared for growth. Hence the systemic exploitation of nature for cheap resources, the exploitation of labour and the expansion markets for goods and services, fuelled by consumerism. These are recurrent tendencies in such a system. The economists are merely modelling it.

This story becomes more complex, however, when we recognise that economic analysis may also provide legitimacy and justification for the status quo, by ignoring or downplaying the inequitable and unsustainable features of capitalism. This is not to accuse all economists of being ‘hired guns’ serving the interests of the most wealthy and powerful players, although some are. Others are imbued with overtly pro-capitalist ideology, such as Milton Friedman who famously wrote that ‘the social responsibility of businessmen is to maximise profits’ (Friedman 1970). But most often the bias is implicit, embedded in the technical assumptions of the economic models.

One need not infer anti-social motives. Indeed, on those occasions when leading figures in the development of the economics discipline have reflected on the purpose of their analyses, they have sometimes spoken boldly about their goal of contributing to social progress. Consider, for example, the following statement from A.C. Pigou who was Professor of Economics at the University of Cambridge before J.M. Keynes, and who sought to shift the focus of economic analysis from wealth to welfare:

*The complicated analyses which economists endeavour to carry through are not mere gymnastic. They are instruments for the betterment of human life. The misery and squalor that surrounds us, the injurious luxury of some families, the terrible uncertainty overshadowing many families of the poor – these are evils too plain to be ignored. By the knowledge that our science seeks it is possible that they may be restrained. Out of the darkness light!* (Pigou 1928, preface)

This is a claim from a quite conservative economist about how his subject can contribute to social progress, broadly defined. Reasoning of this sort can be readily held to explain economic growth as the means to social ends, such as raising the poor from conditions of poverty. Notably, in Pigou’s statement the reference to the ‘injurious luxury of some families’ also puts the question of
distributional inequality on the agenda. The problem in practice is that, notwithstanding the sometimes laudable social intentions of its proponents, economic growth has retained its place as the assumed engine for the creation of jobs, redress of poverty and raising living standards. Unfortunately, real world experience has turned out rather differently. The persistence of poverty amidst affluence is the most obvious proof of that, as Galbraith recurrently emphasised. The term ‘trickle down economics’ has therefore come to have a markedly pejorative ring.

Of course, it is notable that in many parts of the world the case for economic growth still has strong momentum. In China and India for example, the last three decades have seen many millions of people lifted out of absolute poverty. But economic inequalities have concurrently become ever more evident in those countries. Notwithstanding the rhetorical claim that ‘a rising tide lifts all boats’ (to quote J.F. Kennedy again, this time taking a more pro-growth stance), it is clear that the fruits of economic growth are seldom, if ever, evenly shared. The remarkable economic catch-up by the two biggest, developing national economies has gone hand-in-hand with rising internal inequality in almost all nations during these recent decades (Bourgignon
In both China and India the emergence of billionaires and the growth of wealthy urban elites has been dramatic, but billions of people in rural regions continue their daily struggle to secure a livelihood. Everywhere processes of circular and cumulative causation tend to create polarising ‘virtuous cycles’ and ‘vicious circles’ of advantage, disadvantage and inequality.

All of this suggests that it is time for a fundamental rethink. Political economists who are critical of the mainstream economic orthodoxy have long argued for a more critical perspective on capitalist economies in which accumulation and growth dominate social and environmental concerns. Their analyses, and those of other similarly concerned social scientists, can help us forge a more fruitful way forward. Particularly important is the growing volume and quality of analyses that show the advantages of making distributional equity a stronger priority. The next six sections of this chapter draw on these analyses and develop further arguments to make a comprehensive case for this egalitarian reorientation.

Would more equal societies be happier?

Not surprisingly, rich people tend to be happier with their lives than very poor people. Indeed, the proponents of economic growth have tended to claim this as a justification for their single-mindedness, as if we could all be rich and happy. However, according to numerous social surveys, the correlations between income and happiness are often surprisingly weak (see Gittins 2014; ch.4; Wilkinson & Pickett, 2009: pp.5-13). Rising out of poverty fairly reliably creates happiness but further income increments do not necessarily have similar effects. There tend to be diminishing benefits from additional income after basic consumption needs have been met. Indeed, mainstream economists’ own reasoning indicates that this will be a likely outcome if ‘the principle of diminishing marginal utility’ applies to income as a whole and not just individual goods and services. It is a tendency that is probably accentuated if the process of gaining extra income creates ‘disutility’ because it requires long working long hours that reduce pleasurable time spent with family and friends.

Generalisations about the diminishing pleasures of getting richer need to be treated with caution, of course, because people vary so much in their responses to changed material conditions and because of cross-cultural differences in
how personal well-being is perceived. That said, the growing field of happiness research in social science is throwing up significant challenges to the conventional economic assumption that economic growth is want-satisfying and therefore conducive to contentment. Research shows that reported levels of happiness in different countries correlate more strongly with income equality than with average incomes (Wilkinson & Pickett 2009; ch.1). In general egalitarian societies are happier societies, whereas people in rich societies are often not significantly happier than those in much poorer nations. It seems that economists for the last two centuries have been basing their theories on the false (or now outdated) assumption that higher per capita income creates happier populations: creating more equality could be a superior strategy for future social improvement.

**Would greater economic equality reduce social problems?**

There is also a growing body of evidence to suggest that more egalitarian societies are more cohesive and have less social problems. International evidence shows a correlation between income inequalities and the incidence of a wide array of social problems. These problems include physical and mental illness, the incidence of violence, crime and prison incarceration, drug use, obesity and low educational attainment. Systematic study of these matters, most notably by British epidemiologists Wilkinson and Pickett (2009), has highlighted some of the statistical and causal associations. Their research shows that, for an array of developed nations, there is a strong correlation between the intensity of social problems and the extent of income inequality. Japan and the Scandinavian nations are at the lesser social problems/egalitarian end of the spectrum, while the USA and Portugal are at the greater social problems/anti-egalitarian end (Wilkinson & Pickett 2009: p.20). This higher incidence of social problems in the more unequal societies may partly explain why they tend to be the generally unhappier societies.

A statistical correlation between inequality and the intensity of social problems cannot be the full story though. It is also necessary to identify causal connections. These can be expected to vary for each of the social problems being studied – and Wilkinson and Pickett present plausible hypotheses and evidence for each of those that they analyse. However, there are also general reasons to expect a broad overall causal connection. Indeed, egalitarianism’s
ultimate justification is that it is a necessary condition for social well-being and a sense of collective purpose. Most obviously, it is a prerequisite for trust and cooperation. Within any group of people, whether it be a household, a workplace or a sporting team, continued cooperation depends on the perception, and ultimately the reality, of fair shares in the fruits of that cooperation. Where such conditions do not prevail, a greater incidence of social problems and pathologies is not surprising.

**Would reducing inequality reduce environmental stresses?**

The connection between equality and cooperation in responding to environmental challenges is a more specific matter that is particularly significant in relation to SSE principles. Indeed, effective global cooperation to produce an ecologically sustainable future is almost inconceivable without an egalitarian perspective and redistributive policies (Parr 2013). This has become evident in international deliberations on how to redress climate change. Poorer countries cannot reasonably be expected to cooperate in reducing carbon emissions if doing so would effectively lock them into perpetual economic disadvantage.

Meanwhile, within more affluent nations, introducing policies like carbon taxes or emission trading systems requires concurrent redistributive policies to raise the incomes of poorer households, compensating them for the impact of the increased household energy costs. Otherwise social and political resistance is inevitable. Bolder attempts to create transitions to sustainability, like moving to 100 percent renewable energy sources or reducing consumerism, require yet stronger emphasis on the egalitarian dimension of public policy (as discussed in Stilwell 2011/12).

**Would reducing economic inequality enhance democracy?**

Democracy is widely held to be the most desirable political arrangement – or, as a cynic might say, the least worst. It is subject to diverse interpretations, but all entail an essentially egalitarian principle – that each person should be entitled to equal participation and influence in collective decision-making processes. In its simplest electoral form this means ‘one person, one vote’. Capitalism, on the other hand, operates on the quite different organising principle of ‘one dollar, one vote’. In the capitalist marketplace, those with the
most money send the strongest market signals about what should be produced. Thus the principle of ‘consumer sovereignty’, universally cherished by mainstream economists, has an anti-egalitarian character when applied in capitalist societies with markedly uneven distributions of income and wealth. Only if the distribution of income and wealth were made more equal would the tension between capitalism and democracy be lessened.

There is a further and stronger reason why democracy requires greater economic equality. This relates to the potential for inequality to corrupt the state. As Stiglitz (2013: ch.5) argues, the concentration of wealth that arises from economic inequality in modern capitalist societies has a corrosive effect throughout our political institutions. It operates through diverse channels. Donations from corporations or wealthy individuals to political parties can influence government policy agendas. Lobbyists continually ply this trade. Conversely, on those odd occasions when governments do actually introduce policies that do go against powerful corporate or elite interests, they are often subjected to immense pressures to reverse those policies. The modern state operates at the interface of democracy and capitalism – and in practice the former is commonly subordinated to the latter. More equality would tend to lesson this distortion.

**Is equality conducive to peace?**

Whether egalitarian societies also tend to be more peaceful warrants consideration. Of course, all reasonable people want a peaceful society. Yet the world is bedeviled by tensions that frequently spill over into violent confrontations, including terrorism and war. While it would be facile to characterise all conflicts as products of socio-economic inequality, it is evidently a pervasive influence. Inequalities deriving from the effects of imperialism are a case in point. Anti-imperialist struggles, sometimes violent in nature, have challenged the political economic advantages gained by imperialist powers at the expense of the people in the poorer regions and countries that they dominate. Conflicts in post-colonial societies are also often concerned with the legacy of such inequalities, along lines of class, ethnicity and gender.
The effects of inequality are also increasingly evident on a global scale as groups who perceive themselves to be exploited, oppressed or marginalised by wealthy nations and classes have recourse to violence. The recurrent hostility towards ‘the west’, the USA in particular, commonly involves resentment against structures of political economic power and their supporting ideologies that are insensitive to local conditions, culture and aspirations in other countries. It is hard to conceive of a peaceful world without some greater emphasis on dealing with these processes that have created unjustified and unacceptable inequalities.

Is more equality conducive to economic productivity?

Finally, there is the troublesome question of the relationship between inequality and economic efficiency. Mainstream economists have often talked of an ‘efficiency-equity trade-off’, as if we can have more of one at the expense of the other but we cannot have more of both. Yet is that really so? The weight of evidence now suggests to the contrary – that egalitarian societies often tend to have more efficient economies too. Some decades ago, Robert Kuttner (1984) pointed out that, for whole nations, public policies that perform well (or poorly) in terms of both equity and efficiency are as likely as policies that perform well in one but at the expense of the other. Recent research originating from no less a conservative authority than the International Monetary Fund (IMF) has gone further in showing that, rather than impeding economic growth, greater equality tends to produce superior macroeconomic outcomes (Ostry, Bird & Tsangarides 2014). In a somewhat similar vein, the OECD has recently published a report arguing that inequality tends to impede the capacity for productivity improvements and, therefore, that tackling the ‘nexus between productivity and inequality’ should be a key policy focus internationally (OECD 2016).

For SSE proponents, there is a troubling tension in these recent research findings and their implications. Because some of this evidence is concerned with what is most conducive to economic growth, it does not sit altogether comfortably with steady state economics. What it does show, however, is that there is no necessary economic cost involved in the embrace of egalitarian principles. Indeed, it is possible to more fully reconcile these observations about economic productivity with SSE principles if we adopt a broader
conception of productivity. Channeling fruitful productivity improvements into serving social purposes is certainly compatible with SSE principles. This would be the case if, for example, improved productivity enabled people to have a shorter working week and enjoy more leisure, or if it helped to fund a universal basic income.

For all the foregoing reasons, a transition towards a SSE needs to include a strong emphasis on strategies and policies reducing inequalities. If we want societies that are happier, peaceful, democratic, less troubled by social problems, more capable of becoming sustainable and of using economic productivity for social progress, then we need to emphasise greater economic equality.

**Policies for a transition to an equitable steady state economy**

So what is to be done? Broadly speaking we can distinguish between policies for re-distribution and strategies to change the ‘pre-distribution’ of wealth and incomes. The former is the more familiar reformist political program, involving the use of governmental taxes and expenditures. These may embody the ‘Robin Hood’ intention of taking from the rich and giving to the poor, although the actual practice and its stated rationale are seldom so bold or clear cut. Pre-distribution is more fundamental because it involves strategies to change the institutional processes that shape the initial distribution of income and wealth, i.e. before any government taxes and transfers occur.

Re-distribution can certainly bring about more egalitarian outcomes if there is the social and political will to do so. National governments can offset the dominant trend to more income and wealth inequalities, as Piketty’s deservedly well-known book demonstrates (Piketty 2014; part 4). Because public policies have made significant strides in reducing inequalities during particular historical periods, particularly the three decades immediately following World War II, we know that at least a modest degree of egalitarianism is achievable. Indeed, national governments are always engaged in re-distributive policies, although sometimes only implicitly because the re-distributive effects are masked by broader macroeconomic or social objectives. Neoliberal ‘trickle-down’ policies that seek to increase national economic growth by giving more opportunities to the already wealthy are a
case in point. Such policies reliably widen inequalities. But other policies can and do have opposite effects, reducing the rich-poor gaps.

National governments have a wide array of policy instruments at their disposal for this purpose (as described by Stilwell and Jordan 2007: ch.11; Leigh 2013; Stiglitz 2015; and Atkinson 2015). They can effect re-distribution of *incomes* from rich to poor through legislating for greater progressivity in the income tax scales, combined with greater needs-based selectivity in welfare payments. Increasing the rate of tax on incomes from capital relative to incomes from labour would also reliably produce more egalitarian distributional outcomes (which is important to stress because current national tax arrangements often tax capital gains more lightly than wage incomes). Land taxes are also potent re-distributive policies because they can capture the unearned economic surplus that currently arises from urbanisation and infrastructure improvements (Stilwell and Jordan 2007: pp.207-9).

Re-distribution of accumulated *wealth* is harder, because class interests are at stake and political resistance to progressive policy initiatives is inevitable. Wealth in this context means the value of accumulated assets, as distinct from current income. It is a stock, not a flow. A focus on wealth is essential because, while progressive income taxes can stop the rich-poor gap from widening, ultimately it is accumulated wealth that is at the root of cumulative inequalities (Sheil and Stilwell 2016). Given the political will, however, much can be done. Governments in many nations have used inheritance taxation to reduce the inter-generational transmission of economic inequalities. Piketty (2014: ch.15) is an advocate for an international wealth tax, while expressing reservations about its likelihood of coming to fruition.

Turning to what I have (somewhat awkwardly) labelled pre-distribution, other strategies for achieving egalitarian ambitions enter the story. If the remuneration structures of private and public sector employers could be changed, for example, by narrowing the gap between the remuneration of top executives and the lower-paid workers, then subsequent governmental revenue re-distribution would be less necessary. In fact the remuneration structures in capitalist economies have become much more unequal in recent decades, so the trend has been all in the wrong direction. But the fact that they were once narrower and that the economy worked just as well then indicates that,
ultimately, this is a matter of political and social choice rather than economic imperative. Making that ‘choice’ produce a different outcome is an enormous challenge though. It can come about quite directly where the form of business organisation is a cooperative, but for companies there needs to be external regulation and enforcement. Governments could legislate a limit on the allowable inequalities, say 10:1 (or even 5:1) between top and bottom income recipients rather than relativities that are now sometimes well over 100:1. Governments could take a first step in this direction by declining to allow corporate executive remuneration as an allowable business tax deduction if the relativity between the payments to executives and the lowest paid workers exceeded a specified level.

Pre-distribution requires attention to both ‘ceilings’ and ‘floors’ in the distribution of income and strong emphasis on creating equality of opportunity in the intervening space. Ceilings limit extremes of wealth accumulation, while floors eliminate poverty. Over time, inheritance taxation, land tax and higher rates of capital gains taxation could reduce wealth concentration and thereby help to lower the ceiling. Concurrently, a universal basic income (see chapter this book), paid to all citizens irrespective of their socio-economic position, could provide a comprehensive floor. It is heartening to see much attention being recently given to proposals for basic income, although questions of the form and adequacy of the payment need thorough consideration. It seems to be a long-standing idea whose time is coming. It fits well with SSE principles, and seems to be particularly pertinent in an era when technological change and intra-national inequalities are both accelerating.

Other social policies are also pertinent, of course. Educational policies that fund schools according to students’ needs rather than perpetuating class privilege are an obvious example. Together with (and perhaps partly funded by) policies such as inheritance taxes, they have a crucial role in limiting the intergenerational transmission of inequalities. More generally, there is much to be said for insisting that all public policies be required to undergo an equity assessment before being implemented. Applying an equity audit process could be a means of identifying which public policies are currently most problematic in their distributional impacts and eventually ensuring that all major public policy have egalitarian effects, ameliorating rather than compounding existing class differences. As J.K. Galbraith (1974) recurrently argued, ‘emancipation
of the state’ from the influence of powerful corporations is a necessary accompaniment to all process of economic and social reform.

Conclusions

This chapter has made the case for emphasising egalitarian goals, as well as sustainability, in making the transition to a steady-state economy. In doing so, no trade-off between equity and environment goals is implied. On the contrary, without equity there is unlikely to be sustainability. However, it must be acknowledged that the case for equity set out in this chapter makes the required SSE transition more politically charged. Class interests that have a stake in defending the status quo will predictably try to frustrate or de-rail such a transition, putting their short-term interest above longer-run collective concerns. The institutions to which we look for remediation, though formally democratic in many cases, are themselves commonly captive to these dominant interests. Yet a strong groundswell of social movements seeking radical change has been developing in recent years (Stilwell 2015, 2016). And there is no shortage of supporting evidence and argument to feed such concerns and movements, as this chapter has sought to show. Ultimately, it is a matter of politics and power to shape change. To paraphrase the political economist Joan Robinson (1980: p.275), the answers to most economic problems are political questions.

These observations are put forward as a counter to pessimistic views about the prospects for a transition towards a SSE, but this is not to under-estimate the challenges. The evolution of capitalism during its contemporary phase has generated prodigious concentrations of political economic power. The use and abuse of this power obstructs egalitarian social ambitions, most strikingly so when collusive and corrupt practices foster yet greater accumulations of ill-gotten gains. The use of tax havens to hide wealth and reduce tax liabilities, for example, substantially undercuts the capacity of reform-inclined governments to redistribute part of the wealth for beneficial public purposes. And neoliberal ideologies provide a self-justifying rationale for wealthy elites to avoid responsibilities for less fortunate people or the public interest. In the extreme, the notion that 'greed is good' (as a driver of capitalist enterprise and economic growth) stands in the way of more caring and sharing approaches to
how social wealth is created and distributed. Once understood, however, all these processes, interests and beliefs are open to challenge and change.

We need to recognise, of course, that creating this sort of change to a steady state economy takes time. And time is not comfortably on our side, as analysts of climate change recurrently remind us. So it would be foolish to delay pushing for the other policies that are required for transition to a steady state economy until a more equal distribution of incomes and wealth had been achieved. Indeed, to do so would surely enhance the likelihood of a doomsday outcome. Rather, we must press for all the necessary policy changes concurrently, striving for social justice as we seek greater security and sustainability. Then we might actually have some future as a society.

**Positive steps to reduce income inequality**

There are many things that can be done by people concerned to create a more equitable and sustainable society. They range from changing our personal practices to taking initiatives for broader political economic change. Some guidelines are as follows:

- Get informed about the extent of economic inequalities in your town or nation. Surveys show that most people vastly underestimate the extent of existing inequalities. When they realise how wide are the rich-poor gaps they usually become more committed, or at least more sympathetic, to egalitarian goals.
- Get involved in organisations seeking to reduce poverty or redress social injustices. Political parties to the 'left of centre' like the Labor Party usually have egalitarian inclinations. The Greens have a strong commitment to social justice linked to a concern with climate change and other environmental issues. Most trade unions are concerned with addressing economic inequality through the pursuit of wage justice. There are lots of non-governmental organisations dealing with issues related to housing, work, and social services who seek to pursue egalitarian outcomes. Where these organisations are currently deficient, new members can seek to stiffen their resolve to work for equitable social change.
- Advocate policies for a more egalitarian society. All levels of government have policies that affect the distribution of income and
wealth. Press for more egalitarian policies to be embraced. These may include more progressive taxes, crack-downs on tax-evasion by big corporations and high-wealth individuals, the provision of universal basic incomes, and better social services targeted at the needs of low income people. The advocacy of these policies may involve using social media, writing to newspapers, and starting or joining political campaigns.

- Always try to link struggles for ecological sustainability with struggles for a less unequal society.

More to inequality? Anna Schlunke
CASSE NSW realises that there is more to inequality than economic inequality. Apart from differences in income and wealth there is an unequal distribution of access to other resources, opportunities, rewards and punishments related to things such as gender, sexuality, race and ethnicity, age, access to healthcare, appearance, marital status and education, with each category being cross-cut by others. Some members of CASSE NSW may further investigate what we should do to address these other kinds of inequality in the transition to a steady state economy. Will reducing economic inequality and moving from neoliberalism towards steady state economics be enough to reduce these types of inequalities? CASSE NSW may publish more on this topic in the future.

References


Chapter 8 - Relating the Steady State Economy to the Green and Circular Economies
Paul Twomey and Haydn Washington

Introduction

Alternative discourses to the traditional growth economy model have existed for many decades. One such concept, the theme of this book, is the steady state economy, most commonly associated with Herman Daly (e.g. Daly 1991). In the 1970s Daly provided a high-level set of criteria as to what constitutes a steady state economy, acknowledging that there was - and still is - much to debate and learn as to the best ways of achieving it. Alongside this concept, recently there has emerged a number of other discourses that would appear to be closely related to the steady state economy (SSE), including the Green Economy, and the Circular Economy. A cursory look at these different terms indicates a significant overlap in the type of policies and strategies recommended by the four approaches. Furthermore, the Green Economy and Circular Economy concepts, in particular, have been successfully gaining prominence with governments and businesses. They are even being adopted by some businesses in their strategic planning, something that the steady state economy has mostly failed to achieve to date (Charonis 2014).

Therefore, attempts at building greater collaboration and integration among these discourses would seem to be a sensible strategy for those who are alarmed by the fragility of our ecological, social and economic systems. Such a strategy could increase the chances of building a strong and widely supported coalition that mainstreams a viable alternative to the traditional growth economy model, which is seen by many as one of the primary cause of these problems.

However, important questions remains as to how closely these alternative models relate to a SSE. In particular, from a SSE perspective, there are concerns that these new discourses, while providing many valuable innovative ideas as well as an attractive, positive ethos, may be mistaking elements of a long-term solution with the entirety of the solution. At worst, they may be so closely aligned with a traditional growth agenda that they can accommodate (and perhaps support) a ‘business as usual’ paradigm. The history of the much
debated concept of ‘sustainable development’ parallels such concerns (Washington 2015).

The aim of this chapter, therefore, is to describe some key features of the Green Economy, and the Circular Economy, and discuss how they relate to the Steady State Economy. We will focus our attention on these three concepts as they probably have been the most prominent in recent government and business forums. These concepts are also closely linked to a cluster of related concepts such as Factor 5 (von Wieszacker et al 2009), Cradle-to-Cradle (Braungart and McDonough 2008) and the Performance Economy (which will also be briefly mentioned here). There is also another related grouping of concepts, including ‘Degrowth’, ‘Post-Growth’, ‘Voluntary Simplicity’ and ‘Transition’ movements, which particularly focus on the problematics of growth. They will only be briefly discussed here as Perey (this volume) discusses degrowth more thoroughly.

The outline of this paper is as follows. First is the Green Economy concept, particularly as outlined by UNEP (2011). Next is the currently topical ‘Circular Economy’ concept which has adopted and extended Cradle-to-Cradle ideas, and has most recently been associated with the Ellen MacArthur Foundation. We then discuss how these models compare to the steady state economy, including how they address the issues of population and consumption growth, which are core issues in the steady state economy model.

**The Green Economy**

The term Green Economy and its sister term ‘Green Growth’ have become popular among policy makers and sustainability organizations around the world in recent years. They were particularly prominent in the rhetoric of responses to the global recession of 2008, and in the lead up to and following the UN Rio+20 Summit in 2012. The terms were embedded into a number of framework documents that were intended to reinvigorate support for ‘sustainable development’. These documents included UNEP (2011), OECD (2012), World Bank (2012) as well as charters for new organisations and initiatives such as the Green Economy Coalition, Global Green Growth Institute, the Green Growth Knowledge Platform and the Green Growth Best Practice Initiative.
Figure 1 and 2 show how the term ‘Green Economy’ returns far more webpages (as of July 2015) and over the past eight years has been a much more popular google search term than compared to the three other models discussed in this paper.

**Figure 1.** Google search webpage hits for different terms (‘000s) July 2015  
**Figure 2.** Relative popularity of term in google search  
Source: Google Trends. Note: the levels represent relative popularity of search terms and not absolute levels.
While there is no globally accepted definition of the Green Economy (or indeed Green Growth), perhaps the most commonly used definition is that of UNEP (2011) which defines the Green Economy as:

... one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities ... one which is low carbon, resource efficient and socially inclusive.

Their definition maintains the three dimensions of the WCED (1987) ‘Our Common Future’ usage of ‘sustainable development’ (economic, environmental and social sustainability) and shows that the Green Economy does not seek to replace sustainable development, but rather is intended to serve as the tool for achieving it. Compared to the Circular Economy, the Green Economy has a stronger focus on the whole economy, including issues such as national or global employment and emissions. For example, the UNEP (2011) report uses a global macroeconomic model to demonstrate the benefits of shifting from a ‘Brown Economy’ (fossil fuel based economy) to a Green Economy. The approach is also not shy of proposing economy-wide aspirational goals. They make an economic and social case for investing two per cent of global GDP in greening ten central sectors of the economy in order to shift development onto a low-carbon, resource-efficient path.

To make the transition to a Green Economy, UNEP (2011) points to a number of specific enabling conditions. For governments, this would include phasing out fossil fuel subsidies, improving environmental rules and regulations, strengthening market and legal infrastructure, employing new market-based mechanisms, redirecting public investment, and greening public procurement. For the private sector, this would involve recognizing the opportunities offered by the transition to the Green Economy and responding to price signals and policy reforms.

New ways of measuring progress are also a prominent aspect of the Green Economy literature. The inadequacy of conventional economic indicators, such as GDP, are readily apparent and acknowledged in the literature, including the failure to account for environmental degradation and depleting resources. A number of the Green Economy reports point towards alternative natural capital and full cost accounting systems, such as the UN’s System of
Environmental and Economic Accounting (SEEA 2012) and the World Bank’s Adjusted Net National Savings method (World Bank 2007).

‘Green Growth’ is a concept closely related in academic discussion to that of the Green Economy (Charonis 2014). Though not specifically mentioned as a term in UNEP (2011), the document makes clear on page 3 that the Green Economy is a ‘new engine of growth’. OECD (2011) defines Green Growth as:

*Green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies.*

The UNSD (2015a) acknowledges that there are at least 13 separate definitions for green growth. The two terms of Green Economy and Green Growth however are often used interchangeably in academia and government (UNESCAP 2015). However, it could be argued that the concepts are distinct. UNSD (2015b) states:

*Despite the growing international interest in green economy, negotiations between Member States on the concept in the lead up to Rio+20 were challenging. This was partly due to the lack of an internationally agreed definition or universal principles for green economy, the emergence of interrelated but different terminology and concepts over recent years (such as green growth, low carbon development, sustainable economy, steady-state economy etc.).*

Raouf and Luomi (2015) argue that the difference between the green economy and green growth relate to the scope of the two concepts. The Green Economy, they argue, relates to governance systems and promotes a shifting in the *whole* of the economy towards a transformation beyond the brown economy. Green Growth refers to increasing the quantity of goods and services in the economy in an environmentally friendly manner, but does not require all the economy be green. However, it is most often the case that the major proponents of the Green Economy also endorse Green Growth (even if this is not precisely defined).
The Circular Economy

The Circular Economy is a term that has recently become fashionable among the business community and a number of governments. The term has been particularly popularized by a series of reports by the Ellen MacArthur Foundation, an independent charity established in 2010 (EMF 2012). As Figure 2 indicates, the term Circular Economy has now become equally as popular as the Green Economy as a search term. The Circular Economy now regularly headlines as a theme of the business conference circuit. Similarly in policy circles, the European Commission has announced that it will be presenting an ambitious Circular Economy strategy in late 2015 (EC 2015).

Compared to the broad set of goals and enabling policies of the Green Economy, the Circular Economy has a more narrow focus on the diagnosis and solutions for a more sustainable world. The particular focus is on the traditional industrial model of production and the wasteful style of daily consumption (if not especially challenging consumerism as such). This linear model of ‘take, make and dispose’ arose in an era of (apparently) cheap and abundant resources which is no longer the case. By contrast, in a Circular Economy, products are eco-designed and eco-effective such that they use as little energy and materials as possible. Product design involves forming a ‘closed loop’, so that all waste is accounted for and put to good use. Designed objects can have multiple life cycles and renewable energy systems can be used to power the circular cycle. This ‘designing out’ of waste should be differentiated from current disposal and recycling methods, which can themselves require significant resources to implement.

The generic idea behind the Circular Economy is not new: how can we create better industrial design, business models and consumer practices that use the Earth’s resources more efficiently and productively. For example, the idea of circular material flows as a model for the economy traces back to at least 1966 with Kenneth Boulding, one of the forefathers of ecological economics, in his paper ‘The Economics of the Coming Spaceship Earth’ (Boulding 1966). The concept can also been seen as an application of the Cradle-to-Cradle design philosophy which was coined by Walter Stahel (e.g. Stahel and Reday 1976) and popularized by Michael Braungart and William McDonough in their book ‘Cradle-to-Cradle’ (Braungart and McDonough 2008).
The banner of the Circular Economy can therefore be seen as a reinvigoration of these earlier ideas. In addition to various new materials recovery methods, two of the more interesting business and social practices which are being promoted by the circular economy are service orientated business models and sharing economy networks. Both of these innovations, which have also been around for many years (but are only now finding their moment), involve a rethinking of the importance of private ownership of the things we use in the economy.

In the Circular Economy, businesses will more likely be orientated towards selling services or leasing products, rather than selling products outright (Wijkman and Rockstrom 2012). The producer would thus take responsibility for the product over its whole life cycle, and replace it when it wears out, making sure its materials are reused or recycled. Thus the Circular Economy seeks to eradicate the ‘planned obsolescence’ business strategy which is arguably very common in the business world. The idea of selling goods as services as a key strategy of the circular economy has been particularly associated with the work of Walter Stahel, who used the term ‘The Performance Economy’ as the title of his 2006 book (Stahel 2006). He currently works closely with the Ellen MacArthur Foundation on promoting this idea.

A famous pioneering example of a service-orientated approach is Interface, a carpet company that was built on the conventional retail model of selling carpets to customers. The owner, being concerned over how much used carpet was unnecessarily becoming landfill after the customers installed new carpets, was inspired in 1995 to develop the Evergreen Lease program which aimed to sell a floor covering service, rather than the carpets. The carpet was modularized so that only the worn carpet would be replaced and the replaced carpet could be reclaimed, repaired and reused by Interface. It has developed into being an economic and ecological successful idea (Anderson 1999).

An example of dramatic savings that could arise from using Circular Economy principles has been estimated for the market for mobile phones (which are in fact often leased to customers on services agreements, but are usually not reclaimed by the phone provider). If the industry made handsets that were easier to take apart, improved the reverse cycle, and offered incentives to
return devices that are no longer needed, modelling suggests that costs (and similarly the ecological impact) of handsets could be reduced by 50% (Weforum 2015).

Different ideas of ownership are also present in what is best called the Sharing Economy (Friedman 2013) or Collaborative Economy but is closely aligned and embraced by the Circular Economy (Weforum 2015). In the Sharing Economy, technology has enabled those who have assets with ‘idle capacity’ (e.g. bicycles, cars, household tools, unoccupied rooms) to lend, swap, barter or sell that spare capacity. Unlocking the untapped value of underutilized assets means that a smaller stock of such assets are required in the economy. Recent famous examples exploiting this new model for profit are the car-riding ‘Uber’ services and the room-sharing ‘Airbnb’, but similar not-for-profit ventures also exist.

**Comparing the models – relating the Green and Circular Economies to the Steady State Economy**

A summary comparison of the two models, along with the Steady State Economy model, is presented in Table 1. We do not provide a fuller description of the Steady State Economy here as this is covered thoroughly by Magnus-Johnston in this volume. As the table shows, one of the clearest differences between the Steady State Economy model and the other models is the *broadness of scope* of what the former is attempting to achieve. The Steady State Economy tackles the question of the *scale of the entire economy* in relation to ecological limits. This is aligned with one of the central themes of ecological economics, and contrasts with much of conventional ‘environmental’ economics which focuses more on issues of efficiency and substitution, to the neglect of concern with scale (van den Bergh 2000). The Green Economy is closest (if not very close) to the Steady State Economy in terms of addressing sustainability in a number of different sectors. The Circular Economy is limited to mostly focusing on industrial activities and particularly the role of business, including new models of business and industrial activity.

The difference in concern with scale and the entire economy is also apparent in terms of the scope of policies and strategies that the Steady State Economy suggests. These include ideas ranging from reforming the financial system to
reshaping values and the work-life balance. This contrasts with a narrower (but deeper and nuanced) set of policies and strategies in the other models. Another useful way of comparing and untangling some key differences between the SSE and the other models is through the use of the I=PAT framework (Ehrlich et al 1977). The I=PAT entity is a simple conceptual entity for describing environmental impact (I) as a product of three factors: (i) population (P); (ii) affluence (A) or average consumption per person; and (iii) technology (T) or how resource, energy and waste intensive the production of affluence is.

A key difference of all three models compared to the SSE is highlighted in the first factor, population, in that none of them tackle the population issue. Population is a central concern for the SSE (Daly 1991). One of the core principles of the SSE is a stable population, which means zero net population growth. However, in all of the three other models above the question of ongoing population growth is usually absent (indeed ignored) or explicitly allowed. For example, the UNEP (2011) discussion of the Green Economy, while acknowledging population growth a number of times, makes no mention of policies orientated towards moderating population growth. Similarly, ‘Towards the Circular Economy’ (EMF 2014) only mentions population in passing, noting it will rise. There is no discussion that the Earth may already be overpopulated in terms of humanity exceeding ecological limits (see Washington 2013). Braungart and McDonough (2008) in ‘Cradle to Cradle’ state that stabilising the population is ‘like looking into the eyes of a child and saying: “It would be better if you were not here”’. They state on p. 66 that those concerned about population believe that humans should stop having children (without quoting what such groups actually say).

The second factor in the I=PAT entity, affluence, is also barely touched on in the Green, Circular Economy models. Indeed, continued growth in consumption (as well as population) appears to be taken for granted as both possible and desirable. Consumerism, as such, is not challenged by any of the three, nor is the predominance of advertising, while Daly (2008) actually suggests an advertising tax to control this.

This is seen very clearly in UNEP’s Green Economy, which is still very much promoted as a growth economy (though it mostly calls this ‘progress’). At the
same time, it acknowledges that ‘economic growth of recent decades has been accomplished mainly through drawing down natural resources … allowing widespread ecosystem degradation and loss’. UNEP argues that ‘greening’ not only generates increases in wealth (in particular gains in natural capital), but also produced a higher rate of GDP growth. They point to an inextricable link between poverty eradication and better conservation of nature. Similarly, in a transition to a green economy, new jobs are created, which over time exceed the losses in ‘brown economy’ jobs. However, there is a period of job losses in transition, which requires investment in re-skilling and re-education. UNEP (2011) concludes that moving towards a green economy has the potential to achieve sustainable development and poverty eradication on a scale and speed ‘not seen before’.

Braungart and McDonough (2008) in ‘Cradle to Cradle’ argue that calling for change in endless growth is somehow anti-human. They note that ‘if the assumption is that human beings are bad for the planet, surely the best thing is for us not to be here at all’ . They then discuss the ‘guilt language’ of environmentalism. The idea that endless growth on a finite planet is highly problematic, if not absurd, is not recognized. Now it can be said that ‘growth’ is possibly compatible with SSE if the growth is non-material (and not caused by population growth). Indeed, it may be fairly said that the key feature of the Green and Circular Economy models is that they are advocating a ‘decoupling’ of the economy from material use. UNEP (2011) says that ‘the central challenge … as we transition to a resource and carbon constrained world, is to decouple growth absolutely from material and energy intensity’. Similarly, in advocating the Circular Economy, Ellen MacArthur also clearly highlights the central role of decoupling:

*The concept of the Circular Economy is rapidly capturing attention as a way of decoupling growth from resource constraints. It opens up ways to reconcile the outlook for growth and economic participation with that of environmental prudence and equity* (Weforum 2015).

The idea of achieving sustainability entirely through significant increases in resource efficiency is also behind the concept of ‘Factor 5’, described in a 2009 book of that title by Ernst Ulrich von Weizsäcker and an Australian team at The Natural Edge Project (von Weizsaker et al 2009). They argue for an 80% improvement in resource efficiency (i.e. Factor 5) as a panacea to
resource and ecological constraints, apparently without requiring significant changes in current consumption levels or population growth.

However, is decoupling realistic or even possible (see chapter on decoupling)? Almost all economic production requires the transformation of raw materials (Costanza et al 2013). Thus, the scope for de-coupling growth in production and consumption from environmental degradation is not boundless, and the decoupling is unable to keep up with unlimited growth (Naess 2011). Victor (2008) notes decoupling slows down the rate at which things get worse, but does not turn them around. He notes further that some modest decoupling of material flows occurred in some industrialised countries from the mid-1970s to mid-1990s, but total material throughput still increased. Despite increases in efficiency, decoupling GDP and throughput has yet to manifest itself as an increase in GDP combined with a decline in throughput (Victor 2008). Similarly, Matthews et al (2000) found no evidence that moderate decoupling led to absolute reduction in resource throughput and Wijkman and Rockstrom (2012, p. 152) concluded the same. Most recently, Victor and Jackson (2015) note that while there has been some ‘relative decoupling’, any serious absolute decoupling is not evident.

So the evidence to date would suggest that it is impossible to fully decouple economic growth from physical environmental impact. Thus, while some forms of positive increase in GDP that don’t rely on population and increased throughput could occur under a SSE (though these could more properly be called ‘economic development’), talk of ‘100% decoupling’ may just be wishful thinking that allows ‘business as usual’ growth to continue. Daly (1991) believed it was an illusion to think that growth could continue by becoming ever less materially intensive and service-oriented, and Czech (2013) concurs. Welzer (2011) concludes that the decoupling debate maintains the illusion that we can ‘just make minor adjustments’.

In contrast to the Green and Circular Economy, there also exists a number of other discourses or movements that take a clearer stance with respect to population and consumption growth (and are closely related to SSE). These include ‘Degrowth’, ‘Post-Growth’, ‘Transition’ and ‘Voluntary Simplicity’ movements. Like the SSE, they are currently largely marginalised from mainstream economic and political debates, but have all seen increasing
academic and public interest in recent years (Charonis 2012; Pirgmaier 2012). We can only briefly discuss them here.

As the name suggests, Degrowth (see Perey in this volume on Degrowth), at its core, aims at economic downsizing, particularly for developed economies (D'Alisa et al 2014). Kallis (2011) defines sustainable degrowth as ‘a socially sustainable and equitable reduction (and eventually stabilisation) of society’s throughput’. An international conference on economic degrowth was first held in 2008 and there have been three more since. For many proponents of degrowth, the SSE is seen as the endpoint of a degrowth pathway, and thus they are consistent with each other. For example, the First International Degrowth Conference specifically stated in its final declaration that ‘once rightsizing 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’ (FICED 2008).

The Post Growth movement has similar concerns to SSE and Degrowth, and particularly focuses attention on positive visions of an economy no longer dependent on economic growth (D'Alisa et al 2014). The emphasis is as much on well-being and quality of life benefits of moving away from growth dependency, as it is on the ecological benefits. The title of Tim Jackson’s popular book, ‘Prosperity Without Growth’ (Jackson 2009), captures the spirit of the movement. In a similar vein, some Post Growth researchers distinguish their work from the SSE and Degrowth in that they seek to identify and build on what's already working, rather than focusing on what is not (Hinton and Maclurcan 2014).

With a focus on resilient and self-sufficient local communities in response to climate change and peak oil, the Transition Movement shares many of the sentiments of the SSE, Degrowth and Post Growth. However, it has a stronger grassroots, practice-based flavour and it targets people wishing to improve their local community (for example, through local renewable energy or food projects) rather than one of public policy diagnosis and advocacy. The Transition Movement originated in Great Britain and Ireland in the 2000s, and is a development of the permaculture concept (Connors 2010). Rob Hopkins has pioneered the ‘Transition Towns’ concept (originally in Totnes in England and Kinsale in Ireland) and his Transition Towns manual (Hopkins 2008) and
the Transition Network (www.transitionnetwork.org/) has helped spread the movement throughout the world.

Finally, focusing on human well-being as well as environmental sustainability, the Voluntary Simplicity movement (see chapter this book) has taken aim at the consequences of high-consumption, materialistic lifestyles and advocates a ‘downshifting’ or just ‘simple living’ as a pathway towards a more just and sustainable society (Alexander 2015). Of course the notion of ‘simple living’ is not a new one and various religious and secular traditions have advocated such ideas across history. But unlike some earlier movements, recently formed organizations such as the Simplicity Institute (simplicityinstitute.org) and Simplicity Collective (simplicitycollective.com) make clear that they are not advocating living like ascetic monks, nor necessarily escaping to distant communes. Rather, they are suggesting that we reexamine our relationships with material possessions, the planet, ourselves and each other.

**Table 1.** Comparison of three economic models

<table>
<thead>
<tr>
<th>Key promoters</th>
<th>Goals</th>
<th>Areas of focus</th>
<th>Example strategies and policies</th>
<th>Key points present in SSE not found here</th>
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</thead>
<tbody>
<tr>
<td><strong>Green Economy</strong></td>
<td>UNEP, OECD, World Bank, IMF, Green Economy Coaliton, Global Green Growth Institute, Green Growth Knowledge Platform.</td>
<td>Improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.</td>
<td>Improving environmental rules and regulations, strengthening market and legal infrastructure, employing market-based mechanisms, phasing out fossil fuel subsidies, redirecting public investment and greening public procurement.</td>
<td>Fails to discuss population Fails to question endless growth, in fact argues that it is a ‘new engine of growth’ Fails to strongly question consumerism</td>
</tr>
<tr>
<td>Key promoters</td>
<td>Goals</td>
<td>Areas of focus</td>
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<tr>
<td><strong>Circular Economy</strong></td>
<td>Ellen MacArthur Foundation, European Commission, World Economic Forum, Project MainStream</td>
<td>To create a model of industrial production that is less wasteful and more restorative, where components and materials can be reused many times.</td>
<td>Industrial production and practices of consumption; Service economy business models; Collaborative consumption.</td>
<td>Legislation on areas such as waste prevention targets and incentives around eco-design to promote products that are easier to reuse, remanufacture and disassemble; Data improvements to track and recover resources; Provide consumers with more information about product lifetimes; Extend minimum legal warranties; Lower taxes on repair service activities.</td>
</tr>
<tr>
<td><strong>Steady State Economy</strong></td>
<td>Herman Daly, Centre for the Advancement of the Steady State Economy, Dietz and O’Neill (2013)</td>
<td>To create a zero material growth economy which features stable population and stable consumption that remains at or below carrying capacity.</td>
<td>Economy wide resource use; <strong>Population growth</strong>; Income distribution; Monetary and financial systems; Secure and meaningful employment; New forms of business and social enterprises; Well-being and consumerism; National goals and measures of progress.</td>
<td>Caps and quotas to limit resource use and waste production; Reduce incentives for having large family sizes; Distribute income and wealth equitably through taxes and minimum income requirements; Local currencies and restructuring of financial institutions; ‘Work-life balance’ policies; Support Cooperatives and new legal structures for firms such as Benefit Corporations.</td>
</tr>
</tbody>
</table>
Conclusion

The variety of alternative ideas and models mentioned in this chapter point to an increasingly widespread view that the current structure of both the economy and society is *broken* and requires significant transformation. This chapter has provided an overview of three recent, prominent models of such transformation and has compared them to the older (and broader) concept of the Steady State Economy.

All three approaches share a common vision: one of improving the quality of life and well-being of humanity, while respecting the planetary ecological carrying capacity. However, we have also shown that there are important cleavages between the Green and Circular Economy, on the one hand, and the Steady State Economy approach on the other. Namely, the former are primarily based around the idea of *ecological modernisation*: the idea that innovations can decouple economic growth from ecological constraints. While these new models do include advocating *social* innovations such as collaborative consumption, in addition to *technological* innovations, in presenting a vision of a future economy and society, the deeper lifestyle questions of whether we can continue to have growth in personal consumption and population are mostly ignored (or are assumed to not pose a problem in a ‘decoupled’ economy). The Green and Circular economies singularly fail to address the issue of population (presumably due to its contentious nature). They also singularly fail to challenge consumerism and overconsumption. Similarly, they also fail to challenge the ‘endless growth myth’ (see Washington 2015). However, these approaches clearly can be very useful in terms of lowering throughput, a key aim of a SSE.

Positive steps

These are:

- Proponents of the Steady State Economy (who support efficiency and waste minimization) should embrace many of the innovative ideas of the circular and green economies.
- However, we should also be concerned as to whether the popularity of these discourses may suppress a vital set of complementary concerns...
found in the SSE. Given the thin evidence (or lack thereof) to date of the viability of an ‘absolutely decoupled’ economy, the need for critical debate on the sanity, ethics or feasibility of the endless growth mantra is clear. As Kopnina (2016) notes, the Circular Economy can be subverted. So can the Green economy - to support a business-as-usual growth approach. This is arguably why they have become far more popular than the Steady State Economy, which does challenge endless growth.

In conclusion, we would suggest that while the strategies in the Green and Circular economies are useful, they tackle less than half the problem. They fail to consider population growth and overconsumption (driven by advertising). As such, we do not believe these more recent economies can replace the broader (and more ecologically realistic) focus of the Steady State Economy.

References


Chapter 9 - Ecologically Sustainable Energy
Mark Diesendorf

Introduction

Energy is one of the fundamental driving forces of human society. It plays a particularly important role in the industrial socio-economy. We use it in the form of electricity to power our appliances, equipment, air conditioners and lights; non-electrical heat for industry and buildings; and transport, both public and private.

To build an ecologically sustainable society and hence economy, a vital foundation component is to transition to an ecologically sustainable energy system. Such a system will be supplied entirely by renewable energy. This can be achieved with least difficulty by converting most fuel-based electricity, transport and heating to renewable electricity. The principal exceptions are air transport and long-distance rural road transport, which cannot at present be electrified.

While this supply-side transition is necessary, it is not sufficient, because the general arguments for limiting consumption, initially in wealthy societies and ultimately everywhere, apply to the energy sector too. Some people seem to think that energy is somehow an exception, saying naively that if all energy is renewable, it doesn’t matter how much is used. However, a moment’s reflection reveals the fallacy: the more energy we use, the more wheels of industry and transport turn, and the more the physical economy expands.

We can limit the growth in energy consumption, and hence production, through two methods: energy efficiency, that is, providing the same energy services while using less energy, and energy conservation, that is, reducing the energy services we demand. Energy efficiency involves primarily technological change – for example, insulation batts on the ceiling, 5-star refrigerators, LED lights and water efficient shower-heads; conservation involves primarily behavioural change – for example, wearing warmer clothes instead of heating one’s home to high temperatures in winter, and walking or cycling to the local shops.
The complementary roles of energy demand reduction and renewable energy can be seen in the following modification of the decomposition of environmental impact $I$ into the product of population $P$, consumption per person or ‘affluence’ $A$ and technological impact $T$, the well-known $I = PAT$ formula. Applying this identity to the energy sector, we let the greenhouse gas emissions $G$ from energy use $E$ be a proxy for the environmental impacts of the emissions. Then we can write (Diesendorf 2002)

$$G = P \frac{E}{P} \frac{G}{E}. \quad (1)$$

Since the $P$s and $E$s on the right-hand-side cancel, the formula is identically true by definition. Just like the original $I = PAT$ identity, the modified formula just says $I = I$. However, the decomposition of $G$ into these three factors is useful, because each factor can be addressed by its own set of policies. The second factor of Equation (1), $E/P$, is energy use per person, representing consumption per person or ‘affluence’. It can be addressed by policies to improve energy efficiency and foster energy conservation. The third factor, $G/E$, is greenhouse gas emissions per unit of energy use, representing the impact of energy technologies. For convenience, we can treat this as the energy supply term, the one where we transition from dirty fossil fuels to clean renewable energies.

The next sections recommend policies for renewable energy, transport and energy efficiency. More details are given in Diesendorf (2014).

**General policies**

Some economists believe that a carbon price is the only policy measure required to drive the transition to sustainable energy. However, this belief is based on the simplistic assumption of a perfect market. In the real world, the energy market is dominated by powerful players and consumers do not have perfect information. As a result, consumers who don’t have access to alternatives must pay the carbon price and continue to pollute. For example, commuters who live in outer suburbs that are poorly served by public transport must still drive to work and people living in uninsulated rented accommodation must still heat their rooms with electric resistance heaters.

Specific limitations of the energy market are:
Energy efficiency is limited by market failures such as split incentives and transaction costs, in absence of appropriate institutions such as energy service companies, aka energy performance contractors. (Diesendorf 2014, Chapter 4)

The market often fails to provide infrastructure such as transmission lines and railways.

In the absence of government incentives, the market often fails to fund research, development and demonstration of new technologies.

The financial market is often reluctant to invest in the commercialisation of new technologies, even those that have been demonstrated successfully, to assist the technologies through ‘the valley of death’.

The market is short-term, based on marginal economics, and so is inadequate for long-term strategic planning.

Cost-benefit calculations do not handle risk and uncertainty well, yet different options (e.g. renewable versus nuclear energy) have different risks.

For these reasons a set of mutually reinforcing policies is necessary to drive the transition. To transform energy supply, policies are needed to both discourage investment in fossil fuels and to encourage investment in renewable energy. The following general policies are the positive steps to move to ecologically sustainable energy:

- Targets for greenhouse gas emissions, renewable energy and energy efficiency for 2020, 2030, 2040 and 2050.
- A steadily increasing carbon price from which most of the revenue is returned to households and to workers disadvantaged by the transition. While a carbon price is not sufficient, as discussed above, it is necessary as one element of the policy mix. It is a means of incorporating the externalities of energy use; it sends a message to investors that investing in fossil fuels is risky; it’s consistent with other policies; it’s the only way of exerting pressure for change on the whole economy; and it raises revenue for a just transition and for funding at least part of the transition.
In my assessment, a carbon tax is likely to be more effective than a cap-and-trade emissions trading scheme, because the tax is easier to manage and harder to cheat. Until the carbon price is sufficiently high, a ban on new conventional fossil-fuelled base-load power stations and major refurbishments of old ones. A similar outcome could be achieved by setting emission standards for new and refurbished power stations at 0.4 tonnes CO$_2$-e per megawatt-hour of electricity generated. Peak-load power stations, which are only operated for short periods, could be exempted temporarily to assist in balancing variable renewable energy supply, e.g. from wind and solar PV, until batteries or environmentally sound sources of biofuels become available.
Specific policies for renewable energy

- Government grants for research, development and demonstration of renewable energy systems, storage, essential infrastructure such as new transmission lines, and new materials. In Australia, this would involve expanding the scope and budget of the Australian Renewable Energy Agency (ARENA).
- Fostering commercialisation and mass production of sustainable energy technologies by means of a government-funded institution to provide loans and equity. This institution provides leverage to encourage private investment in technologies for which the financial sector has little experience. In Australia, this policy would involve expanding the budget of the Clean Energy Finance Corporation (CEFC).
- Termination of subsidies to the production and use of fossil fuels, e.g. tax benefits for fossil fuel exploration; infrastructure for coal export.
- For large-scale renewable energy systems (e.g. wind farms and solar farms), implementation of a system of reverse auctions, combined with feed-in tariffs or contracts for difference, similar to the current scheme of the Australian Capital Territory.
- Seeding grants for community renewable energy projects, similar to the scheme in New South Wales.
- Fair feed-in tariffs (FITs) for medium- and small-scale grid-connected renewable energy systems. Governments should ensure that FITs should vary with the time of day (or, more precisely, in a ‘smart’ grid, with the demand and available supply). The level of the FIT should also take account of the fact that small- and medium-scale renewable energy systems do not use the high-voltage transmission system and may only use short lengths of the low-voltage distribution system.
- Accreditation and monitoring of installers of renewable energy products.

Policies for transport and urban form

- Reconstruction of our cities to integrate urban planning and transport planning, thus reducing urban travel and car travel in particular. Large cities should be restructured to foster several sub-centres, as well as
the centre, linked by heavy rail. A number of local centres would be connected to each sub-centre by light rail or bus. Cycling and walking would be fostered within the centre, sub-centres and local centres. Higher densities would be fostered within the centre, sub-centres, local centres and any other public transport nodes. This hierarchical urban structure was proposed by White et al. (1978) and reinvented by Newman & Kenworthy (2006). Since these references are not easily obtained, see the summary in Diesendorf (2014, Chapter 7).

- Construction of a high-speed passenger rail service between major cities, e.g. Melbourne, Canberra, Sydney and Brisbane in Australia. This would replace much air and road transport.
- Major expansion of urban public transport, cycle-ways and pedestrian areas. This could be coupled with a reduction in suburban land allotted to roads, parking and airports, releasing land (and space over railways) for more productive activities.
- Regulation to confine the charging of batteries of electric car and trucks to renewable energy, either from direct sources or indirectly via Green Power.

**Policies for energy efficiency**

- Mandatory energy labelling and mandatory energy performance standards for all residential and commercial buildings, not just new ones, and all energy-using appliances and equipment.
- For all sales and rentals of residential and commercial buildings, offices and apartments, an energy audit must be provided by the vendor or lessor with the sales or rental contract.
- Schools must include educational projects on energy efficiency and conservation.
- A feebate-rebate system to foster sales of energy efficient appliances and equipment. A rebate is given for purchasing an energy efficient product; this is funded by a fee placed on inefficient products.
- Accreditation and monitoring of installers of energy efficiency products.
Conclusion

The above policies for transitioning to an ecologically sustainable energy system are the positive steps needed, and all are technically feasible, safe, job-creating and affordable. They could be funded by a combination of carbon price, the economic savings from energy efficiency and conservation, the termination of ‘gold-plating’ of the electricity distribution network, land value capture, feebates, and the termination of funding for offensive (as opposed to defensive) military ‘defence’.

References


Chapter 10 - The worldview and ethics of economics
Haydn Washington

Neoclassical economics hardly ever analyses itself and considers its worldview and ethics. It should (and must!) if we are to reach a SSE, if society is to become truly sustainable. Worldview and ethics are central, for if society does not question and address these, then it simply won’t change, and hence will not reach a SSE. The nature that supports us is also breaking (Washington 2013). There is a reason why our economy is broken and nature is breaking - because the anthropocentric, modernist ‘Mastery of Nature’ worldview of Western society is unsustainable. We discuss here worldview and ethics, anthropocentrism vs. ecocentrism, the intrinsic value of nature, and ideologies. There is what could be called a ‘great divide’ between those who are anthropocentric and ecocentric. Sadly, this has probably never been as great as it is today (and academia mostly exacerbates this rather than seeks to heal it). Humanity is now more divorced from the natural world than ever before (Louv 2005). Einstein (1950) noted:

*He experiences himself, his thoughts and feelings as something separated from the rest, a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty. Nobody is able to achieve this completely but the striving for such achievement is in itself a part of the liberation and a foundation for inner security.*

‘Modernism’ is central to how humans treat nature today. Modernism continued the humanization of wild Nature initiated by the early agriculturists, and operated through science, technology and liberal democracy. Modernism arguably underlies the emergence of a profound anthropocentrism still dominant in the world, where nature is conceived of as ‘nothing more than matter-in-motion’ (Oelschlaeger 1991). *Economics* is another key component of modernism. Adam Smith (1776) in ‘The Wealth of Nations’ set in motion ‘that modern shrine to the Unattainable: infinite needs’ (Oelschlaeger 1991). Unlimited growth was the ethical justification for capitalism. Consumption
and never-ending growth were deemed to be ‘good’ in modernism, which completed ‘the intellectual divorce of humankind from nature’. It draws ‘a boundary between an objective or scientific and a poetic or aesthetic view of nature’ (Oelschlaeger 1991).

Modernism took a strong anthropocentric view of the world as being essentially a ‘thing’, a resource for human use (resourcism). Crist (2012) summarises an ecocentric response to the idea of seeing nature just as a resource:

*What is deeply repugnant about such a civilization is not its potential for self-annihilation, but its totalitarian conversion of the natural world into a domain of resources to serve a human supremacist way of life, and the consequent destruction of all the intrinsic wealth of its natural places, beings, and elements. “Project Human Takeover” has*
proceeded acre by acre, island by island, region by region, and continent by continent, reaching its current global apogee with the final loss of wild places and the corollary sixth mass extinction underway.

Modernism and anthropocentrism can be called worldviews, paradigms or ideologies. Worldview is self-explanatory, it is how we view the world. A paradigm may be seen as related but narrower than a worldview, it is generally described as a ‘distinct concept or thought pattern’. Cavagnaro and Curiel (2012) argue that paradigms are ‘like spectacles through which people perceive a situation’. The lenses are formed by a person’s principles, knowledge and experiences, and by the value and norms of the surrounding society. An ideology is a set of conscious (and unconscious) ideas that constitute one's goals, expectations, and actions. ‘Ethics’ is about what is ‘right’ or ‘wrong’ conduct. This involves what we value. The opposite to anthropocentrism is ecocentrism, where we see ourselves as part of nature, and our values don’t end with humanity but encompass the rest of life (and indeed the land itself).

Why is worldview or paradigm so important? Donnella Meadows (1997) explains this beautifully:

*The shared idea in the minds of society, the great unstated assumptions ... constitute that society's deepest set of beliefs about how the world works. ... Growth is good. Nature is a stock of resources to be converted to human purposes. ... Those are just a few of the paradigmatic assumptions of our culture, all of which utterly dumbfound people of other cultures.*

Cavagnaro and Curiel (2012) similarly explain why worldview is central:

*Because everything else follows from the way we look at reality, the moment we are able to embrace a new, sustainable, world view our minds will open to new possibilities; we will be able to understand which other steps are needed and find ways to actually take them ...*

As Meadows (1997) concluded:
People who manage to intervene in systems at the level of a paradigm hit a leverage point that totally transforms systems. ... In a single individual it can happen in a millisecond. All it takes is a click in the mind, a new way of seeing.

So what is the problem with our current modernist ‘Mastery of Nature’ worldview? Theologian Thomas Berry (1988) argues:

> We can break the mountains apart; we can drain the rivers and flood the valleys. We can turn the most luxuriant forests into throwaway paper products. ... We can pollute the air with acids, the rivers with sewage, the seas with oil - all this in a kind of intoxication with our power for devastation .... And why? To increase the volume and speed with which we move natural resources through the consumer economy to the junk pile or the waste heap. Our managerial skills are measured by our ability to accelerate this process. ... If the environment is made inhospitable for a multitude of living species, then so be it. We are supposedly, creating a technological wonderworld ... But our supposed progress toward an ever-improving human situation is bringing us to a wasteworld instead of a wonderworld.

Rees (2008) notes that:

> The world presently has the wealth, human capital and natural resources to execute a smooth transition to global sustainability out of mutual self interest, yet we do not act. ... Despite forty years of organised environmentalism, two world summits on environment and development, repeated warnings by scientists and the emergence of ‘sustainable development’ as a mainstream mantra, global society continues its drive toward ecological disaster and geopolitical chaos.

He further notes that humanity got to this point through unconscious expansionist tendencies, reinforced by the social construction of both a ‘perpetual growth myth’ and increasingly a ‘global consumer myth’. Clearly, Western society will need to change its worldview and ethics to reach a steady state economy. We need an ‘ecological worldview’ (Catton 1982), a philosophy of ecological harmony (Naess 1989), a ‘biounderstanding’ worldview (Boyden 2004) or a ‘Great Turning’ (Macy 2012). Our current
human-centred worldview sees nature as just a group of resources that only have value for human use (Oelschlaeger 1991; Crist 2012).

But why is a change in worldview essential? Because without it we will remain blind to the underlying real causes of our failures to reach sustainability (Catton 1982). One problem is that academic disciplines tend to strongly influence their students. Gaffney et al (1994) note that neoclassical economics is a paradigm that:

... bends the twigs of young minds. Then it confines the fluorescence of older ones, like chicken-wire shaping a topiary.

Students of neoclassical economics are thus conditioned with a modernist and anthropocentric view of the world. This not only distances them from their fellow humans, but from the rest of life itself, which becomes just a resource for their use. The alternative is to adopt an ‘ecocentric’ approach. To accept the intrinsic value of nature for itself and see the natural world as something ‘sacred’, of which we are a part (Rolston 2012; Washington 2013, Washington et al 2017). Is the Universe just about us and our consumption, or is it about sharing our planet with the wondrous evolved diversity of life? Over the past 200 years, Western modernism has impoverished the natural world we share, and brought us to the brink of tremendous further loss (Washington 2013). This is the ‘elephant in the room’ we can no longer afford to ignore. We must now be realists. Recently the Catholic Jesuit Social Justice and Ecology Secretariat produced a report ‘Healing a Broken World’ (Alvarez 2011). It noted:

The deterioration of the environment as a result of human activity has taken on a decisive importance for the future of our planet and for the living conditions of coming generations. We are witnessing a growing moral consciousness regarding this reality. ... Nevertheless, we are still in need of a change of heart. We need to confront our inner resistances and cast a grateful look on creation, letting our heart be touched by its wounded reality and making a strong personal and communal commitment to healing it.

Pope Francis (2015) in the Encyclical ‘Laudato Si’ says:
It is not enough, however, to think of different species merely as potential “resources” to be exploited, while overlooking the fact that they have value in themselves. Each year sees the disappearance of thousands of plant and animal species which we will never know, which our children will never see, because they have been lost for ever. The great majority become extinct for reasons related to human activity. Because of us, thousands of species will no longer give glory to God by their very existence, nor convey their message to us. We have no such right. (my emphasis).

There is also the question of justice. Is it just a matter of social justice, or does nature deserve eco-justice (Baxter 2005; Rolston 2012)? There is a need for the ‘Rights of Nature’ and an ‘Earth jurisprudence’ that accepts this and puts it into legislation (Cullinan 2014). 72 nations now mention ‘environmental rights’ in their constitutions (Engel 2008), the most famous being Bolivia and Ecuador. There is also the ‘Pachamama’ movement in South America (http://www.pachamama.org/) that seeks to use traditional wisdom to teach sustainability. So a growing recognition is taking place that ethical change is needed. Collins (2010) believes discussion now has to move to the moral sphere, that we face a massive, over-arching moral problem, bigger than war, more serious than financial meltdowns. He believes we have to talk in a language that shows what we are doing to nature is sinful, that we are committing ecocide. We now need to adopt a fundamental moral principle that the ‘good of the planet’ must come before everything else (Collins 2010).

An ethics of economics?

Ethics can be seen a set of beliefs or an understanding that should inform human action. One theme in early Greek discussions on ethics is ‘what is the good life’, and it can be seen as a hopeful side to our nature that ‘we wish to live a good life’, one that is both guided by an ethical understanding and one that will be sustaining (not a narrow set of dogmas but one that continues to enrich our understanding of our relationship to others and the natural world). But people generally can indeed relate to a discussion about ‘why we should do this?’, or ‘why we should not do that?’. While our consumerist credo might baulk at being told ‘what to do’, in fact every day we are being told by advertising what we should want to buy and consume, and that this is in fact
‘the good life’. But this is an impoverished view of humanity’s potential. Most of us do understand that we (as moral agents) have a choice. So there are important choices to be made in how we relate to the world, and these can lead to a better life (in a profound sense - resetting man as a custodianship of the natural world). ‘Sustainable economy’ in the sense of this ethical dimension sees man as acting within limits, and knowingly making responsible choices based on a respect and reverence for the natural world.

So, is there an ‘ethics of economics’? The two terms are rarely spoken of together, but they should be. Robertson (1954) once asked ‘What does the economist economise?’. His answer was ‘love’. Daly (1991) says an economist is similar to how Oscar Wilde described a cynic: ‘A man who knows the price of everything and the value of nothing’. Bauman and Rose (2009) note that economists (and economics students) are less generous and more selfish than other students (being immersed in a modernist worldview). Unless the underlying growth paradigm and its supporting values are altered: ‘all the technical prowess and manipulative cleverness in the world’ will not solve our problems, and in fact will make them worse (Daly, 1991). Daly (2008) explains:

... the neoclassical view is that man will surpass all limits and remake Creation to suit his subjective preferences, which are considered the root of all value. In the end, economics is religion.

Daly and Cobb (1994) note that: ‘Before this generation is the way of life and the way of death’. They conclude that at a ‘deep level of being’, they:

... find it hard to suppress a cry of anguish, a scream of horror. We humans are being led to a dead end, we are living by an ideology of death and accordingly we are destroying our own humanity and killing the planet.

Originally, economics started as a branch of ‘moral philosophy’, and ethics was at least as important as the analytic content. However, economic theory become more and more top heavy with layer upon layer of abstruse mathematical modelling, erected above the shallow concrete foundation of fact (Daly 1991). The key aspect of neoclassical economics was ‘efficiency’ compared to a desired ‘optimal’ state. This area of study is necessarily
normative because it is not possible to analyse what is ‘most desirable’ without using a moral framework (Wight 2015). Neoclassical economics accepted no limits and did not ascribe nature any intrinsic value, hence what was ‘desirable’ tended to be just growth. Daly (1991) notes that the temper of the modern age resists any discussion of the ‘ultimate end’. Why are we doing what we do? Economics followed along by reducing ethics to the level of ‘personal tastes’ (known as ‘preference satisfaction’ Wight 2015). Individuals set their own priorities, and economics became simply the ‘mechanics of utility and self-interest’. It thus arguably divorced itself from any ethics based on limits, equity, social or eco-justice. Neoclassical economics thus does have an ethics, but it is strictly a utilitarian ethics based on a Modernist worldview, where nature has no value. Daly concludes that to do ‘more efficiently’ that which should ‘not be done in the first place’ is no cause for rejoicing. The big problems of overpopulation and overconsumption ‘have no technical fixes but only difficult moral solutions’ (Daly 1991). The steady state economy may thus be seen to threaten the Faustian covenant with ‘Big Science’ and high technology, for it argues all things in fact are not possible through technology. For these reasons the steady state economy is resisted by orthodox economists (Daly 1991). It is also resisted by techno-centrists and Cornucopians. The ethical dimensions of dealing with the growth economy are thus enormous and cannot be ignored.

Daly (1991) suggests that society could accept the eventual destruction of the Earth’s life-support capacity as the price we must pay for ‘freedom from restriction of individual rights to grow’. However, he observes:

> It is widely believed by persons of diverse religions that there is something fundamentally wrong in treating the Earth as if it were a business in liquidation.

Crist and Cafaro (2012) similarly conclude:

> We find joy in the abundant beauty and variety that Earth provides. We find safety in a relatively predictable climate and reliable food sources. We find inspiration in the grandeur of this extraordinary planet. ... We thus are called, even at this late hour, to find the clarity and courage to shift into a new relationship with Earth, before we
diminish irrevocably the greater-than-human world, our own lives, and the lives of future generations.

Daly and Cobb (1994) observe that a ‘sustained willingness to change will depend on a love of the Earth that humans once felt strongly but that has been thinned and demeaned as the land was commodified’. Hence we cannot afford to let economics remain based on a utilitarian ethics of efficiency that ignores ecological limits, the ‘Rights of Nature’, and equity and social and eco-justice. The current corporate ethic seems to be to ‘use resources as fast as possible until they’re gone’ (Heinberg 2011). Clearly, a first step is to assert that economics must have an Earth ethics, and that the current ethics of neoclassical economics is misguided, unsustainable and actually in no way ethical if one has an ecocentric worldview that sees the rest of life as more than just ‘resources’.

Solving society’s failure in ethics

To reach a SSE will require that we heal our failure in worldview and ethics. That means a major change in our society in how we view the world. I suggest three approaches that can help us rectify our worldview and ethics.

Deep ecology

Deep ecology has been one academic stream that has championed the ecocentric approach and fights anthropocentrism. Philosopher Arne Naess (e.g. Naess 1973, 1984, 1989, 2008) and Bill Devall and George Sessions (1985) were leaders of this environmental philosophy. It is characterized by its advocacy of the inherent worth of living beings, regardless of their use to human needs, and advocacy for a radical restructuring of modern society. Deep ecology developed a platform of 8 principles (Devall and Sessions 1985):

- The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.
- Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
Humans have no right to reduce this richness and diversity except to satisfy vital human needs.

The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.

Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.

The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.

Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.

Deep ecology is thus a philosophical worldview that believes in the intrinsic value of nature, that understands that human population must decrease, that the economy and technology must change – and that this is urgent. However, the dominance of anthropocentrism within both society and academia has meant that deep ecology has sadly struggled to increase its influence. However, we can change this – together. A move back towards deep ecology within both academia and society would assist the move to a SSE and the transformation to meaningful sustainability.

Moving from anthropocentrism to ecocentrism

So we need to replace anthropocentrism with ecocentrism, to bridge the divide between humanity and nature, and acknowledge its intrinsic value. We must challenge the anthropocentric assumption, and develop an ‘ethic of ecological obligation’, a ‘land ethic’ that widens the moral community to include the land, as Leopold (1949) taught. It has been argued a first step in recognising an ‘enlarged’ moral community is the evolution of ‘empathy’ (Godfrey-Smith 1979). To change our culture, Taylor (1986) thought we needed an inner change in our moral beliefs, from anthropocentrism to biocentrism and respect
for nature. The recognition of the rights of other species and ecosystems to exist for themselves can be seen as an acceptance of ‘humility’ (Noss 1991).

As a society, we need to talk about the intrinsic value of nature and acknowledge our anthropocentrism. Our education system generally doesn’t discuss environmental ethics, nor in general do our universities. They need to. Hence why the situation is worrying that Kopnina (2012) reports, where education for ‘sustainable development’ has become more anthropocentric than ‘environmental education’ used to be. If education for sustainable development remains anthropocentric, the chances of us solving the environmental crisis are poor. Berry (1988) suggests that there is hope in breaking free from anthropocentrism:

*Yet the beginning of an intimacy can be observed. The very intensity of our inquiry into the structure and functioning of the natural world reveals an enthrancement with this natural world ... We are constantly drawn toward a reverence for the mystery and the magic of the Earth and the larger Universe with a power that is leading us away from our anthropocentrism to this larger context as our norm of reality and value.*

The fact that humans can mourn the extinction of another species (as many people do) shows that we do care. As Aldo Leopold (in Meadows 1999) noted: ‘For one species to mourn the death of another is a new thing under the sun’. Rolston (2012) argues that environmental ethics is now vital for the survival of life on Earth. We are searching for an urgent world vision, for an ‘Earth ethics’. It is better to build our cultures in intelligent harmony with the way the world is, rather than try to ‘take control’, as Western society has been doing. Rolston (2012) asks if we want nature to end? He wonders:

*What kind of planet do we want? What kind of planet can we get? Maybe we also ought to ask: What kind of planet do we have? What kind of planet ought we to want? Maybe we ought to develop our capacities for gratitude, wonder, respect and restraint. Maybe we live on a wonderland Earth that we ought to celebrate as much as to develop.*
He believes we have to choose either the nature of our ‘apartness’ or the nature of our ‘partness’. After all, we are ‘Earthlings’, our integrity is inseparable from Earth integrity. People and their Earth have entwined destinies (Rolston 2012). Assadourian (2013) notes that environmentalists have ‘stolen fear, guilt and sin from religion’, but they have left behind celebration, hope and redemption. The problem is that fear without hope, guilt without celebration, and sin without redemption is a model that fails to inspire or motivate. Environmentalists must create a more comprehensive philosophy, complete with an ethics, cosmology, even stories of redemption, that could deeply affect people and change the way they live.

The Earth is not something we outgrow or rebuild and ‘manage to our liking’, it is the ground of our being. We humans too belong on this planet, it is our home (Rolston 2012). Environmental ethics invites awakening to the greater story of which humans are a part. This is what ‘human dominion’ in the Bible should have meant (Rolston 2012). This takes humans past resource use into ‘residence’. Being a ‘resident’ is something more than maximum exploitation. It takes us past ‘management’ to ethics. We need to be liberated from our egoism, from humanism, into a transcending overview that sees the Earth as a blessed land, exuberant with life, filled with beauty and storied history (Rolston 2012). Environmental ethics calls for ‘seeing’ non-humans, for seeing the life that cannot say ‘I’, but in which there is value. Environmental ethics advances beyond human ethics in that it can treat as ends others besides humans. Our planet of promise is now a planet in peril. Rolston (2012) concludes that ‘At this rupture of history, environmental ethics is vital for today and tomorrow’.

Cavagnaro and Curiel (2012) discuss the ideas of ‘spiritual intelligence’ and ‘spiritual capital’. They argue that ‘leaders for sustainability’ are:

... those men and women who widen their circle of compassion to embrace all living creatures and the whole of nature on their leadership journey for a more sustainable world.

They conclude that it is through the development of ‘our capacity to reach a “Care for all” perspective by developing a spiritual intelligence that sustainability can be achieved at all levels’. Similarly, Kopnina and Blewitt (2015) in ‘Sustainable Business’ have a strong focus on environmental ethics
and intrinsic value. Given that books on sustainability or business rarely discuss worldview, ethics or spirituality, it is refreshing (and timely) to see authors of such books do now place worldview and ethics (and even ‘spiritual intelligence’) as a central part of reaching sustainability. If economists would join them in a viable ‘ethics of economics’ that accepts the ‘Rights of Nature’ also, we would be well on the way to a SSE.

**A sense of Wonder**

How then can we improve our worldview and ethics? Most of us (at least at times) feel a *sense of wonder* at nature. Many of us can remember this wonder from childhood. A yearning for a ‘sense of place’ is a perennial human longing. All peoples need a sense of ‘my country’, of belonging to a sustaining landscape they respond to in care and love (Rolston 2012). Wilderness can be valued as a place which restores one’s ‘sense of wonder’ in life (Washington 2002). This can also be called a ‘re-enchantment’ of the land (Tacey 2000). Part of this sense of wonder is a feeling of being one with the land, of *belonging* (Thomashow 1996). This is such an important issue that I self-published the book ‘A Sense of Wonder’ (Washington 2002). So, what is this sense of wonder at the natural world? Is it something innate we are born with, or can anybody learn it? Is it something more common in different races, or merely different societies? Does the fact that only 20 percent or so of people (in Western society) get interested in environmental issues mean that only that percentage can *feel* the sense of wonder? Alternatively, does the growing interest in the environment in young people mean that the number who can feel a sense of wonder is growing? These are important questions to ponder.

It is common for environmentalists (and for that matter activists for a SSE) to list all sorts of ‘scientific’ arguments about ‘why’ a natural area should be saved. It must be saved because it is a reservoir of biodiversity. It should be saved because there are ‘X’ threatened species. It should be saved because it has unique geodiversity, because it provides ecosystem services. It should be saved because it provides clean air and water to society. I know this list well, as I have run campaigns to protect wild places using similar arguments myself. These arguments are of course valid. However, it seems that through our history of scientific analysis, along with the assumptions of neoclassical economics, we have lost the ability to see nature as an ‘interlocking whole’ (Collins 2010). Infrequently do we argue that a natural area should be saved
because it is a place of ‘wonder’ we love, or because it is ‘sacred’. One’s words could then be dismissed as ‘emotional’. It is strange that we have come to such a pass, if we cannot get emotional about the land we love - what can we get emotional about? Or is our passion dead (Washington 2002)?

The sense of wonder I am talking about here is a connection with the land. As such it must be considered ‘spiritual’, even if one does not call it religious. An Agnostic, a Christian, a Buddhist, a Hindu, a Muslim ... all can feel a sense of wonder, even if they call it by varying names (Washington 2002). What I am talking about here is not something that should be trivialized and put on the shelf with the books on fairies. I am talking about the fundamental relationship of humanity with the land which has nurtured us for millions of years. I am talking about one of the deepest and abiding loves of them all: the love of the land.

The sense of wonder is also about ‘empathy’. One must let down one’s guard, open oneself up and let all one’s senses absorb the beauty of the natural world. Aboriginal Elder Miriam-Rose Ungunmerr (see Tacey 2000) explains that there is a word in the Ngangikurungkurr language ‘dadirri’, which is ‘something like what you (white people) call “contemplation”’. Tacey (2000) believes this is a spirituality of deep seeing and deep listening. This would seem to me to be part of the empathy that allows us to feel the sense of wonder. Ungunmerr believes that the gift of Dadirri is ‘perhaps the greatest gift we can give to our fellow Australians’ (Tacey 2000). The writings of other scholars, and my own lived experience, force me to conclude that a sense of wonder is an important part of the human psyche. It could play a key role in helping us reach a SSE and true sustainability. It can help to solve ‘Nature Deficit Disorder’ (Louv 2005).

Reaching a SSE and a sustainable future will require that we use our ‘emotional intelligence’ as much as our intellectual one (Hempel 2014). Our sense of wonder at nature is thus not just ‘one more value’, but something of central importance, something that gives us meaning.

**Conclusion**

The Western modernist worldview to be broken, it can even validly be called ‘evil’, as it is anti-life and fundamentally unsustainable (Collins 2010). We
desperately need to change our worldview, ethics, values, and ideologies. Humanity is faced with a complex problem of ‘conscious evolution’ (Ehrlich and Ornstein 2010) or cultural evolution to create a thoughtful, ecologically-literate human, motivated by a ‘sense of responsibility to the planet’ (Soskolne et al 2008). Arguably, to reach a SSE will require such an evolution in our ethics. The change in worldview is unlikely to come from governments and business, the media, or even from the education system. That leaves us – ‘we the people’. We all need to talk about how economics must have an Earth ethics. When enough of us change our worldview, then governments, economics faculties, business and the education system will follow. To quote Gandhi: ‘We must become the change we want to see in the world’.

A key part of this is rediscovering (or rejuvenating) our moral integrity. Kathleen Moore and Michael Nelson (2013) beautifully express what we need now: ‘moral integrity’:

*But to think that hope and despair are the only two options is a false dichotomy. Between them is a vast fertile middle ground, which is integrity; a matching between what we believe and what we do. To act justly because we believe in justice. To act lovingly toward children because we love them. To refuse to allow corporations to make us into instruments of destruction because we believe it is wrong to wreck the world. This is moral integrity. This is a fundamental moral obligation – to act in ways that are consistent with our beliefs about what is right. And this is a fundamental moral challenge – to make our lives into works of art that embody our deepest values.*

**Positive steps re worldview and ethics**

There are many positive steps in regard to the role of worldview and ethics in transitioning to a SSE. These can be summarised as:

- Understand that a society’s and a person’s worldview and ethics *shape their actions*.
- *Talk about* ethics and worldview, don’t let them be the silent ‘elephant in the room’.
- Seek to change both your own worldview (and that of others), away from an anthropocentric Modernist worldview (where nature is just a ‘resource’) and towards an eco-centric worldview that accepts
ecological limits, and where humanity is seen as part of nature, and has a responsibility for its care.

- Champion the *intrinsic value of nature*, that it has ‘rights’ of its own, and argue for Earth jurisprudence, that writes these rights into our constitution and legislation (the Australian Earth Law Alliance, AELA is one group promoting this).
- Adopt a *deep ecology* approach to how we treat the world.
- Adopt an *Earth ethics* that situates the Earth as being as central in ethics as humans are.
- Encourage a ‘sense of wonder’ at nature in yourself, your family and friends.
- Seek to get children out into nature whenever you can (away from their electronic goods) so as to counteract ‘nature deficit disorder’.
- Seek always to rejuvenate your own ‘moral integrity’ as one argues over the years for a steady state economy and a sustainable future.

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Chapter 11 - Tax and Subsidy Shifting
Matthew Washington, former officer ATO (Masters in Taxation)

Taxation has been with us for thousands of years. References to taxation appear in numerous ancient texts, i.e. the Bible, Roman historical records and even in Sumerian clay tablets from Mesopotamia. In these clay tablets from around 2500 BC the record of the payment of taxes is called the ‘burden’ (UPENN 2016). While popularity is often an issue, when deciding to levy a new tax it seems that tax systems generally emerge within more organised and/or complex civilisations/ cultures.

Taxation established in Australia

Initially, taxation in Australia was levied in the various separate colonies (before federation in 1901). The principal sources of income upon which taxes were imposed were the sale of Crown land and on tariffs and excise in respect of goods. The first colony to adopt an income tax regime was Tasmania in 1880. The first comprehensive income tax regime was enacted in South Australia in 1884. This Act imposed a tax of ‘3 pennies’ in the pound on personal exertion income (i.e. income from sale of services and skills) and ‘6 pennies’ in the pound for income from property. As may be appreciated, these are generally a simpler and lower set of taxes than those we are familiar with in our economies today.

It was not until 1915 that the Federal Income Tax Assessment Act was introduced in Australia. The newly established Constitution of the Commonwealth of Australia provided the legal power to raise funds through the imposition of taxes. Some of the central considerations for modern legislators (when setting out to levy a new tax) are said to be: is it ‘fair’, is it ‘efficient’ (i.e. easy to collect and administer), and is it ‘simple’ (i.e. readily understandable and not unwieldly or an unworkable set of laws). Analysts in tax policy use such qualities to justify or promote one form of tax over another.

Taxation under our system of government is part of the executive arm of the State. It is a system of laws and administrative practice that provide revenue that supports a range of State functions and aims. Today our communities, which are highly interdependent social structures, are directly supported via
the services and funding made available through the levying of taxes. Also businesses (both large and small) receive subsidies or benefits from funds raised via our tax systems. So to recap - we all know taxation involves the collection of revenues from individuals, business and corporations, for various sanctioned (agreed) purposes.

One of the effects of our taxation system is of course the re-distribution of wealth between different segments of society (i.e. from wealthy individuals and/or large corporations), to those taxpayers with less wealth or advantage in the marketplace. Tax policy is also clearly designed to enable, encourage or advantage certain industries and to disadvantage others. In some instances the taxes imposed reward or discourage particular activities, pastimes or
behaviors. In a democracy, it can be said that, taxation essentially serves the ends we as citizens of the Commonwealth of Australia, have decided are worthwhile.

**Tax and its political context**

There are different perspectives on the role of taxation in a modern State. It has been said that ‘taxation is theft’\(^7\). However, if it is ‘a burden’, is it one we could find acceptable? But taxation’s role in our democratic society and how it affects various aspects of our lives should be very familiar. Tax reform and questions about what new taxes might provide funds for certain ‘much needed’ services (e.g. health or education), or how taxes levied can be used to improve infrastructure; all these are issues which are part of the familiar discourse linked to making the tax system work for our chosen ends. But, despite the controversy that proposed new taxes (or their uses) can attract, it may surprise some to hear that in Australia, according to the OECD, we are one of the *most lightly taxed nations in the world* (i.e. 6\(^{th}\) from the bottom) (see OECD graphs below).

**Some tax facts - Our tax burden**

Australia’s tax-to-GDP ratio is low by international standards. In 2013 (Australia’s 2012-13 financial year, the latest year for which comparable international data is available), Australia had the *sixth lowest tax burden of the OECD countries* and has typically ranked in the bottom third of countries since 1965 (when comparable data was first available). Fig 1 shows tax burden over time and compares Australia to other OECD countries. In 2013, Australia’s tax-to-GDP ratio was 27.5 per cent - below the OECD average of 34.2 percent.

The OECD’s measure of the tax burden is the total taxation revenue of Commonwealth, State and local governments expressed as a percentage of Gross Domestic Product (see: http://www.oecd.org/ctp/tax-policy).

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\(^7\) Law lord Tomlin J (in Duke of Westminster’s tax case – 1936) is often quoted as supporting a right to avoid paying tax and a confirmation that that ‘taxation is theft’. But such interpretation have also been criticised, as it misconstrues the intent of the judgement and is often espoused by self-serving, persons whose real purpose is to encourage active tax avoidance schemes.
**Tax burden over time**

The OECD’s annual *Revenue Statistics* report found that the tax burden in Australia increased by 0.2 percentage points from 27.3% to 27.5% in 2013. The corresponding figures for the OECD average were an increase of 0.4 percentage points from 33.8% to 34.2%. Since the year 2000, the tax burden in Australia has decreased from 30.4% to 27.5%. Over the same period, the OECD average was 34.2% in both 2000 and 2013.

**Tax burden compared to the OECD**

Australia ranked 29th out of 34 OECD countries in terms of the tax to GDP ratio in 2013 (the latest year for which tax revenue data is available for all OECD countries). Australia had a tax to GDP ratio of 27.5% compared with the OECD average of 34.2%. In 2012 Australia was also ranked 29th out of 34 OECD countries in terms of the tax to GDP ratio.

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**Fig 1** Australian tax burden over time by percentages and our tax burden compared to other OECD countries (source: http://www.oecd.org/ctp/tax-policy)

**Australia has third lowest level of total taxation on personal income**

Relative to GDP, Australia has the third lowest level of total taxation on personal income in the OECD. This includes taxes on personal income, social security taxes and taxes on payroll. Australia’s tax burden relating to these items (11.2 percent of GDP) is lower than the OECD average (18.4 percent).

**Percentage of different taxes raised in Australia in 2013**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All tax revenues</td>
<td>27.5 %</td>
</tr>
<tr>
<td>Taxes on goods &amp; services</td>
<td>7.8 %</td>
</tr>
</tbody>
</table>
Taxes on income & profits 15.7 %
Social security contributions 0.0 %
Taxes on property 2.6 %
Payroll taxes 1.4 %
Other taxes 0.0 %

As these statistics show, we have room to move. Changes to our system would probably not lead to the sky falling in upon us. As we consider the need to face the challenge to transition to a better economic system (one that delivers greater equity and respects the natural environment’s ecological limits). It is clear that policy shifts are not only possible and desirable, but also the burden we currently shoulder is not in fact monstrous. One may further reflect (noting the graphs above) that Australia is taxed 6.7 % lower than the average for OECD nations. By comparison, the tax-to-GDP ratios for a brace of advanced economies such as Denmark, France, Belgium, Italy, Sweden, Austria and Norway, show they actually have a tax to GDP ratios over 40%. The comparison is interesting as these are advanced western nations.

Our tax system is malleable, it can be reformed; Our democracy empowers us - it can and it should reflect our values and priorities

It is not my intention to argue for particular forms of taxation, with respect to their efficiency (though such questions are important of course). Within our democracy we can and do participate and engage in the debates and/or campaigns for a ‘better’ tax system and better tax administration. However, the need to harness the citizenry to tackle a range of problems has been raised in various international forums. The UN special rapporteur (Carmona 2014) tabled a detailed report on the kind of issues that can be tackled in any principled reform of our tax regimes. Carmona (2014) notes ‘tax is a critical tool for realizing human rights and tackling inequality’. Tax is critical to finance development and can be a powerful tool for stimulating poverty reduction. Clearly where we place the emphasis in our tax policies matters as we can transform the society in which we live. Tax reform cannot only provide governments with higher and more stable revenues, and thereby increase sustainable investment in public services, infrastructure and other much needed development. Tax reforms can also strengthen our social institutions as it combines three critical functions:
(a) the generation of revenue for the realization of rights;
(b) achieving equality and tackling discrimination; and
(c) strengthening governance and accountability.

When looking to engage the public in a process of tax reform (given our current economic trajectory), the ‘endless growth myth’ seems to be leading us astray, since it is becoming clear that it’s both socially and environmentally a dead end. In light of this we should add, another critical function to a reformed tax agenda, which is:

d) redress intergenerational inequity and embrace stewardship and respect for the environment and operating within ecological limits.

Let’s be clear, taxation (when given the force of law) is the compulsory extraction of money by government. Under our Westminster Parliamentary System, taxation is part of the executive arm of government, and is separate from the other two elements: the Legislature and the Judiciary. Under the separation of powers doctrine taxation law, is drafted, debated and enacted. It passes as Bills of legislation through Parliament. Taxation once enacted is administered by public servants. But it is the Minister, holding the executive power who authorises and delegates his/her power to public servants who administer our Australian tax laws. The judiciary’s role is to review how the laws are applied, whether they are administered fairly and to correct ambiguity or strike down unjust laws.

Rather than being simply cast as a form of ‘theft’, taxation does provide opportunities for us (as politically and socially engaged citizens) to shape our society, to re-direct or refocus aspects of commerce and our impact on the natural environment by taxing the ‘bads’. Libertarian thinkers and social commentators may rail against taxation noting it’s ‘like theft because it takes property from the unwilling’. However, when looking at the massive problems we face (and hoping to shift our society to transition to a SSE), we can suggest a more proactive perspective about our choices. We are not hapless victims; we are not defenseless against despotic politicians or lobbyist. Given the problems we face with climate change, environmental degradation and massive overconsumption and waste, it’s evident we can leave the shadows, (cease peering nervously over our shoulders for conspiracies) and
acknowledge how taxation fits within our society and how it can best serve our future society’s needs (and the ecosystems that support it).

John Locke - the ‘Nature of Government’ and the citizen’s role

In the classical liberal tradition, John Locke the British philosopher, said taxation could be seen as theft. In his ‘Second Treatise of Government’ Locke took the position that government authority arises from: ‘the consent of the governed’, and not through the whims of rulers who gain their power through force of arms or an accident of their birth. John Locke’s perspective on government was very influential in England, Europe and in North America in the 17th Century. His views helped shape the concepts of both how and why government/state can and should function. Taxation, as an arm of government, is an institution capable of fostering greater equity and providing a conducive milieu for new industries that foster the kind of communities in which we may all wish to live. Or it can serve narrow interests, advance the agenda of pressure groups (i.e. elites) and encourage poor social or economic outcomes.

In recent years, there has been much discussion over the unfair distributions, the misallocation of wealth, privilege and resources evident in most developed and in many undeveloped nations (Wilkinson and Pickett 2010; see also equity chapter). Such inequality is often justified by writers with ideological perspectives where the status quo is described as the ‘natural order of things’. In fact some social theorists (e.g. Thomas Hobbes) have argued that it is man’s natural state to be ‘restlessly and ceaselessly striving after more and more, never to be satisfied’. In this view, society is made of ‘individuals striving only for themselves’. Neoliberalism seems to echo much of this perspective, where traders in the market may be described, (to echo Hobbes) as in a ‘condition of Warre of everyone against everyone’ (Hobbes 1651).

But many progressive economists and social commentators clearly dispute such perspectives (Klein 2014; Stiglitz 2015) and seek to dispel the inertia and misinformation spawned by ideologies associated with neoconservative economics. Such ideologies simply gloss over and/or ignore many of our real social and environmental problems.
Taxation and a transition to a Steady State Economy

Herman Daly (2012) views that creating a rigid detailed blueprint for changing the economy (and our society) is unlikely to be useful. He outlines instead three aspects of society that need to be changed. These suggestions ‘represent a general outline rather than a detailed blueprint’ and ‘are meant to show that the desirable image of a steady-state economy is feasible’. We make our society and our economy, we are not passive beings pushed hither and thither by irresistible market forces. Economics is a constant companion in discussions around how best to structure tax policy. But economics is a social science, not one of the physical sciences. It does not deliver ‘value neutral’ and testable results based upon unvarying proven laws, yet it may be a useful tool. It is arguably often a blunt instrument in terms of its production of certain and/or predictable results. It is our values and shared aims that must inform our public debates and our reforms of tax policy/laws. We can (and must) respond with dynamism, resilience and adaptation to the challenges involved in changing our economy.

'Fiscal Policy'

Fiscal Policy refers to spending policies that influence macroeconomic conditions. Through fiscal policy, regulators (i.e. government officials) attempt to improve unemployment rates, control inflation, stabilize business cycles and influence interest rates in an effort to control the economy. Daly (2012) also favours use of macroeconomic changes to reshape our economy.

Fiscal policy is largely based on the ideas of British economist John Maynard Keynes (1883–1946), who believed governments could change economic performance by adjusting tax rates and government spending. These ideas still resonate today and are used by government. What is being proposed to change our economic trajectory is not a recipe for chaos. It is not a massive jolt, but a gradual change. Governments, in our modern era, are expected to shape our society using, amongst other measures, fiscal policy. If we focus on what it is we value (and which measures to prioritise), we can begin the process to transition to a better economy. It must be said that in many respects the green shoots for such a transition are already here.
Tax and tax subsidies shifting - Daly’s ‘Three Institutions’

Herman Daly (2012) argues for a framework to guide the process of social transformation:

1. An institution for stabilizing population (transferable birth licenses);
2. An institution for stabilizing the stock of physical artifacts and keeping throughput below ecological limits (Depletion Quotas auctioned by the government); and
3. A distributist institution limiting the degree of inequality in the distribution of constant stocks among the constant population (maximum and minimum limits to personal income and a maximum limit to personal wealth).

It is with particular reference to institutions (2) and (3) that changes to our current tax regime appear to have most useful application. Rather than social engineering, Daly notes the guiding principle for these three institutions is ‘to provide the necessary social control with a minimum sacrifice of personal freedom’ (Daly 2012). This is not a rigid, over-planned, Stalinist approach. Rather, Daly seeks to use familiar aspects of the economy. He notes: ‘These institutions build on the existing bases of the price system and private property and are thus fundamentally conservative’. He also notes that the market has a role to help allocate prices efficiently.

Tax policy change

The removal of tax subsidies from our extractive industries, such as of fossil fuels, mining for metals and other non-renewables has been a popular topic for debate. The longer term aim (under Daly’s framework) is the introduction of a Depletion Quota system to limit the unsustainable use and destructive extraction of our scarce non-renewable resources ( institution 2 above). This is an important plank in moving to establish a SSE. However, such a change can be done incrementally. However, given the kind of upheavals we have faced (the GFC and the Asian meltdown etc.), arguably a time-line of 5 to 10 years may be achievable.

To set up the quota system the government collects revenues from running a bidding process for allocation quotas/ permits. Willing buyers for these non-renewable resources compete for a quota. This is a new source of government
revenue, a new tax. The successful bidders then fill their quotas from mining company purchases. So the policy aim is to reduce exploitation (through-put) and as a corollary of this prices for these resources will go up (a price signal that should reduce use of these resources). A new revenue source for government will arise.

Such control over resources is not without precedent. Governments across the globe use their power to structure and shape various markets for important commodities. Governments in Australia control land releases (this affects land prices and availability). The government currently has auctioned off parts of the radio frequency/digital spectrum. Governments in Australia also impose royalties on various scarce resources. Hence the government uses its sovereign powers (its ownership or control) to effect prices and the production of various kinds of products/services. As a result, governments gain funds from the auctions which enable them to fulfill their other policy aims. Taxation is a familiar partner in these auctions which help shape various markets. Hence government could increase royalty charges on our non-renewable resources (a cost mostly met by the overseas buyers) as a short-term measure, while the design and legislative controls for setting up a quota system are being developed. This would act in effect as a form of a Depletion Quota.

To avoid incoherent variations between States (who normally impose royalties a differing rates) the new higher royalty⁸ might best be left to the Federal government. In Australia, royalties are payable on an *ad valorem* (i.e. a percentage of value) or a *quantum* (i.e. flat rate per unit) basis, depending on the mineral. The best method for the particular resource market (how much demand, how profitable etc.) could be chosen. Work needs to be done on which minerals are most in need of reduction of exploitation, and rates set accordingly. This is a transition remedy, and all nations need to begin to adopt such a policies to reduce material through-put. Such changes (reductions) are already beginning to be accepted as regards the mining and use of fossil fuels., Scientists also point out we must not overfish our oceans and rivers, or over-harvest our forests (as we currently are). Governments can and do manage our economy and how we exploit our non-renewables. This paper has sought to

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⁸ For instance Royalty rates range from 0.35% for Bauxite and 8.2% for Coal mined in NSW, whereas coal seam gas attracts a royalty of 10% in QLD (Minter Ellison, Review of mining royalties in Australia 2010).
outline some important tenets (Daly’s three institutions) which can guide tax reform and reshape our society and our relationship to the natural world.

**Poor tax policy/ good tax policy**

The Australia Institute (an independent think tank) in its article titled why do we subsidise industry, has calculated that the current amount of fossil fuel mining subsidy as $10 Billion annually (AI 2016). They note *Australia paid the highest level of national subsidies* for exploration in the form of direct spending or tax breaks for the fossil fuel industries.

Providing tax subsidies (using tax expenditures, i.e. favoured tax treatment /reduced taxation) for the fossil fuel industry is a policy whose outcomes are highly questionable. The elimination of such tax expenditures means government can find funds to encourage renewable energy systems. Funding can be deployed either directly via grants, or low interest loans or by targeted tax preferential treatment. For instance, a tax holiday can be applied until the chosen business reaches a certain viable size. Hence much change in our economy can be supported by the shifting of subsidies to more worthy purposes (such as renewable energy).

There is a wider issue here related to the exploitation and reckless use of many of our non-renewable resources. The cost of pollution and environmental degradation is usually visited upon the public (and the natural environment suffers). But the detrimental effects are not borne by the industries that create these toxic problems. Joseph Stiglitz (2012) observes:

> A basic principle in economics is that it is better to tax bad things than good things. Compared with taxing work (a productive thing), it is better to tax pollution (a bad thing, whether it’s oil that pollutes our oceans from spills of oil companies, toxic wastes produced by chemical firms, or toxic assets created by financial firms). Those who pollute do not bear the costs they impose on the rest of society.

There are no figures available for the potential size of revenues available from taxing pollution. Australia had a Carbon Price and it generated substantial funds, in 2012-2013 financial year it raised $6.6 billion. It was also a policy designed to create a needed transition (i.e. to reduce carbon emissions) and
some of the revenue gained was spent on reducing transient effects on the populace (i.e. energy cost increases). Australia still has a Petroleum Resource Rent Tax (PPRT) which has operated successfully for many years. It is designed to be imposed on excess profits from the extraction of these non-renewable resources. But despite growth in a number of petroleum and gas ventures, both on and off Australia’s shore, the PPRT has dropped some 24 percent in recent years and is only $1.7bn in the 2014 year.

Oddly several off-shore petroleum and gas ventures will not attract any PRRT Tax. Recent tax office information released shows that: ‘other players in the petrol and liquefied natural gas markets - Shell and Chevron paid no PRRT in 2013-14’ (Aston 2015). Yet Shell made sales of almost $25 billion in the same financial year, paying just $87 million in income tax on taxable profits on $1.2 billion and no PRRT was raised.

However, once we have our priorities clear, it is possible that the lack of revenue to fund various valued government projects might be remedied. Such measures to reduce resource use (institution (2) also can redress issues of inequity (Institution 3 of Daly 2012). Hence a clear effective policy on ‘taxation of polluters’ seems to be a valuable tax reform, a useful policy tool for governments. Daly actually warns that ‘pricing pollution’ (i.e. taxing it) might mean that we mistakenly believe we can factor in its true costs and continue to over exploit these resources. But science can assist here to monitor this, hence, while we transition to a Depletion Quota system, taxing pollution seems a worthwhile interim measure.

**Limitless Growth Economics - not a realistic given the dependence of mankind on natural systems**

Daly (2012) points to some simple but devastatingly erroneous claims of some current neoclassical economists as regards exploitation or use of material resources. In respect of the production of goods, many economists look to measure the productivity of:

*The fund factors, labor and capital, but the productivity of flow factors, natural raw materials and inanimate energy, are seldom even spoken of, much less calculated. This reflects the assumption that they are not really scarce, and that they are free and inexhaustible gifts of
nature. The only limit to the flow of product is assumed to be the capacity of the fund factors to process the inputs and turn them into products. ... The assumption is that in the aggregate resources are infinite, that when one flow dries up there will always be another and that technology will always find cheap ways to exploit the next resource (i.e. the substitute for the last exhausted one). (Daly 2012)

Daly’s quote underscores the unrealistic views implicit amongst many neoclassical economists, that somehow under the current model of growth economics you can ‘assume away the absolute dimension of scarcity’ or (in other words) that ‘current growth economics has uncoupled itself from the world’ (Daly 2012). Such a perspective is clearly delusional and contrary to facts outlined by many branches of established science (Washington 2015).

**Tax Subsidies to encourage renewable energy sources, and promote new industries**

When discussing reducing subsides and shifting support from some industries to other industries, there naturally will be concerns that jobs may be lost and dislocation will occur as and economic activity slows. Yet the Federal government’s own Chief Economist report for 2014 points out how resilient Australia’s economy is, despite its transition away from mining and related industries. This report identifies several key areas where government can use its fiscal policy levers and its tax regime to stimulate and encourage new industries. Some may be surprised to know that it is the services sectors that dominate our economy in terms of both employment and productivity.

In 2013–14, the Australian economy produced goods and services valued at $1.6 trillion, employed over 11.5 million persons, and was home to more than 2 million actively trading businesses. Like most developed countries, the majority of Australian economic activity occurs in Services industries—accounting for 67.8 per cent of GDP and 86.7 per cent of total employment (Australian Industry Report 2014). There are other avenues of economic activity to supplant mining. Our economy is more resilient than we perhaps believed. Its ability to adapt and develop new industries, enhance our service industries and grow new sustainable ones is a positive strategy.
Australia’s economy has changed considerably over a comparatively short time. For instance the share of output from agriculture fell from over a third in the 19th Century to just three per cent in the 2000s. Similarly, the share of manufacturing output and employment fell by more than half between the 1960s and 2000s - output falling from 26 per cent to 12 per cent and employment falling from 26 per cent to 11 per cent (Connolly and Lewis 2010). While Services already accounted for about half of output in the 19th century, its share had grown to 59 per cent by the 1960s and to 78 per cent by the 2000s. Hence, much of our economic output is not reliant on mining, agriculture or manufacturing. Instead services are by far the biggest industry sector.

Agriculture and advanced manufacturing are singled out by the Australian Industry report (2014) as suggested areas for producing growth. But such growth need not be dependent on massive through-put, or unsustainably-harvested raw materials, or unsustainable use of fossil fuels. So it is apparent that other industries are available to take up some of the slack (i.e. provide employment and boost GDP and raise tax revenue) when mining is fading and other wasteful polluting industries are being reduced. An obvious candidate for such new industries is clearly the renewable energy sector.

Given the quality of our science and research communities (and our innovative natures) it seems that many new industries may spring up. Advanced manufacturing, and a decentralisation of industries into our regional centres, are all real possibilities for creating and encouraging (via tax policy changes) new forms of growth. Such can use less energy intensive means of production, less materials used, less water, less energy and they can design products that are longer lasting and are readily fully recyclable. In short encouraging innovative new industries with low environmental impacts (that produce new jobs and replace older industries) are already things we know we can do in Australia, we just need to continue such in the transition to a sustainable SSE. These would be smarter or more creative industries, ones not based on increasing population growth or increasing resource use. At the same time, society must grapple with the problem of consumerism and the advertising that promotes this (see consumerism chapter).
Tax Subsidies for research/innovation.

Support for pure research and for encouraging collaboration between industry and university researchers and innovators is clearly an area that must not be ignored.

Tax Subsidies for agricultural research and new sustainable processes

There are a whole range of agricultural research projects that can advance our lives and produce better quality food (and generate new overseas markets), and at the same time work within the boundaries of maintaining a healthy natural environment. Many of these projects can incorporate less energy, less water usage, and solve a range of environmental problems (e.g. soil quality, disease resistant crops etc.). Available policy tools include university research; tax subsidies for commercialization of new products/ processes. The Clean Energy Finance Corporation (CEFC) seems a good model to follow, since potential projects can be vetted, and get access to low (Government-backed) interest loans, there are other methods too, such as tax expenditure support where taxes for an industry are reduced. The opportunities and possibilities to use the tax regime to assist new industries are real and exciting. Such a favourable use of tax policy can deliver real changes that are transformative for our economy, and create new and sustainable jobs in the long-term.

Shift in tax subsidies and tax concessions/ offsets may provide considerable revenue

According to the most recent figures from Treasury’s Tax Expenditure Statement 2014, the Capital Gains Tax (i.e. CGT) discount will cost us $6.15 billion in 2015-16, $6.84 billion in 2016-17, and $7.6 billion in 2017-18 in lost revenue. This discount (when applied) reduces the normal tax payable on sale of certain assets by 50%. This tax discount is Australia’s sixth largest tax expenditure. This is tax revenue foregone, lost to government.

The Parliamentary Budget Office (at the request of the Greens) estimated that removing the CGT discount entirely (i.e. down to 0 per cent) and grandfathering Negative Gearing (i.e. only changing this tax legislation

A ‘tax expenditure’ is where tax normally imposed on a particular kind of transaction or good is foregone or reduced. Hence revenue is forgone and the targeted activity thereby receives a concession or benefit when compared to the other goods, services or commercial activities!
prospectively, not retrospectively) would raise $22.18 billion over forward estimates (i.e. over next 3 years), and $127.1 billion over the next ten years to 2025-26. It is apparent that the CGT discount and the negative gearing tax benefit can be reformed. Such changes can help fund industry transitions and/or help fund changes leading to enhanced social equity. Other reforms can (per institution 3 of Daly) seek to limit the wealth of some and redistribute, it to others. Such changes may greatly enhance the cohesion within our societies and assist those most in need.

From the foregoing it appears that funds to enable transition to an SSE can be raised and used to redesign and reform our economy over time. This paper has shown the potential funding sources for such a reform, and the kind of policy tools that are available.

**Conclusion – the future is in our hands**

This chapter has sought to demystify taxation’s role in our modern democratic society. Taxation is part of our society’s legal and administrative fabric, and underpins and supports our society/communities and helps structure how our economy functions. Measured and incremental changes to the tax regime and targeted policy decisions (e.g. to reduce material and energy throughput and to tax pollution) in the extractive industries can smooth our transition to a SSE. We can enable our society to choose ways that foster greater equity within society and also provide a conducive milieu for sustainable new industries to begin to flourish, while creating new jobs. What is more, tax policy can be structured so as to encourage us to adopt these behaviors, (i.e. institutions 1, 2 and 3 of Daly 2012) and so as we limit extraction (throughput) and move toward sustainable production as we use goods and services while not overstepping the Earth’s ecological limits.

In short, taxation can help foster the kind of communities in which we may all wish to live. We have explored how taxation can assist a transition to a SSE. Taxation can help stop the bads, and subsidies can benefit the goods. Hence the power to bring about positive change and embrace a SSE is both achievable and highly desirable.

**Positive steps to a SSE**

In regard to taxation and subsidies, the positive steps are:
Tax the bads not the goods. This means a carbon tax (or price), and possibly a landfill tax (Brown 2011) and a rejuvenation of the PPRT. We note re the latter that revenue from this area may be initially considerable, but will decline over time as extractive industries contract.

- Remove subsidies from the bads (e.g. fossil fuels) and apply the revenue gained to foster the goods (e.g. renewable energy, new sustainable industries). Key to this is removing the $10 billion in subsidies that go to fossil fuels in Australia (Elliston et al 2013).

- Move towards a Depletion Quota for non-renewable resources, where the first step is increasing royalties uniformly across Australia.

- Removal of bad taxes such as the CGT and Negative Gearing (which many tax analysts have argued foster inequity).

- Use policy tools similar to the CEFC (Clean Energy Finance Corporation) where low interest loans are advanced to sustainable projects (note they must repay the loans whilst they are gaining access to venture funding support).

References


Chapter 12 - Capitalism and the Steady State: Uneasy Bedfellows
Joshua Farley

Introduction

The impact of human activity on the global environment has become so profound that many scientists argue we have now entered a new geological epoch, the Anthropocene (Crutzen 2002; Steffen et al 2011). Human induced environmental changes may pose an existential threat to human civilization and few scientists believe that business as usual can continue indefinitely. The economic system has played an important role in causing the problems we face, and changes to the system must play an important role in their solutions.

Continuous economic growth has driven excessive resource extraction, fossil fuel consumption and land use change, and hence has been the dominant cause of our environmental problems. Solving these problems requires that we transition to a non-growing, steady state economy, in which throughput or social metabolism (i.e. the rate of resource extraction, energy use and waste emissions) must be non-increasing. Earlier generations of economists foresaw the inevitability of a steady state economy (Mill 1848; Keynes 1991), but society has made no progress towards achieving it. There is significant evidence that the economy has exceeded its maximum sustainable scale, and ‘degrowth’ —a reduction in the physical size of the economy—is now required. However, those who cannot meet their basic needs require additional consumption, and we certainly cannot ask them to sacrifice their well-being for the sake of unborn future generations. If the economy must shrink or growth must end, then the issue of a just distribution of our finite wealth and resources becomes extremely important.

Capitalism is defined by the on-line Merriam Webster dictionary as:

... an economic system characterized by private or corporate ownership of capital goods, by investments that are determined by private decision, and by prices, production, and the distribution of goods that are determined mainly by competition in a free market (http://www.merriam-webster.com/dictionary/capitalism).
It is currently the dominant economic system on the planet, though *almost all countries limit capitalism to certain economic activities*, while relying on the public sector, strict regulations, or hybrid models for others. ‘Neoliberalism’ is an economic philosophy that seeks to allow unregulated capitalism to control virtually all economic activity. An important question is the degree to which a steady state economy is compatible with capitalism, or if society must develop new economic institutions to achieve ecological sustainability and social justice. This chapter explains why a steady state economy is completely incompatible with neoliberalism, and at best an ‘uneasy bedfellow’ with capitalism. The chapter concludes that building new institutions that stimulate cooperation will be more effective than trying to force the steady state economy into a capitalist framework.

**Capitalist Perspectives on the Steady State**

Capitalism is more of an ideology than a practice, since, as pointed out previously, there are no *purely* capitalist economies. The basic tenets of capitalist ideology, and hence its perspective on the steady state, emerge from the paradigm and goals of neoclassical economics (NCE), the mainstream economic theory. Rather than acknowledging limits to physical growth of the economy, the NCE paradigm stresses built in mechanisms that overcome any limits. Its goals implicitly make growth the ‘greatest good’, and failure to grow—hence a steady state economy— the greatest threat. The emergence of these perspectives deserves elaboration.

Prior to the Great Depression and the development of GDP in the 1930s, NCEs paid little attention to economic growth, which only became a focus of economic theory in the 1940s and a political goal in the 1950s (Yissar 2013). The 1940s also saw growing concern over limits to growth (Osborn 1948; Hubbert 1949), leading the government to commission a study—dominated by economists – on material limits to growth (PMPC 1952). The conclusion of this study, and of NCE in general, was that growing scarcity of any resource would trigger a price increase, reducing demand, increasing supply, and spurring the development of substitutes. While individual resources could become scarce, near perfect substitutability between resources would overcome general limits to growth (Barnett and Morse 1963; Solow 1974). Attention to environmental degradation and the loss of natural amenities raised
concerns about ecological limits to growth (Carson 1962; Meadows et al 1972), with the additional problem that such amenities were frequently non-excludable, and hence had no price to signal scarcity (Ayres and Kneese 1969; Daly 1973). Again however NCE concluded that the price mechanism and technological progress could still overcome any limits to growth as long as we created mechanisms for internalizing ecological costs into prices (Simpson et al 2005; Pearce and Turner 1990). NCE in fact became quite scornful of any discussion of limits to growth or of a steady state economy (Solow 1972, 1973; Beckerman 1995; Yissar 2013), and has largely ignored it. Even today, most economic analysis assumes growth is inevitable. For example, the IPCC assumes a baseline growth rate of 1.6-3% per year in the absence of climate change, with the expectation that consumption would increase seven fold by 2100 (IPCC 2014).

Faith in the price mechanism to solve environmental problems arises from the NCE failure to acknowledge complexity. NCE models the economy as an equilibrium system in which human behavior is consistent and predictable, and prices always function as a negative feedback loop that balances supply and demand. The entire field is based on ‘methodological individualism’, which attributes all social phenomena to the actions of individuals and ignores the potential for emergent properties (Keen 2011). Similarly, there is virtually no acknowledgement that ecosystems also exhibit thresholds, significant time-lags between cause and effect, emergent properties and surprise (Gowdy and O’Hara 1995; Farley 2008). This vision of a simple linear world underlies capitalists’ claims that the ‘prophets of ecological doom’ (e.g. Malthus 1798; Daly 1977; Meadows et al 1972; Ehrlich 1968; Ehrlich and Ehrlich 1981) have all been proven wrong (Solow 1972; Simon 1996; Beckerman 1995). Within the NCE vision, a steady state economy is not only unnecessary, but also undesirable. Distilled to its essence, the central goal of NCE is to allocate factors of production towards the economic products with the greatest monetary value, then to distribute these resources towards those individuals who value them most, as measured by willingness to pay, thus maximizing monetary value (Frank and Bernanke 2003). In the words of one neoliberal economist ‘wealth rather than happiness [is] the criterion for an efficient allocation of resources’ (Posner 1985). Over time, the goal is more wealth, hence continuous economic growth. Belief in continuous progress, which capitalists define as ever increasing consumption, has been a central tenet of
Western philosophy since the enlightenment. Finally, there is abundant empirical evidence that when capitalist economies fail to grow, the result is widespread unemployment and poverty. From this perspective, economic growth is a moral imperative (Friedman 2006). In summary, the neoclassical and hence capitalist perspective on the steady state is that it is both unnecessary and intolerable.
Conflicts Between Capitalism and the Steady State

Given the absence of any purely capitalist economy, and the innumerable varieties of hybrid economies undergoing continuous evolutionary change, it is difficult to determine whether some form of capitalism could be compatible with a steady state economy. Some serious problems however suggest major incompatibilities: the drive for capital accumulation, the nature of money as interest-bearing debt, the failure of capitalist economies to price non-excludable resources, and the failure of prices to efficiently allocate non-rival resources.

The central goal of capitalism is to accumulate more capital by investing money or other financial assets in activities that generate a positive rate of return. Most investments are debt-financed, and thus require a rate of return greater than the interest rate (Hudson 2012; Farley et al 2013). Capital accumulation can be the result of increased economic production or redistribution of existing capital, but neither of these is compatible with a steady state. Furthermore, most money is loaned into existence by banks as interest-bearing debt, and is destroyed when that debt is repaid. This conflicts with a steady state economy in three important ways. First, it creates a tendency to systematically ‘discount the future’ (and hence sustainability) because money now can pay down interest bearing debt or be loaned at interest, and is hence worth more than money later (Lietaer et al 2012). Even harvesting a species to extinction can be profit-maximizing if that species grows more slowly than a debt or investment opportunity (Daly and Farley 2010). Second, if the money supply is not increasing, there will not be enough money available to pay back existing principal plus interest. When loans are not being repaid, banks will not make new loans, but will continue to collect (to the best of their ability) outstanding debt, resulting in a smaller money supply, economic contraction, layoffs, and poverty. Money as interest-bearing debt forces a capitalist economy to choose between inherently unsustainable continuous growth and misery (Robertson 2012; Dietz and O'Neill 2013; Lietaer et al 2012; Soddy 1935; Daly 1980). Third, since interest rates and growth rates of capital almost always exceed economic growth rates, capitalism systematically increases economic inequality (Piketty 2014; Farley et al 2013). In a non-growing economy, increasing inequality increases poverty. Curiously, NCE theory has little to say on these topics because its
central models are based on a barter economy in which money is neutral and there is no way to accumulate and invest surplus value (Gowdy 2009; Keen 2011).

A central goal of a SSE is to ensure the continued provision of life-sustaining but frequently non-excludable ecosystem services, ranging from climate regulation to pollination. Non-excludable resources cannot be effectively priced, since individuals may use them without paying. Capitalists are therefore likely to ignore them in their economic decisions. Many economists claim that the monetary value of such impacts can be objectively calculated—which is highly contentious—then integrated into market prices, leading to their optimal provision (Pearce and Turner 1990; Baumol and Oates 1989). However, virtually all resource extraction and waste emissions cause negative externalities. An army of technocrats would need to estimate the monetary values of these externalities. Feeding them back into the price mechanism (e.g. through taxes) would inevitably require political compromises. Since market prices are constantly changing in response to changes in supply and demand, this would be an endless process. Capitalists idealize the market because it allows individuals to freely satisfy subjective individual preferences (Stigler and Becker 1977; Hayek 1945), yet so-called market solutions to the problem of non-excludable resources require collective decisions, centralized information and a central authority. Another option is to declare public or common ownership of resources created by nature, including waste absorption capacity, then allot or auction off the renewable increment to the private sector (Farley et al 2015), but public ownership of the means of production is socialism.

Furthermore, even if ecological costs could be internalized into markets, market allocation in an unequal world can be quite perverse. By many accounts, the greatest current threat to the global ecosystem is agriculture (Rockstrom et al 2009; Tilman et al 2011; Kumar 2010), so if food prices reflected their full ecological costs, they would be much higher. When drought, speculation and ethanol production doubled the price of staple grains in 2007-2008 (Lagi et al 2011; FAO et al 2011), citizens of rich countries scarcely noticed, primarily because food accounts for only a small share of the average household budget, and staple grain prices for much less. For example, where wheat accounts for only 5% of the cost of a loaf of bread, doubling its
price barely affects the price of bread. When wheat prices tripled between 2006 and 2008, US consumption actually increased slightly (USDA 2013). In many poor countries on the other hand, people may spend 50% or more of their income on food, largely in the form of unprocessed staple grains (Anker 2011; Seale et al 2003). In response to the 2007-2008 food crises, poor people dramatically reduced their consumption, causing a major increase in malnutrition and hunger (FAO 2009). In an unequal world, markets may allocate the most important resources towards those who need them least, and raising prices to reduce ecological degradation would force those who contributed least to the problem to make the biggest sacrifices to solve it (Farley et al 2014).

Capitalism may be even less appropriate for non-rival resources. Take the example of information. Though knowledge actually improves through use, capitalism uses patents to make it excludable in order to incentivize innovation. However, using prices to ration access to these technologies reduces their use, and hence their value. The main input into any new technology is existing information, and the cheapest way to develop new technologies is to make that information open access (Kolata 2010; Benkler 2004). Once a useful new technology has been developed, making the underlying information freely available to all maximizes its value. However, in the absence of price rationing, capitalism will not supply non-rival resources. Furthermore, unregulated capitalism provides no incentives to produce technologies that provide or protect public goods. The viability of the capitalist growth model relies on endless technological innovation, which capitalism may paradoxically inhibit. Most scientists work for salaries, and there is no reason to believe they would work less hard when paid by the public sector. Public investment to provide collectively owned non-rival resources reduces costs and increases benefits relative to capitalist approaches (Farley and Perkins 2013; Kubiszewski et al 2010).

In summary, markets deal very poorly with issues of ecological sustainability and just distribution. Herman Daly has long made the case that these problems must be solved before the markets can be trusted (Daly 1973, 1992). Most solutions require collective provision and ownership of nature and knowledge, removing them from the capitalist economy. The growing
importance of sustainability and justice would seem to relegate capitalism to a *shrinking role* in a hybrid economy.

**Prisoner’s dilemmas and cooperation**

Capitalism may work reasonably well for rival and excludable resources, as long as resource extraction and waste emissions are well within the ecosphere’s limits. However, as soon as economic activity threatens to degrade non-excludable ecosystem services and exceed ecological thresholds, important decisions must be made at the social level. Many of the most serious problems confronting our transition to a steady state economy, ranging from climate change and overpopulation to depletion of oceanic fisheries, can be modeled as ‘prisoner’s dilemmas’ (Hardin 1968; Nowak and Highfield 2011).

A ‘prisoner’s dilemma’ occurs when universal cooperation or altruism generates the best outcome for society as a whole, but regardless of others’ choices, self-regarding behavior generates the best outcomes for the individual. Selfish individuals reason that whether everyone else reduces greenhouse gas emissions or no one else does, they are better off as individuals not reducing them. NCE theory and capitalism are based not only on the assumption that people are *inherently selfish* (they care only about their own utility generally measured by their own consumption, though enlightened self-interest will lead them to help someone else if it rebounds in their favor), but also that everyone pursuing their own self-interest generates the greatest good for the greatest number (Keen 2011; Graafland 2009; Gowdy 2009).

Unfortunately, the theory and practice of capitalism seems to make people *less* cooperative, less socially oriented, less empathic, and more selfish. In prisoner’s dilemma situations, economists and economics students are less likely to cooperate than non-economists (Frank et al 1993; Marwell and Ames 1981). Providing monetary rewards for contributing to the public good can undermine people’s intrinsic motivation to do so, in essence making them more selfish (Frey 1992; Frey and Jegen 2001; Reeson and Tisdell 2008; Bowles 2008). People who are wealthy or simply primed to think about money become less social, more selfish, less likely to offer help, less likely to solicit
help from others, less empathic, less honest and less moral, but also more favorable to free market economics and more likely to justify inequality (Vohs et al 2006, 2008; Caruso et al 2013; Piff et al 2012). Capitalism and neoliberalism, together with the policies and cultural traits that have emerged around them appear to undermine the cooperative behaviors required to achieve a steady state economy.

Conclusions

Economics is frequently defined as: ‘the allocation of scarce resources among alternative competing ends’. This definition suggests a clear order in which economic analysis must proceed: identify the desirable ends, identify the scarce resources, and only then determine what allocative mechanisms are appropriate. Arguably, the free market was appropriate when the main economic goal was to increase material consumption in a fossil fuel economy on an empty planet, characterized by abundant natural resources and resilient ecosystems. Human activity on an increasingly full planet now threatens basic life support functions essential to human civilization and even survival, while material consumption has reached unprecedented levels. Sustaining resilient global ecosystems that continue to generate these functions has become far more important than ever-greater consumption. Unless we accept blind faith in technological progress as a solution, we must achieve a steady state economy. It will likely be impossible to achieve a steady state economy without a more just distribution of resources (see Stillwell chapter).

Achieving a just, steady state economy will unquestionably require cooperation, not competitive self–interest. The changes required of a capitalist economy to make it compatible with a steady state are immense, and are incompatible with the attributes that make a capitalist economy desirable. Rather than trying to shoehorn the steady state into the capitalist economy, we should instead be striving to create institutions that stimulate cooperation. Excellent possibilities include revitalized cooperatives (Alperovitz 2005, 2013), reclaiming the commons (Raffensperger et al 2009; Bollier and Helfrich 2012; Weston and Bollier 2013; Barnes 2006; Farley et al 2015), and explicit resource rights for future generations and/or other species (e.g. Earth jurisprudence) (Brown 2008; Burdon 2011). It may be that once we have achieved ecological sustainability and just distribution, the market will be able
to allocate resources efficiently without undermining these higher order goals. Until then however, capitalism and the steady state are unlikely bedfellows.

**Positive steps**

A number of positive steps can be listed in regard to capitalism, being:

1. Take a scientific approach to economics by using current events to empirically test the theories of capitalism and steady state economics. When the theories either fail to explain or else contradict the real world, reject those theories and help build better alternatives.

2. Distinguish between neoliberalism and capitalism. Neoliberalism, or unregulated capitalism, is incompatible with a SSE, while capitalism is not necessarily totally incompatible once the central challenges of ecological sustainability and just distribution have been addressed through collective action. However, the core principles of capitalism do not support a SSE.

3. Strive to create institutions that stimulate cooperation rather than competition. These include revitalized cooperatives, reclaiming the commons, and explicit resource rights for future generations and/or other species (Earth jurisprudence).

4. It will be impossible to achieve a steady state economy without a *more just distribution* of resources (see Stillwell chapter). If capitalism is to operate within a SSE then it must evolve to accept this (possibly via not-for-profit companies, see corporate reform chapter).

5. Strive to live within the carrying capacity of the Earth, which will require enormous reductions in fossil fuel use and material consumption. Have a great time while doing so, so that people can see that an SSE is desirable as well as necessary.

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One of the key arguments against a steady state economy is usually that we just have to keep growth to ‘create jobs’. So ‘fixed’ has the idea become of growth being mandatory for employment, that we forget that it was not always seen this way. The Harrod-Domar model of economic growth (Victor 2008) examines the conditions necessary for balanced growth in aggregate demand and productive capacity. A few years after governments committed themselves to economic growth as a policy objective in the 1950s, Domar stated he was ‘concerned with unemployment and treated growth as a remedy for it rather than an end in itself’. Domar noted that there was hardly a trace of interest in economic growth as a policy objective in the official or professional literature of western countries before 1950 (quoted in Arndt 1978). By the end of the 1950s however, growth had been thrust to the top as apparently the ‘supreme overriding policy objective’. Arndt (1978) notes that ‘more rapid economic growth came to be regarded as a prophylactic or remedy for all the major current ailments of western economies’ whether this was underemployment, inflation, or other issues.

So, for most of our history we managed without growth in terms of employment in our societies. There is in fact no ‘given truth’ that we must have growth to have jobs. Nor should we expect this, for rapid growth economies have not in fact brought full employment. For example, there were more Canadians with incomes less than the ‘Low Income Cut Off’ in 2005 than in 1980, despite real Canadian GDP having grown by 99.5% (Victor 2008). Economic growth in Canada since 1980 has not eliminated unemployment or poverty, the distributions of income and wealth have become more unequal. So growth has helped the rich get richer but it has not meant that unemployment has disappeared. As Daly (2014) notes:

... the falling benefits of growth are all going to the top 1 percent, while the rising costs are ‘shared’ with the poor, the future and other species.

Growth has also exacerbated environment problems (Victor 2008). So can we move to a SSE and still have jobs? Is it possible to do so and even reduce
unemployment? There is some modelling work we discuss later that suggests this is quite possible.

**The productivity trap**

One of the key arguments asserting that we must have growth for jobs is the ‘productivity trap’, explained below (Jackson and Victor 2011). We are used to a world where labour productivity increases. As long as the economy grows fast enough to offset this increase in labour productivity, things go well. But if it does not, then increased labour productivity means that there is less work available in the economy. In other words, if other things do not change, labour productivity improvements mean that someone somewhere loses their job. If the economy slows for any reason – whether through a decline in consumer confidence, through commodity price shocks, or through a managed attempt to reduce consumption – then the systemic trend towards improved labour productivity leads to unemployment. Jackson and Victor (2011) finish explaining the productivity trap:

> In short, labour productivity appears to offer us a means to higher efficiencies in delivering economic output, but by the same token it requires us to grow our economies if we are to maintain full employment. In the language of over-anxious politicians, growth equals jobs. And any attempt to stabilise or reduce economic output – as a means of reducing resource throughput or environmental impact, for example – is viewed as a direct threat to people’s livelihoods.

There are two basic ways to escape the productivity trap in the absence of economic growth. One is to reduce average working hours to share available employment more equitably. Another involves shifting the composition of the economy towards sectors with low productivity growth, such as the service, public and cooperative sectors (Jackson and Victor 2011). As an environmental scientist looking at the productivity trap, it’s easy for me to question the mantra that there must always be productivity increases, so that hence without growth, jobs must decline. Why must productivity always increase? The traditional economic view is that this is an inherent byproduct of creativity (Jackson and Victor 2011), but while humans are creative, it doesn’t necessarily follow that productivity will always (or must) increase. Average annual productivity growth between 1970 and 1995 across the EU 15 nations
was 2.7% per annum (Jackson and Victor 2011). But this rate of growth had fallen by almost a half in the period from 1995 to 2005 (Timmer et al 2007). The possibility of reducing working hours is the simplest and most often cited solution to the challenge of maintaining full employment with non-increasing output. And there is clear precedent for such policies within certain European nations (Golden and Figart 2002). Jackson and Victor (2011) argue that a twin-fold strategy – comprised of work-time reduction and a sectoral shift to ‘green services’ – might contribute to achieving carbon targets in the UK. Their illustrative model shows how such a strategy might maintain full employment even while there is degrowth in the formal economy. Ferguson (2013) argues that state-owned enterprises and co-operatives are two way to avoid the productivity trap.

Moving to a low growth economy without losing jobs

Victor (2008) notes it is possible to develop scenarios for a 30-year time horizon for Canada where full employment prevails, poverty is eliminated, people have more leisure, greenhouse gases are drastically reduced, and the level of government indebtedness declines in the context of low - and ultimately no - economic growth. He uses ‘econometric’ models to show how this could happen. There are some issues with econometric modelling (Diesendorf 2013), but it does provide a glimpse of steady employment under a SSE (if we get the policies right). Scenario 1 is business as usual, scenario 2 is a no growth disaster where growth is ended without planning. Scenario 3 is shown in Fig. 1, and is low then no growth with high investment, where unemployment, poverty, and debt to GDP all decline (and greenhouse gases slightly so). Scenario 4 looks at low then no growth with a higher trade balance, while scenario 5 looks at low then no growth and a carbon price (which reduces GHG significantly). The important point is that all of scenarios 3-5 reduce unemployment, poverty and debt to GDP. Scenarios 3 and 5 (with high investment) are more compatible with a future of renewable energy and energy efficiency. By planning a low growth, then no growth, economy, we can actually reduce unemployment and poverty. A growth economy has failed on both these counts.
Another modelling approach has been that of Graham Turner (2011), who used the ‘Australian Stocks and Flows Framework’ (ASFF) model of the Australian economy. He found that reducing environmental impacts towards sustainable levels is likely to require very substantial changes to consumption, technology and population, but that these would not be enough. This system analysis identified that a ‘crucial further ingredient to sustainability is how our societies deal with economic growth, material wealth, unemployment and the “work–life balance”’. The model examined ways to look at our economy in terms of reaching a sustainable future, where we can have a low growth economy and still keep full employment. Turner states:

> Overall, the combination of low/stable population with both lifestyle and technology/investment changes yields substantial environmental benefits, while managing to maintain individual wealth at contemporary levels … a ‘no growth’ economy that has the highest level of energy, water, food and climate security.

This involved a shorter working week (moving to a three day week by 2050). A shorter working week implies lower income and hence consumption. In approximate terms, material wealth in the modelling returns to about 1970 levels. This does not necessarily mean a reduced real quality of life,
potentially the opposite, as progress can still continue in the delivery of (for example) health, education and communication services (Turner 2011). Turner concluded:

*Achieving sustainability requires a combination of substantial strategies. ... Typically what is required is: stabilised or lower population; reduced household consumption (say, to 1970 material standards in developed countries) along with shorter working weeks (e.g. reaching 3-day weeks by mid-century); and large material and energy efficiency improvements, and investment in ‘green’ infrastructure. This is a formidable challenge, to say the least.*

Brian Czech and Herman Daly (2004) of CASSE International note that in economic discussions, a common qualifier is *ceteris paribus*, which means ‘all else equal’. Ceteris paribus in a steady state economy means a constant rate of employment. The ‘all else’ remaining equal includes such factors as mean throughput per worker, salary, and retirement age. For example, a steady state
economy may have higher rates of employment when throughput per worker, salary, and retirement ages are lower. Ceteris paribus does not mean, however, that each particular job is retained in perpetuity. Economic development continues in a steady state economy so that in the extractive sector, oilfield roughnecks may decrease in number while wind-power facility attendants may increase. In the arts, guitar playing may wax while flute playing wanes. In the sciences, industrial chemists may be replaced by wildlife ecologists (Czech and Daly 2004).

Economist Philip Lawn (2002) argues that while the transition to a steady-state economy would more than likely result in lower levels of real GDP, sustainable economic welfare can still be increased if the constant but evolving stock of physical goods is qualitatively improved over time. The problem with a decline in real GDP is that, under current institutional arrangements, a growth rate of around two to three percent is required to prevent an escalating unemployment rate. This raises the question of how to achieve full employment in a low-growth or steady-state economy? Lawn argues that first and foremost, there is a need to sever the GDP-employment link. Second, a judicious combination of supply-side and demand-side policies is required. Central to this policy approach would be the use of ecological tax reform – a revenue-neutral tax package involving a reduction in taxes on such ‘goods’ as labour, income, wages, and profits and an increase in taxes and charges on such ‘bads’ as resource depletion and pollution. To absorb any remaining unemployed workers, a ‘Job Guarantee’ currently being promoted by some economists could be used in conjunction with an ecological tax reform package. In view of the constraints a steady-state economy imposes on demand-side solutions, Lawn argues it may be preferable for governments to remunerate household and volunteer work to encourage some workers to exit the labour force (Lawn 2002).

In summary, there is no reason to believe that endless economic growth is a prerequisite for sustainable jobs. It has already failed to provide this and failed to end poverty. There are good grounds to believe that a SSE could in fact provide as much employment as we have today (and possibly more). Such jobs may well be more fulfilling than many we have in industrialised countries today (Dietz and O’Neill 2013). The transition to renewable energy will provide many jobs. For example, in the Navarra region of Spain, two thirds of
the electricity comes from renewable energy, and unemployment dropped from 12.8% to 4.8% (Renner 2012).

There remain aspects to be worked out (and mainstream economists could play an important role here), but dismissing a SSE on the basis of the ‘growth for jobs’ myth is a serious mistake.

**Positive steps**

In regard to employment and the SSE, some positive steps are:

- Point out that there is no reason to believe that a growth economy is necessary to provide jobs in society, this is a myth.
- Talk about the fact that the growth economy in fact has not removed unemployment, but rather has made the rich richer.
- Demand (or if you are an employer, provide) that part-time work be an option available for anyone, in any job.
- The SSE may in fact lead to more fulfilling work in society.

**References**


Chapter 14 - De-growth
Robert Perey

The emerging field of ‘de-growth’ is a recent movement addressing the issues of the modern ecological crisis, arising from the industrial revolution, and its potential disruptive impact for organisational and societal sustainability. De-growth strongly criticises the logics that underpin today’s economic systems and continues a long trend of drawing societal attention to the ecological limits of growth that constrain humanity’s cultural practices and activities.

Awareness of the limits of natural systems underpinning our economy was prompted by the Club of Rome research publication ‘Limits to Growth’ (Meadows et al 1972), which despite early criticism of its modelling has proved to be an accurate predictor of the problems we face today (Turner 2008). Recent work by the Stockholm Resilience Centre (2015) on the safe operating levels of Earth System processes (Rockstrom et al 2009; Steffen et al 2015) has found human activity has already breached four of the planetary boundaries: land use change, loss of biosphere integrity, climate change and an overload on the nitrogen and phosphorous biogeochemical cycles.

Humanity’s capacity to significantly alter its ecological system is recognised by a new term that has been proposed to mark a new geological epoch that succeeds the Holocene, the Anthropocene (Crutzen & Stoermer 2000). Whilst not yet formally acknowledged as a new epoch in the geological time scale, as a metaphor that captures the ethos and impact of human activities on the planet, the term has been rapidly adopted and is now in widespread informal use by many people in the public and scientific domains.

In recent times, limits to growth of our current economic activities have been recognised as a significant barrier to the progress of capitalism as we understand this system today (see Farley this volume). The demand on the Earth’s resources has intensified with the rise of consumer capitalism, underpinned by the capability of industrialisation to manufacture goods to meet the need of fulfilling increasing consumer demands. Consumer capitalism’s influence on the global economy has also resulted in increased damage to ecological systems through the rising volume of waste that is also a product of consumer behaviour. The identification and labelling of the
Anthropocene arose due to the negative impact that humans are having on the environment. However, arguably, there is potential for humans to reverse this and have a neutral impact provided they actively undertake change of existing social and economic norms and activities that generate destructive environmental practices.

The De-growth Project

‘De-growth’ signifies, first and foremost, a critique of growth. It calls for the abolishment of economic growth as a social objective. Beyond that de-growth signifies a desired direction, one in which societies will use fewer natural resources and will organise and live differently than today (Latouche 2009; D’Alisa et al 2015). ‘Sharing’, ‘simplicity’, ‘conviviality’, ‘care’ and the ‘commons’ are primary significations of what this society might look like (Kallis et al 2015).

De-growth – understood as a voluntary transition towards a contraction-based economy in line with ecological limitations and greater social equity – is a call for a radical break from traditional growth-based models, and has already made its mark on ecological economics and political theory. As Foster (2011) notes:

As valuable as the degrowth concept is in an ecological sense, it can only take on genuine meaning as part of a critique of capital accumulation and part of the transition to a sustainable, egalitarian, communal order; one in which the associated producers govern the metabolic relation between nature and society in the interest of successive generations and the earth itself.

De-growth is a socio-political project (Latouche 2009) that has a universal aim of creating societies that cooperatively exist within the limits that the ecological systems, on which we depend, can support. Whilst the term is recent, the crystallisation of this idea goes back some fifty years to the claim put forward by Georgescu-Roegen (1971) that the economic system that dominates the modern world is unsustainable because its logic of perpetual linear growth is a physical impossibility. Georgescu-Roegen argued that all economic systems had to account for the natural environment as a self-organising system that did not have the capacity to provide endless raw
materials and resources for human consumption, nor have the capacity to absorb and integrate humanity’s endless growth of waste. An implication of his reasoning for societies, if they failed to rectify their economic systems’ relationships with the natural environment, is they would falter and possibly collapse. This new approach lead to Georgescu-Roegen developing a new framework / theory of bioeconomics (Gowdy and Mesner 1998) that formed the foundation for the new field of ecological economics, from which emerged Daly’s advocacy (1991, 1996) of the steady state economy and de-growth (Latouche 2009).

De-growth is a term that is deliberately designed to disrupt entrained patterns of socio-economic thinking, it is a ‘missile concept’ (Fournier 2008) to stimulate exploration of alternatives to ‘economic growth’. An explicit aim of the de-growth movement is to recreate societies that are radically different to current modern understandings of how societies should be structured and function (Latouche 2009). In doing this, Latouche argues that de-growth goes beyond modernity and challenges the spirit of capitalism. The concept of de-growth does not openly advocate anti-capitalism, it does however, raise questions about the deficiencies of capitalism and whether new forms of capitalism (see for example Andreucci and McDonough 2015) can function within the ecological limits of the One Earth boundary.

One of the interpretations circulating about the de-growth project is that it is aimed principally at the developed world, because the disparities between developed and developing worlds means the latter is allowed some modest growth to ‘improve their lot’. This particular interpretation is one that mirrors the logic of sustainable development and is used to justify the growth of the developing world before this group engages with any form of economic or socio-political constraint (Redclift 1987). Proponents of de-growth argue that this logic of permitting the developing world to continue to grow to reach a level of material wealth that corresponds to that of current developed economies is a false logic, one that remains trapped in the growth paradigm. For the de-growth project, ‘[t]he word “development” is toxic. No matter which adjective we use to dress it up …’ (Latouche 2009), and its current widespread usage remains attached to the defence of the development and growth of the consumer society. With the prospect of humanity facing an environmental calamity, de-growth academics and activists argue that a
different socio-economic model that will operate within the planetary boundaries (Rockstrom et al 2009) needs to be created. This new socio-economic model, predicated on allowing each of us to live within a fair share of the Earth’s resources, is what the developed and the developing world should both strive for. ‘Done thoughtfully, this could lead to more satisfactory and fulfilling lives for all’ (Victor 2010).

De-growth is an important discourse that continues to gain international stature. Over the last half-decade there have been five international de-growth conferences: Paris 2008; Barcelona 2010; Venice 2012; Leipzig 2014; and Budapest 2016. The movement also spawned regional gatherings such as the conference held in Montreal in May 2012 (De-growth in the Americas). These conferences promote a strong interaction amongst academics, activists and practitioners to explore solutions to current ecological and economic structural societal problems, and to rethink what a truly prosperous world beyond growth would be.

A common causal factor shared across the discourses of these de-growth actors is criticism of the current socio-economic system, drawing attention to the structural problems that capitalism, in particular consumer capitalism, poses for our economy. A conclusion advocated by them, is the need to create and implement post-consumer-capitalist economic systems to correct the social problems that stem from mainstream adherence to pro-growth economic logics (Demaria et al 2013).

**Crises in Capitalism**

The aftermath of the financial crisis of 2008/2009, the recent Eurozone crisis, faltering outlooks of economic growth and debt levels of the public and private sector (unmatched since 1929) cast doubts on the success story of the capitalist system that has come to dominate most of the world’s economic policies and activities. At the same time, the ecological crisis of overuse of natural resources, climate change, desertification, loss of biodiversity, peak oil and an ever-increasing ecological footprint appears to be tightly connected with the evolution of consumer capitalism, particularly its ‘dark side’ (for example Banerjee’s (2008) theory of necrocapitalism), and the way it dominates present day business logic.
Consumer capitalism, the strategy to maintain and expand the productivity of the industrial system immediately after the Second World War, is the economic interpretation/understanding that dominates our societies today. The principles of consumer capitalism were calculated and simple: increase the sales of goods by limiting their lifespan. The enactment of this logic would continue to drive the engine of growth, and a philosophy of happiness and contentment was built around this model. Designers took pride in creating obsolescence into the things they made. In addition to material obsolescence, societies have now also manufactured ‘social obsolescence’ through the vicissitudes of fad and fashion (Whiteley 1987).

Whilst consumer capitalism continues to dominate societal behaviour, there are an increasing number of people questioning whether this system can continue, albeit with incremental changes, or whether it needs to be disbanded. In parallel to the ecological crisis there are a succession of economic crises that many people are arguing are indicative of impending systems failure. The conclusion of many, including the advocates of de-growth (for example Swift 2014), is that capitalism is broken and at best in need of repair, but more than likely will need to be replaced.
De-growth Future

To tackle the challenge of the ecological crisis, organisations and societal institutions adopt one of two strategies. The first strategy, and by far the most popular among policy makers and captains of industry, is eco-efficiency for ‘green growth’. Eco-efficiency may be situated in the dominant paradigm of sustainable development, within the market system of free enterprise and a growing base of capital (the ‘business-as-usual’ paradigm). More fuel efficient cars, or cars with alternative engine technologies (like hydrogen fuel cells or batteries) are examples of this strategy. However, the limitations of this strategy are apparent since Jevons gave his analysis of the ‘Rebound Effect’ (Polimeni 2008). The other strategy, and by far the least popular, is limiting growth, creating sufficiency and focusing on services to meet consumer demands rather than products themselves. This strategy has the tendency for less or ‘small is beautiful’ and the economic ideal is that of a ‘steady state economy’: fewer products, less material throughput, maintaining a scale of economic activities that are in line with the limits of a finite planet.

De-growth is not an attempt to stimulate negative growth or static growth but a move to replace growth both conceptually and materially with different language and assumptions about what constitutes a good life, business practices and societal measures of well-being and success. The theme for the third international conference on De-growth for Ecological Sustainability and Social Equity, held in Venice in September 2012, was ‘The Great Transition: Degrowth as a passage of civilisation’. The following quote taken from the conference website captures key issues explored in the chapter:

*There is a lot of concern about the label degrowth in part because it misrepresents the ideas and in part because it challenges the foundations of capitalism and the unchallenged assumption that growth is a reality that must be maintained if human social systems are to function and prosper. The language of living simpler lives and downscaling production and consumption challenge the assumptions of what it means to live a good life. The challenge is to consumer capitalism and as with all human systems the challenge is to those who materially gain from the status quo.*
Among the challenges for organisations and societal institutions posed by de-growth is the need to radically alter some of the assumptions and values that shape the role and processes of business. De-growth is not simply about reducing growth rates, it is about replacing growth as the indicator of success for human endeavour. To stimulate the transition to a post growth society, de-growth aims to ‘open up a space for the inventiveness and creativity of the imagination’ (Latouche 2009).

Social Imaginary

The ‘social imaginary’ is both a concept and practice, which Castoriardis (1987) contends is an all-encompassing enabling structure for the organisation of society:

The imaginary of which I am speaking is not an image of. It is the unceasing and essentially undetermined (social-historical and psychical) creation of figures/forms/images, on the basis of which alone there can ever be a question of ‘something’. What we call ‘reality’ and ‘rationality’ are its works…

Taylor (2004) also argues that the social imaginary is more than a set of ideas. It is what enables the practices of society, and is both defined by (and at the same time defines) the moral order of society. I argue that the social imaginary that frames our decision-making needs to fundamentally change from one grounded in economics to one grounded in ecology – we need to create an ecological imaginary to replace the economic imaginary (Perey 2016) if we are to successfully transition to a post-growth society.

De-growth aims to remove the ‘modern social imaginary’s’ automatic association ‘of growth with better’ (Kallis et al 2015) and one of the emerging actions in the de-growth movement is to explore other ‘ontologies’ or ‘cosmologies’ to facilitate this shift. For example, Thomson (2011) comments on the possibilities of synthesising the aims and ideals of de-growth with the Latin American paradigm of ‘bien vivir’ or ‘good living’, which draws on a plurality of indigenous cultures, and takes a non-western approach to re-creating their social imaginary in innovative ways to overcome the failures of the capitalist system.
A tool to undertake this shift is ‘The Sociological Imagination’ (Mills 1959), a concept that allows us to think about things and familiar routines from new perspectives. Engaging the sociological imagination allows us to see the connections between social structure, individual experience and agency. This enables us to recognize that social problems experienced as ‘personal’ are actually ‘public problems. For example, the wage differences between men and women doing the same work are caused by inequitable social economic systems. It is this process of imagining our world (and creating our world through our processes of imagination) that the de-growth project anchors on (Latouche 2009, 2015). De-growth aims to decolonise the imaginary’s automatic association ‘of growth with better’ (Kallis et al 2015).

De-growth World

The de-growth project calls for a radical reinvention of society at all scales. It means ‘building convivial societies that are autonomous and economical in both the [developed] and the [developing worlds]’ (Latouche 2009). To trigger the process of de-growth, Latouche sets out eight interdependent principles, for what he foresees as ‘the virtuous circle of quiet contraction’. These are:

*Re-evaluate* - the values that shore up competition and replace these with values that support co-operation.

*Re-conceptualise* - understanding reality in a different way, which allows us to redefine concepts such as wealth and poverty, and how to share the natural abundance of nature’s resources.

*Restructure* - re-designing the variety of structures, material and social, to propagate and support the new values system - processes of organising and institutionalising.

*Redistribution* - this is a consequence of restructuring and applies equitable distribution of wealth in all its forms across all societies, developed and developing, and within societies.

*Relocalise* - this is a change of direction in economic and political terms from centralisation to decentralisation.

*Reduce/ Re-use/ Re-cycle* - are processes already underway in the sustainability movement and should be strengthened.
De-growth is a program of economic democratisation grounded in a belief that material growth needs to be replaced by an economy of sufficiency. Such a transition requires significant changes, for example, dramatic reduction in global trade, taxation geared to radical redistribution of wealth and controlling resource extraction (material flow) to operate within ecological systems constraints.

Proponents of de-growth re-imagine a society fundamentally different to that shaped by consumer capitalism, a society that seems counter-intuitive and will initially garner resistance, but one they argue will provide increased well-being for all people and all life on this planet. Their restructuring of society for a de-growth future commences with core ideals which should emphasise *prioritising the local* in everything we do. This includes our places of work, our supply of food, and our access to services and skills that are readily accessible from our homes. This is coupled with a moral imperative to eliminate poverty and destitution through a redistribution of capital in all its forms.

The application of de-growth principles is intended to stimulate the creativity involved in constructing a new social imaginary. De-growth is thus arguably more than simply a transition phase to a ‘beyond growth’ economy. It recognises that the shift in the social imaginary requires fundamental changes to the value systems we organise by, and that this requires moral growth if we are to successfully create a post-growth world. Kerschner (2010) captures this potential and the possibilities that the de-growth movement offers:

*De-growth movements and writers have gone a long way already, when promoting social justice, solidarity ... ‘joy of life’...the pursuit of ‘relational good’ rather than material goods and the cultivation of human relationships ... However this may not go far enough and other immaterial endeavours such as ‘love’ or ‘compassion’, which appear to be too esoteric even for the revolutionary spirit of the de-growth community, might have to be called upon as well.*
Positive steps

- Commit to engaging your imagination to transform the world to create a de-growth society that brings joy to others and therefore you. De-growth scholars and practitioners (see for example Kallis et al 2015; Latouche 2009; Swift 2014) list some of the positive changes that should form the foundations for a de-growth society:
  - Quality of life measured in human relationships immersed in a culture of conviviality, not life measured in the quantity of consumer capital.
  - Prioritising the local in everything. This includes decision-making, the provision of energy, food and the disposal/reuse/recycling of waste. The aim is a high level of community self-sufficiency.
  - Reducing working hours and implementing a social wage to guarantee income to everyone. Associated with a guaranteed income is an expansion of community-defined volunteer work.
  - Allocating resources democratically within and across communities.
  - Revitalising political life by extending the practices of direct democracy at the community level and extending this into the organisation.

As you explore possible futures, use the list above to guide your imagination. Your creative journey will raise many questions and will create multi-scale solutions: individual, organisational and societal, for you and your colleagues to put into practice. Some questions you may wish to explore include:

- What things that I currently have and use can I discard?
- What things do I really need to live a good life?
- What changes to my day to day life would need to be made if I got rid of my rubbish (refuse) waste bin?
- How do I judge the meaningful contribution of others in society?
- How do I undertake and engage in a meaningful contribution to society?

References


Chapter 15 - Voluntary Simplicity and the Steady State Economy
Samuel Alexander and Mark A. Burch

Introduction

*The inner crisis of our civilisation must be resolved if the outer crisis is to be effectively met.*

(Lewis Mumford)

The ‘voluntary simplicity’ movement can be understood broadly as a diverse social movement made up of people who are resisting high consumption lifestyles and who are seeking, in various ways, to minimise consumption while maintaining or even increasing quality of life. These ‘downshifters’, as they are sometimes called, are motivated by a range of personal, social, and environmental goals. It is timely to inquire into what role this movement may need to play in any successful transition to a steady state economy.

In this chapter we examine the notion of ‘voluntary simplicity’ and suggest that any successful transition beyond the growth economy will depend in part on voluntary simplicity practices and values fundamentally reshaping consumer cultures. By doing so, the movement can provide the cultural conditions necessary for a steady state economy to take root. Indeed, we will argue that voluntary simplicity provides some of the cultural, psychological and even philosophical underpinnings of the steady state economy, such that these mutually-supportive movements will need to depend on and shape each other in important ways.

**What is voluntary simplicity?**

Let us begin by more fully defining the core concept. ‘Voluntary simplicity’ is characterised by the practices of mindfulness and material sufficiency (Elgin 2010; Burch 2000). Mindfulness can be understood as critical self-reflection on one’s actions, values, relationships, attitudes, and habits, with the aim of deliberately shaping or reshaping one’s life in accordance with a conscious vision or purpose. By bringing mindfulness to our daily lives, those who practice voluntary simplicity seek the maximum of well-being achievable
through the minimum of material consumption. Well-being applies to all life forms on Earth, not just people.

Sufficiency implies conscious moderation of material consumption to some admittedly flexible limit, discerned by weighing both physical needs and ethical principles. Voluntary simplicity is about seeking and providing enough, for everyone, forever. Given that we live in an age of gross ecological overshoot and growing population, a truly sustainable way of life turns out to be a radical project, going far beyond merely recycling, taking shorter showers, and turning off the lights (see Trainer 2010). To achieve One Planet Living, the practice of sufficiency must replace the pursuit of affluence in consumer cultures, with voluntary simplicity having been defined as ‘enlightened material restraint’ (Shi 2007: 131).

In practice, voluntary simplicity might involve growing one’s own organic food, wearing second-hand clothes, riding a bike, minimising energy consumption and waste, sharing rather than buying, and working less in the formal economy in search of work/life balance and increased community engagement (Grisby 2004). Other practices and perspectives common within the movement include: thoughtful frugality and thriftiness with respect to money; a deep respect for nature (and its limits); a desire for self-sufficiency and financial independence; a privileging of creativity and contemplation over possessions; an aesthetic preference for minimalism and functionality; and a sense of responsibility for the just uses of the world’s resources (Shi 2007). Far from being about hardship or sacrifice, living simply is about living more with less. Of course, the values, perspectives and practices of simple living are diverse, evolving, and always context-dependent.

In essence, then, voluntary simplicity is a personal and collective process of revaluing and re-contextualising the meaning and role of material consumption in the good life. It typically involves turning away from superfluous things and turning toward other sources of meaning and satisfaction that are judged to be more life-enhancing and more consistent with a symbiotic relationship with nature. These practices are also shaped significantly by the structures within which we live, which is why personal action alone (or a mere shift in consciousness) will never be enough to achieve a sustainable world. We also need new structures and systems that support and
encourage voluntary simplicity, as well as an ethical transformation that makes this new conception of flourishing not just workable but desirable.

So how might this approach to the good life relate to the steady state economy?

Voluntary simplicity as the cultural foundation of a steady state economy

It is difficult to establish precisely the size of the voluntary simplicity movement, but the largest empirical study in this area (Alexander and Ussher 2012) has presented a case that as many as 200 million people in the developed world could be embracing lifestyles of voluntary simplicity. This study does acknowledge, however, that there will be a wide diversity of lifestyles within this large demographic, with some participants taking relatively minor steps to ‘downshift’ or ‘simplify’ and others taking more radical steps. Nevertheless, if these people are connected by their attempt to reduce or restrain their consumption – and if they also feel connected – then together they constitute a social movement of considerable collective power and politico-economic import, potentially at least.

Our central point is that the voluntary simplicity movement will almost certainly need to expand, organise, radicalise, and politicise, if a degrowth or steady state economy is to emerge through democratic processes. This is the ‘grassroots’ or ‘bottom up’ theory of structural transformation that motivates
our work. The essential reasoning here is that legal, political, and economic structures will never reflect a post-growth vision of macroeconomic sufficiency until a post-consumerist ethics of material sufficiency is embraced and mainstreamed at the cultural level. Conversely, the cultural embrace of a consumerist worldview will always generate, or try to generate, a macroeconomics of growth.

This may be the kind of reasoning which led Robyn Eckersley (1992: 17) to state that ‘the environmental problematic is a crisis of culture and character’. Indeed, we would argue that the various problems of growth economics could be characterised in much the same way, suggesting that the fundamental causes of, and the solutions to, those problems may lie fundamentally in dominant cultural understandings of prosperity, which are deeply shaped by visions of material affluence. This is not to deny, of course, that many structural changes will be a key part of any transformative steady state economics and politics; it is only to propose that such deep transformation in the legal, political, and macroeconomic spheres will ultimately depend on a broad socio-cultural consensus that deems such transformation necessary and legitimate. We suspect many (and perhaps most) advocates of steady state economics would sympathise with this theory of change (e.g. Daly and Cobb 1994). We do note, however, that within the literature on steady state economics the socio-cultural analysis of consumption has been less developed to date than the economic analyses (but see the chapter on consumerism), and suggest accordingly that this is an area where steady state scholarship could be enriched by a closer engagement with the voluntary simplicity literature. Conversely, the voluntary simplicity movement has much to learn from the structural and systemic analyses of steady state economics.

**Synergies and divergences**

There are a number of more specific synergies between voluntary simplicity and the social arrangements conducive to a steady state economy. There are also some differences and divergences, although mostly these are matters of emphasis, not vision.

First, voluntary simplicity traditionally takes an individual household or ‘microeconomic’ perspective of the good life. Most of the literature about simple living is addressed to individuals and how they can exercise choice
within the scope of their personal lifestyles and families to improve quality of life through reducing material consumption. On the other hand, steady state economics primarily (though not exclusively) offers a set of big picture macroeconomic analyses and policy recommendations. There is often a divergence of scale between these two ways of looking at life, though certainly not a discontinuity of the values that inform both perspectives. Both steady state economists and practitioners of voluntary simplicity care deeply about ecological limits and social justice. Both see conserving ecosystems and reducing inequity as intimately tied up with decisions about consumption. The steady state goal of limiting the scale of the economy relative to the ecosphere would be endorsed by practitioners of simple living.

Second, there is little reference in the simplicity literature to population issues. However, we would suggest that among most practitioners of voluntary simplicity, limiting population as a necessary condition for a flourishing civilisation is a perspective so taken for granted that it scarcely gets mentioned. That said, recognising the challenge and knowing how to resolve it are two separate things, and given the importance of the issue we suggest that the voluntary simplicity movement ought to be more vocal and explicit about population matters. From its earliest formulations, steady state economics has urged limits on human population as a prerequisite for attaining a steady state within Earth’s carrying capacity (Daly 1995). Just how this might be achieved is a continuing topic of discussion and controversy (see the population chapter).

Third, mindfulness practice helps us distinguish material from nonmaterial needs. As we become more skilled at securing appropriate satisfiers for each, we discover that material needs are small and relatively stable over time, thus calling for a small, steady state economy to provide for them. The emphasis in consumer culture on production for affluence derives from its tendency to conflate non-material desires (which are limitless) with material consumption (which is constrained by planetary limits and individual material needs). The insights offered by voluntary simplicity about the limited role material things need to play in a full and meaningful human life, and how to cultivate mindfulness about our consumption choices, offer a powerful complement to macroeconomic policies in promoting overall sustainability and sufficiency in our economics lives.
Fourth, the history and present-day practice of voluntary simplicity illustrate that a high quality of life depends jointly on sufficient material provision and abundance of non-material experiences that contribute to wellbeing. Fortunately, sufficient material provision should be easy to achieve within ecological limits if our economy and marketing methods do not systematically and artificially inflame desire for material goods as proxies for meeting non-material needs, as they do under a growth economy. Once material needs have been met, the extra ecological footprint incurred for meeting non-material needs could be remarkably small if pursued thoughtfully. Practitioners of voluntary simplicity, therefore, provide living examples of the good life that would be possible in a steady state economy. At the same time, without the structures and systems of a steady state economy, living simply is much harder than it needs to be.

Fifth, living within the means of what the planet can provide, as urged by steady state economics, is likely to require a significant shift away from economic globalisation and toward increased localisation. Voluntary simplicity recognises self-reliance and community reliance as key elements of a good life. Cooperating with our neighbours to provide local goods and services contributes to community economic development, so we see that voluntary simplicity has much overlap with other movements too, like the sharing economy (see chapter on this), transition towns, and permaculture. Such cooperation builds economic assets with tools such as local currencies, barter systems, cooperative enterprises, and all manner of production using local labour and resources. These practices also build the dense network of relationships that include, but also transcend, economic exchange relationships.

Psychological research has repeatedly shown that the quality of our relationships is the most important contributor to well-being, followed closely by the quality of our work experience, access to leisure, and physical health (for a review, see Alexander 2015: Ch. 2). Beyond modest sufficiency, monetary riches occupy a distant fourth or fifth place on the list of what makes for a good life. Promoting personal and community self-reliance is highly synergistic with the requirements of a steady state economy.
The analysis of desire

Perhaps the greatest difference between the voluntary simplicity movement and steady state economics is the ‘analysis of desire’ (or lack thereof). For simple living, this analysis is fundamental to a good life. The origins of desire seem to be mostly lacking from economic theory and analysis. Mainstream economics rests on an 18th-century theory of human psychology and motivation that finds little empirical support from modern psychological research (see the critique of the ‘standard economic model’ offered in Schor 2009).

The mainstream or neoclassical discipline of economics claims that people can be forced to modify the expression of their desires through their consumption behaviour. The forcing device is the pricing mechanism, which is driven by those who want to exploit desire to generate profit. But in reality, changing behaviour requires much more than getting the prices right. It requires both inquiry into the nature of desire itself, and further insight or self-awareness on the part of consumers. We need to reimagine the good life beyond consumer culture (see Assadourian 2010) and ask questions about why we desire what we desire.

Certainly people can be coerced to behave in certain ways by creating price incentives for desired behaviour. But another approach is possible that grows from enlightened self-awareness — not just ‘rational’ self-interest. Human behaviour and human societies can change when our consciousness of ourselves and our relationships change, as is demonstrated by other progressive social movements (e.g. civil rights, women’s rights, gay rights, etc.). Since consciousness is at least partly socially constructed, it is through our relationships with other humans, animals, and nature that transformations of consciousness can occur. Therefore, changing the focal length of consciousness through mindfulness practice represents a post-consumerist pathway toward a better life.

There is noteworthy consistency over centuries and across cultures that the choice to adopt a simpler life is usually preceded by a fundamental change in worldview (Wagner 1903: 17). Sometimes this is caused by trauma or loss (Spina 1998), sometimes by deliberate spiritual practice (Kasser and Brown...
Positive Steps (2005), and sometimes it happens as a series of spontaneous insights that lead us to question our previous understanding of what constitutes the good life and to seek alternatives (Elgin 2010; Pierce 2000).

Conclusion and positive steps

We see many deep synergies between a steady state economy and the sorts of policies and social structures that support simple living or voluntary simplicity. Positive steps are:

- Broad acceptance of a steady state economy would appear necessarily to include the cultural practice of simple living, especially if the transition is to be democratic and involve the majority of citizens.
- Voluntary simplicity has much to offer in achieving a steady state economy through its analysis of material desire and its emphasis on the power of mindfulness to transform consciousness in that regard.
- Voluntary simplicity can help us evolve philosophically and psychologically toward wanting what we must (in any case) do.
- Most importantly of all, perhaps, practising voluntary simplicity can help liberate people from the ‘work-and-spend’ cycle, thereby providing people with more time and energy to get active in their communities building the new economy from the grassroots up.

The motivating concern of this chapter was to draw more attention to what role cultural evolution toward voluntary simplicity might play in providing a key driver in the transition toward a steady state economy.

References


Chapter 16 - Could a universal basic income help?
Mike Dowson

Many people have heard of the concept of a ‘universal basic income’. The idea is that every citizen receives from the state an amount sufficient to live on. Models vary, but in most it replaces other forms of support, such as the age pension, unemployment benefit, disability support and parenting allowances. It has supporters and detractors across the political spectrum, and for a variety of reasons.

Supporters on the so-called Right see it as a way to remove inefficiencies from the delivery of social services. Milton Friedman held this view as early as 1962 (Frank 2006). Some see it as a way to remove public services altogether, by providing means for disadvantaged people to consume entirely from the private sector. Supporters on the so-called Left see it as a way to mitigate the destructive effects of poverty, loss of employment, and the cyclic shocks of capitalism.

What’s wrong with the idea?

One objection you will frequently hear is that we can’t afford it. What these critics mean is that they don’t want their taxes to pay for it. In truth, it needn’t cost the great majority of taxpayers anything. If we assume (for the sake of analysis) a basic income for every adult of $23,000, equivalent to the existing aged pension, and half that for every child, the total ‘cost’ of the scheme in Australia would be about 500 billion dollars. It sounds like a lot, but remember this replaces the roughly 110 billion dollars of existing social security spending, with a substantial saving in administrative costs. And without any other tax adjustments, the additional income would lift very low income earners into the bottom tax bracket, and more of the income of all others would be taxable at a higher rate, increasing tax revenue. Some would be returned as GST. But it simply isn’t necessary or useful to add to the net income of already prosperous people. Common sense suggests that the net effect of the benefit should be skewed toward the disadvantaged.

In Australia today, we have the opposite. A huge amount of revenue is foregone through tax concessions on superannuation, capital gains and negative gearing which overwhelmingly go to the richest people in the country
(Douglas et al 2014). More is lost to multinationals, local companies and wealthy individuals who pay little to no tax. OECD (2016) statistics show that closing these loopholes and increasing Australia’s tax revenue just to the OECD average would yield roughly an additional 100 billion dollars. If tax brackets were adjusted so that the net benefit was received in the lower half of income distribution, the basic income would be affordable. Free riders would lose some perks, the less well-off could enjoy greater economic participation, and most others would notice only a general stimulus to the domestic economy, which benefits them as well.

In any case, tax isn’t the only solution. Proponents of modern monetary theory, such as Warren Mosler (2010), show that sovereign governments can, if they choose, increase spending without increasing taxes. In the past, they typically did this building infrastructure, which created jobs and supported growth. Nowadays, thanks to technology, construction is much more capital-intensive than labour-intensive, so this formula no longer works as well. Mainstream economists worry that ‘printing’ money leads to inflation, as occurred in the 1970s, but this formula has also changed. For evidence, look at the last eight years in the developed countries. Low interest rates, massive quantitative easing and yet, low inflation. The natural, non-inflationary limit on a government spending its own currency is not tax revenue, but the availability of real resources. Underemployed people are resources the private sector doesn’t need. Without money to spend, they are also lost to the economy. The recent flood of new money to investors has simply bypassed the productive economy, feeding speculation and asset price bubbles, and leading to greater inequality. A basic income, skewed towards the poor, would go some way to correcting this.

The other frequent objection concerns the value of work. Most people feel a moral obligation to work and frown on those who don’t. For some reason, the rich get an exemption. Work seems to be a kind of atonement for the sin of being poor. Where does this idea come from? Jeremy Seabrook (2013) has observed how European languages reveal the oppressive origins of work. Embedded in word roots are associations with bondage, suffering and even torture. Work, as we commonly understand it today, came into being when hunter-gatherer societies gave way to patterns of settlement. Social systems
grew and organised around the demands of farming, and then industry. We went from small, intimate, self-sufficient social groups to households living in large societies. The needs of the intimate social group, and therefore the ways its members contributed, became bound to factors outside it. We still helped our nearest and dearest, but often by working for someone else.

As these systems grew very large, culminating in the ‘Nation State’ and the multinational corporation, and more human activities were monetised, the value assigned to the things we did was increasingly influenced by events and centres of power at great remove. Today, global markets, technological developments, and big business often determine what individual local contributions are worth. Two further changes have exacerbated this effect. Technology has replaced labour across many industries, and our economies have been financialized. As a result, wealth now comes mainly from ownership, not productivity, and has become highly concentrated. Governments, media and think tanks, sponsored by wealthy private interests, reinforce a notion of work that is purposed, not to the fulfilment of human need, but to wealth extraction and accumulation at the top.

Something similar has happened many times in the ebb and flow of civilisations. It ends when an economy is so top heavy it collapses (Lansley 2011). If overpopulation and depletion of natural resources coincide with this, civilisation itself may be threatened (Diamond 2006). There’s no reason to
believe it won’t happen this time. This is, however, the first time it’s been global.

To *contribute* is natural. Humans are highly social animals. Our well-being is strongly linked to what we do with and for others, and the recognition we receive (Wilkinson and Pickett 2010). But if the nature of the contributions that are valued is determined by distant, exploitative forces, which Marx likened to an ‘alien will’, our well-being loses much of its connection to the people around us. And as even these kinds of jobs are automated, off-shored and casualised, we face insecurity and alienation. If this is stigmatised as personal failure, then individual misery and societal dysfunction are the likely results.

**How could a universal basic income help?**

People are already falling out of the present economic system. Retrenched workers. Bright young people unable to find meaningful work. Children growing up in poverty and others ending their lives that way. None of this is necessary or ‘inevitable’. Human ingenuity and productivity are now so advanced, these tragedies are simply inexcusable. In developed countries, the beneficiaries of inequality would at most suffer inconvenience for these problems to be solved, and would share in the general benefits, as research has shown (e.g. Wilkinson and Pickett 2010).

Unless they are interfered with, natural systems, including human ones, will adapt to new pressures. Just as planetary limits are now putting a ceiling on extractive growth, to provide everyone with basic means would put a floor on how far anyone can fall. Applying such constraints would encourage economic adaptation. Failing that, disaster and chaos will provide the incentive. But there are other reasons for a universal basic income. To allow individuals and, in some cases, whole communities to languish is a waste of talent and human potential that ends up costing us all more in lost opportunity and remedial services. Money isn’t the only thing disadvantaged people need, but it is one important thing.

Some governments prefer programs such as work-for-the-dole. They transfer blame to the victims, which protects the system and hides its failings. Even less punitive schemes that provide, say, incentives for local employers, are
band aids. The trouble with top-down approaches is that they filter the aid through others. Only a portion reaches the bottom, and this reinforces in the target community a sense of failure and dependence on others with means. There isn’t a national solution for every local problem. What the nation can provide, from collective surplus, is enablement for local solutions to emerge. As Schumacher (1973) famously showed, the nurturing of human well-being is partly a question of scale.

There is also a good economic argument. Poor people spend most of what they get, much of it locally. Rich people divert a significant amount into asset price bubbles, speculation and tax shelters. For a time, economic stimulus was achieved by redistributing wealth through secure jobs with good wages. Those jobs have been disappearing and will continue to do so (see Brynjolfsson & McAfee 2014). This is already reducing aggregate demand. Without redress, the whole economy will suffer. It’s too hard now to survive by doing things that are useful, and too easy to get rich just by owning things you never produced in the first place. Undoubtedly, the government could invest more in useful programs. But we don’t need to invent things for everyone to do. Provide people with basic means and let them make up their own forms of employment, in response to local needs. The basic income is not a handout. It’s the nation directly investing in its people. It provides a foundation for people and communities who experience disruption or fall on hard times to help themselves get back up. For those who still have a place in the old economy, it’s an insurance policy.

Preparation for the future?

The long-term potential is even more interesting. If personal survival is assured, and human obsolescence in the old economy no longer results in shame, punishment or ostracism, underemployed people will tend to organise and cooperate to pool resources and start new ventures. In other places, where opportunities are shrinking but this kind of support is lacking, they already practice a less desirable version of it. We call it crime. As global systems, both human and environmental, are placed under increasing stress, connected, resilient local economies will be better insulated from external shocks. And they will have the cooperative skills, social networks and human energy to develop new forms of society, perhaps of the kind envisaged by David Fleming (2016) among others. The universal basic income is a safety valve. If
accompanied by other measures that reduce inequality (see Stillwell chapter), such as taxation reform (see chapter on taxation and subsidies), it pre-emptively recycles some of the vast hoard of unearned wealth which has become a powder keg in the present system back into the productive economy. Its cost is low because there are relatively few rich people who hoard a lot, and a much larger number of poor people who only need a little to make a huge difference.

The real benefit of a basic income is not money but time. What will people do if they don’t have to cling to low-paid, soul-destroying jobs, or tolerate economic dependency in abusive relationships just to survive? This is really a question about how much we trust each other to think and act for ourselves. Much of what we do that is valuable to human well-being is unpaid. The strength, beauty and richness of human culture comes from the time we spend together, caring for children, helping each other and sharing experiences. Only the logic of the growth economy demands that these things be professionalised, bureaucratised and commercialised.

**What’s stopping us?**

Sadly, the conditions in most places are not yet right for the idea to take hold. Few people realise how little human effort is now required to provide essential goods and services. The fragility of the present economic system is not widely understood, and its negative effects are still diffuse or localised enough for its beneficiaries to blame the victims or circumstances. This will change as more people are adversely affected. Other policies are needed to help it succeed. Affordable housing, universal health care, free education, low-cost internet, legal aid and finance for viable new ventures are all important, as well as a fairer tax system that favours productive initiative. Without these, rent-seekers would simply harvest the cash injection to the economy by increasing the cost of services. A few countries are already well-equipped. Australia is most of the way there, but now heading backwards.

Other forms of assistance would also help. Damaged communities require special attention. Communities that are merely depressed, as well as individuals left behind in otherwise prosperous communities, will need mentorship, help to organise, and access to the networks, tools and ideas that others have developed and proven. This kind of facilitation would, of course,
Positive Steps

create more regular jobs. These are challenges to be met, rather than reasons not to proceed. The universal basic income is a sensible step in a safe transition to the steady state economy. It’s not a panacea, but a part of a program to summon the initiative, ingenuity and enterprise that is latent in local communities and emerging cooperative networks. And that needs to be part of a larger program of restructuring our economies. No matter our circumstances, boom or bust, no one should go without food and shelter, nor should they fall into the hands of opportunistic predators, merely to avoid troubling the status quo, especially when it sets us on a path to economic and environmental collapse.

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Section II – Other Positive Steps

Chapter 17 - Sustainable Buildings as part of the steady state economy

Anna Schlunke

Introduction

Buildings are responsible for around 20% of Australia’s greenhouse gas emissions (Climateworks Australia 2013) and 12% of Australia’s water use (McGee 2016), plus 42% of solid waste generated in Australia is building waste (Productivity Commission 2006) and so reducing the impact of buildings to a sustainable level is an important part of the transition to a steady state economy.

Residential Building trends

A 2009 comparison showed that the average size of new houses is larger in Australia than anywhere else in the world. New Australian homes are more than four and a half times the size of those in Hong Kong and almost three times as big as those in the UK (Wilson n.d). Until 2009 there was an upward trend in home size in Australia, but in the years since then the trend has reversed and new homes are close in size to where they were in 2003 (see Figure 1, left hand axis). The average number of people living in a household fell until 2006 and has since risen slightly, but the number of bedrooms per person plateaued in around 2003, so we have started squeezing slightly more people and bedrooms into the same size home (see Figure 1, right hand axis). Average household energy use is projected to remain flat at around 47 GJ/year (36 kWh/day) from 2016 to 2020 (DEWHA 2008). In 2013-14 the average water supply per residential property in Australia was 185 kL/yr (or 507 L/day) and the demand for residential water is expected to rise with hotter temperatures and reduced rainfall (BOM 2015).

Non-Residential Building trends

Non-residential floor area per capita is an order of magnitude smaller than residential floor area per capita, but is projected to grow (Commonwealth of Australia 2012). The average commercial building has an energy intensity of 550 MJ/m² and the current energy intensity trend is flat (Baynes 2015). This energy intensity is roughly twice the residential energy intensity.
Figure 1. Trends in the size of new homes (using data from ABS 2015, ABS 2013 and ABS 2005).

Water intensity for the Commercial and Services sector is 0.85kL per square metre per year (Baynes 2015). This water intensity is the same order of magnitude as residential water consumption.

What is sustainable?

Energy and Materials

As mentioned in the chapter ‘Reducing overconsumption, consumerism and throughput of resources’, a Factor 5 reduction in the use of materials and energy is possible (and necessary). To be equitable and sustainable – so that people in all countries can have the same quality of life as Australians and not use resources faster than they can be regenerated or regrown – we need to reduce our material and energy use to one fifth of what it is now, in other words, reduce by 80% (and phase out the use of non-renewable materials completely). At the same time, all energy needs to be renewable.
Water

Looking at the predicted sustainable yields of major cities (Department of the Environment and Energy 2006), taking into account the reduced rainfall due to climate change we’ve already seen (O’Loughlin & Vidal 2009) and the large portion of the potable water supply that has been provided by recently built desalination plants (Wikipedia 2016) an 80% reduction in potable water use can be justified as necessary if we are to not use water faster than our catchments can provide it.
Residential case study

To investigate what it will take to achieve the energy and water use reduction targets, the NSW Building Sustainability Index (BASIX) tool\(^{10}\) (free to use at BASIX.nsw.gov.au) was used to model energy and water use of an all-electric\(^ {11}\) 200 square metre house located in Western Sydney.

Energy

A number of pathways to an 80% reduction in energy use were investigated and unsurprisingly they all required drastic improvements in most (if not all) areas of energy use in order to achieve the target. For example, the following list achieves an energy reduction of 80%:

Reduce heating and cooling demand with a NatHERS (Nationwide House Energy Rating Scheme) thermal rating of 8.5 stars\(^ {12}\)

- a solar hot water system without any boost (high capacity)
- 6 star air-conditioning with ceiling fans in living rooms and no heating or cooling in bedrooms
- all efficient lighting
- no mechanical ventilation in kitchen, bathroom or laundry

\(^{10}\) The benchmark which BASIX savings are measured against is the average in NSW pre-BASIX. If such a tool were used for the whole of Australia the benchmark would not necessarily be the same.

\(^{11}\) A renewable gas supply is a whole other discussion.

\(^{12}\) Sustainability House (2013) investigated the potential for increasing NatHERS star ratings for a set of existing houses and apartments and found that they could be improved by around 3 stars (from an average star rating of around 2 to an average star rating of around 5) using ‘invisible’ changes. Generally, adding ceiling insulation gained 2 stars and the final star was achieved through changes such as improving glazing or shading. Costs were in the range $1,000 to $10,000.

Increasing thermal performance from 5 stars to 8.5 stars may be difficult in many existing dwellings (where options such as changing orientation, improving solar access or adding wall insulation are not available) and so two other options that would achieve the same impact (a 7% reduction in energy use) were investigated. Two of them are to increase average occupancy from 2.8 to 4.55 (from 66.8 square metres per person to 41.8 square metres per person) or reduce the conditioned floor area size by 73% (from 66.8 square metres per person to 18.2 square metres per person). The first would require a big change to living arrangements – sharing the house, perhaps with extended family or friends but maybe taking on boarders. The second option would require drastic changes to the dwelling such as removal of walls and lighting (turning conditioned indoor areas into unconditioned outdoor areas) – without removing so much roof area that the ability to collect sufficient rainwater was compromised.
Positive Steps

+ no pool or spa
+ best available white goods
+ reduce plug-in energy use by 85\%\(^{13}\)
+ induction cooking (with electric oven).

To get beyond an 80\% reduction in energy use you could try to reduce cooking energy use by 50\% (additional saving of 2.7\%) and then increase the average occupancy from 2.8 to 4.55 (from 66.8 square metres per person to 41.8 square metres per person) to get to a score of 86.5\%\(^{14}\). From there to power the house with solar (and achieve a 100\% reduction in net electricity use) you would need to install a 1.44\(\text{kW}\) solar system, which would require around 2.2 square metres of sunny (north-facing, unshaded) roof area.

**Water**

As with energy, a number of pathways to an 80\% reduction in potable water use were investigated. Reducing potable water demand does not require such drastic changes, because the target was potable water use reduction rather than total water use reduction. One way of meeting the water use target is to install the most efficient showers, taps and flush toilet plus a 25,500L rainwater tank that collects water from 150 square metres of roof area and connect rainwater for all uses. To completely remove potable water demand (for the tank to supply all of the water demand for the house) the tank would need to increase in size to 100,000L and collect rainwater from the entire roof area (which is not always achievable). Alternatively, greywater could be collected from the shower and laundry and used for toilet flushing and garden irrigation. This would reduce the demand on the tank enough to reduce the size required to 54,000L, and wouldn’t require the whole roof be connected (just 75\%).

**Other locations**

This modelling was done in the relatively mild climate of western Sydney. In harsher climates you could expect higher heating and/or cooling energy use, lower rainfall and higher irrigation demand, making it harder to reduce energy

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\(^{13}\) For example, switch from average energy use TV and computer to highest efficiency, plus reduce usage slightly.

\(^{14}\) Note that the energy saving due to increasing the average occupancy is lower when thermal loads are lower.
and water use to the same level. To even out the burden across the country, an average national reduction target could be used that would be made up of lower targets in harsher climates (because their initial consumption would have been on average higher than the national average) and higher than 80% targets in milder climates\(^{15}\).

**Implications for high density housing**

The case study modelled a house. Although units usually have better thermal performance than houses, and are smaller, they have additional energy uses and these tend to increase with the height of the building. These additional energy uses include corridor lighting, lifts, carpark lighting, carpark ventilation and sometimes other facilities such as pools and spas. Another disadvantage of high density housing is that the roof area per person is lower, which will restrict the collection of both sunlight (for solar hot water or electricity) and rainwater.

In the house scenario modelled, approximately 2 square metres of north facing, sunny roof area was required per person to heat hot water and generate solar power. The roof area required to collect sufficient rainwater to reduce potable water demand by 80% was 54 square metres per person and up to 75 square metres per person if all water needs are met by the tank. The low ratio of roof area to floor area of high rise apartments would make it impossible to collect enough rainwater to reduce potable water demand by 80% and so the treatment and use of storm water, greywater and black water would be necessary to meet the water target, and even then it would not always be possible. Although solar energy and/or water (rain water, recycled water or storm water) could be collected off-site and used for high rise developments, this relies on other sites having a surplus of solar energy or water.

**Materials**

Material reduction scenarios were not modelled in the case study, but three factors can be considered to calculate roughly what would be required: building lifetime, building size (in terms of the amount of materials used, not necessarily the floor area) and the proportion of building materials that are

\(^{15}\) BASIX in NSW varies targets with climate.
reused or recycled. For example, one way of achieving an 80% reduction in material use for a building would be to double the building life, make it require 37% less materials (make it smaller) and use 37% reclaimed materials. At a more detailed level, each type of building material could be assessed according to how renewable it is and the energy and other resources used to produce it. The use of materials also needs to be considered when retrofitting houses to reduce energy and water use.

Current Requirements and Rating Systems

**BASIX**

For new residential buildings in NSW a BASIX certificate is required before building approval can be granted (for new dwellings as well as some alterations and additions). BASIX models the dwelling to predict the water use and greenhouse gas emissions. For a BASIX certificate to be granted the proposed dwelling must meet energy and water reduction targets, which are currently 40% or less (the target depends on building type and climate). The dwelling must also meet targets for thermal comfort (how much heat will need to be added to and removed from the dwelling over the course of a year to maintain comfort) which involves predicting heating and cooling loads using NatHERS simulations.

**NatHERS**

The Nationwide House Energy Rating Scheme (NatHERS) is a star rating system that uses accredited software to predict the heating and cooling loads a home (based on its design) and then rates the total (heating + cooling) load on a scale of 1 to 10. Except in NSW (where a BASIX certificate is required instead) a NatHERS rating of at least 6 stars is required to demonstrate compliance with the National Construction Code (NCC) (Commonwealth of Australia 2016). Note that a NatHERS rating does not look at the water use of the dwelling, nor all of the energy consumption (as BASIX does).

**NABERS**

The National Australian Built Environment Rating System (NABERS) compares the environmental performance of a building against its market. It can be used to rate energy use and water use of dwellings, offices, hotels and
shopping centres (it also rates offices for waste and indoor environment). NABERS rates the building against a set of benchmarks developed using national building performance data, using a 6 star scale, with 2.5 to 3 stars representing average performance. A 6 star rating demonstrates market leading performance, while a 1 star rating means the building is performing well below average market practice and has considerable scope for improvement (NSW Government 2011). To be granted a 6 star NABERS rating energy/water (depending on what is being rated) use must be must be reduced by around 80% compared to average performance (Office of Environment and Heritage 2011).

NABERS ratings are generally voluntary, however a NABERS rating and a Tenancy Lighting Assessment (TLA) are required to obtain a Building Energy Efficiency Certificate (BEEC), and most offices of 2000 square metres or more must obtain a Building Energy Efficiency Certificate (BEEC) before they are sold, leased or subleased under the Commercial Building Disclosure (CBD) Program. The Energy star rating must also be included in any advertising for the sale, lease or sublease (AGDEE 2016).

**GreenStar**

The Green Star Rating tool is run by the Green Building Council of Australia. Green Star is a voluntary rating that includes 9 criteria (environmental management, indoor environment quality, energy efficiency, transport, water, materials of construction, land use and ecology, greenhouse emissions and innovation) that can be used to rate residential buildings and a range of non-residential buildings (Milagre 2016).

Although Green Star ratings are not mandatory, the marketing power of the Green Building Council of Australia makes Green Star ratings desirable to developers who want to demonstrate environmental performance. Media reports on recent high profile developments in Sydney (Frasers Broadway and Lendlease Barangaroo Towers 2 and 3) mention Green Star ratings rather than NABERS ratings or BASIX scores. The highest Green Star rating available is 6 star, which is described as ‘world leadership’. However, world leadership does not necessarily mean the developments are truly sustainable. For example, 6 star Green Star ratings have been achieved for buildings with
greenhouse gas reductions that are as low as 25% below business as usual (although most are well above this) and a proposal has been made to increase this to a minimum of 40% (Green Building Council of Australia 2016).

**Discussion**

Sustainable buildings require us to go far beyond what we currently require of new buildings in Australia (currently NatHERS 6 star rating for thermal performance or in NSW BASIX energy and water targets of 40% or below). Setting mandatory reduction targets (relative to a benchmark of the average national consumption before the changes) is important because we need to do more than show a steady improvement - we need to move to what is sustainable, not something ‘more sustainable’. There is more than one pathway for achieving targets and room for innovation, which is why setting reduction targets is superior to specifying technologies or approaches.

Mandatory targets can be applied to new and altered buildings under planning laws by using a tool such as BASIX (and setting higher energy and water targets plus adding a new index to measure the use of materials). To access existing housing stock a different approach is necessary, such as ratings (and retrofits) at the point of sale or a national roll-out of building modelling followed by targeted energy and water efficiency retrofits.

The rating of fixtures (Water Efficiency Labelling and Standards Scheme) and appliances (Energy Rating) has been successful in reducing energy and water use of appliances and fixtures, but the lower-rated models on the market should be phased out through an increase of the minimum performance requirements that must be met before a fixture or appliance can be sold. In particular, if an 80% energy reduction target is set, it is questionable whether any appliance should be on the market that uses more than 20% of the current average energy use for that kind of appliance.

To help people transition, the tax system could support the purchase of building components, fixtures and fittings that are sufficiently effective at reducing energy use, water use or material use. This would help reduce the payback period of water and energy efficient equipment (because there would be tax savings as well as energy and water use savings) and would provide an incentive for choosing building materials that result in low material use (either
through their low material inputs or through their ability to be reused or last a long time). As well as depreciation for business purposes, for personal use, rebates could be provided for certified devices/technologies (that have had their energy, water or material use savings assessed).

The urge to replace inefficient fixtures and appliances with the most efficient models, to replace existing buildings with better designed new ones and to install new rainwater tanks, solar hot water systems and photovoltaic systems must be tempered by the third aim – to reduce material use by 80% (and take into account the embodied energy as well as the operational energy). Clever ways of improving the buildings, fixtures and appliances we already have will need to be found. For example, kits are available that allow the conversion of an existing hot water system into either a solar or heat pump hot water system (saving materials by using the existing hot water system tank). It should also be required that 100% of all non-hazardous building and demolition waste be recycled.

The productivity of buildings should also be considered. A garden can be used to create a more comfortable microclimate, to grow food and to improve health – all without increasing energy or water use beyond what is already used for the standard garden. Homes can also have dual functions, such as reducing the need for office space if work can sometimes be done from home.

What will not be useful in the transition to a steady state economy is an increase in total building floor space, not just because of the extra consumption of materials but because it will be difficult to reduce energy and potable water consumption by 80% for the buildings we already have, let-alone when we have even more. This is especially true if we build more high-rise buildings.

**Positive Steps**

- Government needs to set mandatory targets of 80% reduction in potable water use, 80% reduction in material use and 80% reduction in energy use plus 100% renewable energy for all buildings and a timeline for achieving this.
- To demonstrate how to meet the new targets, demonstration homes need to be built/retrofitted. Ideally there should be, in each major city
and town, examples of new and retrofitted buildings that meet the new targets – before the targets come into effect. Information on how the reductions were achieved should be provided, as well as monitoring of the buildings over time.

- Expand BASIX (or an equivalent program that models energy and water use and compares it to a benchmark) to all of Australia and all building types, and increase targets to 80% for water and 100% for energy, requiring 80% to be due to energy use reduction and the last 20% due to renewable energy. An additional index would need to be added to the chosen program that looks at the material use of buildings and has an 80% reduction target. This program would cover all new dwellings in Australia and substantial renovations.

- Develop tax rules that offer rebates for personal use and allow the counting of depreciation (for business use) for energy, water and material-efficient building technologies that have been certified based on their effectiveness.

- Rate the energy and water use of all existing buildings (either in a planned roll-out or at point of sale/lease) and support/fund retrofits to improve all buildings.

- Strengthen rating schemes for fixtures and appliances by increasing the minimum efficiency requirements to match the 80% energy and water reduction targets and broaden the rating schemes so that they cover the material use and embodied energy of fixtures, appliances and building materials.

- Review planning laws so that building activity switches from expanding the number of buildings (or the total building floor area) to retrofitting existing buildings – stop planning for growth in the number of buildings (number of dwellings and floor space) and start planning for a constant stock of sustainable buildings.

References


Australian Bureau of Statistics (2005), Australian Home Size is Growing, cat. no. 1301.0. See:


CASSE faces perhaps the greatest denial in society, a denial that pretends we can keep growing physically forever on a finite world. Hence we face the critical need for dialogue. We have to talk about reality and the need to change our economy to conform to reality. In society we tend to bandy around phrases such as ‘We should have dialogue!’ as if it is easy, when in fact it is actually hard. It is a truly difficult process to gain meaningful dialogue. I speak as one who did his PhD ‘The Wilderness Knot’ based on dialogue around a polarized and conflicted issue (the confusion and tangled meanings around ‘wilderness’, Washington 2006). I have also helped to organize dialogue seminars on the even more conflicted issue of population for the Nature Conservation Council of NSW (with some success). And of course in the 2014 Fenner Conference on the Environment ‘Addicted to Growth?’ we attempted to open dialogue in regard to the growth economy. However, no issue is as polarized as the growth economy, and probably no issue is harder to gain meaningful dialogue about. Nor however is any issue more essential to gain dialogue about, if we are to reach a sustainable economy and society. People always ‘talk’, and differences emerge, but with skillful conversation we can move to a meaningful dialogue, rather than just a head-buttting debate.

Listening

Jack Zimmerman and Virginia Coyle (1996) note:

*Have you ever noticed what happens when you really listen to another person or to a creature rustling in the brush at night or the wind moving in the trees, listen without reacting or even the intention to*
respond, listen without being influenced by long-held images and memories or firmly held positions, listen instead with a beginners mind and the ears of a child hearing a bedtime story? ... Most of us rarely listen that way. In ordinary dialogue or group discussion our response usually begins to form well before others are finished speaking. Even in nature’s indomitable presence, a self-involved mind will veil the ears (and the eyes as well) from what is actually happening to us.

When we listen to others, we often form resistances and barriers to them and to what they are saying. Have you ever examined how you listen? To listen without resistance we should:

- Try listening to other people without resisting what they say or what they seem to want.
- Let their words flow through you. Notice what comes up in you - do you resist? React? Judge? Do not give weight to your reactions, simply observe them, saying ‘now this’.
- Practice letting go of any tension or resistance that comes up. Remember to breathe. Let there be space to hear what they might actually be intending (Isaacs et al. n.d.).

Dialogue in different societies

Mary Clark (2002) in ‘In Search of Human Nature’ observes:

*Once, at a conference of futurists, one of our group, a Navajo who also happened to be a physicist at the Los Alamos Laboratories, was asked how his tribe solved its problems. Well, he told us, we talk, all of us together, men, women, kids, everybody. How long does it take, we asked? As long as it takes; up to nine days, I’ve experienced. How long each day? Oh, we don’t stop. You mean you go nonstop, for nine days and nights? Yes. The children snooze; people leave briefly to prepare food or relieve themselves; but the talking continues until everyone has had her or his say, in full, and the whole group is now thinking with “one mind”.*

Clark notes:
Even now, at the beginning of the twenty-first century, local dialogue within traditional communities is the way that people still make their political and economic decisions and settle their conflicts. These are still the habitual practices of villagers in India, throughout most of Africa, and among Native American tribes.

To which one could add Australia as well. As Clark (2002) explains, there is simply no substitute for face-to-face dialogue in groups to resolve human conflict and adapt cultural beliefs to changing circumstances. This is what a growing number of peace-makers and others convergently have agreed upon. Dialogue must occur at many levels between participants; they must meet in small groups who get to know each other, and continue meeting over a long period of time. She points out that we have a problem trying to get dialogue due to modernist worldview suppositions or assumptions. This worldview assumes that its assumptions are the only ones which are publicly held acceptable for use in public discourse in decision-making. In other words, Clark explains that the theories of Western political economists about human nature, human behavior, and the ‘ideal’ society have become sacred ideas – beyond discussion, beyond question. They are the ‘Holy of Holies’, the national religion, and no one dares to question them. Hence why CASSE faces such a difficult task in regard to dialogue about the SSE.
We also have a problem with denial and its aspect of *cognitive dissonance*, the sick feeling we get when we realise our cherished beliefs are not backed up by reality (Tavris and Aronson 2007). Clark argues that the West today, particularly the United States, seems to be suffering from an extreme case of such dissonance-avoiding blindness. Maverick economist Richard Norgaard (1994) argues that public dialogue in the West is being hog-tied by the beliefs and assumptions underlying the accepted worldview. Recent generations have been taught that economic efficiency, achieved through unbridled competition, is the prime national ‘good’; that only ‘scientific’ data about even the most complex issues should be used by decision-makers; and that technological ‘solutions’ exist for every problem.

Clark points out that our society has a *failure of social skills* that makes dialogue difficult. She argues that the process of inclusive dialogue, so common throughout most of humankind’s past, requires social skills *now largely missing* in Western (and Westernizing) societies. In particular, she refers to the practice of dialogue in daily life, for both the resolving of inevitable (often necessary) conflicts, and the political activity of adaptive social change. Clark concludes that when there is injustice, the goal is to heal the rift, not to allocate blame. When there is difference of opinion, the goal is to take every side into account. She concludes:

> That so many Western thinkers have not understood this and dismiss community dialogue as an effective means of politics is an indication of their limited conceptualization of the possibilities of human nature.

The chapter on ethics reflects on this failure to understand human nature by neoclassical economics, which sees people as just ‘selfish users’. Clark’s conclusion is that participatory dialogue of some form has been the surest means of adapting successfully and without violence throughout human existence. She argues that a natural next step to the above group- and community-promoting curricular changes has been the introduction of *formal dialogue skills* for use in daily social intercourse. Such a solution may be essential if we are to gain dialogue on the biggest of taboos – the growth economy.
My own involvement in dialogue

Through a PhD on wilderness (Washington 2006), I have come to realise that the standard of society’s dialogues about itself is poor. Most of us look out from the ‘glasses’ of our worldview/ ethics/ ideologies, and fail to provide mutual respect or true listening (profound attentiveness) to engage in meaningful dialogue. I realized fairly quickly that a ‘miscommunication spiral’ often operates about polarized issues. Communication by emails can aid such miscommunication.

This is something that CASSE should understand. There are so many issues involved in the growth economy and the SSE that extensive miscommunication is bound to be involved. So we should not assume that we are talking about the same ‘apples and oranges’, as different meanings to the same terms also complicate this topic.
Why do people enter into dialogue? In general I have tended to assume it is a ‘good’ in itself. However, more specifically, people enter dialogue to give others the benefit of their understanding, but also to understand others perspectives and what motivates their actions, what they ‘really mean’. In my PhD I noted (note that TO equals Traditional Owner):

What was learned about dialogue on wilderness contributes to reducing confusion, especially between TOs and conservationists. The need for ‘profound attentiveness’ (true listening) and ‘mutual respect’ argued by Clark (2004) was confirmed here. It was also found that dialogue is not for everyone, as there are those who will not wish to take part. Dialogue is for the open-minded, who are willing to meet part-way. Intolerance seems common (to varying degrees), and fanaticism also occurs. Both of these are the bane of meaningful dialogue, and much of the dialogue process consists of seeking to avoid these. Dialogue also requires time, energy and enthusiasm to succeed.

Dialogue ... ideally would mean an end to fanaticism, polemics, and the setting up of ‘straw people’ (fallacious arguments). Dialogue, however, will not remove all the tangled meanings and confusion, as there will always be those who do not want dialogue. When representing a particular organisation, people seem to talk in polarised terms, using absolutes, and dialogue again suffers. If we really wish to reduce the confusion around ‘wilderness’, then dialogical activism needs to move society’s (including the conservation and academic) mind-set much further towards seeking meaningful dialogue. Part of reaching this is moving towards mutual respect and listening, and away from disrespect and denigration. Dialogical activism seeks to move the debate almost totally towards respect, both for people and for the land. (Washington 2006).

Going through the PhD process taught me that dialogue is not for everybody. Not everyone will listen or show respect. And for those people, you probably can’t have dialogue. Some people don’t want dialogue, for their own reasons, and will resist or oppose it. However, it also became clear that you don’t need to have dialogue with everyone to actually ‘act’ as a society. The respectful,
listening majority can leave the polarised group behind, and together act to change things. To do this however, we all need to move past our own individual and group intolerance. This is often difficult, and thus polarisation continues. Each polarised group then tends to conduct an internal monologue within itself (justifying its position). People tend to dismiss the other, and label them as ‘the enemy’ and their ideas as ‘nonsense’. Successful dialogue involves stepping outside comfort zones and ‘given truths’. This requires an effort on everyone’s part. Less common but more serious is ‘fanaticism’, defined as ‘extreme and unreasoning enthusiasm’ for a cause (Macquarie Dictionary 1981). The fanatic is almost inevitably intolerant of any differing view, as he or she does not apply rational thought. I am not speaking just of devotion to, or enthusiasm for, a cause. Most activists rightly feel such zeal, it is when it ceases to be amenable to rational argument, that it becomes fanaticism. This can be manifested on any side of a debate.

I found that dialogue takes time, energy and enthusiasm, which makes it tiring. The load needs to be shared around, otherwise the key organiser may burn out. Accordingly, you need a committed group seeking dialogue, so that tasks (and expertise) can be shared. So, to reach a SSE we must have meaningful dialogue, and to date not a lot has occurred. Mainstream economic faculties have ignored the brilliant and insightful writings of Herman Daly and other advocates of a SSE. CASSE NSW has also run up against this barrier again and again. However, I believe we are slowly making progress, as each time we talk about it the denial decreases and the dialogue advances. Books such as ‘Enough is Enough’ (Dietz and O’Neill 2013) and ‘A Future Beyond Growth’ (Washington and Twomey 2016) assist in this, and we hope this book will continue the dialogue. Join us!

**Positive Steps forward**

In regard to the problem of denial and gaining dialogue to move past this, there are several positive steps:

- Be aware that denial is very common and all of us can slip into this human habit, we may ourselves, so may our friends and family.
- Dialogue beats denial, so talk about the insanity of an endless growth economy and the SSE as a solution.
• But don’t be angry, self-righteous or judgmental (all these switch people off!). Ask someone who disagrees if he/she would enter into dialogue about this. Ask them ‘What would it take to change your position?’ as such questions can get someone to consider their own denial.

• Approach dialogue via ‘true listening’ and ‘mutual respect’ (and let others know that these are prerequisites, along with an open mind).

• Urge the introduction into the school curriculum of ‘formal dialogue skills’ so that children learn how to resolve issues through discussion.

• Admit CASSE doesn’t have all the answers, hence why we need dialogue.

• Start your dialogue perhaps with the question ‘Do you think that on a finite planet one can continue to grow physically forever?’. If they don’t then there is room for dialogue. If they do (and remember some people are convinced they know the truth!) then move on to someone who will consider dialogue.

References


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Chapter 19 - ‘Decoupling’ – a desperate need and/or the excuse to continue business-as-usual growth?

Haydn Washington

‘Decoupling’ is a much-discussed term. If we grow our economy by becoming *cleverer* or more creative in the way we do things, then this is fine in a SSE, which states that growth should not occur by population increase or increased throughput. To what extent can this proceed? A ‘service economy’ is often portrayed as easily decoupling economic growth from environmental impact. However, this is a fallacy, as any growth in population or artefacts (houses, infrastructure) *must* increase environmental impact. So we can seek to limit throughput of resources from the production end by Depletion Quotas and higher severance taxes. However, we can also take action from the consumption end. We often hear of ‘dematerialisation’ of the economy, and the need for the highest possible decoupling of the economy from resource use. It is certainly praiseworthy to use *less materials and energy* to make a product. We all agree on this, as it seems a no-brainer (provided business can afford to do this). It has been argued by CSIRO scientists that Australia can decouple its way to sustainability (Hatfield-Dodds et al 2015). However, this chapter looks at whether decoupling has been *co-opted* as a term, that its use gives the impression of real change, while actually allowing the growth economy to continue.

*Decoupling* means that we reduce the amount of materials and energy used to make a unit of GDP. How far can we go with this process? Many nations are wasteful in their use of both energy and resources. A key part of dematerialisation is the realisation that we can *use much less energy and materials* and still have a similar quality of life. This has been variously called Factor 4 (use only 25% current energy and materials, von Wieszacker et al 1998), Factor 5 (use only 20%, von Wieszacker et al 2009) and Factor 10 (use only 10%, http://www.factor10-institute.org/). Factor 4 or 5 is certainly possible (if difficult). Business can make a major contribution here by adopting a goal of Factor 5 in their use of materials and energy (e.g. supply chains etc.). Sustainable building can vastly reduce material and energy use also (see chapter on this). However, there is then the idea of whether we can *totally decouple* our economy from resource use as the ‘Green’ economy proposed by UNEP (2011) argues. This speaks of 100% decoupling of
Positive Steps

economic growth from impacts. But how successful have we been in reaching it?

Now it can be said that ‘growth’ is perhaps compatible with the SSE if the growth is non-material (and not caused by population growth). Indeed, it may be fairly said that the key feature of the Green, Circular and Blue Economy models is that they are advocating a ‘decoupling’ of the economy from material and energy use (Twomey and Washington 2016). UNEP (2011) argues that: ‘the central challenge … as we transition to a resource and carbon constrained world, is to decouple growth absolutely from material and energy intensity’. Similarly, in advocating the Circular Economy, Ellen MacArthur also clearly highlights the central role of decoupling:

*The concept of the Circular Economy is rapidly capturing attention as a way of decoupling growth from resource constraints. It opens up ways to reconcile the outlook for growth and economic participation with that of environmental prudence and equity* (Weforum 2015).

Some Australian CSIRO scientists argue that major decoupling (as high as 90%) allows the Australian economy to keep growing at least to 2050 (Hatfield-Dodds et al 2015). In their scenario, population was planned to grow to 36 million by 2050, but environmental impact was reduced by a strong carbon price (yet this tool was dropped by the current Coalition government), carbon capture and storage (a dubious technology, Washington 2015), massive
tree plantings (for which no policy exists, in fact clearing is increasing across Australia) and eco-efficiency gains in using less materials and energy (i.e. Factor 5 and supply chain strategies). The political climate to support such policies does not exist, but if it did it would essentially be putting off impacts until 2050, by which time they will be greater. Lensen et al (2016) note that success in reducing carbon emissions is much more likely if we include strategies to reduce affluence and population (which Hatfield-Dodds et al 2015 ignore, along with the need to change worldview).

The idea of achieving sustainability entirely through significant increases in resource efficiency is also behind the concept of ‘Factor 5’, described in a 2009 book of that title by Ernst Ulrich von Weizsäcker and an Australian team at The Natural Edge Project (von Weizsaker et al 2009). They argue for an 80% improvement in resource efficiency (i.e. Factor 5) as a panacea to resource and ecological constraints, apparently without requiring significant changes in current consumption levels or population growth.

However, is major decoupling realistic or even possible? Almost all economic production requires the transformation of raw materials (Costanza et al 2013), with consequent environmental impact. Thus, the scope for de-coupling growth in production and consumption from environmental degradation is not boundless, and often the decoupling is unable to keep up with continuing growth (Naess 2011). Victor (2008) notes decoupling slows down the rate at which things get worse, but does not turn them around. He notes further that some modest decoupling of material flows occurred in some industrialised countries from the mid-1970s to mid-1990s, but total material throughput still increased. Despite increases in efficiency, decoupling GDP and throughput has yet to manifest itself as an increase in GDP combined with a decline in throughput (Victor 2008). Similarly, Matthews et al (2000) found no evidence that moderate decoupling led to absolute reduction in resource throughput, and Wijkman and Rockstrom (2012) concluded the same. Most recently, Victor and Jackson (2015) note that while there has been some ‘relative decoupling’, any serious absolute decoupling is not evident. The Australian study that promises ‘Australia is “free to choose” economic growth and falling environmental pressures’ (Hatfield-Dodds et al 2015) would thus seem to at best wildly optimistic, and at worst providing the ‘weasel words’ that allow business-as-usual growth to continue. It is notable that most of the actions they
propose are not supported by the Federal government, making their strategy unworkable.

So to date it seems impossible to fully decouple economic growth from physical impact. Some forms of positive increase in GDP - that don’t rely on population and increased throughput may continue under a SSE - though these should more properly be called ‘economic development’. However, talk of ‘100% decoupling’ may just be wistful thinking that allows ‘business as usual’ growth to continue. Daly (1991) believed it was an illusion to think that growth could continue by becoming ever less materially intensive and service-oriented, and Czech (2013) concurs. Welzer (2011) concludes that the decoupling debate maintains the illusion that we can ‘just make minor adjustments’. Washington and Twomey (2016) are concerned that decoupling has become a ‘sleight of hand’.

A major problem is the distraction caused by partial solutions, such as the challenges represented by ‘decoupling’ measures as discussed by a Panel of the United Nations Environment Program (UNEP 2011a) and in the ‘green economy’ proposed by UNEP (2011b). Rather than wishful thinking about absolute decoupling, what is most needed was a major paradigm shift (which Hatfield-Dodds et al deny the need for). The plain truth is that partial solutions are only of value if they are related to and part of a comprehensive move to an overall sustainable system. Decoupling is essentially a ‘damage limitation approach’ which unfortunately has the effect of assisting those who wanted to continue with ever increasing economic and population growth – acting as a license to keep on growing (Mosley 2016).

**In summary**, of course we must decarbonize and dematerialize our society as quickly as possible, and to the greatest extent feasible. That means we should support Factor 4 or 5 as a goal, and this would help decouple economic growth from CO₂ production and material use. This is the goal of the Green and circular economies, and indeed it is a first logical step in a SSE. The problem is that the Green and circular economies don’t take other steps and do not challenge overpopulation, overconsumption and endless growth. The ‘decoupling’ term, especially 100% or absolute decoupling, has become a ‘magic bullet’ that allows society to stop worrying about growth, at least for a few more decades (this is essentially what the CSIRO study proposes). I am
Positive steps concerned that this approach has been coopted by the endless growth mantra, that it is the latest ‘buzz word’ to slow or stop any real change in the neoclassical economic growth system. It risks becoming window-dressing that avoids any real change. I believe that risk is rapidly becoming a reality. I also note that recently Switzerland voted on a circular economy proposal with decoupling as its key strategy, yet this resulted in only a 38% yes vote, and hence failed. Any such vote in Australia would similarly fail. So ‘absolute decoupling’ may sound good, but in essence it is becoming a denial tool, a way of avoiding facing up to the need for major change. Decoupling must occur in a SSE, but as a ‘stand-alone’ strategy it fails to create real change and thus aids denial.

Positive steps to a SSE

In regard to dealing with the decoupling mantra, positive steps are:

- Continue to decarbonize and dematerialize products, to use fewer resources, and use less energy in their creation.
- However, don’t accept this is all that society needs to do (the ‘soft and easy’ approach), otherwise we slip into denial of the overall problem.
- Reverse consumerism and discard the ‘shop till you drop’ ideology and instead advocate the ‘thriftiness’ and ‘waste not, want not’ philosophy our grandparents lived happily with (see consumerism chapter).
- Change worldview and ethics in terms of how we use so-called ‘resources’ (see worldview and ethics chapter).

References


Chapter 20 - A note about debt

Haydn Washington

We live in a global ‘debt bubble’, where debt is rapidly increasing around the world. There have been other debt bubbles historically. One of the most famous market bubbles of all time occurred in the Netherlands during the early 1600s, when speculation drove the value of tulip bulbs to extremes. At the height of the market, the rarest tulip bulbs traded for as much as six times the average person's annual salary. The tulip was brought to Europe in the middle of the sixteenth century from the Ottoman Empire. Holland's upper classes soon competed for the rarest bulbs as tulips became a status symbol. By 1636, tulip bulbs were traded on the stock exchanges of numerous Dutch towns and cities, encouraging all members of society to speculate in the markets. Many people traded or sold possessions to participate in the tulip market mania. Like any bubble, it all came to an end in 1637, when prices dropped and panic selling began. Bulbs were soon trading at a fraction of what they once had, leaving many people in financial ruin (Investopedia 2016). There have been other debt bubbles since then, such as the Mississippi Bubble (1719-1720), and the South Sea Bubble (1720). The most famous of course was the Bull Market of the Roaring Twenties (1924-1929), which ended in the Wall Street Crash that brought in the Great Depression (PBS 2016). The thing to understand about debt bubbles is that they always burst.

Surprisingly, it’s quite hard to find out a consistent figure for world debt when one searches online. In 2013, the total indebtedness of the world was stated to be $223.3 trillion: including all parts of the public and private sectors, amounting to 313% of GDP. Global central bank balance sheets have gone from $6 trillion in 2007 to $21 trillion - and they are still being expanded at the pace of $200 billion of debt every month (Clements 2016). The International Monetary Fund (IMF) comes up with a smaller figure of world debt of $152 trillion, stating it is 225% of global GDP, with the private sector responsible for two-thirds of the total (Guardian 2016). Bloomberg (Phillips 2016) states that world-wide debt load has increased to $200 trillion, or nearly three times the size of the entire global economy. So world debt is at least $150 trillion but more likely to be above $200 trillion, or three times the size of global GDP (Reddy 2013). And it is still growing rapidly.

One market analyst has stated about the current debt crisis (Clements 2016):
Since the financial crisis a market bubble has been created by the world's central banks, which have flooded stocks in the hope of stimulating an economic recovery ... But now this bubble is set to burst, which will mean the total collapse of financial markets across the world, the Wall Street expert warned.

China is a key crisis point as its debt-to-GDP ratio has soared from 150% to nearly 260% over a decade, the kind of surge that is usually followed by a financial bust or an abrupt slowdown. Roughly two-fifths of new debt is swallowed by interest on existing loans; in 2014, 16% of the 1,000 biggest Chinese firms owed more in interest than they earned before tax. China requires more and more credit to generate less and less growth: it now takes nearly four yuan of new borrowing to generate one yuan of additional GDP, up from just over one yuan of credit before the financial crisis. With the Chinese government’s connivance, debt levels can probably keep climbing for a while, perhaps even for a few more years. ‘But not for ever’ as the Economist (2016) notes.

The collapse of the debt bubble (perhaps first in China) could cause many banks and businesses to crash, perhaps creating a new Great Depression and hence major social dislocation. Yet governments continue to allow GDP to increase through the creation of more and more debt, and worryingly, most of society seems to be in denial of the looming threat.

Nicole Foss (2012) has written about past debt bubbles and the coming debt bubble collapse and notes that:

The fancy “financial instruments” that trading banks and investment banks have invented in the last 30 years created virtual wealth as markets bid up the price of assets. But when a bubble bursts, panic sets in and prices plummet. The financial system is rather like a game of musical chairs. When the music stops there are 100 people claiming each chair because the amount of credit in circulation far exceeds the available assets.

Foss (2012) has a checklist advising people about how best to bolster their lives during a debt bubble crash:

- Hold no debt.
• Hold cash and cash equivalents (short term treasuries) under your own control.
• Don't trust the banking system or deposit insurance.
• Sell equities, real estate, most bonds, commodities, collectibles.
• Gain some control over the necessities of your own existence.
• Work with others to enhance personal and community resilience and security.
• Get out of managed funds and don’t rely on middlemen.
• Change your bank account to a State-owned bank.
• Buy durable goods and quality tools.
• Educate yourself and your children; read, watch and discuss documentaries.
• Download material from the internet while it’s still working.
• Watch your local and central government indebtedness and risk-taking.
In terms of a SSE, a debt bubble crash could send society into another Great Depression. This would indeed halt the growth economy (as CASSE argues for) but in so doing would cause great suffering to many people. It would thus be far more desirable to stop the debt bubble growing then reduce it down to a manageable level. One of the key ways to do this would seem to be moving from fractional reserve banking to full reserve banking, where banks can no longer create their own money via lending money they don’t have, thus fueling the debt bubble (see chapter on the role of banking reform). Richard Heinberg (2011) opts for (a) a modified debt jubilee (a form of default), and (b) inflation via creation of non-debt based currency. He describes the details of these strategies, then stresses that they merely ‘buy time’ in order to tackle the decline in energy and minerals, over-population, and worsening environmental problems.

Given the possible impact and huge social disruption of the debt bubble bursting, the media surprisingly seems blissfully unaware of the threat, and society likewise. A debt bubble collapse may demonstrate the impossibility of an endless growth economy, but the bubble bursting may very well not lead to a SSE, even if growth is halted for many years. After all, the Global Financial Crisis did not wake up society, rather it triggered a call for more and massive growth. So a debt bubble collapse may still bring forth calls for ‘more and more growth’.

**Positive steps**

Now I (and CASSE NSW) cannot pretend to be experts on the debt bubble (but then few people seem to be!), but I suggest:

- Moving away (in increments) from fractional reserve banking towards full reserve banking (see chapter on role of banking).
- A modified debt jubilee and consideration of creating debt-free currencies (Heinberg 2011).
- Regulation to ensure that money is not lent out so easily to both business and the public.
- Moving from credit cards to debit cards (so you cannot spend more than you actually have).
References


Chapter 21 - Climate change action and the steady state economy
Haydn Washington

Why the SSE would be a major help to solving climate change

This chapter is not going to discuss whether climate change is ‘real’ and caused by humanity. The mainstream science on this is well and truly in – *it is and it is*. Humanity faces a huge existential threat from climate change (e.g. Pittock 2009; http://climate.nasa.gov/scientific-consensus/), yet many in society and politics remain determined to stick their heads in the sand and deny this (Washington and Cook 2011). Rather, this chapter focuses on the *deeper denials behind climate change*, and how the SSE can assist with these.

There is a key point to consider here (though many scholars ignore it) which is whether climate change is a ‘stand-alone’ issue or rather if it is a *symptom of other causes* – such as overpopulation, overconsumption, the growth economy, and denial. Many people speak out about the need to solve climate change, but at the same time remain silent about the need to solve its causes. Let us recall the formula \( I = PAT \) or \( \text{Impact} = \text{Population} \times \text{Affluence} \times \text{Technology} \). Let us start with population. Will the fact that population is projected to rise from 7 billion to 9 billion (or perhaps 11 billion) by 2050 increase greenhouse gas emissions? These extra people will need houses, transport and food, more forest will be cut to grow food, cattle numbers will increase to provide protein (and hence produce more methane). Even without multiplying factors (such as increased loss of carbon-rich forest to provide crop and grazing land) this increased population will produce around 28% (9 billion people) or 57% (11 billion people) more greenhouse gases. So clearly population growth *does* (by simple arithmetic) have an impact on climate change. However, the need to grow more food to feed more people would have major impact on remaining carbon-rich natural forests, adding even more \( \text{CO}_2 \) to the atmosphere. By 2050, 1 billion hectares of land is likely to be cleared to meet rising food demands from a growing population (an area greater than the USA). This would cause three gigatons per year extra \( \text{CO}_2 \) emissions (Emmott 2013). Clearly, when you have passed ecological limits (as we have with an ecological footprint of 1.6 planets), increasing population will increase greenhouse gas emissions markedly.
Let’s now consider the ‘A’ in the equation, which is ‘affluence’. Many countries in the world are becoming more affluent, and in so doing producing more greenhouse gases. Consumption has gone up six-fold since 1960, but numbers have only grown by a factor of 2.2. Consumer expenditure per person has almost tripled (Assadourian 2010). Hence why China is now the world’s greatest CO\textsubscript{2} emitter, with India rapidly catching up. So it’s not just a function of numbers, but the affluence of those numbers and what technology they use. If we consider the T in the equation, then if that technology burns fossil fuels to fuel that affluence (which is currently mostly true) then their greenhouse gas emissions will skyrocket even more. If they were to mainly use renewable energy, that would be the best possible outcome, with the potential to radically reduce carbon emissions. But regarding consumerism, if people consume more products, those products must be produced (using energy and mined materials) and the waste from their production must be controlled (again using energy), with impacts on ecosystems. So rising consumption levels clearly increase carbon emissions.

Finally, if society is to continue with an endless growth economy (as measured by increased use of goods and services), then unless one can totally decouple growth in GDP from production of greenhouse gases, then the endless growth economy must escalate carbon emissions. While UNEPs green economy talks of ‘100% decoupling’, as the chapter here on ‘decoupling’ shows, there is no evidence it has occurred. There may in fact be reasons to conclude that it cannot occur. Thus the growth economy is a key driver of increasing climate change. So all three drive climate change yet there is a conspiracy of silence about all three also – they are actively denied. Denial is thus a key issue we have to talk about in regard to climate change.

To recap, overpopulation, overconsumption and the growth economy are clearly drivers of increased, emissions of greenhouse gases. Denial is a key barrier stopping us from finding solutions to these drivers. If we want to solve climate change, then clearly we should be discussing these four and seeking solutions to them. Why then do so many climate change scientists and activists fail to mention them, let alone suggest solutions? On the face of it, it seems bizarre! An example is the academic website ‘Global Climate Change Week’ (GCCW) www.globalclimatechangeweek.com that I helped to establish in Australia. However, I suggested we create a solutions section, and that this
canvas solutions to the 4 issues above. Initially I faced the problem of silence, other academics on the steering committee did not want to talk about them. When I persevered, I faced outright denial and a refusal to include them on the website. Here were a climate scientist, a physicist, a philosopher and a sociologist who refused to accept both the environmental science that shows these are major problems that influence climate change, and that denial of them assists the acceleration of climate change. I felt I had no option but to resign from the committee. The site still fails to discuss them. Recently in 2016 I presented a paper to a Swedish conference on denial (http://liu.se/liunytt/arkiv/mn/1.699960/1.700839?l=en ) and my paper focused on these denials of the deeper drivers of climate change that exist both within academia and the activist movement. I did this because I had come to realise how denial of these deeper causes operates even in those who write about (and seek to stop) denial of climate change.

So why do such denials operate? Well overpopulation is a difficult issue for both the Right politically (who support growth as an ideology) and for the Left politically, who fear they may be branded as a racist and fear population control may involve coercive actions such as forced sterilization or euthanasia. This is in spite of the fact that the solutions proposed to overpopulation (see population chapter) are non-coercive and humane, mainly involving education. The population chapter enlarges on this tragedy of a failure in action due to denial. On the Steering Committee of GCCW the climate scientist even suggested in an outraged email: ‘Are you going to tell women how many children they should have?’ Well, if we want a sustainable future for those children, yes we are going to have to discuss controlling overpopulation. It is both ethical and pragmatic (see Powers chapter). So we know population is difficult, what about consumerism and overconsumption? Well the consumer society is of course based on overconsumption, driven by the $600 billion a year spent on this (see consumption chapter). We are told we have to overconsume to keep the economy running and provide jobs. Neither UNEP’s green economy, nor the circular economy, challenge the consumer economy - or suggest we should be consuming less. They argue we should use less materials and energy to make products, but don’t suggest that wasteful things should actually not be made! To challenge the consumer economy is to challenge the ‘shop till you drop’ mantra that many find natural and even desirable. Corporations especially. Hence many scientists and activists shy
away from challenging this powerful ideology, in case their calls for control of greenhouse gases are dismissed as being ‘off with the fairies’. Finally, the biggest taboo of all is challenging the mantra of the growth economy. The media, politicians and most mainstream economists would laugh at you and suggest you were crazy. The growth mantra is so deeply imbedded in our society that few wish to challenge it. Hence scientists and activists speak of the need to mitigate greenhouse gases, but are silent on the drivers of climate change – a lamentable situation.

Of course, the overall strategy of the scientists and activists who deny these four drivers of climate change is flawed, for if you don’t solve these drivers of climate change you have very little chance of solving climate change itself. So what is the relevance of this to the steady state economy? Its relevance is that the SSE helps us consider such drivers, so talking about the SSE helps to weaken their power. The three key parts of a SSE are:

- A stable and ecologically sustainable population
- A low throughput of resources
- Greater equity and equality of income.

The first forces society to confront overpopulation, the second our wasteful use of resources caused by overconsumption. The third forces us to consider the ethics of the growth economy, where the rich get richer and the poor poorer. As such, it too questions overconsumption. The SSE thus is central to foregrounding these drivers of climate change and helping to solve them. Hence the SSE can be of great help in reducing climate change.

**Other key issues re climate change**

**Techno-centrism** is another key problem involved in climate change. Much of the scientific world supports techno-centrism, the idea that technology can solve all our problems. However, what we need is not more and larger mega-projects but appropriate technology to our needs (Washington 2015). Hence nuclear power is not an answer as it is expensive, dangerous in its own right, and involves a need to supervise wastes for a longer time than modern societies have existed (Ibid). Renewable energy however is an appropriate
technology as is cheaper, not dangerous and provides more jobs than fossil fuels or nuclear.

**Mitigate or adapt?** This debate has bedeviled climate change action for many years. Mitigation is hard, it takes an instrument such as a carbon price or other government policies. Ideally, such actions should be coordinated worldwide. Many of them threw up their hands and said ‘let’s focus on adaptation!’. However, quite simply *we need both*. We have to adapt to rising temperatures (1 degree already), but adaptation has its limits. Beyond a certain point species or communities don’t adapt *they go extinct* or disappear. Hence we have to mitigate at the same time, by using a carbon price, or other processes such as a feed in tariff for renewable energy. A SSE helps us mitigate, as it requires solutions for overpopulation and overconsumption.

**A carbon price.** Yes *we have to have* a carbon price (or tax) to provide incentives for change. Probably a carbon tax is hardest for corporations to wriggle out of and hence is most appropriate (see ecologically sustainable energy chapter). The SSE of course (unlike neoliberalism and neoclassical economics) is *fully committed* to regulation of ‘bads’ such as greenhouse gases. Coal mines would quickly become unprofitable and untenable with a significant carbon price, and investment would move to renewables.
Support for renewables. Similarly, a SSE is committed to supporting the ‘good’ aspects of government action via subsidies or tax incentives. Hence a SSE would support a feed-in-tariff for renewables, and mandatory targets for renewable energy production. It would also support removal of illogical subsidies on fossil fuels. A rapid move to 100% renewables is one of the great win/win scenarios we can employ. Price has dropped hugely (and continues to do so) and it is perfectly feasible and economic to move to 100% renewables in 20 years (Diesendorf 2014). The decentralized nature of renewables also fits in well with a SSE, as it makes it harder for any rich group to dominate such a system.

Some positive steps

There are many positive steps in regard to climate change action, being:

- Talk about the drivers of climate change, specifically overpopulation, overconsumption, the growth economy, and denial of such drivers!
- Challenge those in denial of climate change, don’t be silent and turn the other cheek, the future of society requires we acknowledge and act on this major threat, not bury our heads in the sand.
- Support a significant carbon price (at least $50 a tonne) immediately being put in place, most easily this could be done via a carbon tax (not an Emissions Trading Scheme).
- Support feed-in-tariffs for renewable energy at all levels.
- Support a 20 year transition to 100% renewable energy in Australia (and worldwide). This is feasible and economic (Diesendorf 2014). In terms of job equity it would create many jobs in rural areas (see Diesendorf chapter).
- Support that government immediately finance a display site 50 MW solar thermal facility (power tower) with overnight heat storage. Many exist overseas but we need one right now in Australia to demonstrate their feasibility.
- Support that the Commonwealth government retain the Clean Energy Finance Corporation.
References


International climate governance has so far failed to stabilise CO\textsubscript{2} emissions. This is largely because of the political and economic power of fossil fuel corporations and the globalisation of a growth oriented financial system that strongly favours this industry (Newell & Paterson 2010; Clapp & Helliner 2013; Wiseman, Edwards & Luckins 2013; Christoff & Ekersely 2013). In a bid to overcome the vested interests of energy finance, new strategies are being developed by activists who are frustrated with government inaction. One such tactic, spearheaded by the global climate change activist organisation 350.org, is to campaign for institutions and individuals to \emph{withdraw financial investment} (to divest) from the fossil fuel industry. The divestment movement reached Australia early in 2013 and activists have been targeting universities, superannuation funds, religious organisations, major banks and individuals. The Australian Climate Commission acknowledges the potential for an economic carbon bubble, and has warned investors that a large percentage of the world’s fossil fuel reserves are unburnable if climate change is to be kept within safe limits (Steffen & Hughes 2013). Analysis of the relationship between private energy finance and environmental change has so far been fairly limited. As Helleiner (2011, p. 51) writes:

\begin{quote}
There are many studies of the environmental implications of lending by public international financial institutions such as the World Bank. The much larger flows of money associated with private financial markets have largely been neglected within environmental scholarship. This neglect is unfortunate since global financial markets are key drivers of the contemporary global economy.
\end{quote}

Divestment, also known to investors as ‘negative screening’, is often considered a form of socially responsible investment (SRI). This is a small but growing 'market' in the financial sector and, with some important caveats as noted below, has the potential to be a vehicle for activists to challenge corporate power on social and ethical grounds.
Background: the fossil fuel divestment movement and its US origins

American environmental activist Bill McKibben argues there are ‘three simple numbers that add up to global catastrophe’ (McKibben 2012). The first number is 2 degrees Celsius which reflects the maximum global temperature rise agreed upon at the Copenhagen climate change conference in 2009 (and reaffirmed in the 2015 Paris Agreement). The second number is 565 gigatons and this is a rough estimate of the maximum amount of carbon dioxide that can be released into the atmosphere by mid-century to keep global temperature rise to under 2 degrees. The final number is 2795 gigatons, and this reflects the amount of carbon dioxide in known coal, gas and oil reserves owned by fossil fuel companies and countries like Venezuela and Kuwait. This final number is _five times_ that of the maximum allowance that will keep temperature rise within the 2 degree limit. McKibben (2012) writes that while these carbon reserves are at present below the ground they are ‘economically above ground’, mostly reflected in the share prices of fossil fuel companies. His conclusion is that environmental activism on climate change has so far failed and a new social movement is needed.

McKibben’s (2012) hope is that these numbers will provoke a ‘moral outrage’ that will form the basis of a new movement. He argues that ‘movements require enemies’ and an enemy is something that has largely been missing from climate change activism. He refers to the fossil fuel companies as a ‘rogue industry’ (2012) and proposes to attack them financially through shareholder divestment. The Fossil Free divestment movement was thus launched in 2012 by McKibben and 350.org, a grassroots organisation that aims to ‘revoke the social license of the fossil fuel industry’ (350.org 2016). McKibben (2012) drew inspiration from a previous divestment movement:

_Once, in recent corporate history, anger forced an industry to make basic changes. That was the campaign in the 1980s demanding divestment from companies doing business in South Africa. It rose first on college campuses and then spread to municipal and state governments; 155 campuses eventually divested, and by the end of the decade, more than 80 cities, 25 states and 19 counties had taken some form of binding economic action against companies connected to the apartheid regime._
A Global Movement

Bill McKibben has taken his ‘Do the math’ tour around the US, New Zealand, Australia and Europe. According to the Fossil Free website, 692 institutions and close to 60,000 individuals across 76 countries have committed to divesting from fossil fuels. They calculate that the combined monetary value of these institutions is approximately $5.4 trillion (Fossil Free 2016).

While fossil fuel divestment campaigns have tended to target universities, the investment portfolios of other institutions have also come under scrutiny. In India the campaign is focused on the state of Delhi and is lobbying for a freeze on new investments in fossil fuels and divestment from previous ownership within five years. In Moscow several activist organisations, including the Russian branch of 350.org, collected close to 17,000 signatures which they delivered to the European Bank of Reconstruction and Development (EBRD). The petition called on the EBRD to stop lending to fossil fuel projects in the wake of commitments by both the World Bank (Yukhananov & Volcovici 2013) and the European Investment Bank (McGarrity 2013) who have agreed to limit lending to coal-fired power projects.

The Australian movement

The divestment movement in Australia has several different strands. Market Forces, affiliated with Friends of the Earth, is targeting banks, superannuation and fossil fuel government subsidies. They work towards preventing investment in projects that are environmentally destructive, and encouraging investment in projects that deliver solutions to climate change. Their tagline is ‘your money as a force for good’. ‘The Vital Few’ is the activist arm of the Asset Owners Disclosure Project (AODP), and they campaign for investment transparency in superannuation funds by encouraging individuals to write to their superannuation companies and seek disclosure on fossil fuel asset exposure. The AODP conduct and publish an annual survey and assessment of the world’s 1000 largest asset owners and rank their management of climate change risk. Their main concern is protecting retirement savings from this risk and shifting investment to low carbon assets. AODP estimate that US$52 trillion is managed by the world’s 1000 largest pension funds and less than 2% are invested in low carbon assets (AODP 2016).
350.org Australia are assisting public organisations such as universities and religious groups with divestment initiatives via their Fossil Free Australia campaign. The Fossil Free Australia website lists 131 Australian institutions who have either committed partially (or in full) to fossil fuel divestment. This list includes 27 government institutions (e.g. City of Melbourne), 57 Super Funds (e.g. UniSuper), 19 faith-based organisations (e.g. Uniting Church of Australia), 2 banks (e.g. Bendigo Bank) and 6 educational institutions (e.g. La Trobe University) (Fossil Free Australia 2016). While this is a promising list of commitments, it is important to consider several practical and philosophical questions.

What are the potential limitations for divestment as a climate change mitigation strategy?

In Australia educational institutions in particular have been reluctant to commit to divestment. In their analysis of Melbourne University's commitment to sustainability, Baer and Gallois (2016) found that there was a strong philosophical and practical barrier to the success of campaigns such as fossil fuel divestment:
Despite the rhetoric that the university provides a marketplace of ideas that purportedly prepares young people to function in a democratic society, higher education during the era of neoliberalism has become increasingly an appendage of the corporate economy – in the United States, Australia, and much of the world. As a result, various scholars have come to refer to universities, including public or state ones, as ‘corporate universities’, ‘entrepreneurial universities’, ‘neoliberal universities’, etc., because their activities have come to resemble the ways in which corporations operate.

Corporations are more often than not guided by entrenched market norms such as ‘short termism’ where long-term outcomes are ignored in favour of a short-term focus on return on investment. A further obstacle is a lack of fossil fuel free portfolios (and Australian Stock Exchange (ASX) listed companies) in the renewable energy sector, making reinvestment in renewables a challenge. Another major barrier is the potential for a conflict of interest, where fossil fuel companies may have an existing relationship with the institution via funding or donation arrangements and scholarship and recruitment links.

More broadly, although government inaction (due in part to the power and influence of the fossil fuel industry lobby) has triggered an activist strategy that is focused on private finance, there is a risk that government accountability will come under less scrutiny. Meaningful action on climate change requires fundamental change from both the public and the private sector, and the fossil fuel industry divestment campaign may detract from government-led action. However, there is mixed evidence for this, with some commentators believing the movement will in fact renew pressure on the government from both activists and the financial sector (Alexander et al 2014).

Soederberg (2010) is one of the few academics to be critical about SRI from a purely political point of view. She writes about the Sudan divestment campaign, a movement to pressure institutional investors in the US to negatively screen their portfolios for corporations that were funding the Sudanese government during a particularly bloody period of the Sudanese civil war. Similar to the fossil fuel divestment movement this was a largely US student-led movement. Soederberg questions whether SRI can lead to social justice at the same time as delivering financial gain. Although she sees such
campaigns as having an important role in resisting corporate power, she writes that more critical analysis is needed:

Without problematising the market as a social construction and an integral feature of neoliberal domination (market rule), grassroots movements, such as those tied to the Sudan divestment campaign, tend to become depoliticised, as the links between human rights abuses and the relations of power and paradoxes of capitalism are subsumed and concealed in the narrow economic focus of SRI (Soederberg 2010, p.139).

Soederberg (2010, p. 139) refers to this as the ‘marketisation of social justice’ and she outlines three questionable assumptions about what she refers to as the ‘corporate governance doctrine’. The first assumption is that market efficiency will be achieved through competition between self-interested and rational actors; the second is the neoliberal assumption that there is a level playing field, and the final assumption is that the state and the market are separate entities. She concludes (p. 159) that:

Without a more critical and complex understanding of corporations, including the disciplinary and political implications of the mass ownership phenomenon, as inherently connected to the power and paradoxes of capitalism, resistance will continue to be depoliticised and marketised by the same dominant forces who benefit from the reproduction of the corporate governance doctrine - in all its guises.

Soederberg might consider the fossil fuel divestment movement to be the marketisation of environmental justice. It is important to note that when financial institutions or investors groups call for divestment, the justification is usually always financial risk, and not a moral argument about profiting from businesses who are involved in accelerating climate change. Some aspects of the fossil fuel divestment movement have also adopted this rhetoric, and this is where a lack of general market critique might become a risk for the divestment movement.

A report released by Oxford University’s Smith School of Enterprise and Environment assessed the extent to which the fossil fuel divestment campaign
would affect fossil fuel assets (Ansar, Caldecott & Tilbury 2013). Among the report’s conclusions was a finding that:

... the maximum possible capital that might be divested by university endowments and public pension funds from the fossil fuel companies represents a relatively small pool of funds.

and that the share price of fossil fuel companies was unlikely to fall as a result (Ibid, p. 12). Where the report does believe fossil fuel divestment might have success is in industry ‘stigmatisation’ and a change in market norms. Importantly, stigmatisation can lead to legislative change which the report notes has been demonstrated historically is past divestment campaigns such as tobacco and anti-apartheid. It is certainly a risk to the potency of the fossil fuel divestment movement if arguments about corporate power and control get lost amidst economic arguments for divestment based on the financial risk to fund managers. It is important then that work in this space includes a wider critique of market fundamentalism with its emphasis on profit maximisation and growth.

Conclusion

With a focus on corporate power and 'unburnable carbon', fossil fuel divestment has the potential to highlight the incompatibly of a growth market system with real action on climate change. By encouraging individuals and institutions to become more ethically-engaged with where their capital is invested, there are possibilities for this movement to challenge the apolitical narrative of the market. Redirecting investment from high carbon assets to low carbon assets is a further promising outcome of this movement. However, the risks of pursuing divestment as a climate change mitigation strategy should not be discounted. Climate change is often framed in the divestment space as a financial risk to business, and if activists are only able to communicate the urgency of action based on profit loss, then growth-oriented, market-driven thinking will continue to prevail. As long as the movement continues to critique aspects of the current market system, and highlight the problems of powerful business interests influencing politics, then divestment could lead to real change. What should not be overlooked is the risk that climate change will continue to be framed as a problem that can only be resolved within and by an existing growth market economy.
Positive Steps

It is clear that a steady state economy (as for any economy!) must address the major problem of climate change. Action on climate change is thus essential in a SSE (see chapter on climate change action). Positive steps are:

- Fossil Fuel divestment has the potential to affect existing market norms (such as ‘short termism’) and offers a critique of the way the market system is currently structured by highlighting its tendency to reinforce inequality and focus on growth.
- Individuals and organisations should be encouraged to develop an awareness of where their capital is invested, and what the environmental implications of this might be. There is a potential here to begin to restore power imbalance, or at least develop a lasting critique of the relationship between corporate ownership (investors) and corporate control. However, the ability of individuals to engage with where their capital is invested is not evenly spread throughout the population, and at present this movement is limited to a small section of the community - greater reflection is needed in this space.
- Divestment may reinvigorate climate change activism and encourage activists to continue to pressure the government for regulatory and legislative changes that will leave fossil fuels underground.
- Redirect investment towards the renewable energy sector. Any focus on reinvestment will also need to offer more than the ‘green growth’ and ‘green capitalism’ (see chapter by Twomey and Washington) narratives which tend not challenge the fundamental problem of continued consumption growth (Jackson 2011).

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Chapter 23 - Steady State Economics as a Counter-Hegemony
Greta Werner

The principal argument of this chapter is that the transition to a steady state economy requires a broad coalition of like-minded organisations to undertake a campaign to build support and understanding of steady state economics (SSE) amongst the general-public. An increase in co-operative production must also occur to reduce economic dependence on those who support the growth agenda. As the pursuit of economic growth is an ideology which is currently in a hegemonic (Gramsci 1972) social position, the transition to SSE will require both political and economic organising. To make this argument, a brief definition of hegemony is given, along with an explanation of why economic growth is still such a powerful concept, despite ample evidence of the dangerous environmental problems that growth in the use of resources creates (Shiva 1989; Mies et al 2014; Farley and Malghan 2016). Suggestions are made for how to replace the hegemony of growth with one of steady state economics.

To understand the power of the concept of growth, it is useful to consider Gramsci’s (1972) conceptualisation of hegemony. A hegemony (Femia 1975) is the:

... predominance obtained by consent rather than force of one class or group over other classes.

To obtain consent, language and education are used to disseminate the ideologies of those who are in powerful positions (Carlucci 2013). Currently, transnational corporations are in powerful social positions, and their concerns have a disproportionate political influence. The reasons and evidence for this are explored later in this chapter, but first the idea of hegemony must be understood. Essentially, a hegemony is the active maintenance of an ideology through constant reinforcement by government and non-government and private organisations. Within a hegemony: ‘the institutions of civil society operate to shape, directly or indirectly, the cognitive and affective structures’ (Femia 1975, p. 31) of people who are under its influence. This explains one aspect of the resilience of support for economic growth.
Challenging the acceptance of economic growth challenges the power of economic elites and the change to a steady state economy requires awareness of (and engagement with) this power. The influence of large firms (and the individuals who control them) should not be underestimated. The SSE would require capping the use of resources, which poses the question of how limited resources are distributed. When there is no cap, firms have more freedom over how they procure and use resources. Government control over distribution of natural resources (which a cap on resources would require) is ideologically associated with non-liberal political systems such as communism (Peet et al 2010, p. 4), because of how this would impact on the ‘freedoms’ of firms. Organised resistance from individual firms and industry associations to the perceived impact on their freedoms can be expected, and needs to be considered by SSE campaigners.

At a personal level, the charisma and social position of economic elites (Bourdieu 1984; Goffman 1967; Collins 2004, pp. 258 - 293; Tracy et al 2014) add to the influence they exert on the political process through their donations to the major political parties (Kumar 2008; Millar and Schneider 2015; Aulby and Ogge 2016). Their positions in the economic field are maintained by their
ability to influence the structure of the economic field through social processes such as the construction of legislation (Bourdieu 2005; Worldwatch Institute 2014, p. 93) and regulations (Spash 2015, p. 370). The evolution of the NSW Environmental Planning and Assessment Act 1979 (which was passed at a time of relatively low economic inequality), illustrates this process. Since it was passed, there has been a sharp and continuous rise in global and local economic inequality as Thomas Piketty (2014) has pointed out. Concurrently, successive amendments to the Act have concentrated the power of Planning Ministers, for example by deeming a project to be ‘state significant’ and thereby removing the ability for it to be legally challenged based on merit. Thus, projects such as ‘WestConnex’ (a proposed major new system of underground tollways) are easier to implement because opportunities to challenge them in court are fewer than they were when the Act was first passed, and opportunities for corruption are increased (ICAC 2012, p. 22). The erosion of social and environmental protections in the NSW Environmental Planning and Assessment Act 1979 can be attributed to decades of lobbying from development and infrastructure companies (Halpin and Warhurst 2016). Larger firms employ government relations experts to remain competitive in their field:

... competition among firms often takes the form of competition for power over state power - particularly over the power of regulation and property rights - and for the advantages provided by the various state interventions: preferential tariffs, trade licenses, research and development funds, public sector contracts, funding for job creation, innovation, modernisation, exports, housing, etc. (Bourdieu 2005, p. 204).

Therefore, competition between economic actors leads them to seek control of government processes. Though sociological data on economic elites is limited (due to the difficulty of accessing elites to study them), the French sociologist Pierre Bourdieu (1984; 1989; 1996; 2005) has constructed a theory of their social power based on extensive evidence. Bourdieu argues members of the economic elite are socialised from a young age within a context in which they compete to maintain their social position relative to others. As adults, the focus of their competition becomes capital accumulation. Their elite position is defined in relation to other positions in the field, and the skills related to competing with others in accumulating capital are what affords elite status.
Without this drive to accumulate economic capital, a person would therefore be excluded from attaining this status. As elites are constantly accumulating more capital, individuals must keep up to maintain their membership of this group.

The possibility for (and validation of) the drive to accumulate capital is, of course, what characterises capitalism as an economic system (Smith 1778). Since the 18th Century, political economists such as Adam Smith have claimed that competition and self-interest at the individual level lead to prosperity of societies or nations (Hayek 1945; Friedman and Friedman 1982; Farley 2016, p. 12) despite the necessary role of cooperation in the division of labour. However, other economists have challenged this ideology with detailed evidence of cooperative management of common assets (Ostrom 1990; Felber 2015). Evidence to the contrary has not yet changed the status of growth and competition in the minds of many, because the elites who rely on this ideology for justification of their drive to accumulate capital use their resources to perpetuate the ideology of growth (Heilbroner 1985). The evolution of the NSW Environmental Planning and Assessment Act 1979 (and projects such as WestConnex) demonstrate the social effects of the capitalist system. Transport planning professionals and academics who were interviewed by this author have claimed that the project was contrary to previous transport and planning policy, and ‘came out of nowhere’ (anonymous participant 2016). The adverse environmental and health effects of added motorways, and the resulting induced increase in car travel have been well documented (Zeibots 2010). In fact, the academic literature on land use planning, transport economics and urban design do not support an increase in motorway construction (Brogan, 2007; Zeibots and Bell 2010; Stone and Mees 2010). However, the NSW Government chose to ignore the widespread condemnation by experts. Bourdieu’s (2005) analysis supports claims made by opposition politicians such as Jamie Parker, who made the following contribution to the ‘People’s Inquiry’ into WestConnex at NSW Parliament House on 6th May 2016:

*The ability to hold governments to account of course is important, and ICAC, ... said in a 2012 submission, in reference to planning decisions, and I quote: “Limited availability of third party appeal rights”, ... “under the EP&A Act means that an important check on executive government is absent”. Not only absent, but a gaping*
chasm, which the Government and their developer and finance and infrastructure mates are driving a truck through and, in fact, building toll roads to take those trucks through them (Parker 2016).

The political influence of elites is therefore key to the continuation of the economic growth hegemony. As the hegemony of the growth vision (Farley 2016, p. 9) provides considerable barriers to the institution of a steady state economy, a counter-hegemony is required to reduce these barriers. The social processes by which economic growth is entrenched as a legitimate goal of government (see Liberal Party of Australia 2015) may be reversed by creating a counter-hegemony in which social cooperation features highly. Within capitalism, as it is presently practiced, firms must compete in their exploitation of labour, the environment, and increasingly also the financial and legal frameworks by which money flows are facilitated (Shiva 1989; Bourdieu 2005; Worldwatch Institute 2014, p. 93; Farley 2016). Productive co-operation is an alternative, both strategically and ideologically. The formation of the Business Council of Co-operatives and Mutuals in 2013 (BCCM 2016) is part of a trend towards co-operative production and financial organisation (see chapter on corporate reform), which is one positive step toward reaching a steady state economy. The reason that cooperation is so important at the level of economic production, is that it provides a social environment in which mutual benefits determine the agenda of the organisation. In the transition to a steady state economy, an important attribute of cooperative production is that it enables individuals to construct a cooperative social identity. By contrast, Arlie Hochschild (2003; 2011) has extensively documented the ‘emotional labour’ undertaken by employees to, for example, personify the branding of the firm they work for, or embody the government’s point of view. Accepting discourses on the importance of competition and growth, despite personal preferences for cooperation, can be considered part of the emotional labour performed by employees. Steady state economics may be more easily accepted in a context where these every-day pressures are alleviated by co-operative production.

Furthermore, as David Bollier and Burns Weston (2013) have argued, the ‘Commons’ can provide a model of governance which favours the human right to a clean and healthy environment. The advocacy and adoption of such a governance structure requires a ‘paradigm shift’ in decision-making, from the
economic growth imperative to the prioritisatio

Simultaneously, a counter-hegemonic effort to promote steady state economics at the ideological level is needed. This requires a political effort, such as advocacy in local, regional and global forums, and eliciting position statements from professional associations and aligned political parties (Czech 2016). Additionally, a coalition of organisations, which are currently active on environmental and social justice issues, is needed to pool resources (Yanacopulos 2005) and educate a large number of people about the SSE. If individuals and organisations who are interested in steady state economics contact organisations campaigning about climate change to jointly organise campaigns, many more people could be engaged in debates about the SSE. Organisations such as the Climate Action Network of Australia (CANA 2016) and the Australian Youth Climate Coalition (AYCC 2016) would be appropriate organisations to work with. The link between climate change and uncontrolled use of fossil fuels is particularly pertinent in considering a coalition with these organisations. Links with localised recycling and reuse groups are also important, such as ‘The Bower’ (2016) in Marrickville, Sydney, as they are already advocating for, and practicing social and environmental sustainability through a low-resource-use lifestyle. Such organisations are particularly important, because knowledge about steady state economics needs to be supported by actions in every-day life that transform the structure of the economy (see voluntary simplicity chapter). Both are needed, because:

... effective human action is the consequence neither of pure will nor of inexorable forces, but of a particular kind of interaction between objective circumstances and the creative spirit of man. (Femia 1975).

Though we can collectively use information technologies to measure both the use of resources and the effect of their use on the environment, we also need to develop the collective will to cap their use. Implementation of the SSE in nations with democratic political systems requires popular support for steady
state economics, and therefore a response beyond individual actions. Popular support will most likely be achieved through a collective, not just an individual effort. Reasoned arguments based on evidence need to be supplemented with a coherent political strategy if the hegemony of economic growth is to be replaced with a hegemony of steady state economics. Practical steps such as productive and financial cooperation need to be accompanied by political campaigns through the formation of broad coalitions with organisations that are aligned with the goals of steady state economics.

Positive Steps

A large-scale education campaign would help to educate the public on SSE issues, and offer an SSE vision for the Australian economy. Networking with people from like-minded organisations is required to develop a campaign about capping resource use and achieving a steady state economy. Some of the organisations to target would be The Greens, CANA and The Bower. The more organisations join the network, the more ‘perceived legitimacy’ the message will have. The network could be given a name such as ‘Coalition for a Steady State’ or something similar, and develop a campaign to change Australian laws and the behaviours of large organisations in terms of the use of natural resources.

Simultaneously, efforts to change the economic system through cooperative production help to ‘prefigure’ (Maeckelbergh 2011) new economic processes and demonstrate that alternatives to economic growth exist.

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Chapter 24 - Corporate Reform and Corporate Governance
Matthew Washington

In our modern age, most people would have some notion of what a corporation is. In general we appreciate that a corporation is not ‘us’, Baron Thurlow in the 1780s is quoted as noting that ‘Corporations have neither bodies to be punished, nor souls to be condemned; they therefore do as they like’. Further we may reflect on recent corporate scandals and collapses (across a range of industries) noting that modern corporations: ‘nearly human in the eyes of the law but inhuman in their practices, treat penalties and fines as simply the “cost of doing business”’ (Sukhdev 2012). So why have such entities become so influential in our lives?

Clearly a large public company (while it may act in a heartless manner) is in fact a creature of our making. It is born of our needs with respect to trading, and the conduct our business affairs. Over the last two hundred years, as the industrial age has gathered pace, our society has grown up with these legal constructs and changed/refined them, as they have shaped our personal lives and our commercial interactions. The Australian Corporations Act 2001 notes a company is a legal entity which:

- Can perform all the functions of a body corporate (i.e. body corporate: maintains, manages and controls the common property on behalf of stock/share owners).
- Can sue and be sued (separate legal entity, so acts separately not as agent of directors/shareholders)
- Has perpetual succession (a corporation continues as a legal entity despite changes in shareholders/directors etc.)
- Can acquire, hold and sell property (just as if it were a legal person).

It was not long in the past that incorporated companies acquired a unique property which made them useful instruments as commerce became more capital intensive. As the scale of operations and the size of capital required for funding ventures grew, so a new instruments arose. Initially, joint stock companies where available only under royal charter, but the UK’s Joint Stock Companies Act of 1884 gave wider access to incorporation. Those who held
stock were directly interested parties in the venture. These early joint stock companies, under Royal charter, were required to have a legitimate public purpose. It was not until quite late in the 19th century that people (i.e. after the Salomon v Solomon case 1897, in the UK) could subscribe and became members of the company. Their financial liability for the actions of that company was limited to the amount of share capital they had invested (including unpaid shares to which they had subscribed). These developments meant ‘profit for the shareholders alone’ could become the common defining purpose of these new legal forms.

**Proprietary Limited or Pty Ltd:** A proprietary company, under the Australian Corporations Act 2001, section 45A, is one which has the suffix ‘Pty Ltd’, and is not allowed to raise capital on the public equity markets. This is by far the most common type of company in Australia today. A simple proprietary company can have no more than 50 non-employee shareholders. It is limited by shares, meaning it is incorporated with a share capital made up of shares paid up by each member upon incorporation. Members are liable only to the extent of any unpaid amounts on their shares. That is, their personal assets are not at risk in the event of the company being in trouble and required to be wound up. Such small companies cannot make share offers to anyone other than existing shareholders or employees of the company, or a subsidiary company.

**Public companies** however can offer shares to the wider public (to raise capital) and usually are listed entities on a stock exchange where their shares can be traded. There is no limit on the number of members a Public Company may have. The role of the corporation was to accelerate in importance after World War II. It should be appreciated that proprietary companies (though they are most common) are not engaged to the same extent in the capital markets in the same way as Public Companies. The intensity of business operations of the large public companies, their scale and productive capacity is something today’s shareholder/investors take keen interest in. Public Companies have come to wield considerable economic and political influence as they conduct their businesses. They are able to harness huge amounts of ‘capital’ both from shareholder investments and other financial instruments, i.e. commercial loans, and joint venture facilities (obtained from a variety of investment sources). The share market and the daily trades and the perceived
returns/gains to be had on investments for shareholders (via dividends paid & share value gained) are a clear signs of the importance and scale of Public Companies commercial activities. Such economic power has meant large corporations (particularly multinational corporations) have over time acquired a major influence upon governments and government policy-makers.

As Pavel Sukhdev (2012) notes:

> In most nations with different political models, a democratization of the political fabric accompanied and helped accelerate free-market capitalism—mainly through legislative relaxations that opened up these economies to increasingly global and deregulated trade and capital markets, while also, unavoidably, increasing the power that corporate interests exert in the global marketplace.

However in the Australian context:

> The majority of registered companies are small proprietary companies and so these are limited in scale and not listed on the stock exchange. As at November 2015, ASIC reports that there were 2,223,022 proprietary companies, representing 99% of all registered companies. (GIA 2017)

Hence, these smaller scale companies are the dominant form of commercial entity trading today. These companies have many of the characteristics of the larger public companies, but their shares cannot be publically traded. Those with under $25m turnover are not required to lodge Annual financial returns with ASIC, and therefore their scale (and capital raised) and influence is much reduced. It is these entities (small to medium businesses) which are most often ‘closely held’, often family-run, and are said to be the backbone of our economy. It must be said most proprietary companies are trading their goods and services to make a fair return for their efforts. Creativity, innovation and new ideas (rather than fraud or corruptions) are the major currency of such entities. It is these busy enterprises, these small proprietary companies, who are largely the engine or backbone of our economy and are the major employers.
As regards large Public Companies at November 2015 ASIC reports that: ‘there were 22,342 public companies, representing 1% of all registered companies’. But these large companies are usually not closely held by people (shareholders/family) intimately engaged in the business. It is these companies that are managed by boards of directors, hired ostensibly for their management skills (usually augmented by external independent directors to guide the company and provide the board with an independent perspective). It is these boards whose major stated role is usually to build shareholder value, to drive growth and pursue profit. These large Public Companies (corporations) may pay their senior directors huge bonuses based on (their apparent) good corporate performance. Unlike the smaller proprietary companies (whose directors & shareholders often have a more direct understanding of the business in which their money is invested) the shareholders of large Public Companies, may primarily hold shares as investments. They often have little or no detailed practical knowledge (or even a basic understanding) of the business in which they hold shares. They rely on the directors and their staff, performance reports, to manage the public company. These shareholders expect management to provide the kind of performance (i.e. dividends and share value increase) that they have come to expect, based on the investment advisers’ prognostications that they follow. It is these Public Companies and their governing boards whose purpose often seems to be at odds with the values and aims of elected governments and the wider community.

So large Public Companies can and do have a great influence in the global market place, and operate across international borders. It is these large public entities that are often in the spotlight and have become, since the post-World War II period, major players in terms of their influence in our society politically and economically. It is these large Public Companies that can trade across borders into several different jurisdictions and who may have no loyalty, interest or commitment to any particular country or nation state.

**Holding Public Companies accountable – Corporate Governance**

**What is Corporate Governance?**

Corporate governance is: ‘the framework of rules, relationships, systems and processes within and by which authority is exercised and controlled in
corporations’. It encompasses the mechanisms by which companies, and those in control, are held to account.\(^\text{16}\) Clearly such a framework of rules is supposed to provide guidance for companies and allow for disclosure and transparency in their financial and management reporting. In our complex interdependent societies we expect quality regular public reporting (often provided quarterly) from Public companies. These are approved by company directors and are supposed to provide potential investors, shareholders and stakeholders access to relevant company information. Company directors and their staff are supposed to act with integrity and within the bounds of corporations and consumer laws,\(^\text{17}\) and related relevant regulations. But something seems to be amiss.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{image}
\caption{"QUESTION 3: EXPLAIN, IN YOUR OWN WORDS, HOW LIMITLESS GROWTH CAN BE SUSTAINED ON A PLANET WITH LIMITED RESOURCES. GIVE EXAMPLES, AND SHOW YOUR REASONING."}
\end{figure}

In recent years, in the light of the Global Financial Crisis (GFC) and series of high profile corporate collapses and whistle-blower revelations, the role and influence of large corporations has been questioned. It is apparent that these


\(^{17}\) Under Australian law directors can be made personally liable where they fail to perform “their duties as a director” properly. For instance one of the fundamental duties of a director of any company is to ensure that the company does not trade while it is insolvent.
large corporate entities, their boards of directors and/or our corporate regulators have been unable to prevent or detect a series of financial scandals, corporate fraud (e.g. trading while insolvent – e.g. Ansett, HIH insurance co, One.Tel & BBY Stockbroking firm\textsuperscript{18}), and/or corruption and in some cases systemic negligence leading to large environmental damage (e.g. the Montarra Oil spill in Timor Sea in 2009). The ASX Corporate Governance Council (2010) notes that a decade ago the term:

‘Corporate governance’ was barely heard. Today, like climate change and private equity, corporate governance is a staple of everyday business language and capital markets are better for it ... its ongoing mission is to ensure that the principles-based framework it developed for corporate governance continues to be a practical guide for listed companies, their investors and the wider Australian community.

Australia has adopted a self-regulated business review when dealing with corporate governance. In other jurisdictions (such as the USA and the UK) the approach has been to use legislation to prescribe appropriate corporate governance behaviour and to punish misdemeanours (Tickner 2014). Listed companies in Australia are already required to produce financial reports, tax returns and to conform within corporation and consumer laws. Hence corporate governance is (it might be argued) therefore another layer of regulation and disclosure.

In the current political climate in Australia strongly influenced by neo-liberal economics, the often-voiced concern is that regulation may potentially hamstring business. A laissez-faire attitude to corporate governance is also nowadays (post GFC) no longer acceptable either to the public at large, or to activist shareholders and/or potential investors. In the view of ASX Corporate Governance Group:

\[\text{\textsuperscript{18} BBY may have misused client funds, misled its lenders, breached the Corporations Act and traded while insolvent since June 2014, a preliminary report from joint administrators Stephen Vaughan and Ian Hall of KPMG Australia has said. Article from financial review from June 12 2015. see: http://www.afr.com/business/banking-and-finance/bby-may-have-misused-client-funds-traded-insolvent-20150612-ghmqgh#ixzz4RY55HSRq}\]
Effective corporate governance structures encourage companies to create value, through entrepreneurialism, innovation, development and exploration, and provide accountability and control systems commensurate with the risks involved. (Tickner 2014)

So the ASX claims that good corporate governance can increase corporate performance. However the ASX Corporate Governance Council’s recommendations on governance: ‘are not mandatory and cannot, in themselves, prevent corporate failure or poor corporate decision-making’. Instead they provide a reference point for companies about their corporate governance structures and practices (ASX Corporate Governance Council 2010).

There are eight core principles outlined for good corporate governance. These principals are laudable and endeavour to address a number of potential structural problems regarding corporate governance. However Australian companies can choose to follow or not follow one or any (or all) of these principals, but they are required to provide an explanation of ‘if not why not’, when deciding not to follow these principles. While the ASX suggest their corporate governance principals are widely adopted (with the majority of large corporations following them), given the scandals and corporate failures often in the news both here and abroad, one readily may ask how can such an approach be effective?

**Corporate excess, corporate success?**

Das (2012) notes that:

*In 2004, the National Australia Bank (NAB) lost hundreds of millions in currency trading. Sentencing two former traders, Judge Geoff Chettle identified a culture in which traders were seemingly ‘invincible’. The NAB team described themselves in Olympian terms—BOAT or Best of All Time. Das notes that the judge identified ‘a culture of profit-driven morality ... you [had] to take risks in order to achieve the projections and targets set for your desk. To further your career, you had to succeed.*
positive steps

It is the power of the modern large corporation that is so pervasive. Public companies are lobbyist, contributors to political campaigns (e.g. ‘Keep mining strong campaign’\(^{19}\)), and so through the media they reach into our lives and lounge-rooms. They are willing to enter the political arena and push their usually narrow agendas (Sukhdev 2012). They are clearly often NOT concerned with the wider public good. The battle with the large tobacco companies who suppressed/denied the proven dangers of smoking to public health and with James Hardie (re asbestos mining) provide stark instances which seem to be a clear illustration that corporate responsibility is often ‘do as they like’ and that they are only concerned with protecting the company’s profits, its reputation and not the public good.

It is perhaps telling that the ASX places its trust in a mysterious, quasi-omnipotent body that it notes is the final judge of its corporate governance program’s success – being ‘the Market’. The ASX Corporate Governance Council (2010) says:

> Ultimately, it is for the market to pass judgement on the corporate governance practices of Australian companies, not the Council or ASX. The guidance provided by the Principles and Recommendations since 2003, with the cooperative goodwill of listed entities, has contributed to a high standard of corporate governance practice in Australia without the agency costs of ‘black letter’ law common in other markets. (my emphasis)

It is in fact investors (shareholder activists), unions, business managers (especially whistle-blowers), and ordinary citizens (often effected by the negative externalities created by corporations) who have come to call out and expose corporate failures, corruptions and various other transgressions. Their judgements have been harsh, and a new approach to corporate form and related entities has been sought. The evidence seems clear, the ASX’s trust in the market, as the major arbiter for its programs success, is clearly misplaced!

\(^{19}\) It was the Minerals Council of Australia that ran a scare-campaign in opposition to the Federal Government’s proposed resources super-profits tax. The Multi-Million dollar funding for this campaign came from its members such as Rio Tinto BHP and other miners. From Alex White’s Blog, June 15, 2010. See http://alexwhite.org/2010/06/the-mining-tax-scare-website-is-an-excellent-case-study.
The ASX approach lacks any specific ‘compliance consequences’ or even specific ‘regular ways to judge or measure noncompliance’ and what such deviations might mean for that corporation, its shareholders and/or the wider community. One must ask, if there are no consequences and no obligatory requirement to report; what kind of a standard does this code of conduct support?

It is obviously extremely doubtful that such a self-managed and self-regulated approach to corporation’s governance activities can deliver real improvements or even measure or maintain existing good behaviour.

**So how has it come to this?**

This paper is not the place for a detailed analysis of all the forces that have shaped what public (and transnational) corporations have become. It is not merely changes in the legal form (i.e. ability to seek to raise public funds from issue of shares and their free trade on the stock exchange) but it is the fact that large corporations and private business interests have control over huge capital flows. Over decades they have lobbied governments and policy-makers, advocating policies tailored to their own narrow business aims. Oddly, the advantages and legitimisations of their particular policy ends have also become political policy orthodoxy. Part of this process of the growth of the power of large Public Companies (coming out of the 1970s) is the almost mythic status given to so-called ‘Free Market’. Governments have been persuaded to treat the free market as:

*The new organising principle for the global order. The idea that governments should protect citizens against the excesses of free enterprise has been replaced with the idea that government should protect business activities against the excesses of democratic regulation.* (Beder 2010)

So it is not merely legal forms that have changed, it is the economic power and the influence that business leaders have gained (as they seek to trade globally) that has wrought great changes. It is the ideas of neo-liberalism that have meant policy-makers have come to shift emphasis away from legitimate public policy aims, which are seen as secondary. Instead, what we have come accept
is ‘business-managed democracies, that is, democracies where the politics and cultural life of nations are managed in the interests of business’ (Beder 2010).

**So what are we to do?**

Despite the less than beneficial influence of many large companies, as noted earlier, 99% of our proprietary companies are not large Public Companies. While of course small proprietary companies are not immune to corporate fraud or other misdemeanours, as members of the local communities in which they operate, they are not indifferent to issues important to the communities. So these small companies, responsive to the community’s needs are often positive examples. They often offer a strong contrast to the behaviour of their larger Public Company cousins.

Indeed, we may observe that there would seem to be nothing in the conduct of commerce through a company structure that automatically, or inevitably, leads to that business seeking to adopt, unfair, immoral or and or socially-antagonistic policies or actions. In fact while there are many notable ‘negative externalities’ that have clearly wrought havoc upon the natural environment and our communities, there are also ‘positive externalities’ that are also delivered by some of our large public corporations. As Pavel Sukhdev (2012) notes:

_Additionally, corporations can invest in communities above and beyond balance sheet considerations, nurturing social networks and contributing to the development of local infrastructure that benefits entire cities._

It is important to realise that people inhabit and drive the corporations. Indeed, many of us work within them every day. While our society has developed and refined the legal and social uses of the corporation, we have also shaped these

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20 Sukhdev lists a number of companies who, while being successful and profitable have also instituted operational planning and internal corporate programmes which have positive benefits for the immediate work force and/or upon the way products are manufactured and hence they have looked at the impact of their business upon the society and the natural environment. He mentions ‘Infosys” in India (developing human capital as a positive externality) and ‘Puma’ (the shoe company who reorganised itself to become a sustainable manufacture) as operating so as to achieve corporate success and have also acted beneficially with the context of the wider community and the environment.
entities, as it has shaped our society and our view of ourselves and our social and economic possibilities. There are also other legal forms and ways of working together, where the moral and/or social purpose are core elements of what that corporate entity has set out to do. There are also other success stories in the world of business which are indeed different entities from corporations. There are for instance many successful forms of cooperatives (which we will hear more of soon), ‘not for profits’ and new approaches to organising corporations that all clearly display that humanity is not the slave to the current Public Company model. Indeed human communities have shown we can work together productively in various kinds of enterprises using various legal forms.

New approaches to corporations

B-corporations and Benefit corporations

**B-Corps** are a certification system where companies apply to receive such certification. They are not as such a new corporation, but existing corporations that are certified to do certain things. A number of new corporate entities have arisen *which put public benefit first instead of Shareholder Profit*. This is an important shift, because under such structures it is clear what the company is required to deliver and what it stands for. So the public, as consumers, are then empowered to choose such entities based not only on the product and service quality being delivered, but also on the B-corporations stated aims and commitment to accountability and transparency. Hence they are designed to have good corporate governance.

**B Corp certification** (also known as B Lab certification or B Corporation certification) is a private certification issued to for-profit companies by B Lab, a global non-profit organisation with offices in the United States, Europe, South America, Canada, Australia, and New Zealand. To be granted (and to preserve certification), companies must receive a minimum score on an online assessment for ‘social and environmental performance’, satisfy the requirement that the company integrate B Lab commitments to stakeholders into company governing documents, and pay an annual fee ranging from $500 to $50,000. As of September 2016, there were 1,863 ‘certified B Corporations’ across 130 industries in 50 countries.
One might reflect that our society accommodates all sorts of jobs and services where the profit motive is not the driving force. A successful teacher, nurse, scientist or academic is not normally regarded as someone who values profit as their primary motivator. There are also of course a whole gamut of organisations whose aims ambitions and drives concern the wider public benefit, i.e. charities, volunteer organisations such as Rural Fire Service the SES etc. Hence we can confidently say that the role of ‘profit’ (or personal gain) as the dominant ‘badge of success’ (from a social status perspective), is clearly a misapprehension of human nature. Despite the spread and contamination of various neo-liberal ideologies (that outline a very narrow view of human aims and achievements), the drive to succeed and to achieve does not preclude people from seeking to help others, to undertake research (for its own sake) or simply to create inspiring works in the sphere of the arts.

**Benefit Corporations**

In the USA, a *benefit corporation* is a type of for-profit corporate entity. This entity is authorized by 30 US states and the District of Columbia to include positive impact on society, workers, the community and the environment *in addition to profit* - as its legally defined goals. As its name implies, the purpose of a benefit corporation is to create general public benefit, which is defined as a material positive impact on society and the environment, i.e. maximum positive externalities and minimum negative ones. A benefit corporation’s directors and officers operate the business with the same authority as in a traditional corporation, but are required to consider the impact of their decisions not only on shareholders but also on society and the environment.

In a traditional corporation, shareholders judge the company's financial performance; with a benefit corporation, shareholders judge performance based on the company's social, environmental, and financial performance. Transparency provisions require benefit corporations to publish annual benefit reports of their social and environmental performance using a comprehensive, credible, independent, and transparent third-party standard.
Community Interest Companies (CICs)

A community interest company (CIC) is a type of company introduced by the United Kingdom government in 2005, designed for social enterprises that want to use their profits and assets for the public good. CICs are intended to be easy to set up, with all the flexibility and certainty of the company form, but with some special features to ensure they work for the benefit of the community. These companies have proved popular, with some 10,000 registered in the first 10 years. As a CIC is a business with primarily social objectives, whose surpluses are principally reinvested for that purpose, in the business or directly in the community, rather than being driven by the narrow aim to maximise profit for shareholders and owners. This legal form presents a refreshing contrast to the excesses of Corporate failures, frauds and misbehaviour. By using business solutions to achieve public good, it is believed that CICs have a distinct and valuable role to play in helping create a strong, sustainable and socially inclusive economy.

Under Australian State legislation (i.e. the Fair Trading Acts) one can incorporate ‘Associations’ (and such associations also must have a useful public purpose, if not a specified social or environmental one), so arguably these can also achieve much the same as CICs do in the UK. Such Incorporated Associations also can generate profits, but these cannot be distributed to association members, and must instead be used to advance the aims of the association. 21

Clearly all these new corporate entities preserve many of the organisational features of Public Companies that have proved to be effective and useful. That is they:

- Can perform all the functions of a body corporate.
- Can sue and be sued.
- Have perpetual succession.
- Can acquire, hold and sell property.

Yet the central thing missing, since the advent of the joint Stock companies under Royal Charter, has been to replace the ‘drive for profit’ alone with a

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21 It may be that CIC’s in the UK allow for remuneration of office holders which would be different from our Non-profit incorporated associations.
Positive Steps

requirement to aim for public good or benefit for the wider community. Such a shift would avoid seeking just immediate short-term profits for a narrow group (i.e. shareholders). Further openness and transparency in their dealings (and good reporting standards) are all required elements in their reporting/disclosure protocols.

Pavel Sukhdev: on moving from Corporation 1920 to Corporation 20/20

Sukhdev asked: ‘What are the defining characteristics of what he calls the successful “Corporation 1920” that contribute most to converting legal design into social costs?’. The answer he gives to this question is fascinating. His analysis shows how various factors have combined to make the old corporate model into such a success, while producing such social and environmental costs (i.e. negative externalities). He notes four major aspects, being: size; leverage; advertising; and lobbying. He says:

These four create a powerful toolkit for what has been aptly described as “a relentless pursuit of profit” by constructing or influencing demand, increasing product distribution, reducing product costs, creating product opportunity and competitive advantage, financing business growth and creating positive feedback loops among all these drivers of traditional corporate performance.
Sukhdev’s analysis is powerful and detailed in noting the failings of the corporate model dating back to its early rise to power in the 1920s. But Corporation 20/20 outlines how to get to a better, higher functioning version of a modern corporation. It is heartening that the UN has been interested to support Sukhdev's vision for a revised and morally-awakened Corporation 20/20.

**Community based approaches to delivering ‘services’ and ‘goods’ - not corporation based**

**Not for Profits**

In Australia charities and other not-for-profits have historically been involved in helping vulnerable and disadvantaged people in our society. In fact charities and not-for-profits provided the majority of social services in Australia up until the Second World War, not government. The Red Cross and the Salvation Army are examples of such organisations, which were mainly religious institutions that worked towards relieving poverty and/or suffering.

Today, Australia's not-for-profit sector is large and diverse. It covers activities and services including health, social services, education, sport and recreation, arts and culture, environment, animal welfare, human rights and religious practices. This sector is diverse and there is such variety in the sectors and activities into which these public-spirited organisations contribute. But it is sobering to note that while many of these organisations are often staffed by unpaid volunteers, there are over 600,000 such ‘not for profits’, and they are said to add significantly to the economy. A study by the Australian Productivity Commission showed that these 600,000 ‘not-for-profits’ each year (ACNC n.d.):

- contributed about $43 billion to GDP.
- employed approximately 890,000 people.
- received $5.1 billion in donations and $25.5 billion in direct government funding.

Not-for-profits are a clear indication of humanity’s ability to come together and form effective organisations for a useful purpose. Such groups seek help
Positive Steps

from the public (at no cost), while achieving a range of valuable social aims and programmes.

Cooperatives

Cooperatives are a useful way for people to come together and organise themselves and conduct their enterprises using a mutually accepted code of behaviour. It has been suggested that early forms of the cooperative go back to Medieval times, and can be seen in the ancient structures called ‘guilds’, particularly the craft or artisan-based guilds. Guilds were formed where like-minded people with particular skills gathered together to help one another, while protecting and advancing their trades. These guilds also often helped the communities in which they lived and worked (often giving aid to the poor or infirm). Of course, the early forms of cooperative-like entities or associations developed around the same time as ‘corporations’ (i.e. joint stock companies) were forming. Gabriela Vargas-Cetina (2011) notes how corporations and cooperatives borrowed from one another, and notes their similarities:

... they have internal regulations; they are structured around the pursuit of a common, collective goal; and they behave as a single entity in their dealings with other corporate bodies and individuals. They have coexisted and influenced each other; today, both capitalist corporations and cooperatives have borrowed extensively from each other and from other types of organizations, and even nation-states have borrowed ideas from both the cooperative movement.

But what is a cooperative?

A cooperative, in modern times, has been defined (Zeuli and Cropp 2004) by the International Cooperative Alliance (ICA) as:

... an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and associations, through a jointly owned and democratically controlled enterprise.

They further note there are three primary cooperative principles:
**User ownership. User control and proportional distribution of benefits.** The User ownership principle implies that the people who use the co-op (members) help finance the Co-op and therefore own the Co-op.

While a co-operative is a member-owned business structure, all members have equal voting rights regardless of their level of involvement or investment. All members are expected to help run the cooperative. So inactive membership usually means you cannot vote. But like proprietary companies, a co-operative is a separate legal entity and its members, directors, managers and employees (if there is separate management) are not liable for any debts incurred by the cooperative unless these debts are the result of recklessness, negligence or fraud. So there is a similar legal framework for cooperatives as for companies.

There are some differences too from company structures. The persons who form a cooperative are usually directly engaged in (or with) the occupation or activity in which they undertook to form their cooperative. Their membership gives them equal voting status, while giving them a proportional gain of some kind. Cooperatives are not usually listed on the Stock Exchange and therefore may not have as ready access to capital as large public companies. However as enterprises go cooperatives are well established in various commercial pursuits especially in the USA. Cooperatives are engaged in various industries, such as agriculture, groceries, finance, energy/communications, hardware and lumber. In some of these areas they have a sizable section of the market, for example 27% of the agricultural market (Zeuli and Cropp 2004).

Hence successful enterprises can be run using the three cooperative principles. Of course these enterprises still need to be well-run businesses, but the members (owners) ready involvement and equality of ownership and shared responsibility, would seem to be quite definitely advantageous structural elements when compared to the short-comings and failures of the large Public Companies. The fundamental difference between cooperatives and corporations can be seen in the member versus investor orientation:

*Cooperatives focus on producing benefits (which may or may not be profits) to members, whilst other corporations focus on creating returns for their investors, because of this difference the operating philosophy between these two can differ greatly. Cooperatives are*
often created to correct market failures (e.g. provide an important local product) and not simply to make corporate profits. (Zeuli and Cropp 2004)

There are very many cooperatives operating globally and some cooperatives operate internationally. For instance ‘Mondragon’ was founded in Spain in 1956 and is the tenth-largest Spanish company in terms of asset turnover, and the leading business group in the Basque Country (a province of Spain). At the close of 2014, Wikipedia notes it employed 74,117 people in 257 companies and organizations in four areas of activity: finance, industry, retail and knowledge. Mondragon is organised under the cooperative principals as espoused by the ICA. Another interesting aspect of the Mondragon cooperative is that they have:

... agreed-upon wage ratios between executive work and field or factory work which earns a minimum wage. These ratios range from 3:1 to 9:1 in different cooperatives and average 5:1’ (Wikipedia).

Hence ‘User control and proportional distribution of benefits’ as a key cooperative principle can be seen to effect the wage structure within cooperatives. By contrast, the public has often been shocked at the scandalous high salaries of some senior executives in Public Corporations, where the benefit either economically (or socially) to shareholders or the wider public of such an extreme differential in wages is far from apparent. Evidence shows that cooperatives are clearly a viable business structure, they are voluntary to join and allow interested people ‘to meet their common economic, social and cultural needs, through a jointly owned and democratically controlled enterprise’ (see ICA web site, http://ica.coop/en/whats-co-op/co-operative-identity-values-principles), while they may not have the same access to capital of the large Public Companies.

From the foregoing, it appears clear that we are capable of adapting our corporations’ legal form. We can add other social or community goals and adopt other useful legal instruments (e.g. cooperatives or ‘not for profits’) within which to undertake our commercial dealings with one another. We need not be driven by profit alone. It is also clear alternative legal forms have a long history and have been successful, while also shown to be flexible and viable
Positive Steps

The path toward a sustainable Steady State economy lies in exploring the use of these other available legal forms of structure, which place the improvement of the community and the protection of the environment as central to their aims. Positive steps are:

- Greater support for cooperatives, such as Mondragon.
- Creation of an equivalent Australian scheme to the UK Community Interest Companies (CICs).
- Greater support of ‘not-for-profits’ (e.g. http://www.howonearth.us/)
- Government support for Sukhdev’s plan for Corporation 2020 (http://www.corp2020.net/). This involves:
  - **Incorporating Externalities**: All major corporate externalities (both positive and negative) must be measured and reported as disclosures in the annual financial statements of companies.
  - **Resource Taxation**: Taxes and subsidies have to be transformed to tax the ‘bads’ (such as resource extraction and fossil fuel use), and support the ‘goods’ (such as wages and profits) rather than the other way around.
  - **Limiting Leverage**: Accountancy bodies and financial regulators must introduce rules and limits to govern financial leverage, especially if the borrower is considered ‘too big to fail’ (Growth fuelled by excessive debt may not be real productive growth).
  - **Accountable Advertising**: Advertising norms and standards must be introduced so that advertising is responsible and accountable (Sukhdev 2012, 2013).
References


Chapter 25 - The Role of the Banking System

Paul Twomey

The banking and finance sector is another area of scrutiny which from a steady state economy perspective may be in need of reform. In particular, a number of ecological economists and steady state scholars point towards a structural ‘growth imperative’ in the current fractional reserve banking system under which all our major banks operate. More generally, this system has also been blamed by some economists for partly causing, or at least enabling, financial instability and debt bubbles, most recently seen in the 2008 financial crises (Askari and Mirakhor 2015). The various social and environmental consequences that have resulted from this crisis are also relevant from a steady state economy perspective (Jackson and Dyson 2012).

Accordingly, a number of economists have proposed radical reforms to the banking system, including various proposal of implementing full (or 100%) reserve banking. Herman Daly and CASSE include full reserve banking (FRB) in their recommended steady state economy policy lists (Daly 2013). The Green Party of the United Kingdom has also officially advocated a version of it recently (Green Party UK 2013).

However, following the renewed discussion of FRB, there have been a number of recent critiques that have questioned whether fractional reserve baking is the source of the problems that have been levelled at it, and whether FRB could be successfully implemented in practice. Unfortunately, CASSE NSW is not able to make an informed decision on the various theoretical and implementation issues that arise in assessing FRB. It is apparent that further investigation is needed along with further research more generally on the issue of how the banking and financial system can best enable a steady state economy.

Bank deposits and the creation of money

Understanding the current monetary and banking system is made difficult by the fact that many of us have erroneous preconceptions of what both money and banking are. Many of us think of money as only hard cash (coins and notes) and banks as places to keep our money safe. In fact, if we conceive of money as something that is generally accepted as a means of payment, then
the vast majority of money is not cash, but rather numbers on a balance sheet in a computer system. It turns out that over 97% of money exists in the form of electronic bank deposits (the accounting liabilities of banks), which are created when banks make loans or buy assets (Jackson and Dyson 2012).

Similarly, banks are not just fancy piggy banks holding our money. Indeed, once we hand over any cash to a bank we lose ownership of that cash and only possess a promise to receive back an equivalent amount of money if we so request. The banks use the money deposited to make loans and earn a profit on the interest from the loans. As said above, when a bank gives a loan it creates a new deposit for the borrower. Another common preconception is that the amount of money loaned by a bank must be backed by a similar amount of deposits made into the bank. However, this is not the case. A bank only has to hold reserves in amounts equal to a fraction of the amount of its deposit liabilities. Hence the term ‘fractional reserve banking’. These reserves are held at the bank as currency and balances in the bank's accounts at the central bank.

Note the implication that banks can thus create money ‘out of thin air’ and the amount of money in circulation is not directly controlled by the Central Bank. Around 97% of money is created by banks and this money is debt – people are required to pay interest on these loan deposits created by banks.

The growth imperative and other problems with fractional reserve banking

The fact that most money is debt and that this debt requires interest payments has led to the contention by some scholars that the banking system necessarily requires continued economic growth in order to survive. The basic argument and the inherent clash with the ecological limits of the real world has been summarized by Costanza et al (2013):

*Most of our money supply is now a result of fractional reserve banking. Banks are required by law to retain a percentage of every deposit they receive: the rest they loan at interest. However, loans are then deposited in other banks, which in turn can lend out all but the reserve requirement. The net result is that the new money issued by banks, plus the initial deposit, will be equal to the initial deposit*
divided by the fractional reserve. ... When the loans are repaid, the new money is destroyed. However, the borrowers must repay the loans plus interest and the banks initially loaned out enough to repay only the principal. Either new government expenditures or new loans are required to pay back the interest. ... Debt grows exponentially, obeying the abstract laws of mathematics. Future production, in contrast, confronts ecological limits and cannot possibly keep pace. Interest rates exceed economic growth rates even in good times. Eventually, the exponentially increasing debt must exceed the value of current wealth and potential future wealth, and the system collapses. However, in the effort to stave off an economic crisis and the unacceptable misery, poverty and unemployment it will cause, policy makers will pursue endless economic growth, unsustainable on a finite planet. The system forces us to choose between unsustainable growth and misery. (pp. 42–44; re-quoted in Cahen-Fourot and Lavoie 2016).

In a similar manner, Eisenstein (2012) maintains that ‘our present money system can only function in a growing economy. Money is created as interest-bearing debt: it only comes into being when someone promises to pay back even more of it’. In a related vein, Farley et al (2013, p. 2803) claim that the ‘current interest-bearing, debt based system of money creation stimulates the
unsustainable growth economy’. Cahen-Fourot and Lavoie (2016) also list five other reasons why some ecological economists believe that money loaned into existence as interest-bearing debt is incompatible with a sustainable economy:

- the current system is pro-cyclical, creating a continuous series of bubbles and busts;
- interest bearing debt in general causes us to discount the future;
- interest rates generally exceed growth rates of renewable resources, creating pressure to liquidate them in order to pay down debt;
- interest rates exceed economic growth rates, leading to concentration of wealth in the hands of the few; and
- the current system does not adequately finance the provision of public goods.

**Full reserve banking as a solution**

As a possible solution to these problems, an alternative banking system that has been proposed is full (or 100%) reserve banking. This idea has been around for nearly a century. A number of modern versions of this proposal include those of IMF economists Benes and Kumhof’s Chicago *Plan (2013), Positive Money and the New Economics Foundation’s ‘Modernization of Money’ (Jackson and Dyson 2012) and Kotlikoff’s Limited Purpose Banking (2010).

While many of the details differ in these proposal, the basic idea is that funds deposited by customers in demand deposit accounts (e.g. checking accounts) would not be loaned out as banks would be legally required to retain the full deposit (i.e. 100% reserves) to satisfy potential demand for payments. Instead, only time-deposits (saving accounts) could be loaned out. Such a change could be gradual. The new system would put control of the money supply entirely with the government or a central independent institution, rather than largely with private banks.

Daly (2014) explains that in full reserve banking, banks would not be making money from lending out money ‘out of nothing’, but from financial mediation, lending on time-deposits, and charging for chequing, safekeeping and other services. With 100% reserves, every dollar loaned to a borrower would be a
dollar previously saved by a time-account depositor (and not available to the depositor during the period of the loan). Daly concludes that ‘this re-establishes the classical balance between abstinence and investment’. Furthermore, this proposal, by separating money and credit, will usually allow imprudent banks to fail without threatening the banking payment system or the public purse.

Dittmer (2014) summarizes three broad sustainability-related arguments that have been given in favour of FRB. Firstly, it serves to constrain new investments to the availability of savings, thereby checking economic growth. Secondly, it can ‘potentially elevate environmental considerations in decisions about resource allocation by increasing the role of the democratic state as an economic actor’. For example, the State, as the ultimate issuer of money, could provide conditions on the use of commercial loans. Thirdly, it could reduce debt levels to counter the growth imperative of paying interest.

Daly (2014) notes that in the 1920s, the leading academic economists Frank Knight and Irving Fisher (along with Nobel laureate in Chemistry Frederick Soddy) advocated a policy of 100% reserves for banks. However, the Great Depression then occurred, and 100% reserve banking was considered too restrictive on growth, which then (as now) was touted as the panacea for everything. However, as Daly (2014) notes, we have now reached uneconomic growth, so the fact that full reserve requirements may slow growth is arguably precisely what we need.

**Critiques of full reserve banking**

There have been a number of recent critical assessment of FRB. These include questioning whether fractional reserve banking necessarily leads to a growth imperative, whether it promotes debt bubbles, and concerns that FRB could have a number of unintended negative consequences and be thwarted by a ‘shadow banking’ sector. These critiques include Cahen-Fourot and Lavoie (2016), Dittmer (2014), Dow et al (2015), Fontana and Sawyer (2016), Jackson and Victor (2015) and Nersisyan and Wray (2016). I can only briefly mention some of the concerns here.

Jackson and Victor (2015), ecological economists who are sympathetic to the idea of the steady state economy, have developed a model with a fractional
reserve banking system that is consistent with a steady state economy. They conclude that ‘contrary to claims in the literature, we find that neither credit creation nor the charging of interest on debt create a ‘growth imperative’ in and of themselves’. They acknowledge there may be a number of growth imperatives in capitalism but that fractional reserve banking may not be one of them. Similarly, Cahen-Fourot and Lavoie (2016), using Post-Keynesian monetary theory, conclude that both positive interest rates and debt-money are not incompatible with a full stationary economy. For them, money creation does not seem to be the real problem and what instead needs to be changed are the productive structures of our economies and the social relations of production.

Dow et al (2015) also dispute that money supply is a key causal variable in economic growth, and also question whether it is feasible for central banks to identify and enforce an optimal quantity of money. They also note that FRB plans rely on an unsupported confidence in the efficiency of financial markets outside the centrally controlled banking system. To support their argument that FRB would not make the financial system less prone to bank runs and financial crises, they give the example of the British bank, Kaupthing, Singer and Friedlander (KSF), where a 95% liquidity requirement did not prevent the bank collapse during 2008.

Dittmer (2014) also argues that implementing FRB could be fraught with problems. Constraining credit to direct savings, he argues, would strongly increase the volatility – and likely also the average level – of interest rates, with potentially perverse allocation effects and financial fragility as a result. He also raises the practical difficulties of instituting directed credit policies. He notes that while large debt reductions in a transition to FRB may be technically possible, it would presuppose a massive political weakening of the creditor classes, which may be unrealistic.

Finally, nearly all of these critiques has pointed out that FRB could easily be undermined by the incentive for banks and other financial intermediaries to create near-moneys and circumvent the debt creation controls. Dittmer (2014) notes that given the elusive nature of money, it is unclear whether the use of near-moneys could be effectively fought if a permissive stance towards ‘community currencies’ is considered desirable.
Conclusion

Many steady state economists and other sustainability-related scholars have long held concerns that the design of the current banking system incorporates an inherent growth bias, and may also be having other socially and environmentally detrimental impacts. While such claims have been contested, CASSE NSW believes that full reserve banking and related financial reform proposals are worthy of serious consideration. These concerns should be investigated, along with further research more generally, on how to best create a banking and financial system that enables and sustains a steady state economy.

Positive steps:

The positive steps forward in regard to fractional reserve banking are not as clear as they may have seemed even a year ago. However, these can be listed as:

- A need for a continuing dialogue about the impact of fractional reserve banking in terms of whether it encourages growth and debt bubbles.
- Encouraging investigation into the suitability and viability of full reserve banking as an alternative banking model that can help address these concerns.
- Further discussion on other reforms of the banking and finance system that can help enable a steady state economy.
A step further to control fractional reserve banking, Haydn Washington

Some key champions of the SSE would go further than the points above, Herman Daly (the father of the SSE) is one, and ecological economist Joshua Farley (e.g. Farley 2013) is another. Some CASSE NSW members (e.g. Haydn Washington) also support their position and would go further than the steps above. As Farley et al (2013) conclude:

Controversial as the proposal may be, we believe that to achieve all these goals, the public sector must reclaim the power to issue money, a constitutional right in the US, and take away this right from banks by gradually moving towards 100% fractional reserve requirements.

Even if there is debate as to how much fractional reserve banking drives growth, many scholars continue to conclude that fractional reserve banking does indeed feed the debt bubble. On this basis alone, considering the impact that the bursting of the debt bubble would have (see debt chapter), whether or not fractional reserve banking drives growth, it should be reined in to control the blow out in debt. Hence an additional positive step would be to argue for:

- A graduated move towards full reserve banking so as to reduce it as a cause of debt-bubble growth.

This may not in fact need to move to 100% reserve banking, but certainly a higher reserve banking figure (e.g. initially 50%) would drive debt less and be more stable to shocks to the system.

References


Chapter 26 - The Genuine Progress Indicator: An indicator to guide the transition to a steady-state economy
Philip Lawn

Introduction

Currently, there are many high-GDP countries which generate levels of real output that cannot be ecologically sustained (GFN 2011). At the same time, there are impoverished, low-GDP countries which desperately need to increase the basic goods and services available to a large percentage of their citizens. Thus, while there are high-GDP countries that need to reduce the physical scale of their economies — a process referred to as ‘degrowth’ (Martinez-Alier et al 2009) — most low-GDP countries need a healthy dose of GDP-growth before stabilising their economies at a desirable physical scale.

Unfortunately, pontificating about the need for some countries to degrow and others to limit expansion of their economies sheds no light on the problem of when to degrow or when to stop growing. Advocates of the steady-state economy therefore need to answer the following questions:

How much should high-GDP countries reduce the scale of their economies?

How much GDP-growth should poor countries engage in before stabilising the physical scale of their economies?

There are further questions that arise even after these questions have been adequately answered, such as ‘how can high-GDP and low-GDP countries prevent absolute poverty levels from rising as they either degrow their economies or restrict further growth of them?’. I’ll leave this to a later stage of the chapter where I will briefly outline some suggested strategies. Much of this chapter sets out to argue the case for a Genuine Progress Indicator (GPI) — an indicator still in need of further refinement — to guide the transition to a steady-state economy. In doing this, I will not only explain why an economic indicator is required to assist in this transitional process, but why an alternative to GDP (and other suggested economic indicators) is vital.
Don’t get me wrong. The most crucial thing is to ensure the economies of all nations, and the world generally, operate within ecological limits. To know whether the physical scale of national economies are ecologically sustainable requires biophysical indicators, not economic indicators. However, as we shall see, there is an ‘economic’ limit to growth as well as an ‘ecological’ limit, and the former exists at a scale much smaller than the latter. It may be essential for economies to be ecologically sustainable, but a sustainable scale is not necessarily a desirable scale per se. Since lower-than-anticipated levels of economic welfare can drive people to undertake ecologically-destructive practices, considerations of the economic welfare generated at a particular economic scale cannot be overlooked.

**Ecological and economic limits to growth**

From a strictly biophysical perspective, one fact is indisputable — the production of physical goods (producer goods as well as consumer goods) requires the ongoing input of low-entropy matter and energy, otherwise referred to as ‘natural resources’ (Georgesue-Roegen 1971). Because of the First Law of Thermodynamics — the Law of Conservation of Matter-energy — the quantity of matter-energy embodied in the natural resources used to produce a given quantity of real goods must at least equal the quantity of matter-energy embodied in the real goods produced (Daly 1996). To be anything less would amount to the creation of matter-energy, which is impossible. Ergo, the production of a given quantity of real goods requires the input of a minimum quantity of natural resources (Ayres and Kneese 1969; Perrings 1987).

**Gross Domestic Product (GDP)**

Turning now to a suitable economic indicator to guide the transition to a steady-state economy, perhaps it is best to start with an assessment of real GDP, in view of its widespread use as an indicator of national well-being. GDP is a monetary measure of the goods and services produced by domestically-located factors of production. Real GDP, as opposed to nominal GDP, involves a correction for price changes so that GDP reflects changes in the physical quantity of goods produced. Evidence of the changing physical volume of economic activity is still of some value, just as it was when GDP
was devised to account for a nation’s annual product during World War II (Kuznets 1941). But it falls well short of being an adequate measure of national income and shorter still as an indicator of national well-being.

National income is best defined as the maximum amount that a nation can consume over a year and still be in a position to consume at least as much in the following year and every year thereafter (Hicks 1946; Daly 1996). For GDP to be an accurate measure of national income, it must be possible for a nation to consume its entire GDP and be able to consume the same quantity of goods and services in the following year. This, however, is not remotely possible because much of what a nation produces in a given year is required to replace worn out capital goods (e.g. plant, machinery, and equipment) as well as maintain the productive capacity of the labour force (e.g. education and training). Another large proportion of GDP is also designed to defend the economy against the negative side-effects of economic activity itself. Because defensive measures cannot prevent some damage to the economy’s productive capacity, a further portion of GDP is required to rehabilitate productive factors, including human beings who are physically injured or mentally scarred by work. Finally, any component of GDP that involves the depletion of natural capital (e.g., forests, fisheries, and ore deposits) undermines the capacity of the natural environment to provide the natural resources needed for future production. All up, GDP massively overstates a nation’s national income.

The Genuine Progress Indicator (GPI)

The Genuine Progress Indicator (GPI) is an indicator designed to measure but separate the benefits and costs of economic activity. Originally called an Index of Sustainable Economic Welfare (ISEW) (Daly and Cobb 1989), and built on earlier work by Nordhaus and Tobin (1972) and Zolotas (1981), the GPI involves subtracting the costs from the benefits of economic activity to obtain a measure of economic welfare (Lawn 2003, 2007; Redefining Progress 1995).

There are some critics of the GPI who argue that the GPI has no theoretical basis, or is simply theoretically flawed (Neumayer 1999; Harris 2007; Brennan 2013). This is not true. The GPI has not been constructed out of thin air, but has been built on the principles laid down by Fisher (1906) concerning the distinction between income and capital (Lawn 2003, 2008, 2013). For
example, by treating the production of durable consumption goods as an activity designed to replace worn out existing goods, and therefore generate welfare benefits in future years, the GPI does not include it as a current welfare benefit. However, it adds the welfare generated by existing durable goods (i.e., recent production), including public capital, which GDP and a measure of SNDP do not. Also included in the GPI are the welfare benefits provided by non-paid household and volunteer work — two major benefits overlooked in standard national accounts.

The GPI also deducts various social costs — the costs of unemployment, crime, and family breakdown — as well as a range of environmental costs, such as the cost of non-renewable resource depletion; the cost of deforestation; the cost of land degradation; the cost of various forms of pollution; and the cost of long-term environmental damage (e.g., climate change).

One other important inclusion in the GPI is a correction made to consumption-related welfare caused by changes in the distribution of income. The correction is made so that a more even distribution of income leads to an upward adjustment of consumption-related welfare. On the other hand, a redistribution of income from the poor to the rich results in a downward adjustment to this welfare item.

**GPI results and their implications**

The initial estimates of the GPI were conducted on industrialised nations in the 1990s (Diefenbacher 1994; Redefining Progress 1995; Rosenberg and Oegema 1995; Jackson and Stymne 1996; Jackson et al 1997; Guenno and Tiezzi 1998). Only more recently have GPI studies been performed on poorer countries (Lawn 2008; Wen et al 2008; Clarke and Shaw 2008; Nguyet Hong 2008). The early studies in the 1990s revealed a consistent and disturbing pattern (see Figure 1). They showed that although the GPI tends to rise in accord with GDP when GDP levels are low, at some point the GPI begins to fall as a nation’s GDP continues to increase. It turns out that this critical point is usually in the order of US$20,000 per capita (2000 prices). These results led Max-Neef (1995) to put forward a ‘threshold hypothesis’ — a postulation that when the per capita GDP of a nation exceeds a particular level, the per capita GPI is likely to decline.
Figure 1: A comparison of the GDP and GPI for six industrialised nations (Source: Jackson and Stymne 1996).

What these early GPI results and Max-Neef’s conclusion intimate is that most industrialised countries have surpassed their optimal macroeconomic scale (Lawn 2007). That is, high-GDP countries have grown their economies to a point where further growth is pushing up environmental and social costs faster than it is boosting economic benefits. For many of these countries, the
threshold point was reached in the early to mid-1980s, although, in the case of the USA, UK, and Australia, it was reached in the mid-1970s.

Had these countries been using the GPI to guide the economic process rather than real GDP, would they have done anything different? They may not, but at least the GPI would have indicated that the time had come to make the transition to a steady-state economy and to focus, not on further growth, but on qualitative improvement, distributional equity, greater efficiency, and natural capital maintenance. Not only would it have led to increased levels of economic welfare, it would have prevented many nations from exceeding their maximum sustainable scale. Why? Because they would have ceased growing their economies at the economic limit to growth, which, as we have seen, is well short of the ecological limit.

Now that many high-GDP countries are well beyond their optimal scale, the GPI is still of considerable value because it can help guide countries back to the optimum. Nevertheless, simply shrinking the economy through a process of degrowth will not suffice and could prove counterproductive if conducted injudiciously. There will be a need for a measured approach — best conducted through quantitative restrictions on the rate of resource throughput — with a significant emphasis on the redistribution of income and wealth to shield the most vulnerable in society from a likely decline in the quantity of goods available for consumption. The restriction in resource throughput would probably best be implemented through a cap-auction-trade system that would limit the rate of resource use/waste generation and ensure an adequate price signal is established to encourage a more efficient use of the incoming resource flow (Daly 1991; Lawn 2007). The ensuing destruction of some private-sector spending power caused by higher resource-use costs and charges on various forms of pollution would provide room for governments to support the poor, which they could do by reducing marginal tax rates on low incomes (better known as ecological tax reform) (Daly 1996; Lawn 2007). Cap-auction-trade systems would also free up real resources to support a Job Guarantee scheme that could achieve low levels of unemployment, if not full employment, even as real GDP declines (Mitchell and Muysken 2008; Lawn 2009).
The GPI would be useful in these circumstances because its value would presumably rise if the degrowth process is performed well, but decline if it is not. Even in the former case, the GPI would help nations to determine when to cease the degrowth process in order to stabilise the economy at something approximating the optimal scale (Lawn 2006).

As for low-GDP nations still in need of further GDP growth, they would be well advised to employ the GPI in the way that high-GDP nations should have employed an indicator of economic welfare in the 1960s/1970s, had one been available. They should continue with GDP-growth — albeit growth that is as equitable and efficient as possible — so long as the GPI is rising and prepare for an orderly transition to a steady-state economy once GDP-growth starts to slow the increase in the GPI.

Having said this, it is worth highlighting that the per capita GPI of both China and Thailand have already begun to fall, even though their per capita GDP is much less than the US$20,000 per person threshold experienced by high-GDP countries (Lawn and Clarke 2008). The reason for this it seems is that the marginal cost of growth for these so-called growth ‘late-comers’ is much
higher than it was for high-GDP nations in the 1950s and 1960s. This is because the world is now ‘full’ and the best and the most accessible of the world’s material and energy resources have been exhausted by high-GDP countries, which has left poorer grade resources for low-GDP countries to fuel their current and future growth. Waste sinks are also fully if not over-committed, thus making the cost of waste generation much more expensive in the twenty-first century.

At the same time, many low-GDP nations have been adopting export-oriented strategies, which means they are not consuming as much of their own real output as high-GDP nations were when they were rapidly growing some 50-60 years ago. Also suppressing the welfare contribution of consumption in low-GDP countries has been the huge disparity in income growth of rich and poor citizens — a phenomenon not experienced by high-GDP countries in the post-World War II growth boom. Hence, the marginal benefits of GDP-growth for many low-GDP nations have not been as high as they were for high-GDP nations during the same stage of their economic development. In the end, the low marginal benefits together with the high marginal costs of growth have meant that the latter has been exceeding the former much earlier in the economic development process. Consequently, the economic welfare of some low-GDP countries has been levelling off or declining, despite per capita GDP being below US$10,000 — indeed, around US$5,000 (2004 prices) in the case of China and US$7,500 (2004 prices) in Thailand.

This evidence doesn’t mean that the GPI should be rejected or that low-GDP countries should blindly grow their economies. After all, the costs of growth don’t vanish just by ignoring them. But it does mean that high-GDP countries have an even greater obligation to degrow their economies — which is in their best interests anyway — to provide low-GDP nations with the ‘ecological space’ to enjoy a phase of welfare-increasing growth.

**Concluding remarks**

All nations need to make the transition to a steady-state economy — high-GDP countries immediately, which will require many of them to engage in a degrowth process; and low-GDP countries eventually, albeit they need to ensure that whatever GDP-growth they undertake it is as equitable and efficient as possible. Knowing whether there is a need to degrow the national
economy and how much, or alternatively, when to cease expanding it, requires the careful monitoring of an indicator of economic welfare. Unfortunately, measures of real GDP and adjusted measures of national income and genuine savings fail in this regard. The GPI, as an indicator explicitly designed to measure a nation’s economic welfare, does not.

Although the GPI is theoretically sound, more needs to be done to improve the methods employed to estimate some of the benefit and cost items used in its calculation. There is also a need to establish a standardised list of benefit and cost items and a consistent set of estimation methods (Lawn 2005, 2013). Despite its imperfections, the GPI should be used to guide the transition to a steady-state economy, if only because it is better to be vaguely right than precisely wrong on a matter as crucial as the physical scale of a nation’s economy and the economic welfare it generates. As an aside, but also of great importance, the GPI can confer significant weight to the case for a steady-state economy — a reality that advocates of a steady-state economy should not ignore.

Positive steps

In regard to the GPI, the positive step is:

- Report it! People tend to value what is measured. Today the Australian Bureau of Statistics only measures GDP and refuses to report on the GPI. If the GPI was also reported then people would rapidly see that a measure that considers positives and negatives is not rising, for we have reached uneconomic growth.

(Note this is an edited version of Lawn 2016)

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Positive Steps - 333


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Chapter 27 - Sustainability tariff structure
Paul Twomey

Implementing steady-state economy policies at a national level could have problematic consequences if other trading partners are not following suit. For example, domestic firms that incorporate various social, environmental and resource-constraint costs into their production prices would be at a competitive disadvantage to foreign firms that are not operating under comparable policy conditions and are thus able to ignore such costs. This could result in the displacement of domestically produced sustainable goods for less sustainable foreign goods in both domestic and foreign markets. Similarly, there could also be a flight of capital and relocation of production facilities to overseas locations operating under less growth-restrained regimes. Therefore, as part of any portfolio of steady state economy policies, there should be consideration of how to deal with such so-called ‘leakage’ and ‘capital flight’ problems. In this chapter I focus on the use of compensating tariffs on exports and imports. This policy instrument has been advocated by Daly (1988), Dietz and O’Neil (2012), Heinberg (2012) and Lawn (2016), among others. The design of any type of sustainability tariff structure should be understood within the broader context of encouraging local production.

Compensating tariffs and capital mobility restrictions

The basic idea of a compensating tariff is to impose a levy or tax on imported goods from countries with lower environmental (and social) standards that reflect the undesirable cost advantage arising from the difference in standards (Lawn 2016). It may be only relevant for a selection of industries (e.g. carbon intensive industries). Similarly, for exported goods there would be a compensating subsidy or payment to exporters that similarly makeup for any cost disadvantage from high domestic standard to enable to them to offer prices that are competitive in foreign markets. The revenue for these payments could be supplied from the tariff revenue from imported goods.

Any net revenue raised from compensating tariffs would not necessarily have to be kept domestically and could be used for international aid to developing countries. This could include those developing countries that are particularly impacted by the loss of income from reduced exports and could be directed to
help them to develop in less materially-intensive ways (Dietz and O’Neill 2012).

The purpose of the tariffs are to ameliorate the competitive advantage of cheap imports and uncompetitive exports which would be a concern even in a green-growth orientated economy. However, in a steady state economy, where profits may be muted, there would also be a particular concern of the flight of industries overseas in pursuit of higher profits in more growth-based regimes. In this case it may also be necessary to restrict the mobility of financial capital by employing capital controls and minimum residency times for foreign investment (Dietz and O’Neill 2012).

While there could be others benefits of such capital controls, including ameliorating the waste and distributional effects of the current massive foreign exchange markets, there could also be many disadvantages of implementing capital control schemes that would need to be thoroughly investigated. For example, Lawn (2016) notes that it would impede the beneficial adjustments of exchange rates. However, he points towards alternative possibilities of flexible exchange rates schemes that could be used, including one proposed by the famous economist John Maynard Keynes at the 1944 Bretton Woods conference using a neutral unit of international currency called the ‘bancor’. This idea has received some renewed interest following the 2008 financial crisis (Zhou 2009).

‘New protectionism’ and ‘old protectionism’

Any whiff of the idea of introducing tariffs is likely to trigger dismay in the minds of most mainstream economists who are well versed in the efficiency benefits of international trade, most famously demonstrated by 19th century political economist David Ricardo (Ricardo 1817). In this tradition, assuming the costs of transport have been fully accounted for, tariffs are associated with inefficient protectionism and usually seen as a backward step from the hard-fought efforts to create freer trade over the last half century. However, as Daly (1988) points out, the purpose of compensating tariffs is not to protect inefficient firms but rather protect efficient national policies of cost internalization from standards-lowering competition with foreign firms that
are not required to pay the social and environmental costs they inflict. Daly (2013) notes:

This “new protectionism” is very different from the “old protectionism” that was designed to protect a truly inefficient domestic firm from a more efficient foreign firm. The first rule of efficiency is “count all the costs” — not “free trade,” which coupled with free capital mobility leads to a standards-lowering competition to count as few costs as possible.

Examples of compensating tariffs

The idea of using ‘compensating’ tariffs is not new in theory or practice (Lawn 2016). For example, domestically-produced fuel sold in Australia is subject to an excise tax. This tax is removed on fuel sold overseas. Similar, imported fuel is subject to an import levy equivalent to the level of the fuel excise. Similarly, with regard to ozone-depleting gases, there have border tax adjustments in places for a number of years under the Australian Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Cth). The United States has also implemented such a scheme following the Montreal Protocol on Substances that Deplete the Ozone Layer. Similarly, how to deal with carbon leakage has been a major element in the design of carbon pricing schemes throughout the world. The solution typically adopted has been the issuance of free carbon permits for those sectors particular exposed to international trade. However, the disadvantage of such an approach is that it weakens the incentive for reducing carbon in these sectors. An alternative approach of compensating tariffs (or border tax adjustments) is being closely examined by a number of jurisdictions using or planning carbon pricing (e.g. Marcu et al 2014)

Concerns and design issues

Because the abuse of compensating tariffs has the potential to trigger a degenerative tariff war (e.g. Bhagwati and Mavroidis 2007) a system of compensating tariffs would most likely need to be overseen by an international organisation. An important responsibility of the chosen organisation would include the approval or otherwise of compensating tariff applications. The WTO would seem a likely candidate, although success in this regard would
require the WTO to radically revamp its anti-tariff attitude regarding international trade matters (Lawn 2016).

Lawn (2016) notes:

In many ways, the WTO ought not to be antagonistic towards compensating tariffs. As it is, Article XX of the General Agreement on Tariffs and Trade (GATT), which serves as the basis for the WTO’s assessment of international permits the imposition of compensating tariffs on environmental grounds, albeit under strict and narrowly-defined circumstances. Moreover, much of the WTO’s rhetoric on international trade centres on its potential efficiency benefits. As things currently stand, international trade in the presence of externalised social and environmental costs leads to a grossly inefficient allocation of global resources. Introducing a system of compensating tariffs would do much to eradicate this undesirable feature of globalisation.

There are understandable concerns that the use of tariffs could be disadvantageous to poorer countries who would find it more difficult to export goods and services to wealthier countries. However, as Lawn (2016) points out, this difficulty may not be undesirable. Indeed, it may help to close the gap between rich and poor. Consider the following response by Daly when asked about the possible implications of internalising social and environmental standards into the prices of developing world goods:

Granted this makes it harder for poor countries to export — so does a decent minimum wage and the existence of free labour unions and the outlawing of child labour within the poor country. In my view it is not all bad to make it harder for poor countries to export to the US. It means that instead of planting all their land in bananas or fancy fruits and flowers for export, the poor country might have to plant more rice and beans for its own citizens. And to sell the rice and beans to its own citizens, it will have to worry about their purchasing power — about domestic jobs and decent wages, and the distribution of income within their country. And they might worry a bit less about cutting wages and social benefits in order to be more competitive in the global market, as they must do in the export-led model of development to which the IMF and WTO are so committed. Admittedly, less export
revenue will be available to buy expensive toys for the elite, but even that might not be all that bad. Maybe they will begin to invest some of their surplus in their own country. (Daly 1997; cited in Lawn 2016, p.137)

Thus, Lawn (2016) concludes, a system of compensating tariffs would force policy-makers in the world’s low-GDP nations to treat the issue of domestic spending power more seriously. In turn, it would compel policy-makers to implement measures to improve the distribution of income and wealth within their own nations. Furthermore, to compete in the global market, low-GDP countries would need to become genuinely more efficient, not increasingly attractive pollution havens and/or cheap labour locales. Because this would gradually close the productivity gap between the world’s rich and poor countries, it would help to bridge income disparities across the globe. This is something desperately needed, as other chapters (e.g. Stillwell) note.

**Conclusion – positive steps towards a sustainability tariff structure**

One of the many challenges on implementing a steady state economy is to ensure that any policy action is not undermined by the lack of action of other countries via foreign trade or capital flight. As briefly outlined here, the use of
compensating tariffs can be a means to guard industries in or on the path to a steady state economy from unfair competition with industries in countries where environmental (and social) costs are not being incorporated into product prices. Similarly, capital controls may also ameliorate the problems of industry or firms exiting the country. We also noted here that the use of compensating tariffs is not ‘anti-trade’ or attempting to protect inefficient firms or industries. Of course the problem addressed here only arises if some nations are not on a similar path towards a steady state economy and sustainability in general. In the long run, when all nations have moved to a steady state economy, the need for compensating tariffs or capital controls may no longer be necessary.

Positive steps

In regard to this topic, the positive steps are:

- Be ready to call out the myth that Australia cannot take significant positive measures to create a steady state economy without the rest of the world following in unison.
- Support further research by the government, academia and other research organizations on how a practical, realizable system of compensating tariffs and capital mobility restrictions could be implemented that address the problems raised above.

References


Chapter 28 - The Steady State Economy and High School Education
Phil Jones

Introduction

The transition from a growth economy to the Steady State Economy (SSE) requires extensive education, including high school education. It is worth summarising the history of the education movement related to this. A series of United Nations conferences have taken place since 1972 reflecting the global concern for the environment, as well as some of the most important social needs of humanity. In 2015 at a UN Summit, world leaders adopted the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development. They came with the hope that over the next fifteen years countries will mobilize efforts to ‘end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind’ (Sustainable Development Goals 2016). However, Goal Number 8 ’Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all’, and the failure to include the Steady State Economy as a goal (and its reliance on ‘decoupling’ economic growth from resource use and environmental impacts) has exposed this initiative to justifiable criticism (Global Goals 2015). This chapter reviews the response to the UN initiatives within the Australian school education system, the possibilities and difficulties in making future progress.

The Australian Government’s response

The concern of the Australian Government for the environment was reflected in such documents as ‘Caring for Our Future’ (Australian Government 2006), ‘Living Sustainably’ (Australian Government 2009) and ‘Education for Sustainability and the Australian Curriculum Project Final Report’ (AESA, 2014). The Australian curriculum is developed federally, while the syllabuses are developed by the States. ‘Sustainability’ is now incorporated as a major theme within the Australian Schools Curriculum via the ‘Sustainability Curriculum Framework’ (developed federally, BOSTES 2015). However, there remains no reference to either the concept of a steady state economy or of the need to bring about the transition to it from the growth economy. The
same can be said of the syllabus outlines created at the State level. Nor is there any reference to the highly contested concept of ‘decoupling’ (see chapter this volume), the notion upon which the UN SDGs, and those who implicitly accept infinite economic growth, rely.

The Steady State Economy in the classroom

The concept of a steady state is generally not taught in secondary schools. Students studying at university (doing a subject such as chemical engineering) would certainly be introduced to it. However, it is not one that is difficult to understand, and could readily be introduced at high school level.

Science programs in Years 9 or 10 generally provide an understanding of ecosystem food chains, food webs, the pyramid of numbers, primary producers, various level consumers, and the cycling of nutrients within ecosystems. This covers all students in most Australian States as science is a compulsory subject at this level. Students could quite easily understand that natural ecosystems are stable but dynamic, the essential features of a steady state system (if this was made explicit in the course). Students readily grasp the idea that energy flows through ecosystems. It comes from the Sun, is absorbed by plants and is passed on through the various trophic levels. Nutrients cycle through the system and are returned to the soil as decomposers breakdown waste and dead organisms. Over an extended period of time the community and the environment remain much the same. It remains in a steady state, during which the processes of the community continue to function. It is not a static system, nor is it a growing system. There is thus the opportunity to contrast this with the growth economy and our expansionist society and ask regarding the later: ‘is this sustainable?’ The curriculum could be changed to mandate such discussion.

The disruption that occurs when a higher order consumer or a natural predator is removed from the ecosystem can also be correctly anticipated by a large proportion of students at this age, as they study trophic levels (even if only at a basic level). The impact of an ever-expanding human population could be related to the pyramid of numbers, and its effect on the primary producers and consumers readily anticipated. While the concept of urban, agricultural and natural ecosystems is not generally taught at this level of high school, simple diagrams, (such as those shown included within a textbook or online learning
program) could easily be used to demonstrate the impact on natural ecosystems of a continual expansion of the human population, the expansion of agricultural ecosystems and the consequent increased pressure on natural ecosystems (see Figure 1). The need to establish a new steady state economy, while at the same time returning to a stable ecosystem, would then become clearly apparent (as illustrated in Fig 2). The curriculum could be modified to reflect this need.

Figure 1 (Source for both: Teaching Resources (Steady State New South Wales 2016), online, available at: https://steadystatensw.wordpress.com/teaching-resources/)

Figure 2
When the processing of certain minerals is covered in the curricula, such as iron ore (typically taught during the middle years of high school), the opportunity for students to grasp the concept of a steady state can also be taught. A continuous flow of inputs (coke, iron ore and limestone), steady stream of outputs (waste gas, slag and molten iron), maintain the **steady state** within the blast furnace (which is stable yet dynamic). The curriculum could mandate such discussion. This point in the science teaching program would also be an appropriate one to introduce the research of the Club of Rome and the model they developed on the Limits to Growth (Meadows et al 1972). The more recent research substantially confirms the predictions of the 1972 study. This should also be introduced to highlight the need to transition from an unbalanced global ecosystem to a stable one, one that corresponds to a steady state (Meadows et al 2004; Turner 2008).

‘Sustainability’ is a continuing theme in the Geography section of the Humanities and Social Sciences component of the Australian Curriculum, and is progressively developed to become the major focus in Year 10. However, there are differences between States as to how this curriculum is implemented. For example, a great deal of the course helps to lay the foundation for understanding the necessity of a steady state economy. The distinction between renewable, non-renewable and continuous resources is drawn to the attention of the students. The impact of humans on the environment is also given commendable consideration. However economic growth is not mentioned, let alone evaluated. The concept (and the need for a steady state economy) is passed over. The curriculum needs to be changed to rectify this.

A much smaller proportion of students in Australia study economics, (approximately 7% of the NSW HSC students in 2015, BOSTES 2016). Economics is typically covered in Years 11 and 12. Here students are introduced to the concepts of economic growth and the business cycle. Environmental sustainability, ecologically sustainable development, preservation of natural environments, pollution, climate change and depletion of renewable and non-renewable resources, are listed for study in the NSW Economic Syllabus. There is no mention of the environmental limits to economic growth, the rationality and desirability of a steady state economy, the basic features of the steady state economy, or how the transition can be made from a growth to steady state economy. In contrast, the students examine
the arguments for and against increasing economic growth rates (my emphasis). In a scant review of Senior High textbooks available in a NSW Teachers’ resource shop, it was noted that none referred to the Steady State Economy, and only one gave a meaningful definition of ‘Sustainable Development’, (Pashley 2015). The Economics Syllabus currently leaves a lot to be desired, but the curriculum could be changed to radically improve this void.

**Difficulties**

Incorporating the Steady State Economy into the curriculum and education syllabus is made difficult by part truths and unfounded assertions, such as:

- growth is necessary, otherwise the economy will collapse;
- economic growth provides the capacity to look after the environment;
- it is necessary to avoid unemployment;
- market forces can be relied upon to solve problems in the Free Market economy;
- those who claim there is a limit to growth have an ideological agenda;
- economic growth is a ‘tide that lifts all boats’;
- it’s the KIND of growth that we need to focus on, i.e. the provision of services, not goods;
- we need to measure human progress by a different index;
- economic growth is necessary for developing countries and resource use; and
- pollution can be decoupled from economic growth.

Many of the above are fallacious statements *not facts*, while some contain some truth (e.g. it’s the kind of growth we need to focus on) but are not situated within a proper debate about the SSE verses a growth economy. The net effect of this fragmented education program, and failure to establish the SSE as a universally held goal (one that unites concepts taught throughout their school career), can do little but leave students meandering in theory-land with an intellectual jigsaw puzzle. While the UN and elsewhere point to the serious concerns over the future of the planet, the current efforts devoted towards education for sustainability in high schools provide little sense of direction. They also do not canvas at all the arguments proposed by many
environmental scientists (with corroborating facts) that endless growth is the cause of the environmental crisis. The anticipated review of the NSW HSC Economics syllabus presents the opportunity for a more coherent and purposeful response to the educational challenge that lies ahead.

**Conclusion**

The Australian curriculum (developed Federally) and syllabuses (developed by the States) fail to educate students about either the need for, or the nature of, a SSE. Nor does it show or discuss the fact that endless physical growth on a finite planet is impossible (though primary school children can recognise this). However, parts of the syllabuses DO cover material (especially in Science and Geography) that relate to a SSE and could easily be modified to do this. Such a change to the Australian curriculum by the Australian Curriculum, Assessment and Reporting Authority (ACARA) and to the State syllabuses (by State governments) would vastly improve dialogue about a SSE as a solution to our currently unsustainable growth economy. Meanwhile, classroom teachers of science, geography and economics should work together to develop a coherent and positive message to their students, and seek dialogue about this essential topic.

**Positive steps**

Positive steps in regard to education are:

- Talking in our education system about the dangers of a growth economy and the solution of a SSE.
- That means that the Australian curriculum needs to include discussion of ecological economics and the SSE in its material.
- State syllabuses then need to follow the curriculum in discussing the need for a SSE.
- Classroom teachers of science, geography and economics should work together to develop a coherent and positive message to their students, creating dialogue on this essential topic.

**References.**


Chapter 29 - Democracy in the digital age
Eva Schlunke

Introduction

Citizens’ juries, ordinary people voting in the senate from their Smart phones, 10:1 wage ratios, workers co-operatives ... Is this the future of democracy in Australia?

Australia has changed a lot in the last 200 years, but our political system hasn’t. The need for an overhaul of the way we do democracy is becoming more apparent and realistic. As communication technology revolutionizes the world, people are finding smarter, quicker, more effective ways of sharing ideas and connecting with other like-minded individuals and groups. Type into your search engine ‘new forms of democracy’ and you’ll be surprised at just how many proposals there are for new political and economic models; many of them emerging from the world’s leading universities.

Events such as the 2008 financial crisis, growing awareness of corporate tax avoidance, continuing support for the fossil fuel industry and inaction on climate change are ample reason for people to question who is really in charge, and who is listening to our needs. Decades of research is bubbling to the surface, gaining popularity amongst radical thinkers, new academics, retired politicians, activists and optimists. There is a very definite move towards citizens taking back their decision-making rights, claiming their place in parliament and getting directly involved on the political frontline. Meanwhile, career politicians, two-party systems, media distortion of politics and corporate funding of political parties are widely criticized. The digital era is giving ordinary citizens more access to information and the capabilities to share it like we’ve never seen before. Could this mean that a new wave of people-powered politics and economic justice will follow?

Structural Alternatives

Participation is key to new democratic thinking. This means decentralizing decision-making and giving back the rights of ordinary people to decide and organize the policies which affect them most. Two-party political systems (like we have in Australia) are not designed to maximize citizen participation, and if anything, are more likely to lead to voter apathy (Riley n.d). It could be
argued that Australia’s Federal Parliamentary constitutional monarchy (which only gave Aboriginal people the right to vote in 1962, AEC 2006) has been very effective at maintaining an age-old tradition of political elitism. However, we now live in an era of information-sharing technology like we’ve never seen before. This new explosion of communication has the potential to influence the way we vote, the way we organize ourselves and the way we structure politics.

Groups such as the newDemocracy Foundation (ND 2016a, 2016b) are specifically looking at adopting and introducing alternative political models such as sortition and citizens’ juries into Parliament. Sortition (also known as allotment or demarchy) selects officers as a random sample from a larger pool of candidates. Citizens’ juries (where a group of ordinary citizens are chosen at random and appointed as a consultative body to aid in decision making on specific issues) are a good example of this. Where trialed, citizens’ juries have proven to be an effective tool in addition to existing political bodies for legislative decision-making, particularly at State government or city council level (ABC 2014).

‘Sortition’ may take many forms and degrees of permanency. While citizens’ juries may be used for short term consultation on specific issues, longer-term options include the Citizen Legislature which could replace a single minister by taking over all public spending and bureaucratic responsibilities of any portfolio. Or one could use a Multi-Body Sortition (ND 2016b) to divide lawmaking duties amongst smaller groups, all of which would perform different functions. While all adults may be eligible for selection, sortition service would not be mandatory, and during their period of service, participants would be paid a salary equal to twice the average wage (ND 2016a).

In addition to sortition, the newDemocracy Foundation propose a range of other structural alternatives, such as The Electronic Town Hall (ND 2016c) where 2 percent of the voting-age population are engaged in discussion and given an online vote, The Popular Branch (ND 2016d) where a fourth ‘Popular’ branch is added to the 3 main branches of government (executive, judicial and legislative). This is an institutionalized and permanent group with a clear separation of powers. The group would be required to give a two thirds
popular consent on all binding lawmaking decisions. *Consensus Conferences* (ND 2016e) would deal with cases involving technological or scientific complexity. A group made up of 2:1 lay citizens to experts would together examine the subject matter and explore territory of common ground.

**Technological Alternatives**

The use of everyday technology to facilitate ordinary citizens having a voice in Parliament is being explored by Australia’s ‘Flux Party’ (https://voteflux.org/). Founders of the party have developed a free, downloadable app which uses blockchain (the same technology used by the Bitcoin currency industry) to secure and record the information collected by its users. If elected, Flux Party senators will use the app to alert party members to imminent legislative decisions. Members will then vote with their Smartphones on issues which concern them most, and the Flux Party senators will vote in the senate according to how the majority of its members vote. This newly formed Party, which has no policies of its own, has currently over 3000 members, with candidates running for election in the Senate in five Australian states. Flux party founder Nathan Spataro claims that ‘What we are really trying to do is enfranchise ordinary Aussies to vote after the election’. He believes that the main objective of his party is ‘giving democratic power back to the Australian people where it really belongs’.

A ‘Blockchain’ is a distributed database that maintains a continuously growing list of records called ‘blocks’. Each block contains a timestamp and a link to a previous block. The data in a block cannot be altered retrospectively (Wikipedia 2016). Blockchain technology is now being used to develop software for secure e-voting systems which could revolutionize the way elections are held. US software company ‘Follow My Vote’ (https://followmyvote.com/online-voting-platform-benefits/) have developed an end-to-end voting platform which makes it possible for voters to trace the movements of their vote through the ballot box and into the counting room, ensuring that their vote was cast and counted as intended. Australian software developers ‘veri.vote’ (https://veri.vote/) are working on a secure, anonymous and transparent voting platform, which they hope will overhaul the democratic system. The obvious benefits of the digital system are the permanence and accessibility of the data, which once entered into the system, will be nearly impossible to remove. Veri.vote CEO Adrian Petersen argues ‘So effectively
anyone in the world can act as a scrutineer rather than elected officials from different political parties who have a vested interest in the outcome of an election’. While blockchain has been effective at preventing ‘double spend’ of electronic coins without a central authority (the function it was designed for) there is doubt about its suitability in other applications, such as data management.
Contrary to the hype, blockchain is not as secure as we’d like to think it is. The integrity of its security is dubious in that ‘once committed to the blockchain, transactions are indeed immutable, but the veracity of each entry rests on who controls the private key of each account (Wilson 2016). Blockchain itself may not be the solution to online voting yet, but could this be a taster of the new range of secure information sharing technologies yet to emerge? As Steve Wilson (2016), Vice President of Constellation Research, points out: ‘The first surprise solution is typically inefficient but can inspire fresh thinking and lead to more polished methods’.

Adjustments or Overhaul?

So how much political or economic restructure is necessary for effective democratic reform? Many argue that complete system change is the only way, and that democracy needs to be rebuilt from the bottom up, starting with a national network of neighbourhood assemblies (Orr 2013).

There is growing interest in less disruptive, collaborative approaches such as ‘deliberative civic engagement’ (DCE) (Prugh 2014), a term which describes a wide variety of processes where citizens have the opportunity to engage in decisive dialogue with civic leaders and government officials on issues of public importance (Nabatchi 2014). Vigar and Healey (2002) see the potential for DCE to ‘aid sustainability in terms of articulating purpose, framing issues, coordinating policies and organisations, legitimising process in the eyes of the public, and mobilising action for change’, while Orr (2013) points out that the success of deliberative democracy (the same as DCE) depends greatly on a governments’ ability to pay attention to the deliberative process and make binding agreements.

Very few agree that decentralization is a simple process. While not rejecting the feasibility of political decentralization, the UK’s Institute for Government (2014) identifies the overarching contradictions and obstacles involved, and outline the steps needed to achieve it. The World Bank (n.d.) speaks highly of the symbiotic relationship between decentralization and participation. They argue that the process of decentralization creates greater opportunities for participation as power and resources move closer to citizens. A government’s proximity to their constituents can lead to more effective information flow, resulting in better responses to local need. However, effective decentralization
cannot be realized without effective mechanisms for minimizing the distortion of information between a local government and its constituents (World Bank n.d.).

One key strategy to combat this distortion of information would be to **eliminate private donor funding of political parties**. As leading parties spend more and more on political advertising, the cost of electoral campaigns continues to grow, enhancing the role of private funders and the major parties dependence on them. The newDemocracy Foundation (2016f) describes how the ‘financial barrier’ contradicts the core democratic ideal of an ordinary citizen’s capacity to secure office. The media play another important role in spreading distorted messages, as private ownership is permitted to dominate media outlets, giving the loudest voices to those who can afford to spend the most.

Advocates of democratic economies such as the Participatory Economics Movement tend to consider that a complete rethink of fundamental economic objectives is essential for a more truly democratic society (Chrysostomou et al. 2014). Under such systems the current capitalist ‘business as usual’ model could not continue without major disruptions. If a country’s primary objectives are to respect ecological limits and citizen well-being over individual profits and economic growth, it must undergo some **serious restructure**. No amount of tweaking or fine-tuning to a system which relies and thrives on economic exploitation and ineffective or distorted democracy will lead to substantial, sustained improvement for all citizens. The question of how to achieve this major turnaround without also causing major disruptions to the lives of ordinary citizens is not so easy to answer. Should we put our energies into lobbying government for major reforms, or just getting on with ‘doing it ourselves’ in a way that benefits us all?

**Democracy at Work**

Research has shown that non-democratic practices found in workplaces, such as imbalances between effort and reward, organisational injustice, social isolation, shift work and job insecurity pose a serious risk to health (Marmot 2016). Is there a better way to do things? The **cooperative** movement suggests there may be. The Mondragon Corporation is a corporation and federation of
worker cooperatives based in the Basque region of Spain. It is a success story that shows us that business can thrive in a democratized workplace where the employees are both owners and managers of the company.

*MCC is based largely on the principle of one worker one vote. It thus stands for participatory worker empowerment through worker share ownership and involvement in decision-making through well-established channels of participation. Rather than a single hierarchical company, Mondragon is an integrated network of cooperative companies owned by workers, whose influence has allowed them to proactively shape the growth of their respective organizations. (Kuusipalo 2011)*

Workers Co-operatives, or democratically-run, member-owned businesses, were once a feature of Australia’s agricultural, mining, finance and consumer industries (ABS 2012). Difficulties arising from supply-chain management and members cashing in their shares as more attractive investment options emerged (building societies and commercial savings banks), saw a decline in the popularity of worker co-operatives in Australia.

More recently worker co-ops have been making a comeback as both a start-up business structure and as business-transfers or employee buy-outs where existing companies decide to convert to a workers co-op. While many business-transfers may arise through graduated ‘succession plans’ or ‘trust arrangements’, others may arise in response to economic crisis, as was the case in Argentina in the early 2000’s where Argentine workers occupied the premises of bankrupt businesses and began to run them as worker-owned cooperatives. Argentina has seen a huge surge in workers co-operatives in the last decade. The International Co-operative Alliance estimates that workers co-operatives now employ around 20 million people in Argentina through a range of industries, from healthcare to factory work (ICA 2013).

While worker co-operatives have been found to have extensive benefits to worker morale and job security, they may not be a solution to unemployment. Marmot (2016) points out that the marginalization and stress involved in unemployment (or the prospect of unemployment) poses serious risks to health. Oxford University's David Stuckler (SSS 2013) has found a correlation between a country’s rise in unemployment and its rise in suicide.
Universal Income

In 2017 Finland will be the first country to introduce a ‘Universal Basic Income’ to all citizens as a replacement to welfare services. The unconditional basic income offers a simple, automatic alternative to the current welfare services, which are often degrading, stigmatized and difficult to access. But Finland is not alone. The Netherlands, USA, Canada, India, Brazil and Namibia have all shown an interest in running pilot programs, and several partial basic income schemes are already in place in Alaska, Macau and Iran (Wikipedia 2016b). Potential benefits of the scheme include more flexibility in working hours, allowing for more time caring for family, more time for community/voluntary projects, and time to develop skills or talents which may otherwise go neglected. A system which takes away or reduces the stressful obligation of needing to find work could give many otherwise disadvantaged citizens more possibilities for an improved quality of life (see universal income chapter). Apart from the initial complexities involved in setting up such a scheme, one of the main arguments against the basic income is that it would result in a decreased motivation to work, however advocates of the scheme propose that the minimum wage should rise significantly to maintain incentive in the workplace and reward those who choose to work.

Wage Ratios

As it is, the rising cost of living (and inadequate pay) is leaving many low-status fulltime workers trapped in a soul-destroying cycle of needing to work longer hours just to survive and support a family, while CEO’s are enjoying the benefits of hugely disproportionate wage packets and bonuses. Bloomberg (2013) in a study on worker compensation in the USA, puts the average CEO to lowest paid worker wage ratios of Standard & Poor’s 500 Index of companies at 204:1. Others put estimates for same period at closer to more than 300:1. This is an increase of up to 1500% since the 1950’s when the average CEO was paid about 20 times the typical worker’s pay.

Many are now calling for greater transparency and regulation of CEO compensation packages. UK Green Party leaders announced in their 2015 General Election Manifesto (Independent 2015) the introduction of a maximum pay ratio of 10:1 between the highest-paid and lowest-paid in every organisation. In 2011 the US Securities and Exchange Commission
successfully pushed for regulation and disclosure of CEO compensation to company shareholders. Canadian NGO The Wagemark Foundation is pushing for an international wage standard which recognizes organizations that operate with a wage ratio of 8:1 or lower, the pay ratio between the highest and the lowest paid staff of Spain’s worker co-operative Mondragon Corporation is generally 3:1 to 5:1 (Kuusipalo 2011), and as part of a referendum vote in September 2013, Switzerland passed a law to introduce a 12:1 executive to lowest-paid worker wage ratio (https://en.wikipedia.org/wiki/Swiss_executive_pay_referendum,_2013).

While it’s reassuring to see democratic progress being made in other parts of the world, the way we practice democracy here in Australia is still far from exemplary. I believe the number one ingredient for successful democracy is pro-active participation; which brings us to the most important question of all … What can we, as individuals, do to improve the quality of democracy in Australia?

Positive steps for individuals

Make Educated Decisions

- Who do you vote for? Familiarise yourself with your political party’s policies and core values (you’ll find these on the official party website). Is this really the best choice for you? Read up on other parties’ policies and compare. Vote for the party which represents you best, even if it means NOT voting for one of the main two parties and instead giving your vote to a smaller party who you think will never get elected. Don’t believe the ‘wasted vote myth’.

- Who do you invest with? Find out what your bank, superannuation, or other financial institution’s business activities consist of and where they are investing your money (see divestment chapter). Take an interest in these companies as a shareholder. Do you agree with their management style and values? Are there any ethical alternatives? Find out and compare their long-term investment options with your current account or fund, keeping in mind how markets and industry are likely to change over the next few decades. Rather than choosing short-term gain, choose the company who you feel acts the most responsibly and has long-term goals.
Make Connections

- Who are your local MP’s and representatives? Find out what they’re doing in your area and whose goals and values are most aligned with your own. Find out the most effective ways to contact them and consult with them on any particular campaigns or issues you feel strongly about. Be a positive influence. Inspire and encourage them to be active and support your causes.

- Who is already doing what you want to do? Find out if there are any campaign groups, NGO’s, charities or other organizations working towards similar goals or ideals as your own, use your search engine and ask around. Is there an active group or chapter in your town/city/region? Subscribe to their newsletters and find out about their meetings and events. Can you volunteer your time or resources? If there isn’t an active group in your area, is there enough local support or interest to start your own? Consult with existing groups before starting new ones.

- Use social media to join with campaign or special interest groups. Share posts and messages about causes you feel strongly about with your friends and followers, even if you’re not sure they’ll be appreciated by everyone.

- Sign online petitions and share with friends by email, and other social media. Or start your own online petition!

Speak Your Mind

- Next time you hear a friend/colleague/family member complain about a politician, corrupt businessperson, social injustice or ‘the government’, share with them your knowledge of alternative economic/political structures which aim to improve transparency, fairness, and ecological sustainability. Give examples of schemes that are operating around the world and delivering positive results. Remind them that change is possible if enough people want it, and are prepared to make the effort. Maybe these people prefer the current state of democracy because it gives them something to complain about? Point out to them that defeatist attitudes make it easier for the ‘powers that be’ to continue getting away with corruption and injustice.
Don’t verbally agree with opinions or views which you don’t support. State your arguments and challenge viewpoints which differ to your own. Debate is healthy for enlightenment. Even if you disagree with someone else’s point of view, you will often be left with something to think about, and having your own arguments challenged makes them more robust.

Make Things Happen

- If you’ve searched and found that no one is effectively campaigning for your cause, start your own campaign. Do your research beforehand and use your search engine to find tips for successful campaigns.
- Gauge public interest and record the results of your surveys. If your issue is a local concern, meet with people face-to-face and knock on doors. Let people know what you’re aiming to achieve and invite them to join you. With evidence of significant public support your campaign will have more weight with policymakers or local authorities.
- Consider the co-operative business structure if starting a new business or adapting an existing one. Look up support services and guidelines for co-operatives in your state and talk to people in your local area who share a similar need.
- Call meetings, start petitions, be creative and organize events which raise awareness and get people involved. Be enthusiastic and proactive. Avoid being mournful or preachy. Get people together, be radical and have fun!

References


World Bank (n.d.) ‘Political decentralisation’, World Bank, see: http://www1.worldbank.org/publicsector/decentralization/political.htm#2
Chapter 30 - Communicating to inspire mainstream commitment to transition to a Steady State Economy
Andrew Gaines

Mission-critical to transitioning to a steady state economy is gaining intelligent mainstream commitment to making the required profound systemic changes. How might we do this? Well, as Paul Hawken pointed out in *Blessed Unrest* (2008), there are now millions of groups who care about environmental and social well-being. Millions! Currently they are a massively under-utilized resource for communicating with the general public – because nobody has ever asked them to.

As a movement these groups are fragmented. Each communicates their own message to their own small audience. Attempts to bring leaders together to focus on common projects have been contentious, because each believes their own projects are extremely important … and they are right. So how might we align to be more effective? I suggest that we can make common cause at the meta-level of intending to *transition to a life-sustaining society*, rather than continuing on our present course of ecological self-destruction. Aligned towards this goal, we can follow through by communicating through our networks about what is involved in successfully making this transition to a life-sustaining society.

The Great Transition Initiative (www.GreatTransitionInitiative.net) is a platform to support such communication. It is unusual in several respects:

- It has no centralised command-and-control. There is no control group or steering committee that tells others what to do.

Why not? There is no need for it. Once people understand that communicating to inspire intelligent mainstream commitment is essential for success they can get on with it in their own way. No central direction is needed.

- We integrate higher-level aspiration (transitioning to a life-sustaining society) with practical action.

Our practical actions can be framed as contributing to the larger goal of transitioning to a life-sustaining society. And the more we can inspire public
will for the needed transformative changes, the more resources will be available for our specific projects.

- We aim to *improving people’s thinking*.

Specifically, we help people shift from ‘silo’ thinking – focusing on just one factor – to *systems thinking*. We help people connect the dots and think for themselves.

- We provide ready-to-use communicate tools.

These include sample emails, presentations and workshop outlines, guerrilla marketing tools and *Kitchen Table Conversations*.

**Communicating to engage the unengaged**

Our top level strategy is to encourage people everywhere to use variations of the phrase ‘We are in a Great Transition to a life-sustaining society’ wherever possible. This is a counter to the mantra of *economic growth*, and offers a positive goal for the future. Our intermediate level strategy is to encourage as many organisations (and their members) as possible to communicate with their networks and the wider public about the Great Transition. We provide briefing points, flyers, sample emails, guerrilla marketing tools and workshop outlines.

Our most personal communication tool is *Kitchen Table Conversations*. An original feature of *Kitchen Table Conversations* (Gaines 2015) is the use of physical markers to keep track of conversations about systemic change. This way people do not have to do the equivalent of playing mental chess. They can focus on one aspect while keeping the big picture in mind. Here is a picture of the module exploring the question *What factors in the way our society operates make global warming worse?*

These conversations enable people to develop a rough but robust framework for making sense of the big picture issues of our time. They equip people mentally and emotionally to support transformative leadership when it emerges, and to exert leadership within their own sphere of influence.
Taking it to scale

No one organisation can communicate on a scale sufficient to shift the culture. We envision thousands of organisations acting through their own initiative to communicate about transitioning to a life-sustaining society. We encourage
you to review our approach and communication tools, and play an active role through your own initiative.

**Positive step**

- Communicate with your friends, business colleagues and larger networks about transitioning to a steady state economy (aka a life-sustaining society). Ready-to-use communication tools are freely available at www.GreatTransitionInitiative.net.

**References**


Chapter 31 – The Sharing Economy
Haydn Washington

Introduction

The ‘sharing’ economy is an umbrella term with a range of meanings, often used to describe economic and social *activity involving online transactions*. Originally growing out of the open-source (computer programmer) community in reference to ‘peer-to-peer’ based sharing of access to goods and services. Social ‘peer-to-peer’ processes are interactions with a peer-to-peer dynamic, whether these peers are humans or computers. The term ‘Peer-to-peer’ (P2P) originated from the popular concept of the P2P distributed computer application architecture, which partitions tasks or workloads between ‘peers’. The Sharing economy is a socio-economic system built around the sharing of human, physical and intellectual resources. It includes the shared creation, production, distribution, trade and consumption of goods and services by different people and organisations (Matofska 2016). It is also known as the shareconomy, collaborative consumption or peer economy. A common academic definition of the term refers to a ‘hybrid market’ model (in between owning and gift giving) of peer-to-peer exchange. The sharing economy can take a variety of forms, including using information technology to provide individuals with information that enables the optimization of resources through the mutualisation of excess capacity in goods and services. A common premise is that when information about goods is shared (typically via an online marketplace), the value of those goods may increase for the business, for individuals, for the community and for society in general (Geron 2016).

Whilst the sharing economy is currently in its infancy, known most notably as a series of services and 'start-ups’ which enable ‘peer to peer (P2P) exchanges through technology (e.g. ‘Uber’ for transport, ‘Air B and B’ for accommodation), this has been said to be only the beginning. Matofska (2016) argues that: ‘in its entirety and potential it is a new and alternative socio-economic system which embeds sharing and collaboration at its heart – across all aspects of social and economic life’. The term is now sometimes used in a broader sense to describe any sales transactions that are done via online market places, even ones that are business to consumer (B2C), rather than peer-to-peer. For this reason, the term ‘sharing economy’ has been criticised
as misleading, some arguing that even services that enable peer-to-peer exchange can be primarily profit-driven (Tuttle 2014). The Harvard Business Review has argued that the ‘sharing’ economy is a misnomer (Eckhardt and Bardhi 2015):

Sharing is a form of social exchange that takes place among people known to each other, without any profit. Sharing is an established practice, and dominates particular aspects of our life, such as within the family. By sharing and collectively consuming the household space of the home, family members establish a communal identity. When “sharing” is market-mediated — when a company is an intermediary between consumers who don’t know each other — it is no longer sharing at all.

They suggest the correct word for the sharing economy in the broad sense of the term is an access economy. The 'sharing' in the sharing economy refers to the use and access of shared physical or human resources or assets, rather than the fact that there is no monetary exchange. According to sharing economy expert Alex Stephany (2015), it is a mystery as to who first used the term sharing economy, which has left the term ‘without a guardian and vulnerable to loose definitions’. Academic definitions tend to be narrow, limiting the sharing economy to only peer-to-peer transactions, and sometimes further limiting the definition to only peer-to-peer transactions that relate to the temporary exchange of physical goods (Goudin 2016). However, ‘The People Who Share’ (Matofsky 2016) argue for a much broader meaning that encompasses the following aspects:

... swapping, exchanging, collective purchasing, collaborative consumption, shared ownership, shared value, co-operatives, co-creation, recycling, upcycling, re-distribution, trading used goods, renting, borrowing, lending, subscription based models, peer-to-peer, collaborative economy, circular economy, on-demand economy, gig economy, crowd economy, pay-as-you-use economy, wikinomics, peer-to-peer lending, micro financing, micro-entrepreneurship, social media, the Mesh, social enterprise, futurology, crowdfunding, crowdsourcing, cradle-to-cradle, open source, open data, user generated content (UGC) and public services.
They argue it is an over-arching approach, though while the sharing economy may use some of the above, it is not correct to conflate it with ‘social media’ or with the Circular economy. The circular economy does argue for increased use of services, but the philosophy behind advocates of this and those of a sharing economy may in many cases be quite different. It seems clear that the meaning of the term is still evolving, and like other terms such as the ‘circular economy’ (see chapter this book) there is an active attempt by mainstream neoclassical economics to subvert the term to be part of the growth economy. For advocates of ecological economics and the SSE, this remains a deep concern.

**History**

The sharing economy arguably has arisen from several deep-seated technological, economic, political, and societal changes (Ertz et al 2016):

- Technological: The Web transformed consumers' relationship to objects.
- Economic: Austerity and crises, decline of stable and full-time employment as well as of purchasing power.
- Political: Withering of the State and its increased adjustment to the market ethos.
- Social: Consumers view consumption as a central project in their lives.

One inspiration has been said to be the ‘Tragedy of the Commons’ (Hardin 1968) which refers to the idea that when we all act solely in our self-interest, we deplete the shared resources we need for our own quality of life. The Harvard law professor Yochai Benkler, one of the earliest proponents of open-source software, posited that network technology could mitigate this issue through what he called 'commons-based peer production', a concept first articulated in 2002. Benkler (2004) then extended that analysis to ‘shareable goods’. The term ‘collaborative consumption’ was coined way back in 1978 by Felson and Spaeth (1978). In 2011, ‘collaborative consumption’ was named one of ‘TIME’ Magazine's ‘10 ideas that will change the world’ (Walsh 2011).
Building blocks of a sharing economy

What are the component parts or building blocks of a sharing economy? Sharing economy activities fall into four broad categories: recirculation of goods, increased utilization of durable assets, exchange of services, and sharing of productive assets (Schor 2014).

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<th>Type of Provider</th>
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<td>Relay Rides, Airbnb</td>
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Table 1 Examples of Providers and Platforms in the sharing economy (adapted from Schor 2014).

Probably the broadest attempt to list the principles of the sharing economy is by ‘The People Who Share’ (http://www.thepeoplewhoshare.com/re.com/index.cfm/). Their website lists the organisation’s purpose as:

*We're committed to reshaping the world through sharing, harnessing the power of reciprocity to create happier, healthier and more sustainable lifestyles. We're here to enable sharing, to make it easy for people to discover a whole world of sharing for their every day lives and build a global community of sharers. Our passion is unlocking the sharing potential that exists in each of us. Our mission is to mainstream the Sharing Economy worldwide. ... Our vision of the future is a thriving Sharing Economy where the need to own is transformed. Everyone is a supplier of goods, services and...*
experiences. Where people share skills, time, resources, knowledge, responsibility, opportunities, ideas, goods, services and stuff. It's a world in which our collective capability meets our collective needs and we collaborate to enhance each other's lives, protect our planet and create wealth from which everybody benefits.

Its ‘Share Guide’ covers: accommodation; transport; communities and networks; finance; pets and food and drink. Matofska (2016) from ‘The People Who Share’ argues that the Sharing Economy is a sustainable economic ecosystem comprised of the following 10 building blocks:

- **People**: people are at the heart of a sharing economy; it is a People’s Economy, meaning that people are active citizens and participants of their communities and the wider society.
- **Production**: in a sharing economy, people, organisations and communities as active participants produce or co-produce goods and services collaboratively or collectively or co-operatively.
- **Value & Systems of Exchange**: a sharing economy is a hybrid economy where there are a variety of forms of exchange, incentives and value creation.
- **Distribution**: in a sharing economy, resources are distributed and redistributed via a system that is both efficient and equitable on a local, regional, national and global scale. Shared ownership models such as cooperatives, collective purchasing and collaborative consumption are features of a Sharing economy, promoting a fair distribution of assets that benefits society as a whole.
- **Planet**: a sharing economy puts both people and planet at the heart of the economic system. Value creation, production and distribution operate in synergy or harmony with the available natural resources, not at the expense of the planet, promoting the flourishing of human life within environmental limits.
- **Power**: a sharing economy both empowers its citizens economically and socially and enables the economic and social redistribution of power.
- **Shared Law**: in a sharing economy, the mechanism for law-making is democratic, public and accessible.
- **Communications**: in a sharing economy, information and knowledge is shared, open and accessible.
- **Culture**: the sharing economy promotes a ‘WE’ based culture where the wider community and the greater good are considered. Health, happiness, trust and sustainability are notable characteristics.
• **Future**: a sharing economy is a robust, sustainable economic system that is built around a long-term vision, always considering the impact and consequences of present day actions on the future.

**How does a sharing economy relate to a steady state economy?**

First, let me say that there is much that is good in the idea of a sharing economy. It has the potential to substantially reduce the throughput of resources and energy markedly, so is an important part of a ‘Factor 5’ (von Wieszacker et al 2009) approach, which argues we could reduce energy and material use by 80%. It also implicitly foregrounds redistribution of resources in society in point 4 above. The sharing economy is thus broadly in line with 2 of the 3 key SSE principles. It is also positive that it sees itself as a ‘people’s economy’ (principle 1) not one that is the plaything of corporations. It is great that it supports people becoming ‘active citizens’ deeply engaged in their community (principle 6). It is great also that (unlike neoclassical economics) it believes that ‘externalities are always considered and integrated’ (principle 9). This means that environmental damage (a ‘negative externality’ for neoclassical economics) *cannot be ignored*. Schor (2014) however notes that despite the widespread belief that sharing reduces carbon emissions, there are almost no studies to prove this. The exception is in regard to car sharing, where emissions where reduced. Claims that the sharing economy builds social capital are also debatable (Schor 2014).
The problem lies with the sharing economy ignoring the famous \( I = PAT \) equation (see population chapter). The one great omission in the Sharing economy is *population*. It is not mentioned anywhere on ‘The People Who Share’ website. Hence, like the Circular economy, (see chapter this book) the sharing economy *ignores the dimension of overpopulation totally*. Presumably, this is because overpopulation is a ‘difficult’ issue, one they are thus silent about. This is a great pity, as they could operate as a major venue for dialogue about all the drivers of *unsustainability* (including overpopulation). The sharing economy also clearly remains an *anthropocentric approach* to life, where the rest of nature is just labelled a ‘resource’. The intrinsic value of nature or its ‘Rights’ are considered nowhere. Nature is being shared *only with people*, nature itself doesn’t get a share, for it is portrayed as just a resource. This is a very Modernist and neoliberal view. It describes itself as a ‘hybrid’ market, but the focus is still on the market, albeit one better-regulated.

While the sharing economy is specific that it wants to lower resource use, it is rather silent on the *consumer society* as a whole and the philosophy of ‘shop till you drop’. As Ertz et al (2016) note, the sharing economy considers that ‘Consumers view consumption as a central project in their lives’. There is no mention of any controls on advertising, a force for blind overconsumption that the sharing economy could (and should!) oppose. The ‘consumer society’ was deliberately constructed in the 1950s (see consumerism chapter) and now needs to be deliberately deconstructed by promoting ‘thriftiness’ (Assadourian 2016). The principles above do not make this specific connection, presumably because they do not want to take on the consumer society head-on. This, however, is a shirking of another key driver of *unsustainability*. This is something of a tragedy, as the sharing economy arguably *should* be the champion of thriftiness by fighting the ‘shop till you drop’ mentality. People who share deserve praise, people who blindly consume deserve to be vilified.

The environmental crisis is actually trivialized in point 5 of the building blocks. We stand at the point of losing *two thirds* of multi-cellular life by century’s end (Raven et al 2011). It is not enough for the sharing economy to say it puts ‘both people and planet at the heart of the economic system’. This is ‘PR speak’, *what does it really mean?* It fails to acknowledge that society has *vastly exceeded ecological limits* (Washington 2013), which is why we need to change our ways. For Matofska (2016) to say:
Value creation, production and distribution operate in synergy or harmony with the available natural resources, not at the expense of the planet, promoting the flourishing of human life within environmental limits.

This sounds great, but ignores the fact we are already way beyond ecological limits! It also overlooks any discussion of the major problem of our modernist worldview and neoliberal ethics, which need to be replaced by an eco-centric worldview and an Earth ethics (Rolston 2012; Washington 2015). Similarly, to say: ‘Environmental responsibility, including the burdens of environmental damage, are shared; among people, organisations, and national governments’ on the surface sounds responsible. However, firstly, one cannot ‘share’ a great deal of environmental damage, as it is in one place. Secondly, it is not a matter of ‘sharing’ such damage but stopping it and healing a damaged planet (Washington 2013). It goes on to say ‘a Sharing Economy creates goods and services that positively enhance the natural environment, such as cradle-to-cradle (C2C) or circular economy models’. This is very glib, and casually ignores the fact that when society is way beyond sustainable ecological limits (due to overpopulation and overconsumption and the growth economy), creating more goods to satisfy the ‘shop till you drop’ consumer mantra is not a good thing, whether shoes have the gimmick of ‘seeds in their soles’ (Matofska 2016) or not (are these locally native species or exotic weeds?).

The final principle above argues:

By considering long-term implications, futurology and being able to see the ‘big picture’, a Sharing Economy presents a stable and sustainable economic system. Systems thinking, and the need for a systemic approach to change is fundamental to the success of the Sharing Economy.

It thus claims to consider the ‘big picture’, while at the same time completely ignoring the key points of the I = PAT equation, and the impact that equation causes, for it ignores overpopulation and the ideology of consumerism. Now ‘systems thinking’ can be described as:

A management discipline that concerns an understanding of a system by examining the linkages and interactions between the components that comprise the entirety of that defined system.
The sharing economy is thus not a systems approach, for it ignores the \( I = PAT \) equation. It also ignores that the world’s ecosystems are breaking down (MEA 2005; Kumar 2010), that our Global Ecological Footprint is 1.6 planets (GFN 2016) and that the Living Planet Index has dropped by 52% since 1970 (WWF 2014). The Sharing economy seems to situate itself in the neoliberal market model, with entrepreneurship being emphasized as a key aspect (it notes ‘Micro-entrepreneurship is celebrated’). This ideologically fits in closely with neoliberalism. This is of course also somewhat balanced elsewhere in the principles by support for cooperatives. The desperate need for major corporate reform (e.g. Sukhdev 2013) is not spelled out anywhere in their principles however. In contrast, the steady state economy is very much a systems approach as it does consider the big picture.

Finally, it is worth noting that the sharing economy nowhere admits that endless growth on a finite planet is fundamentally unsustainable. There is no questioning of the growth economy, nor any discussion of the SSE. The sharing economy (like the circular economy) thus does not challenge endless growth per se, it just seeks to make such growth require less energy and materials (see decoupling chapter). While such reductions in energy and material use are absolutely needed, it is no use if net consumption keeps rising as overpopulation and overconsumption are not being changed. So the principles of ‘The People Who Share’ ignore the big picture to focus only on one part of it. This is an important part, but it’s actually NOT true systems thinking. Rather, it reads as a very clever piece of PR writing that gives the impression of change, while actually avoiding most of the key drivers of unsustainability. The things suggested are by and large worthwhile, it is the omission of other factors that remains a deep concern. The sharing economy will thus indeed be part of a SSE, but it will be just one aspect that will need to integrate with action on overpopulation, and action to redesign the consumer economy.

Schor (2014) concludes that: ‘There is little doubt that the pro-sharing discourse is blind to the dark side of these innovations’. At the same time she notes that ‘critics are too cynical’ (as possibly I am above?). She argues that it does have potential to reduce eco-footprints and bring people together in new ways. She concludes that software, crowdsourcing and the information commons give us powerful tools for building social solidarity, democracy and
sustainability. She notes: ‘Now our task is to build a movement to harness that power’.

**Conclusion**

The sharing economy is clearly still evolving as a term, and its meanings are many, with narrow and broad approaches. None of them seems so broad as to consider the key drivers of *unsustainability* — overpopulation, overconsumption and the growth economy. In this regard it follows in the footsteps of UNEP’s (2011) ‘Green economy’ and the circular economy (EMF 2012), as noted by Twomey and Washington (2016; see also chapter this book). Like them, the sharing economy seems to cover *less than half of what is needed*, as it does not challenge overpopulation, consumerism as an ideology, or the growth economy itself. One positive aspect is that unlike these other terms, it does *not* describe itself as ‘a new engine of growth’, a positive difference. Much of the wording around the ‘building blocks’ is suspicious to one who writes extensively about the problem of ‘denial’, for it reads like a PR blurb for a product launch. The real future test is whether sharing economy proponents will accept that ecological limits have been passed *due to overpopulation and overconsumption*. Given that there is much good in the Sharing economy approach, I hope they will sit down with CASSE and other advocates of a SSE and enter into a dialogue that fully integrates the sharing economy with the steady state economy.

**Positive steps**

The positive steps associated with a sharing economy are:

- The key positive step would be for advocates of the sharing economy to network with advocates of a SSE to *integrate the two*. Such a dialogue most likely would be constructive and positive.
- To escalate the use of services to replace ownership of ‘things’ is positive, as it reduces material use.
- The support of deliberative democracy in decision-making is positive and should be escalated.
- The support of the sharing economy for laws and policies is praise-worthy, as that means that unlike neoliberalism it *supports regulation of corporations* for the common good (though it is not spelled out this clearly in the principles).
• Advancing the support for ‘systems thinking’ is good (even if this is not applied broadly currently in the principles of ‘The People Who Share’).

References


Matofska, B. (2016) ‘What is the sharing economy?’, The People who Share website, see: http://thepeoplewhoshare.com/blog/what-is-the-sharing-economy/

MEA (2005) Ecosystems and Human Well-Being: Opportunities and Challenges for Business and Industry, Millennium Ecosystem Assessment, see:


Chapter 32 - Local Government and the steady state economy

**Haydn Washington** (former Director of Sustainability Projects, Willoughby City Council)

**Introduction**

It may at first glance seem that local government cannot do much about the steady state economy? After all, it doesn’t determine Australia’s population number, nor does it ostensibly determine how much of any resource is mined. Nor does it determine equality of income at first glance. However, this is deceptive. Local government is at the ‘coal face’ of dealing with environmental, social and economic issues. It deals with the community more than any other branch of government (even though it is not actually a branch of government as defined in the Constitution, being established by State government legislation). Being community-focused, it can talk about the SSE more effectively than State or Commonwealth governments, hence it can foster major dialogue about the SSE and the topics raised in this book. Councils also can take a key lead in promoting sustainability in government, but also in their community. They can champion real and major climate change action (not cosmetic window-dressing), they can champion renewables (by being major users of them!), they can champion low energy and material use production (many councils have business programs and some offer business sustainability audits), they can champion the 4Rs (see consumerism chapter), and they can educate about the need for change – and show ‘how’ to effectively (and economically) change to a greatly reduced impact in terms of a similar lifestyle. Having been the Sustainability Director involved in creating the framework to transition a council to become a champion for sustainability, I can bear witness to the major impact such councils can make in their community. Positive things are happening in Local Government, for example:

- **ICCLEI (Councils for Sustainability)** http://oceania.iclei.org/
  (though in my experience this organization tends to focus on the ‘motherhood’ side of sustainability, they do have good involvement with urban biodiversity strategies and biodiversity guidelines)

- **Environment and sustainability websites** (such as Willoughby City Council’s here): http://www.willoughby.nsw.gov.au/environment---sustainability/

However, since the Global Financial Crisis (where many councils lost money), sustainability programs have slowed. However, these can (and need to be) quickly accelerated. If local government was a **champion for the SSE**, it could make a huge difference to action in regard to all the issues in this book.

**Leading by example**

Councils can lead by example in terms of reducing their net carbon footprints to zero, and vastly reducing their water footprints. They can switch to low-energy and low water-use facilities. They can install both solar hot water and solar PV on their sites (and even wind turbines at appropriate sites). They can become champions for protecting native biodiversity in their LGA. They can **foster real dialogue** within the council on sustainability initiatives (as we did at Willoughby) by holding one day workshops with all staff to explain their focus on sustainability, and creating a Staff Sustainability Working Group to advance sustainability initiatives. These staff workshops probably did more to establish a sustainability culture in Willoughby City Council than anything else we did. There are always ‘lemons’ in terms of infrastructure facilities that waste power and water, and these can be targeted and turned into ‘sustainability showcases’ instead. An example is Willoughby Leisure Centre, which went from wasting energy and water to being far more efficient (see: http://willoughbyleisure.com.au/about-us/green-credentials/). **Sustainable building** is a chapter in this book, and it would seem obvious that such initiatives will save a great deal of water and energy, yet surprisingly in councils they are almost everywhere ignored and overlooked. There are almost always lots of sites that a sustainability audit will indicate can reduce their impact hugely. It is thus a **win/win situation** for Councils to change these through sustainability action and save money, as well as reducing resource use (see sustainable building chapter). The other way councils can lead is to lead their community in regard to transition to a sustainable future.
Life Centres

Prof. Stephen Boyden (2004) of the Fenner School at ANU has come up with the excellent idea of ‘Life Centres’. They would be new public institutions that focus on the processes of life, and the well-being of people and nature. Networks of Life Centres would focus on the idea of ‘healthy people on a healthy planet’. They would play a direct educational role, act as discussion forums and repositories of sustainability information. They would fill a serious gap in the institutional structure of society. Finally we would have an institution designed for sustainability. They would help to counteract the tokenism that is rife everywhere when discussing ‘sustainability’ (Washington 2015). And finally they would be ideal places to educate about the impossibility of an endless growth economy and the need for a SSE and the other urgent changes needed (and covered in other chapters). They are also the ideal venues to discuss key social issues such as rising inequality of income and the social problems this creates (Wilkinson and Pickett 2010). They are a great venue to talk about worldview and Earth ethics and social and eco-justice (and how we need both, Rolston 2012). They are also ideal places to discuss the need for ‘Earth jurisprudence’ and the ‘Rights of Nature’ (Cullinan 2003).

Local government is the ideal institution to establish Life Centres. They already own many buildings (some of them are not being used) which could easily be adapted to be the ‘Life Centre’. Such centres would be the ‘dialogue hub’ for all the issues around sustainability and the need for a SSE. They can bring in expert speakers and also expert demonstrators of solutions. So many people desperately want to change, but do not know what to do. Life Centres fill a need as a place to find out about practical solutions. They can have a reference section with examples of how to change. Life Centres are simply a brilliant new idea, the institution desperately needed for the times we live in to create dialogue about the challenges we face and the positive and exciting solutions to our problems. Imagine an Australia where every Council had a Life Centre fostering dialogue and practical solutions to the environmental (and social problems) we face! It would be the catalyst society needs to break its denial of the issues, and move to creative and positive solutions.
Teaching and education

Councils can play a huge role in dialogue about a SSE through educating their community (which can be at the Life Centre). They can:

- Create their own Sustainability Charter that spells out the need for major change on how society does things (e.g. see the one I wrote for Willoughby: file:///C:/Users/DSDISP~1/AppData/Local/Temp/Sustainability%20Charter.pdf).
- Set up a climate change education campaign, such as one that teaches schools to be ‘ClimateClever’ file:///C:/Users/DSDISP~1/AppData/Local/Temp/A3%20Poster%20Printy.pdf and to save water and energy (see: http://www.willoughby.nsw.gov.au/Environment---Sustainability/energy-efficiency/save-power-kit/).
- Discuss key drivers of unsustainability such as overpopulation and overconsumption and the growth economy (Washington 2015).
- Explain (and assist ratepayers) to move to renewable energy, energy efficiency, and water-saving devices.

Sustainability audits

Councils can assist their communities hugely by providing free sustainability audits (these take a couple of hours and ratepayers book in). Such audits can identify major energy and water saving actions in houses and apartments. http://yourenergysavings.gov.au/water/water-home-garden/water-efficiency-home/get-home-assessment shows what could be covered by this. In the past, Willoughby City Council provided free sustainability assessments to ratepayers, with good uptake and positive feedback and outcomes. Kuring-gai Council offers a rebate for such assessments: http://www.kmc.nsw.gov.au/Current_projects_priorities/Key_priorities/Environment_sustainability/Sustainable_homes/Rebates_for_home_sustainability_assessments. Sadly such assessments are now not generally available in Local Government – but imagine if they were everywhere and free. They have the potential for major energy and water savings across Australia.
Positive steps for Local Government

There are many positive steps Local Government can take to assist transition to a SSE. These are:

- Each council or Shire should immediately create a Life Centre as a dialogue hub to discuss environmental and social issues and how to transition to a SSE. Such Life Centres – a new public institution that focuses on the processes of life and the well-being of people and nature - are the ideal places to discuss the difficult big issues such as overpopulation, overconsumption and the endless growth economy. They are also ideal institutions to foster positive solutions and practical demonstrations of how to change.
- Councils can lead by example to champion a sustainable lifestyle with low energy and material use, with strategies to protect native biodiversity.
- Councils can ensure that a key role is to foster education of their community about the environmental crisis and solutions such as a SSE.
- Councils can support the GreenPrints project of AELA (see Maloney chapter).

References


Chapter 33 - Equity between Nations and the Steady State Economy
Phil Jones

It is difficult to imagine that anyone in a more affluent nation, appreciating the need to plan the orderly process from the growth economy to the steady state economy, could be unconcerned about the issue of equity between nations. Broadly speaking, this addresses the issue of global poverty and development. This chapter examines some of the issues in achieving a fairer sharing of the Earth’s resources, as well as progressing towards the steady state economy. Achieving a fairer share of the Earth’s resources requires reform of taxation at the international level, financial transparency, debt relief and a change in the widely accepted approach to overseas aid, the policy of ‘Aid for Trade’. A stronger financial position for lower income countries may provide the opportunity to finance their transition to the steady state economy. The island nation of Nauru is indicative of the difficulties developing nations have in making that transition.

Taxation at the International Level.

Many lower and middle income nations continue to remain significantly dependent for foreign exchange on the export of primary commodities, such as agricultural products and the products of mining. Over an extended period of time the real value of these has fluctuated so as to make financial planning unreliable and vulnerable to such countries unmanageable indebtedness (IMF 2012). Moreover, they are trades dominated by multinational corporations that involve tax avoidance and evasion, according to the UN Conference on Trade and Development (UNCTAD 2013). A more recent report points out that some countries lose up to 67% of their export revenue through mis-invoicing (UNCTAD 2016). More generally, US $1trillion flows from poor nations annually, with over 83% a result of mis-invoicing (Kar and Spanjers 2015). Much of the remainder is attributed to various forms of illegal activities.
**Table 1**: Illicit Financial Flows from Developing Countries, by Region, 2004-2013 (in billions of nominal U.S. dollars or average share of total illicit flows).
(Source: Kar and Spanjers 2015)

<table>
<thead>
<tr>
<th>Region</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Cumulative</th>
<th>Average Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>32.5</td>
<td>51.9</td>
<td>56.4</td>
<td>77.0</td>
<td>78.6</td>
<td>85.0</td>
<td>78.0</td>
<td>74.3</td>
<td>66.7</td>
<td>74.6</td>
<td>675.0</td>
<td>8.6%</td>
</tr>
<tr>
<td>Asia</td>
<td>174</td>
<td>191</td>
<td>209</td>
<td>236</td>
<td>277</td>
<td>277</td>
<td>381</td>
<td>361</td>
<td>456</td>
<td>482</td>
<td>3,048</td>
<td>38.8%</td>
</tr>
<tr>
<td>Developing Europe</td>
<td>107</td>
<td>118</td>
<td>133</td>
<td>190</td>
<td>233</td>
<td>204</td>
<td>221</td>
<td>295</td>
<td>242</td>
<td>250</td>
<td>1,998</td>
<td>25.5%</td>
</tr>
<tr>
<td>MENA+AP¹</td>
<td>29.9</td>
<td>31.0</td>
<td>33.3</td>
<td>57.4</td>
<td>80.3</td>
<td>51.9</td>
<td>53.0</td>
<td>81.1</td>
<td>68.2</td>
<td>70.3</td>
<td>556.5</td>
<td>7.1%</td>
</tr>
<tr>
<td>Western Hemisphere</td>
<td>120</td>
<td>131</td>
<td>111</td>
<td>137</td>
<td>157</td>
<td>128</td>
<td>172</td>
<td>195</td>
<td>201</td>
<td>212</td>
<td>1,569</td>
<td>20.0%</td>
</tr>
<tr>
<td>All Developing Nations</td>
<td>465</td>
<td>524</td>
<td>543</td>
<td>699</td>
<td>828</td>
<td>747</td>
<td>906</td>
<td>1007</td>
<td>1035</td>
<td>1090</td>
<td>7,847</td>
<td></td>
</tr>
</tbody>
</table>

¹ MENA+AP (the Middle East, North Africa, Afghanistan, and Pakistan)

**Table 2**: Illicit Financial Flows to GDP (in percent of GDP) (Kar and Spanjers 2015)

<table>
<thead>
<tr>
<th>Region</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>5.4</td>
<td>7.3</td>
<td>6.9</td>
<td>8.0</td>
<td>7.1</td>
<td>8.1</td>
<td>6.1</td>
<td>5.2</td>
<td>4.4</td>
<td>4.7</td>
<td>6.1</td>
</tr>
<tr>
<td>Asia</td>
<td>5.0</td>
<td>4.7</td>
<td>4.3</td>
<td>3.9</td>
<td>3.8</td>
<td>3.4</td>
<td>4.0</td>
<td>3.2</td>
<td>3.6</td>
<td>3.5</td>
<td>3.8</td>
</tr>
<tr>
<td>Developing Europe</td>
<td>6.2</td>
<td>5.5</td>
<td>5.2</td>
<td>5.8</td>
<td>5.8</td>
<td>6.4</td>
<td>6.0</td>
<td>6.8</td>
<td>5.5</td>
<td>5.4</td>
<td>5.9</td>
</tr>
<tr>
<td>MENA+AP</td>
<td>2.4</td>
<td>2.0</td>
<td>1.9</td>
<td>2.7</td>
<td>3.1</td>
<td>2.2</td>
<td>1.9</td>
<td>2.5</td>
<td>2.0</td>
<td>2.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Western Hemisphere</td>
<td>5.4</td>
<td>4.8</td>
<td>3.5</td>
<td>3.6</td>
<td>3.6</td>
<td>3.1</td>
<td>3.4</td>
<td>3.3</td>
<td>3.5</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>All Developing Countries</td>
<td>5.0</td>
<td>4.7</td>
<td>4.1</td>
<td>4.3</td>
<td>4.2</td>
<td>4.0</td>
<td>4.0</td>
<td>3.8</td>
<td>3.7</td>
<td>3.7</td>
<td>4.0</td>
</tr>
</tbody>
</table>
These figures represent a significant proportion of the economies of the developing countries, with the same report indicating illicit flows vary around 3.5% of the developing world’s GDP; with the largest figure from Sub-Saharan African nations as 6.1%.

Tax avoidance and tax evasion are now widely recognised as accounting for revenues forgone by developing nations. Developing the financial capacity to adjust to the transition to a steady state economy will depend on developing nations reclaiming much of this lost revenue.

Positive Steps towards Tax Justice

The Tax Justice Network (TJN), an independent international network has done a great deal to bring about reform in the international tax domain. National TJN coalitions have used the opportunity to provide input into the G20 group of nations through the C20. The 'Civil 20' or C20 is a forum for civil society organisations from around the world to engage with G20 governments on the key issues facing our world today. The C20 brings civil society together to influence the G20. As a result of the lobbying by the TJN the G20 has in recent years mandated the OECD to develop a Common Reporting Standard (CRS) for the automatic exchange of tax information to which 87 countries have now committed (OECD 2016). The CRS:
Positive Steps

... tackles and deters cross-border tax evasion by establishing a common international standard for financial institutions to identify and report information about the financial accounts of foreign residents to their local tax authority and for tax authorities to exchange this information. (ATO 2014).

The CRS is part of the Multilateral Competent Authority Agreement (MCAA) which involves country-by-country reporting, and is an important element of the Base Erosion Profit Shifting (BEPS) project of the OECD designed to reduce international tax avoidance and evasion. Nations with weak auditing capacity will be strengthened in that field by ‘Tax Inspectors Without Borders’ (OECD 2016). The effectiveness of this process has already been seen, with eight pilot projects in countries from Africa to Asia and Latin America resulting in more than US$260 million in additional tax revenues to date, including more than US$100 million in new tax revenues in Zimbabwe. There are plans for a rapid expansion of this program (OECD 2016).

‘Tax wars’ or ‘tax competition’ waged by multinational corporations (whereby governments believe they need to keep corporate tax rates as low as possible in order to attract investment) is another factor tending to diminish revenue streams that would assist transition to the steady state economy (World Bank 2016). The Tax Justice Network proposed two approaches in dealing with this tendency to ‘race to the bottom’. The answer lies in co-ordination and co-operation between states, to reach agreement, not to engage in such a race. This first requires a change in ideology (Tax Justice Network 2016).

Financial Transparency

A lack of financial transparency in the extractive industries of oil, gas and mining has emerged as an issue of concern relating to financing for development and a transition to the steady state economy within developing countries. A strong advocate for transparency, Publish What You Pay argues that natural resources revenue can play a critical role in financing a country’s own sustainable development (Publish What You Pay 2015).

Yet according to the World Bank:
Close to 3.5 billion people live in countries rich in oil, gas, and minerals. However, historically, several resource-rich developing countries have shown below-average growth performance and their citizens live in persistent poverty due to a lack of transparency and corruption caused by weak governance, the so called “Paradox of Plenty” (World Bank 2013)

Positive Steps Towards Transparency

The Extractive Industries Transparency Initiative (EITI) has been introduced with the aim of increasing financial transparency and reducing corruption. It calls on governments, companies and civil society groups to work together via the nationally based Multi Stakeholder Group to ensure country-by-country and project-by-project reporting. Countries implementing the EITI publish data on payments in the form of taxes, licenses, contracts and levels of production. The Multi Stakeholder Group monitors the proceedings (EITI 2016). The hope for achieving greater transparency is that leaders within complying countries can be held accountable for monies derived from resource extraction. While the EITI does not guarantee that either poorer benefit or those revenues are directed towards ensuring a steady state economy, it does provide a means by which governments and companies can be made more accountable.

The Publish What You Pay coalition was formed: ‘to promote the transparent, accountable and sustainable management of oil, gas and minerals so that they contribute to prosperity for all’. Accordingly, it has supported the introduction of the EITI throughout the oil, gas and mineral exporting countries. It describes itself as made up of more than 800 member organisations and 41 national coalitions across the world, including human rights, development, environmental and faith-based organisations (Publish What You Pay 2002). While greater revenues may eventually be gained as a result of great transparency, it will be important for nations that benefit to use such gains to finance their transition to the steady state economy.

Debt Relief

There are many reasons why people, business and nations go into debt. It may be as a result of a necessity, incorrect anticipation of prices at the market, bad financial advice, to purchase the necessities of life such as food or fuel, or it
may be due to major corruption such as the Marcos presidency in the Philippines (Alconaba 2016). A nation or household on limited income, requiring credit to purchase either food or a solar panel will more than likely opt for food. In a recent study, Jubilee UK found 22 countries are already in debt crisis; a further 71 could be soon. The table below is a summary of their findings.

Countries either in, or at risk of, new debt crises

<table>
<thead>
<tr>
<th>Category</th>
<th>Characteristics</th>
<th>Regions particularly affected</th>
<th>Number of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In debt crisis</td>
<td>High government debt payments, high net external debt (that is, debt to the rest of the world)</td>
<td>Europe, Central America and the Caribbean, Middle East and North Africa</td>
<td>22</td>
</tr>
<tr>
<td>2. High risk of government debt crisis</td>
<td>High net external debt, large and persistent current account deficit, high projected future government debt payments</td>
<td>Sub-Saharan Africa, Asia, Small Island States</td>
<td>14</td>
</tr>
<tr>
<td>3. Risk of government debt crisis</td>
<td>Significant net external debt, significant projected future government debt payments</td>
<td>Sub-Saharan Africa, Central America and the Caribbean, Small Island States, Europe, Central Asia</td>
<td>29</td>
</tr>
<tr>
<td>4. Risk of private sector debt crisis</td>
<td>Significant net external debt, significant current account deficit (but no worrying indicators of external government debt)</td>
<td>Europe, Small Island States, Central Asia, the Middle East and North Africa, sub-Saharan Africa and Central America</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: Jubilee UK (2016)

While declaring bankruptcy is a means of escaping a debt crisis within a country, there is no such mechanism between countries. While one of the UN Sustainable Development Goals includes Target 17.4 to ‘assist developing countries in attaining long-term debt sustainability through coordinated
policies aimed at fostering debt financing, debt relief and debt restructuring’, no strategies can be found outlining *how* that is to be achieved.

**Positive Steps toward Debt Relief.**

In the case of some nations, debt relief may come as a result of a fairer share of corporate taxes or as a result of a reduction in corruption coming from greater financial transparency, in other cases it may well result from involvement of the IMF and World Bank. In response to the advocacy initiative of the international Jubilee Movement and others, these organisations (along with the Paris Club) worked together during the early 2000s to provide debt relief for the Heavily Indebted Poor Countries (Paris Club 2015). The Jubilee Movement continues to advocate for an effective debt relief mechanism (Jubilee USA 2013; Global Policy Forum 2014).

**‘Aid for Trade’**

According to the World Trade Organisation (WTO) ‘Aid for Trade’ is about helping developing countries, in particular the least developed, to build the trade capacity and infrastructure they need to benefit from trade opening. It:

> … includes technical assistance — helping countries to develop trade strategies, negotiate more effectively, and implement outcomes. Infrastructure — building the roads, ports, and telecommunications that link domestic and global markets. Productive capacity — investing in industries and sectors so countries can diversify exports and build on comparative advantages. And adjustment assistance — helping with the costs associated with tariff reductions, preference erosion, or declining terms of trade. (WTO 2017)

According to the Australian government the purpose of aid programs is to ‘promote Australia’s national interests by contributing to sustainable economic growth and poverty reduction’ (DFAT 2017). Such an approach gives the clear impression that ‘Aid for Trade’ is part of the current and orthodox endless growth model. The WTO seems to confirm this viewpoint when it points out that ‘Aid for Trade’ is ‘to bridge supply and demand’ and ‘It is businesses that trade not governments’ (WHO 2017).
Positive Steps Towards Sustainable Trade and the Steady State Economy

The first positive step in the area of international trade is to *do no harm*. In Australia the Australian Fair Trade and Investment Network (AFTINET) acts as a watchdog on international trade issues. It works to ensure more effective representation of developing countries in international trade forums and more effective international regulation through the United Nations on the environment, human rights and labour rights. It has advocated against Inter-State Dispute provisions being incorporated into free trade agreements, pointing out how companies take advantage of these unelected bodies of arbitration to sue government if or when they introduce laws to protect the environment or wage conditions of workers (AFTINET 2015).

AidWatch also acts to prevent harm and promote policies more directed towards the welfare of developing nations in Australia’s region. AidWatch describes itself as an ‘independent monitor’ of Australia’s international aid and trade policies. In 2013 this organisation drew national attention to the Mining for Development (M4D) program sponsored by AusAID. AusAID was the Federal Government agency responsible for Overseas Development Assistance at the time. Thulsi Narayanasamy, Director of AidWatch, claimed the initiative was ‘at best, an expensive exercise in corporate welfare’ (Grant 2013). The AusAID website offered further comment saying:

*If AusAID is committed to sustainable development, these initiatives and explorations into alternatives need to be supported, whether it’s sustainable agriculture, sustaining local subsistence economies, exploring recycling mined resources, or working to shift away from fossil fuels and towards renewable energy. All of these alternatives already exist and ought to be nurtured instead of imposing mining as the first and sole option.* (AidWatch 2013)

AidWatch now claims overseas aid projects are now surrounded in secrecy (AidWatch 2015). This restricts scrutiny as to how effective that Australian aid program is in promoting either the Sustainable Development Goals or a sustainable, steady state economy.
Nauru – a Case Study.

The Pacific island of Nauru has a population estimated at around 9500, with export earnings coming from phosphate mining, off-shore banking, the Australian asylum seeker detention centre and fishing licenses. It seems its capacity to earn foreign exchange in the future is under threat. Phosphate resources are expected to last only another 30 years, and there is pressure mounting to close the Australian-financed detention centre. Meanwhile, it is totally dependent for its supply of electricity on imported fossil fuels. It has virtually no arable land and currently relies almost totally on imported food. While it has the capacity to generate required electrical power using solar and wind, it evidently lacks the finances (or interest) to enable the transition (SPREP 2014). Like many other developing nations, it relies heavily on the sale of a non-renewable resource to purchase what would be considered the necessities of life. It would appear to have little chance of competing with other nations when it comes to establishing secondary or tertiary industries. It could be described as a nation that is very close to its physical limits to growth and may be an example of what awaits other nations unless international financial reforms are made to ensure developing nations can transition to a sustainable, steady state economy.

Conclusion and positive steps

There are many initiatives underway for reforming important aspects of the global economy and enabling poorer nations to finance their transition to a sustainable, steady state economy. Positive steps include:

- Individuals and organisations can support their national Tax Justice Network and their national Publish What You Pay coalition.
- The Jubilee movement can be supported. It is active in many countries including Australia, and facilitates advocacy on debt and related issues by providing careful research.
- In particular, support debt relief for our pacific neighbours that are struggling to reach sustainability.
- Australians can work for fairer trade relationships and better quality overseas aid by becoming members of AFTINET and AidWatch.
- While the Sustainable Development Goals are aiming to direct the global community towards a more sustainable future, Goal 8, ‘economic growth’ and its related targets fail to convey the necessity to transition, grow or progress to a steady state economy. This goal
should be modified to specify it is only growth NOT driven by population increase or increasing resource use.

- Chapters of the Center for the Advancement of the Steady State Economy (CASSE), work actively throughout many countries around the world promoting the Steady State Economy as the viable alternative to the infinite growth economy. CASSE NSW is one of these, and always welcomes positive contributions.

References


Chapter 34 - GreenPrints: an Earth-centred approach for living within our ecological limits and creating a steady state economy
Michelle Maloney

Introduction

As the chapters in this book demonstrate, there is no shortage of truly excellent ideas about the key elements we need, in order to create a steady state economy. But one of the reasons this book has been written, is that there’s a strong need for practical ways to actually work towards, and achieve, a steady state. As one scientist working in the natural resource management sector said to me recently: ‘I read all these theories, and I understand that we need a steady state economy, but how do we actually get there?’

In this chapter, I’ll map out an approach called ‘GreenPrints’, which is being developed to help civil society groups and enlightened government authorities understand, and take very practical steps towards creating, governance structures to help us live within our ecological limits and achieve a steady state economy. This approach has been created by the Australian Earth Laws Alliance (AELA) to fill an important gap, because while we have ‘blueprints’ to document the design of building and engineering projects, we don’t yet have effective ‘GreenPrints’ for helping us construct the governance systems we need, to build Earth centred human societies that can nurture the Earth community and flourish in a post carbon, climate changed world.

GreenPrints has three key objectives:

- to create an exceptional, practical and easy-to-use governance model for human activities in Australia;
- to showcase the approach through practical pilot projects with civil society groups; and
- to develop a long-term advocacy plan to help civil society organisations, local governments, State governments and the Federal government understand and implement the model.
GreenPrints doesn’t aim to reinvent the wheel, but rather aims to draw in (and draw from) the multiplicity of projects and methodologies that are already operating – or that are being proposed for use – to help manage human impacts on the Earth. In this chapter, I will outline the key problem that GreenPrints was designed to address, explain its origins within the theory of Earth jurisprudence, and give a brief overview of how the approach can work and the practical steps being taken to test the initial concept.

The problem

Humanity is facing an unprecedented ecological and social crisis. The past 250 years have seen human societies, powered by apparently plentiful and cheap fossil fuels, develop the technological capacity to use more natural resources than the planet can sustain. The second half of the 20th century saw a ‘perfect storm’ of human population growth, escalating technological capacity and a shift across industrial societies to a consumer culture. The result, as noted by one commentator is that ‘humans have used more resources since 1950 than in all previous human history’ (Durning 1992). The impacts on the natural world of this volume of human consumption have been nothing short of devastating.

Humanity’s insatiable consumption and destruction of the natural world has brought us to the situation where more than 80% of the world’s people now live in countries that are ‘bio-capacity debtors’. This means they consume more than they have and must import resources, deplete their own stocks and/or utilise the global commons of atmosphere and ocean (GFN 2011). Ever widening disparities exist between the resource consumption of industrialised and poorer countries, but in aggregate, human societies are now estimated to be using the equivalent of 1.6 Earths to meet their demands (GFN 2017).

The ecological crisis brought about by humanity’s destruction of the natural world is well documented and well known. It includes: deforestation, biodiversity loss, air and water pollution, land degradation and the escalating disruption of entire components of the Earth System, such as anthropogenic climate change (MEA 2005). Human influence on the environment has become so significant that some scientists are claiming we have moved into a new geological epoch – the ‘Anthropocene’ (Crutzen et al 2000).
The idea of ecological limits was first brought to international attention by the release of the Club of Rome’s report titled *Limits to Growth* (Meadows et al 1972). The report outlined several possible scenarios for humanity’s progress and impact on the environment, based on five variables: world population, industrialisation, pollution, food production and resource depletion. Two of the scenarios saw ‘overshoot and collapse’ of the global economic system by the mid to latter part of the 21st century, while a third scenario resulted in a stabilised world. Forty years after its release, its most bleak scenarios have been played out. A range of recent reports, including an analysis by a CSIRO scientist, which confirmed that the Limits to Growth calculations were accurate (Turner 2008). We are now living beyond our ecological limits and we must urgently rein in the scale of human consumption of the Earth (Meadows et al 1992; Meadows et al 2004; Turner 2008).

**Why aren’t we living within our ecological limits? Understanding barriers**

Given how well documented and studied human impact on the environment is, and the direct threat this poses to our own existence, the logical response is for us to live within our ecological limits, to consume less and to ‘limit human consumption so it doesn’t exceed the sustainable level of production from natural systems’ (Lowe 2006). However, due to a complex mix of reasons, human societies are not reducing consumption and we are not making concerted efforts to live within our ecological limits.

GreenPrints proposes that the burgeoning theory of human governance called ‘Earth jurisprudence’ offers a comprehensive foundation for building an effective human governance system that can help us live within our ecological limits and nurture the Earth community. Earth jurisprudence, a term coined by cultural historian and ‘Earth scholar’ Thomas Berry, is an emerging theory of Earth-centred law and governance (Berry 1999, 2002). Advocates for Earth jurisprudence propose that the primary cause of the ecological crisis is anthropocentrism - a belief by people in the industrialised world that we are somehow separate from, and more important than, the rest of the natural world (see worldview and ethics chapter). Berry argues that this anthropocentric world view underpins all the governance structures of contemporary industrial society – economics, education, religion, law – and has fostered the belief that
the natural world is merely a collection of objects for human use (Berry 1999). In contrast, Earth jurisprudence suggests a radical rethinking of humanity’s place in the world, to acknowledge the history and origins of the Universe as a guide and inspiration to humanity and to see our place as one of many interconnected members of the Earth community (Swimme and Berry 1992). By ‘Earth community’ Berry refers to all human and ‘other than human’ life forms and components of the planet – animals, plants, rivers, mountains, rocks, the atmosphere – our entire Earth (Berry 1999). He suggests that ‘our great work’ is to transform human governance systems to create a harmonious and nurturing presence on the Earth.

From an Earth Jurisprudence perspective, the reasons for humanity’s failure to transition to societal rules that help us live within our ecological limits are complex, but can be grouped under three main headings or barriers. The first barrier is the powerful combination of two belief systems in western industrial society: anthropocentrism, the idea that humans are the centre of all things and are superior to or more important than, all other elements of life, and the belief in unlimited economic growth. The idea that unlimited growth is critical for the health of national economies developed during the Industrial Revolution and continues to dominate modern political, economic and cultural life (Alexander 2011). The combination of these two world-views has been a significant barrier to the mind shift necessary to accept and act on the reality of our ecological limits (Berry 1999).

The second barrier to human societies living within their limits is the unequal power structures created and perpetuated by the vested interests who control much of the Earth Community, or the planet’s ‘natural resources’ and currently prevent those concerned with the health of the Earth from transforming our societies. There are now many claims that modern western societies are plutocracies rather than democracies (Burdon 2014; Alexander 2014; Preston 2014) and are governed by the interests of wealthy individuals and corporations, in partnership with State-sanctioned policies. The lengths to which private interests have gone to protect their financial interests in industries as diverse as tobacco and fossil fuels have now been carefully documented (Oreskes and Conway 2011). There are also an increasing number of investigations showing the interaction between powerful private interests and their control over the public policy agenda (Sachs 2011). The recent
election of President Trump in the USA has cast into sharp relief, the ethical and economic problems created when private business interests control aspects of public office. Such power structures mean that the vast majority of the world’s population, including civil society and other groups who want to live sustainably and within their ecological limits, are excluded from key decision making roles. This ‘pathology’ of a society dominated by vested interests and disconnected from its physical realities is a powerful and all-pervading reason why we no longer live within our limits. But recognising these power structures, naming them and directly addressing them is crucial.

The third barrier – and the one that GreenPrints has been specifically designed to address - is the fact that Western industrialised nations have, particularly since the Industrial Revolution, functioned for hundreds of years without any concept of environmental limits, means that living within limits is new and challenging for our governance and legal systems. Our existing governance systems – our institutions, regulatory systems, environmental laws and ‘environmental management tools’ – are all built to support, or only gently mitigate, human-centred growth, and are not yet sufficiently sophisticated or in tune with the Earth Community to help us live within our limits (Salzman 1997; Allenby 2002; Guth 2008). While the 1970s and 1980s saw very important developments in theories and rhetoric about ‘sustainable development’ - including the Australian focus on ‘ecologically sustainable development’ - by the early 21st Century, the escalating deterioration of the health of the natural world has proven that these concepts, and humanity’s efforts (and lack thereof) to implement these concepts, have failed to protect or nurture environmental health (Klein 2014).

It is this final barrier – the historical absence of systems and structures for living within our limits – that GreenPrints has been designed to address. Created from an Earth jurisprudence perspective, GreenPrints aims to make it easier for people to understand their ecological limits, and to work with their head, heart and hands, to create the culture, ethic and societal rules, to work towards degrowth where necessary, and then to implement a steady-state economy for the long term. The approach is designed to offer hope and alternative ways forward; these are critical elements when tackling the first and second barriers outlined above.
GreenPrints – a practical approach to building Earth-centred, steady-state societies

GreenPrints aims to answer a critical question: how can we create human governance systems that help us live within our ecological limits and nurture the wider Earth community? The Australian Earth Laws Alliance (AELA) designed the rough outline for GreenPrints in 2016, and is trialling pilot projects in two communities in 2017 and 2018, to help refine the methodology.

Given the historical absence of any serious action by nation-states to acknowledge and address ecological limits, and given the current disturbing rise of extreme ‘right wing’, neo-liberal values within the governments of many western industrial nations, we don’t have any expectations that the GreenPrints approach will be taken up by State or Federal governments in the immediate future. For now, the draft GreenPrints Handbook is aimed at civil society – individuals, community groups and organisations – as well as enlightened local governments. Our aim is that these groups use the GreenPrints approach as a starting point and guide for moving their town, city and bioregion into a zero-carbon, biodiverse place for human societies and the wider Earth community. And despite the apparent ‘endarkenment’ of governments in the Western world at present, we will also be using GreenPrints to advocate to governments at all levels; to demonstrate that an alternative system is possible. The journey toward systemic change will probably take decades, and GreenPrints may be redesigned as we go, but AELA is committed to the work and believe that we can in fact create governance systems that enable humans to build a more harmonious relationship with the wider Earth community, and thrive within, the productive capacity of the non-human world.

An overview of the GreenPrints approach

Step 1 – Thinking differently, and starting with the Earth first – how do we engage with Earth-centred governance?

The first ‘step’ in the GreenPrints approach, is to change the way we think about our place in the world. If we accept that humans are simply one part of the wider, interconnected community of life on this planet, and we accept that
all of life and life-supporting systems have the intrinsic right to exist, thrive and evolve\textsuperscript{22}, then our expectations of how we should live change dramatically (see chapter on worldview and ethics). And our starting place for transitioning to a healthy future is in fact the Earth itself (not us).

As noted above, it has been argued that ‘ecologically sustainable development’ as a concept and practical model, has largely failed (Klein 2014; Washington 2015). One of the key reasons it failed is that governments and corporations embraced the idea that ESD was all about ‘balancing’ the three pillars of human society – environment, society and economy. Unfortunately however, our existing culture and governance system focused predominantly on the modern notion of an ‘economy’ and the environment and society often lost out. ESD was also treated largely as a process of continual improvement – it had no end game, no outer limits, no parameters within which to achieve success.

In contrast, GreenPrints is based on the original notion of ‘nested’ sustainability – that is, the needs of a healthy environment come first, and we then ‘fit’ human societies, and human economies, into it. This may appear blatantly obvious to those of us who have been working on sustainability issues for a very long time. But again, as noted above, at present our governance systems are not built this way – narrowly defined, unjust economic interests are valued above all else, while the environment and social justice deteriorates.

So GreenPrints is based on the idea that if we are to transition industrial societies away from their current abuse and overconsumption of the natural world, we need to start by focusing on the health (ecological integrity) of the natural world. But what ‘scale’ or ‘unit of analysis’ is the best way to start? What are these ecological limits that we need to work within?

A useful 'starting point' for mapping out what Earth-centred governance can look like, is a bioregion. A bioregion is an area of land or sea defined by common patterns of natural characteristics and environmental processes (such

\textsuperscript{22} This is the fundamental basis of Earth jurisprudence and the Rights of Nature Movement – see the Universal Declaration for the Rights of Mother Earth - https://pwccc.wordpress.com/programa/
as geology, landform patterns, climate, ecological features such as plant and animal communities). A bioregion’s borders are defined by natural boundaries such as mountain ranges and soil types (rather than the political boundaries of many maps). Each bioregion has a unique collection of ecological communities as well as different patterns of land use and threats to biodiversity.

A bioregion is smaller than an ecoregion\(^{23}\), but larger than an ecosystem or catchment area. In Australia, we have a widely accepted classification system called the Interim Biogeographic Regionalisation for Australia, version 7 (IBRA7), which has created 89 bioregions in Australia\(^{24}\). Many conservation and land management groups in Australia already use bioregions in conservation projects\(^{25}\) and consultation with our GreenPrints scientific advisory group confirmed that this is the best unit of analysis for the project.

A distinction should be made at this point, between bioregions (defined above) and ‘bioregionalism’. Bioregionalism is a body of thought that evolved to ‘reconnect socially just human cultures in a sustainable manner to the region-scale ecosystems in which they are irrevocably embedded’ (Aberley 1999). It has a rich, vast literature and despite its critics, has created an enduring legacy. GreenPrints will draw on the powerful ideas from the bioregionalism movement, but unlike the movement itself, does not place a priority on re-drawing our current political boundaries to comply with bioregional boundaries. GreenPrints proposes that bioregions offer the best way for us to create long term, understandable ‘ecological limits’ within which we can redesign our governance systems.

The benefits of a bioregional approach are threefold: By using bioregional ecological health as a starting point for human governance, we can: (1) implement a key aspect of Earth Jurisprudence, that is, we can develop our understanding of place and connection with our local Earth community; (2) map out what nature needs to thrive and (in contrast to the idea of ‘sustainable

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\(^{23}\) The ecoregion classification system was created by WWF and the Australian ecoregions can be seen here: https://www.environment.gov.au/land/nrs/science/ibra/australias-ecoregions


\(^{25}\) For example, see the NSW Government’s Office of Environment and Heritage website: http://www.environment.nsw.gov.au/bioregions/BioregionsExplained.htm
development’) we can build understanding about the critical parameters and ultimate ‘end-game’ for us to work within and (3) redesign human culture and society so that economic, social and political systems all work towards the same, life-sustaining ecological goals.

So for the remaining ‘steps’ in the GreenPrints method, the parameters for all activity are the ecological health of the bioregion in which individuals and organisations using GreenPrints live. Linked to this, is the critical role of scenario creation and mapping bioregions. For each community that engages with the process, several maps will be created, to show business-as-usual as well as several other different scenarios for ecological health and human activity, based on the specific nature of the bioregions. They will be powerful tools for ‘showing’ what Earth-centred governance options exist. The ultimate decisions about which ‘scenario’ to aim for, will be made by the communities involved.

**Step 2 - Exploring our own connection to country: art, spirit, community, traditional knowledge**

Before we launch immediately into Western scientific understandings of ‘ecological limits’ and ‘ecological integrity’, we’ll work through Step 2 and Step 3 of our GreenPrints methodology. In order to begin the process of helping people think in an Earth-centred way, and truly appreciate the importance of nurturing the Earth and living within ecological limits, we need to find creative, enjoyable ways for people to connect with, and understand, their own bioregion, catchment and ecosystem. It’s surprising how few people actually know the geographic layout of their bioregion, let alone what a ‘healthy’ bioregion should look like. GreenPrints has engaged a range of artists, deep ecology practitioners (see worldview chapter) and community development workers to help design and experiment with processes, activities and learning methods, to help people access the most powerful and stimulating catalysts for engaging with their local Earth community.
Step 3 - Acknowledging First Nation Peoples’ laws and knowledge systems as a basis for Australian Earth-centredness

One of the most exciting elements of GreenPrints is the critical role that First Nation Peoples’ laws and knowledge plays in the overall approach. For participating non-indigenous communities and organisations, designing a truly Earth-centred governance system in Australia must involve engaging with, learning from and supporting the work and aspirations of local indigenous people. This journey will be different for every community, and the GreenPrints Handbook will be co-authored by indigenous colleagues, who can provide guidance for non-indigenous Australians.

Step 4 - Understanding ecological health and ecological limits – science and the role of bioregions

After engaging with their bioregions through heart and spirit, via art and other processes, and engaging with the First Nations People, whose ancient laws and ongoing custodianship nurtures the continent, GreenPrints participants will be invited to engage with scientists who can connect them with a western scientific understanding of their bioregion.

GreenPrints participants will be invited to engage with current literature around Planetary Boundaries, Earth systems science, ecological integrity and other scientific material that can help people understand the best knowledge that exists about ecological health and limits. In fact, participants will be invited (and assisted) to collate as many resources as possible, that describe, plan for, and currently manage the ‘natural environment’ in their bioregion. The resources gathered will include one of the most valuable areas of work for the entire GreenPrints project: natural resource management (NRM) plans developed by Catchment Management Authorities and ‘NRM management bodies’.26 While NRM bodies often come under criticism for labelling the environment as merely a ‘resource’, at present they offer some of the most up to date and comprehensive information about bioregions in Australia. NRM groups have been working for decades to produce plans that map the ecological health of ecosystems and bioregions, outline current threats, and

26 For example, see Healthy Waterways and Catchments, previously the SEQ NRM - http://www.seqcatchments.com.au/news/latest-update-new-entity-frequently-asked-questions
focus on ecological restoration and maintenance. One of the biggest gaps in our current governance systems is that these plans are not the basis of modern planning laws. They should be. Where these plans already exist, GreenPrints aims to promote them as a solid foundation for future planning and human management plans.

**Step 5 - How do we place human social values within ecological health?**

Step 5 and Step 6 are closely woven together. These are the steps that require GreenPrints participants to begin articulating the kind of communities and societies they want, within the (now understood) scenarios for ecological health in their bioregion. While there is insufficient space in this chapter to elaborate on the details, Step 5 and Step 6 basically invite GreenPrints participants to explore how human life can be designed to fit within, and ensure the continuation of, bioregional ecological health.

A range of methods can be used to explore the values of participating communities and organisations, in order to unpack values that are (and are not) compatible with truly Earth-centred, sustainable living. At this stage, there’s an iterative process that reconnects participants with the work done in Step 1 of the approach. It encourages participants to consider the ‘community’ as being more than just humans, taking in all life in the region. There’s also a process to enable people to ‘redefine the good life’ and analyse existing strategies, such as Voluntary Simplicity (see chapter on this) and Transition Towns, for methods that suit their interests and needs.

Based on the values outlined, GreenPrints participants will then be invited to ‘flesh out’ the maps and scenarios described in the previous steps. They will, in effect, be invited to identify what kinds of human activities can be carried out in their bioregion, whilst still maintaining ecological health into the long term.

**Step 6 - How do we create and strengthen new economies that support ecological health and human wellbeing?**

GreenPrints is intricately connected to the New Economy movement in Australia, as AELA is trialling the GreenPrints project and also coordinating
the creation of the ‘New Economy Network Australia’.\textsuperscript{27} After GreenPrints participants identify the main social values and goals they wish to achieve, Step 6 enables people to fully explore the burgeoning ‘new economy’ or ‘alternative economy’ movements locally, regionally and nationally. The fundamental goal will be for people to creatively engage with the exciting range of diverse economic approaches that already exist – and are bubbling up all around the world – which can enable humans to live, work and play within their ecological limits.

Participants can explore a range of different ways of fulfilling their communities material/economic needs. For example, they may discover that they can no longer support land clearing or logging, but instead need to restore forests and forest biodiversity; or they may discover that they need to scale down or ‘degrow’ quarrying, mining or other extractive activities. They may want to upscale community owned renewable energy and small scale local food production. The GreenPrints approach aims to help build a community-wide understanding of the myriad ways that economic activities can be carried out within the ecological limits of their bioregion.

**Step 7 - Redesigning law and governance to ‘fit’ Earth-centredness. The challenge: connecting bioregional ecological limits, social values and new economies – to create Earth centred governance**

In the final step of the approach, lawyers and governance experts are invited into the discussions. The key question at this stage is: based on the different scenarios mapped out through the previous steps, for these specific bioregions, what legal, regulatory and governance systems need to be created, removed and modified, to achieve the desired scenarios?

A range of ‘big picture’ questions are addressed at this stage, including: (i) how do we create incentives and remove disincentives, to build the new economies, public spaces, transport options, population control and other issues that need to be addressed, to create governance systems for living sustainably within our limits; (ii) how do we change existing planning laws, which focus on growth, to link to NRM plans and the excellent work already done across Australia by NRM management groups and community

\textsuperscript{27} See – www.neweconomy.org.au
environment groups; (iii) how do we work within the current Federal, State and local government boundaries to create Earth-centred governance that (initially at least) doesn’t need the difficult challenge of changing political/legal jurisdictions and (iv) how do we ensure GreenPrints’ bioregional focus is compatible with existing, successful state and national legislation to protect National Parks and Protected Areas.

At this stage we would also want to examine innovative new legal approaches to embedding ecological limits and Rights of Nature laws into local, State and Federal laws, and explore approaches that increase community level governance, such as the community and nature’s rights ordinances advocated by the Community Environmental Legal Defence Fund (CELDF) in the USA. We would also work with local First Nations People, to see how First Nations Peoples values and laws can be integrated into the new governance and legal system.

Obviously there are many other issues to be addressed – but the journey is just beginning and the GreenPrints team is tackling these issues with enthusiasm.

**Step 8 – Making it all happen**

The final step in the GreenPrints approach is to help participants explore the many ways that change can be made. At this stage, a range of theories and successful practices would be explored, and experts in any of these approaches would be invited in, to support the participants’ efforts. Content may include, but not be limited to:

- An overview of theories of social change so that participants can analyse and develop their own theory of change;
- Tools and techniques for community organising, including processes for deliberative democracy to bring more people into the GreenPrints discussions and longer term change making efforts;
- Connections and introductions to new economy mentors and others in Australia who can assist with exploring and developing positive initiatives such as the creation of new social enterprises and cooperatives;
Positive Steps

- Tools and techniques for lobbying governments of all levels, to invite them to engage with GreenPrints ideas;
- An overview of how communities can initiate and support law reform, at all levels of government;
- Other strategies.

Practical steps being taken to test the GreenPrints approach

GreenPrints offers a holistic, multi-disciplinary and practical methodology for helping us change our governance systems – at all scales – so we can live within our ecological limits and achieve a steady state economy. The draft GreenPrints Handbook is available now, to help guide the steps we need to take to shift towards a healthy, Earth centred society. Over the next two years, GreenPrints will be ‘rolling out’ via several pilot projects with communities interested in using the approach. Our first community is Palm Island, where community leaders are keen to use the GreenPrints approach to create a sustainability hub and explore a long term strategy for building an ecologically focussed, steady state economy. All interested communities are invited to connect with GreenPrints via the Australian Earth Laws Alliance (www.earthlaws.org.au).

Connect with the ‘new economy’ movement in Australia, which is bringing together more than 100 organisations to form a new coalition. The coalition is aiming to strengthen practical steps towards building a steady state economy and inviting people to join the movement at: www.neweconomy.org.au or email: neweconomy@earthlaws.org.au.

Conclusion

In light of the crisis we currently face, it is imperative that we develop sound, workable alternatives to the current flawed human governance systems that have failed to care for the Earth community. If we are to hold out hope and practical strategies for creating social change, and saving what’s left of the natural world (for both moral/ethical reasons and for our own survival) then we must work hard to try new approaches. GreenPrints is just in its early stages, but it offers a holistic approach that embraces and explores the full range of cultural, scientific, social and legal/governance issues that must be addressed if we are to transform our current relationship with the natural world.
from one of abuse, to one of supporting ecological health for all life on earth, including our own.

References


Chapter 35 - Consumer, citizen or a new definition? The necessity to change both the term and our behaviour
Sabrina Chakori

Introduction

Post-World War II, people were encouraged to consume more because they had the civic duty to spend in order to improve the prosperity of their nation (Cohen 2004). Consumption has thus been integrated in people’s lives as a ‘patriotic duty’ (McShane and Sabadoz 2015). Marketplace structure took precedence over human interests, such as community building; and over environmental impacts, and consumers were assured that consumption itself is responsible citizenship (Cohen 2004). Today we are still led to consume as a means, not only to ensure future prosperity, but also to exhibit our social status and to distinguish ourselves from some segments of the society (Cho et al 2014; Cohen 2004). This is the society where I grew up, where the spotlights focus more on a pair of new shoes or on our new model of television, rather *than on our well-being.

In the current profit-seeking ideology, people are conceptualized primarily as ‘economic entities’, whose interests equate with maximizing economic utility, rather than as individuals with economic, socio-cultural and ethical issues (Devinney et al 2006). I discuss here some aspects linked with the corporate profit-seeking ideology that defines us simply as consumers, bolts of the economic growth machine, rather than people that have interests and responsibilities that go beyond utility maximization. The intent of the term ‘consumer’ is inimical to achieving sustainability and well-being. Therefore, to solve our economic, social and environmental crisis, the challenge of this century is to reconceptualise our role in the economy and to integrate and build a system where we can live in a sustainable way, in accordance with ecological limits and with respect for the most vulnerable populations.

Redefinition of consumer

Despite a lengthy history of debate, there is a lack of any alternative definition of ‘consumers’. Research about a new definition of people in the economic system (one that includes civic participation), have just begun. Most of the studies are limited and use the term ‘citizen-consumer’, which still leaves us
anchored in the consumer culture. Kessler and Bach (2011) explore the role of the citizen-consumer as ‘actor’ in industrial relations, and advance the term *end-user*, in other words the final receiver of a product or service. In the decade between 1980 and 1990 the ‘end-user’ has evolved into the term ‘customer’ with ‘sovereignty’ (Kessler and Bach 2011). ‘Customer sovereignty’ as an ‘enchanted myth’ is viewed by Korczynski (2002) and Ott (2004) as an illusion, where it is believed that people remain ‘protected’, despite operational systems that manipulate the customer. In an economic system that privileges human values, rather than simply the market outputs that lead to infinite growth, we could eventually replace ‘customer sovereignty’ with ‘people sovereignty’. However, moving a step forward, additional consideration should be given to moving away from the idea of a human sovereignty and *domination* system, toward a configuration of a ‘partnership’ model that will situate our actions within the ecological limits of this planet. Indeed, in the traditional anthropocentric domination model, caring for our environment is not a priority (Eisler 2005).

The tension between the domination and partnership models is rooted to our cultural history. Space precludes discussion of related issues, such as the relationship between genders, East vs West, developed countries vs developing. I argue however the necessity of a shift toward a partnership model that takes into account *all beings*, one that becomes the norm in our society. Eisler (2005) express two key aspects of the partnership model: the importance of empowering people, and of linking rather than ranking. Therefore, with these ingredients, we could achieve a systematic change that takes into account that society must operate within nature’s limits and that, the economy must serve (not dominate) society.

In this last decade in the literature it is found more and more often the term ‘citizen-consumer’ (Denhardt & Denhardt 2000; Clarke et al 2007; Kessler and Bach 2011). One likely reason was to raise public policy concern to ensure that the private, individual (and self-centred behaviours associated with ‘customer’) were moderated by sensitivity to shared community interests (Kessler and Bach 2011). The ‘citizen-consumer’ however, is still rooted to the notion of ‘the customer’, although with a “social conscience” (Kessler and Bach 2011). Many scholars discuss the relationship between the consumer and the civic role we have in society (Cho et al 2014). The citizen-consumer term
may not be an improvement over consumer, as it still considers just the private, individual and self-centred aspect (Kessler and Bach 2011). However, I am convinced that these two terms together, instead of being complementary, are in contrast. On one hand we have the term *consumers* that the traditional economists generally represent as:

…*individuals guided primarily by individualistic and materialistic concerns, who respond to economic incentives and make rational choices determined by their personal preferences and the (predominately economic) constraints they face*” (Berglund & Matti 2006).

On the other hand, in contraposition of the individual economic short-term gains, the term *citizen* integrates a separate set of values of people, whose decisions are also motivated by altruistic and ethical concerns for the community (Berglund & Matti 2006). I agree with Sagoff (1988) who highlighted the fact that to reach a long-term sustainable society (based on successful environmental policies) it is imperative to act as a citizen. Based on these definitions, I also find important the questions that Berglund & Matti (2006) ask: Are we either consumer or citizen? Can we be both?
I analyse here the terms used to define people in the neoliberal economy in order to be ‘food for thought’ for a new term, more inclusive of the aspects needed for a sustainable system. While some scholars try to define ‘consumer’, most of the literature focus on redefining consumer empowerment. Different degrees of consumer power exist and can arise in everyday consumers’ life (Rucker et al. 2012). McShane and Sabadoz (2015) write that a consumer free from the constraints associated with corporate profit-seeking ideology, and free to integrate citizenship responsibilities in the marketplace, could be considered as a reconceptualization of consumer empowerment. For Adkins and Ozanne (2005) consumer empowerment correspond to ‘the ability to exert power and influence the market’. However, even if we can agree on both these arguments, what does it mean to have the power to influence the market? Every time we pay for a good or service we exert our power influencing the marketplace, therefore I argue that consumer empowerment should be used as a way to bring back awareness to people of how powerful their shopping actions can be. Moving in this direction is the French platform ‘i-boycott.org’ based on the idea that consumers can voice their dissatisfaction to attract corporate attention. It empowers consumers to connect with others, and to create collective actions to abandon one market or product, and enter or buy another. Hence while we shop as households, we speak as a collective, and on this website anyone can start a collective boycott (explaining the reasons). Nevertheless, it should be highlighted that in the literature the meaning of ‘consumer empowerment’ is often unclear.

Is consumer empowerment leading to more conscious consumption? Some scholars believe consumerism is not always in conflict with civic culture (Bennett 2004) and that socially-conscious consumption has emerged and replaced traditional forms of civic engagement (Cho et al. 2014). This means that people are satisfied being a socially-conscious consumers and therefore not being engaged anymore in other civic participation, as if being a ‘good’ consumer replaces our citizen responsibilities. However, there is a rapidly growing literature which indicates that nourishing the consumption culture, socially conscious or not, has not only contributed to, but has also accelerated, the decline of the civic life, leading to a move away from community commitment (Cho et al. 2014). There has been a shift from the collectivist idea of citizenship to the individualised practice of the consumer (Axford and Seddon 2006). Furthermore, a risk in speaking of ‘ethical’ consumption is that
citizens are transformed even more into consumers, and political action (if it happens) is reduced to shopping. For example, in the Fairtrade trading model people are imagined to vote with their wallet every time they buy a Fairtrade product, demonstrating their commitment to respect the labour conditions in developing countries (Wheeler 2012).

I believe the meaning of ‘consumer consciousness’ should be defined as consciousness of the social and environmental externalities involved when we pay for goods and services. Socially consciousness consumption cannot be associated just with social problems, such as underpaid labour or other human rights violations. It means to be responsible for the ecological sustainability of our actions, with respect and care for the nature of which we are a part. Nevertheless, even conscious consumption (used as political action) can be illusory, due to the size of corporations, which can produce more and more ‘ethical’ labelled good and services, along with the production of what are actually ‘unethical’ products (Mayes 2016). As Mayes (2016) argues:

... for the past decade, there has been an over-reliance on self-regulation and naïve expectations about corporate social responsibility. This needs to change, and not by simply adding a new label to our food.

Therefore, if on one hand our consumer consciousness is growing, understanding that choosing one particular logo or brand, influences the market (along with its externalities), on the other hand there is still (due to the complexity of the globalized economy) a lack of complete awareness regarding how our economic choices influence the social, political and ecological system. Indeed, even a socially-conscious consumption is still framed in an economic structure that operates in a voracious, and therefore unsustainable, way. Because of the society’s ecological footprint is increasing, we reach the Overshoot Day (or Ecological Debt Day) earlier and earlier in the year. This day measures the point of the year at which the consumption of resources exceeds the ability of the planet to replace them and nowadays we use the resources of 1.6 planets, and the trend keeps rising (http://www.overshootday.org).

The consumer plays a fundamental role in our dominant growth paradigm. The idea of a ‘consumer’ comes from an inappropriate mind-set or ideology,
founded on an assumption that well-being is based on standard of living, rather than real quality of life. Consumption, and therefore production of goods and services, reinforces the idea that wellbeing tends to necessarily involve high (and increasing) consumption of resources (and the pollution that involves) as major outcomes of the system. Both ‘production’ and ‘consumption’ seem to suggest that losses from natural capital can be easily replaced, regenerated or fixed technologically. This is not the case. Although the potential of technological change can be substantial, there are certain physical constraints, defined by the Laws of Thermodynamics, that cannot be circumvented (Ekins 1993).

In order to face the social and ecological crisis of this century, it becomes more and more urgent to deconstruct the consumption-oriented culture and bring back more community commitment. We therefore need everyone’s creativity and participation to go beyond what are conventionally considered the ‘important economic and political issues’ (Eisler 2005). One key ingredient of the problem is the terms we use to reaffirm goals that are basically misguided. We need to rethink the role of humans in a new economic system, one that does not aim to consume the world. Everyday human behaviour is the key of every economic system. Redefining our role, and therefore using a new term that replaces ‘consumer’ is important because it reshapes our worldview (see Chapter on worldview and ethics). One word can have many physical responses, influencing therefore not only our worldview, but especially our behaviour (Pulvermüller 2002). The simple fact that we continue to use the word ‘consumer’ makes it difficult to remove consumer ideology from society. Unfortunately, from the word customers, citizen-consumer to socially conscious consumer, most of the literature in this domain is still rooted in the consumption culture.

An essential starting point in order to promote a change in our consumption-based society is to identify what motives, goals and desired outcomes actually lie behind people’s collective quest for well-being (versus just a desire for ‘consumption’). The first step is therefore to set out a coherent notion of well-being that leads to a long-term sustainable prosperity that does not rely on consumption growth. Identifying these dimensions can help us to replace ‘consumers’ as the central actors in the economy with a notion of people, one that is more compatible with sustainable societies. How we define well-being
influences our practices of government, teaching, parenting. All such endeavours aim to change our society for the better, reducing our material impact on vulnerable populations and on the environment.

**Conclusion**

I recognize the role of conscious consumers (or even more important the role of consumer activism in globalization), however consumerism cannot be fixed with consumerism, as Einstein noted that: ‘No problem can be solved from the same level of consciousness that created it’. We need to advance an alternate definition of the concept of consumer that goes beyond the profit-seeking economic consideration. We should build new structures that go beyond the simple intersection of the consumer culture and citizen role.

It is urgent to weed out the culture of surplus, avoiding degrading the world further through a commitment to ‘shop till you drop’. If we aim at a systemic change, it is necessary to build a partnership model that take into account the whole system, inclusive of human and the environmental well-being. Reducing, reusing, recycling, repairing and sharing instead of buying would lead us to become caring citizens. I conclude by emphasizing that we do not need to wait for academic words or change in theoretical jargon in order to reduce consumption and seek a different ‘well-being’, that is not only based on the material. We can face (and solve) the ecological and social crisis through our daily actions.

**Positive steps**

- Acknowledge our consumer power so we can influence the market and mobilize social movements to bring back awareness of our role in the economic system (with particular attention to the consumer-citizen nexus).
- Rethink our consumption patterns. What do we really need (see Voluntary Simplicity and the Steady State Economy chapters)?
- Educate people to reduce, reuse, repair, recycle and share (see Sharing economy chapter)
- Activate each individual’s sense of moral obligation towards our community, because every day human’s behaviour matters.
• Seek another term to define humans in a new economic system - citizens is one good term, others suggest ‘residents’ seeking to live sustainably on planet Earth.

References


Mayes, C. (2016) 'The limit of labels: ethical food is more than consumer choice', see: https://theconversation.com/the-limit-of-labels-ethical-food-is-more-than-consumer-choice-59908


Conclusion
Haydn Washington (Editor)

This book has been a major undertaking of CASSE NSW, who sought to drill down into the topic of a ‘steady state economy’ to examine the positive steps that could advance the idea. As the introduction noted, this will remain a ‘work in progress’ for many years, and there are clearly holes in what is covered. For example, where is discussion of Transition Towns? Where is discussion of alternative currencies? Where is discussion of the psycho-social strategies that may enable change more easily? Well, we did seek chapters on some of these, but everyone is busy and it’s hard to find an expert who has the time to contribute, or who can frame his knowledge in words readily understandable to the layperson. Where are the case histories of action around the world that show people what can be (and has been) done? We would have loved to do this, but time and resources ruled this out. So while we recognise that gaps remain, we also realise this is the nature of dealing with such a huge, society-changing topic. The book grew in the process, from our planned slim 60,000 word volume to double that. It got to the point that we realized it was more important to include significant topics than to fight authors to reduce length!

However, as the editor who has read the book closely (and written several chapters), I can honestly sit back and say ‘I am impressed!’ Why impressed? Because what started out as a brainstorm in a CASSE NSW meeting has grown into a deeply thoughtful (and well-referenced) reality. Sure it has gaps, and certainly it doesn’t have all the answers. However, the nature of the beast means we never thought it would have all the answers. We recognize that there is a need for dialogue on this issue, we recognize that some of the steps are contested and debatable. However, this book is about gaining dialogue. It’s about considering the reality of our situation and the strange mumbo-jumbo our society has concocted to confuse the issue (neoclassical economics), so it can stay in sublime denial. Its aim was to show that while it is hard to change the neoclassical economy, it is not impossible. The ideas exist, the solutions exist, and in some cases people are carrying them out. We are not powerless midges caught in a storm – if we choose not to be! The steps to change exist and are discussed and documented. So while it is difficult - it’s not hopeless! This book is thus positive, it accepts our predicament and
suggests positive ways to reach a sustainable future. That has got to be better than walking blind-folded towards the abyss and whistling loudly (hoping today will not be the day we fall). The book is thus a positive step to the future. It will not be the only step, there have been plenty before, and will be others after, yet it remains I believe a useful step. And when a bus is hurtling down upon you, the first thing you do is take one step! Others must of course follow.

Now I have been an environmental scientist for around 40 years. I have read hundreds of books about the environmental crisis (and written several of my own). I have been keenly interested in environmental ethics and wilderness, and have read very widely around this (indeed did my PhD on wilderness). I am also deeply fascinated (and concerned) by humanity’s ability to deny its problems (and have written extensively on this too). And in recent years, I have read a lot on ecological economics, and particularly the steady state economy, and I found Herman Daly’s vision insightful and brilliant. So these related fields have been my life. However, it is true to say that through editing this book I have learned things. And that of course is the wonderful part of living! But I think it is also a testament to the 20 authors involved in the book, and their expertise on their topics. So it is my hope that the book will also offer something to you. That may be knowledge, it may be deep thinking, or it may be a desire for change – to go out there and move things along!

Now I am not going to attempt here to summarise the chapters in the book. That was done briefly in the Executive Summary at the start of the book. What I find interesting (and hopeful) is how well all the positive steps fit together. Together, they arguably make a staircase, a pathway to a sustainable future. The positive steps here are the actions of a sustainability strategy to take us to an operating steady state economy. They may not all be perfect steps (the sculptor is still at work) yet they are a coherent, rational strategy for change. I find that hopeful. The positive steps here are part of the ‘Great Work’ that philosopher Thomas Berry (1999) wrote of, the great work of healing the Earth. It tells us that we do know (in broad outline) what we have to do. The map is laid out before us, we have no excuse for saying we are lost and do not know the path. And yes, the path is hard, but is not hidden. The solutions suggested here will take a lot of effort, as we are talking about changing our economy, which means we have to change our society. And along the way we
will need to change our worldview and ethics from those that today dominate Western (and Westernizing) societies. The scale of the environmental crisis is huge, and one can be forgiven for being daunted by the magnitude of the changes needed. Yet, one step at a time, we can move forward. One thing about citizen movements is that when they take off, they have the numbers and the enthusiasm to create real change. If there is ever a time for a renaissance of the steady state economy - as a vision that can lead us to a sustainable future – it is now. It is a big challenge, but an ethical, sustainable and exciting one. Join us!
Table of Positive Steps

Organised under themes of:
1) What do we mean?;
2) Life in a SSE;
3) Key SSE components – A) Population;
4) Key SSE components – B) Low resource and energy use;
5) Key SSE components – C) Greater equality;
6) Worldview and ethics;
7) Degrowth;
8) Financial and banking reform;
9) Corporate reform;
10) Education and communication;
11) Relation of SSE to other economies;
12) Democratic change.

Chapter | Positive steps
--- | ---
1) What do we mean? | 
**What is the steady state economy?**
- Understand what the SSE is in terms of its three key components (sustainable population; low use of resources; greater equity)
- Talk about the unsustainability of the growth economy and its sustainable alternative – the SSE.

**Growth in what?**
- It would be a key positive step to know what we speak of, that while there may still be GDP growth due to being cleverer or more creative in a SSE, there will not be GDP growth due to increasing population or resource use. GDP may still grow (being cleverer and more creative) but not as fast as recent decades. The other positive step would be to cease measuring GDP and instead measure the Genuine Progress Indicator (GPI).

2) Life in a SSE

**What would it be like to live in a steady state economy?**
- Ask people to consider that the future is not fixed, not ‘set in stone’, that we can change it for the better
- Ask people to envisage a world where the population is stable and ecologically sustainable, where resource use is minimised to avoid pollution and environmental degradation, where equity is greater and hence social health also is better.
### Positive Steps

- If you have some time, ask people to imagine the world *they would like* the future to be, then work back and ask them how to get there (this is called ‘backcasting’). Along the way you may need to mention issues such as human dependence on nature, species extinction and ecosystem decline, current rapid soil loss, the fact that Wilkinson and Pickett (2010) show that greater inequality brings greater social problems.

#### Employment in a steady state economy

- Point out that there is no reason to believe that a growth economy is necessary to provide jobs in society, this is a myth.
- Talk about the fact that the growth economy in fact has not removed unemployment, but rather has made the rich richer.
- Demand (or if you are an employer, provide) that part-time work be an option available for anyone, in any job.
- The SSE may in fact lead to more fulfilling work in society.

#### 3) Key SSE components – A) Population

**Stabilising population in a Steady State Economy**

- Assure access to contraceptives and family planning.
- Guarantee education through secondary school for all (with particular focus on girls).
- Eradicate gender bias from laws, economic opportunity, health and culture.
- Offer age-appropriate sexuality education for all.
- End all policies that reward parents financially based on their number of children (such as the former ‘Baby Bonus’ in Australia).
- Integrate teaching about population, environment and development into all school curricula.
- Put full pricing on environment costs and impacts.
- Adjust to population ageing, rather than trying to delay it through government programs aimed at boosting birth rates.
- Convince leaders to commit to ending population growth through the exercise of human rights and human development.
### Positive steps for Australia would be:

- Talking about the issue of overpopulation, rolling back denial and accepting we need positive policies to reach a responsible and ecologically sustainable population figure.
- Limiting Net Overseas Migration to 60,000 a year, at which figure our population would stabilise provided we do not increase our birth rate.
- Aiming to move to an ecologically sustainable population of 15 million by the 9 non-coercive strategies listed above.
- Ensuring that the Baby Bonus is not re-instated in Australia to encourage higher birth-rates.
- Creating a Sustainability Commission that is independent of government and oversees and reports on strategies to move to the ecologically sustainable population target.

### Private preference and public policy – considering an ‘inherent right to populate’

- Because of the additional cost caused to the wider community (especially in the provision of utilities and all other forms of infrastructure), ‘fair means’ be sought through which this cost be identified, recognized, and attributed to those who have more than two children, as being one of all the extra costs which they incur through their decision to have more than ‘replacement birth children’. Numerous ‘special’ situations will need to be addressed, such as those widowed, divorced, remarried; split and blended families, couples where the second birth happens to be twins or triplets, families with both natural and adopted children, and so forth. However, these are simply points of detail which do not affect the principle which should be followed. This is that those who produce an additional child (or children) more than their own replacement should pay the additional cost placed upon the community (however understood) because of such child/children.
- It should be explained from childhood up that ‘fair-share’ for a person relates also to their fair share of the space and the resources of this planet, and that people producing more than replacement population means that that family is laying claim to more than their
legitimate entitlement: and this is a very selfish thing to be doing.

- The concept of ‘Maybe only one’ should be considered and discussed and assessed, as an alternative to having two or three children in a family. Bill and Sue McKibben themselves had such a discussion, and then after the birth of their first child Sophie, Bill had a vasectomy.

4) Key SSE components – B) Low resource and energy use

<table>
<thead>
<tr>
<th>Reducing overconsumption, consumerism and throughput of resources</th>
<th>Talk about consumerism and overconsumption – how it is both unsustainable and unethical.</th>
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<tr>
<td></td>
<td>Defy the ‘shop till you drop’ consumerism the media bombards us with. Instead support ‘thriftiness’ and living simply with less.</td>
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<td>Demand ‘cradle to cradle’ products, Extended Producer Responsibility for products, that there should be ‘Take back’ laws for all products you buy.</td>
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<td>Insist that ‘planned obsolescence’ of products be banned as this is designed to waste materials.</td>
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<td>Practice the 4 Rs – rethink if you need something, reduce what you use, reuse what you can or find a reused product, and recycle what you cannot reuse.</td>
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<td>Support a ban on advertising, both outdoor (as Sao Paolo had done in Brazil) and via the media. An alternative is that ads be purely factual about products, and cease making ridiculous claims.</td>
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<td>Demand monitoring and management of renewable resources to prevent degradation through over-use. This could include ‘holistic pricing’ of renewable resources that prices in ecosystem services.</td>
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<td></td>
<td>Support the creation of ‘depletion quotas’ and higher severance taxes on non-renewable resources.</td>
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<td></td>
<td>Demand much stronger regulation of corporations (see chapter on corporate reform).</td>
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<td>Demand ‘choice editing’ of especially bad products (i.e. they are banned).</td>
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Ecologically Sustainable Energy

| General climate/energy policies | Targets for greenhouse gas emissions, renewable energy and energy efficiency for 2020, 2030, 2040 and 2050. |
- A steadily increasing carbon price from which most of the revenue is returned to households and to workers disadvantaged by the transition. While a carbon price is not sufficient, it is necessary as one element of the policy mix.
- A carbon tax is likely to be more effective than a cap-and-trade emissions trading scheme, because the tax is easier to manage and harder to cheat.
- Until the carbon price is sufficiently high, a ban on new conventional fossil-fuelled base-load power stations and major refurbishments of old ones. A similar outcome could be achieved by setting emission standards for new and refurbished power stations at 0.4 tonnes CO$_2$-e per megawatt-hour of electricity generated.

**Specific policies for renewable energy:**

- Government grants for research, development and demonstration of renewable energy systems, storage, essential infrastructure such as new transmission lines, and new materials.
- Fostering commercialisation and mass production of sustainable energy technologies by means of a government-funded institution to provide loans and equity. This institution provides leverage to encourage private investment in technologies for which the financial sector has little experience.
- Termination of subsidies to the production and use of fossil fuels, e.g., tax benefits for fossil fuel exploration; infrastructure for coal export.
- For large-scale renewable energy systems (e.g. wind farms and solar farms), implementation of a system of reverse auctions, combined with feed-in tariffs or contracts for difference.
- Seeding grants for community renewable energy projects.
- Fair feed-in tariffs (FITs) for medium- and small-scale grid-connected renewable energy systems.
- Accreditation and monitoring of installers of renewable energy products.
Policies for transport and urban form
- Reconstruction of our cities to integrate urban planning and transport planning, thus reducing urban travel and car travel in particular.
- Construction of a high-speed passenger rail service between major cities to replace much air and road transport.
- Major expansion of urban public transport, cycle-ways and pedestrian areas. This could be coupled with a reduction in suburban land allotted to roads, parking and airports, releasing land (and space over railways) for more productive activities.
- Regulation to confine the charging of batteries of electric car and trucks to renewable energy, either from direct sources or indirectly via Green Power.

Policies for energy efficiency
- Mandatory energy labelling and mandatory energy performance standards for all residential and commercial buildings, not just new ones, and all energy-using appliances and equipment.
- For all sales and rentals of residential and commercial buildings, offices and apartments, an energy audit must be provided by the vendor or lessor with the sales or rental contract.
- Schools must include educational projects on energy efficiency and conservation.
- A feebate-rebate system to foster sales of energy efficient appliances and equipment. A rebate is given for purchasing an energy efficient product; this is funded by a fee placed on inefficient products.
- Accreditation and monitoring of installers of energy efficiency products.

Tax and Subsidy Shifting
- Tax the bads not the goods. This means a carbon tax (or price), and possibly a landfill tax (Brown 2011) and a rejuvenation of the PPRT. We note revenue from this area may be initially considerable, but decline over time as extractive industries contract.
- Remove subsidies from the bads (e.g. fossil fuels) and apply the revenue gained to foster the goods (e.g. renewable energy, new sustainable industries). Key to
Positive Steps

- Move towards a Depletion Quota for non-renewable resources, where the first step is increasing royalties uniformly across Australia on non-renewable resources.
- Removal of bad taxes such as the CGT and Negative Gearing which many tax analysts have argued foster inequity (favouring some groups of people at the expense of others).
- Use policy tools similar to the CEFC (Clean Energy Finance Corporation) where low-interest loans are advanced to quality projects (new industries), note they must repay the loans, whilst they are gaining access to venture funding support.

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<th>Sustainable Buildings as part of the steady state economy</th>
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<td>- Government needs to set mandatory targets of 80% reduction in potable water use, 80% reduction in material use and 80% reduction in energy use plus 100% renewable energy for all buildings and a timeline for achieving this.</td>
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<td>- To demonstrate how to meet the new targets, demonstration homes need to be built/retrofitted. Ideally there should be, in each major city and town, examples of new and retrofitted buildings that meet the new targets – before the targets come into effect. Information on how the reductions were achieved should be provided, as well as monitoring of the buildings over time.</td>
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<td>- Expand BASIX (or an equivalent program that models energy and water use and compares it to a benchmark) to all of Australia and all building types, and increase targets to 80% for water and 100% for energy, requiring 80% to be due to energy use reduction and the last 20% due to renewable energy. An additional index would need to be added to the chosen program that looks at the material use of buildings and has an 80% reduction target. This program would cover all new dwellings in Australia and substantial renovations.</td>
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| - Develop tax rules that offer rebates for personal use and allow the counting of depreciation (for business
use) for energy, water and material-efficient building technologies that have been certified based on their effectiveness.

- Rate the energy and water use of all existing buildings (either in a planned roll-out or at point of sale/lease) and support/fund retrofits to improve all buildings.
- Strengthen rating schemes for fixtures and appliances by increasing the minimum efficiency requirements to match the 80% energy and water reduction targets and broaden the rating schemes so that they cover the material use and embodied energy of fixtures, appliances and building materials.
- Review planning laws so that building activity switches from expanding the number of buildings (or the total building floor area) to retrofitting existing buildings – stop planning for growth in the number of buildings (number of dwellings and floor space) and start planning for a constant stock of sustainable buildings.

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<th>‘Decoupling’ – a desperate need and/or the excuse to continue business-as-usual growth?</th>
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<td>- Continue to decarbonize and dematerialize products, to use fewer resources, and use less energy in their creation.</td>
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<tr>
<td>- However, don’t accept this is all that society needs to do (the ‘soft and easy’ approach), otherwise we slip into denial of the overall problem.</td>
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<tr>
<td>- Reverse consumerism and ‘shop till you drop’ and instead advocate the ‘thriftiness’ and ‘waste not, want not’ philosophy our grandparents lived happily with (see consumerism chapter).</td>
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<tr>
<td>- Change worldview and ethics in terms of how we use so-called ‘resources’ (see worldview and ethics chapter).</td>
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<tr>
<th>Consumer, citizen or a new definition? The necessity to change both the term and our behaviour</th>
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<tr>
<td>- Acknowledge our consumer power so we can influence the market and mobilize social movements to bring back awareness of our role in the economic system (with particular attention to the consumer-citizen nexus).</td>
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<tr>
<td>- Rethink our consumption patterns. What do we really need (see Voluntary Simplicity and the Steady State Economy chapters)?</td>
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<tr>
<td>- Educate people to reduce, reuse, repair, recycle and share (see Sharing economy chapter)</td>
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<tr>
<td>Positive Steps</td>
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| ● Activate each individual’s sense of *moral obligation* towards our community, because every day human’s behaviour matters.  
● Seek another term to define humans in a new economic system - citizens is one good term, others suggest ‘residents’ seeking to live sustainably on planet Earth. |

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<thead>
<tr>
<th>Climate change action and the steady state economy</th>
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| ● *Talk about* the drivers of climate change, specifically overpopulation, overconsumption, the growth economy, and denial of such drivers!  
● Challenge those in denial of climate change, don’t be silent and turn the other cheek, the future of society requires we *acknowledge and act* on this major threat, not bury our heads in the sand.  
● Support a significant carbon price (at least $50 a tonne) immediately being put in place, most easily this could be done via a carbon tax (not an Emissions Trading Scheme)  
● Support feed in tariffs for renewable energy at all levels  
● Support a 20 year transition to 100% renewable energy in Australia (and worldwide). This is feasible and economic (Diesendorf 2014). In terms of job equity it would create many jobs in rural areas (see ecologically sustainable energy chapter).  
● Support that government immediately finance a display site *50 MW solar thermal facility* (power tower) with overnight heat storage. Many exist overseas but we need one right now in Australia to show their feasibility.  
● Support that the Commonwealth government retain the Clean Energy Finance Corporation. |

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<tr>
<th>5) Key SSE components – C) Greater equality of income</th>
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<tr>
<td>Reducing Economic Inequality: a key element in the transition</td>
</tr>
</tbody>
</table>
| ● Get informed about the extent of economic inequalities in your town or nation. Surveys show that most people vastly underestimate the extent of existing inequalities. When they realise how wide are the rich-poor gaps they usually become more committed, or at least more sympathetic, to egalitarian goals.  
● Get involved in organisations seeking to reduce |
poverty or redress social injustices. Political parties to the 'left of centre' like the Labor Party usually have egalitarian inclinations. The Greens have a strong commitment to social justice linked to a concern with climate change and other environmental issues. Most trade unions are concerned with addressing economic inequality through the pursuit of wage justice. There are lots of non-governmental organisations dealing with issues related to housing, work, and social services who seek to pursue egalitarian outcomes. Where these organisations are currently deficient, new members can seek to stiffen their resolve to work for equitable social change.

- Advocate policies for a more egalitarian society. All levels of government have policies that affect the distribution of income and wealth. Press for more egalitarian policies to be embraced. These may include more progressive taxes, crack-downs on tax evasion by big corporations and high-wealth individuals, the provision of universal basic incomes, and better social services targeted at the needs of low income people. The advocacy of these policies may involve using social media, writing to newspapers, and starting or joining political campaigns.

- Always try to link struggles for ecological sustainability with struggles for a less unequal society.

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<tr>
<th>Equity between Nations and the Steady State Economy</th>
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<tbody>
<tr>
<td>• Individuals and organisations can support their national Tax Justice Network and their national Publish What You Pay coalition.</td>
</tr>
<tr>
<td>• The Jubilee movement can be supported. It is active in many countries including Australia and facilitates advocacy on debt and related issues by providing careful research.</td>
</tr>
<tr>
<td>• In particular, support debt relief for our pacific neighbours that are struggling to reach sustainability.</td>
</tr>
<tr>
<td>• Australians can work for fairer trade relationships and better quality overseas aid by becoming members of AFTINET and AidWatch.</td>
</tr>
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</table>
Could a universal basic income help?  

- The universal basic income is a sensible step in a safe transition to the steady state economy. It’s not a panacea, but a part of a program to summon the initiative, ingenuity and enterprise that is latent in local communities and emerging cooperative networks.

### 6) Worldview and ethics

**The worldview and ethics of economics**

- Understand that a society’s and a person’s worldview and ethics *shape their actions*
- *Talk about* ethics and worldview, don’t let them be the silent ‘elephant in the room’.
- Seek to change both your own worldview and that of others, away from an anthropocentric Modernist worldview (where nature is just a ‘resource’) and towards an eco-centric worldview that accepts ecological limits, and where humanity is seen as part of nature and has a responsibility for its care.
- Champion the *intrinsic value of nature*, that it has ‘rights’ of its own, and argue for Earth jurisprudence, that writes these rights into our constitution and legislation (the Australian Earth Law Alliance AELA is one group promoting this).
- Adopt a *deep ecology* approach to how we treat the world
- Adopt an *Earth ethics* that situates the Earth as being as central in ethics as humans are.
- Encourage a ‘*sense of wonder*’ at nature in yourself, your family and friends.
- Seek to get children out into nature whenever you can (away from their electronic goods) so as to counteract ‘nature deficit disorder’.
- Seek always to rejuvenate your own ‘moral integrity’ as one argues over the years for a steady state economy and a sustainable future.

**Voluntary Simplicity and the Steady State Economy**

- Broad acceptance of a steady state economy would appear necessarily to include the cultural practice of simple living, especially if the transition is to be democratic and involve the majority of citizens.
- Conversely, voluntary simplicity has much to offer in achieving a steady state economy through its analysis of material desire and its emphasis on the power of
mindfulness to transform consciousness in that regard.

- Voluntary simplicity can help us evolve philosophically and psychologically toward wanting what we must in any case do.
- Most importantly of all, perhaps, practising voluntary simplicity can help liberate people from the ‘work-and-spend’ cycle, thereby providing people with more time and energy to get active in their communities building the new economy from the grassroots up.

### 7) Degrowth

**De-growth**

- Quality of life measured in human relationships immersed in a culture of conviviality not life measured in the quantity of consumer capital.
- Prioritising the local in everything. This includes decision-making, the provision of energy, food and the disposal/reuse/recycling of waste. The aim is a high level of community self-sufficiency.
- Reducing working hours and implementing a social wage to guarantee income to everyone. Associated with a guaranteed income is an expansion of community defined volunteer work.
- Allocating resources democratically within and across communities.
- Revitalising political life by extending the practices of direct democracy at the community level and extending this into the organisation.

### 8) Financial and banking reform

**A note about debt**

- Moving away (in increments) from fractional reserve banking to full reserve banking (see chapter on banking reform).
- Regulation to ensure that money is not lent out so easily to both business and the public.
- A modified debt jubilee and consideration of creating debt-free currencies (Heinberg 2011).
- Moving from credit cards to debit cards (so you cannot spend more than you actually have).

**Divestment**

- Fossil Fuel divestment has the potential to affect existing market norms (such as ‘short termism’) and offer a critique of the way the market system is currently structured by highlighting its tendency to reinforce inequality and focus on growth.
- Individuals and organisations should be encouraged to
develop an awareness of where their capital is invested and what the environmental implications of this might be. There is a potential here to begin to restore power imbalance or at least develop a lasting critique of the relationship between corporate ownership (investors) and corporate control. However the ability of individuals to engage with where their capital is invested is not evenly spread throughout the population and at present this movement is limited to a small section of the community - greater reflection is needed in this space.

- Divestment may reinvigorate climate change activism and encourage activists to continue to pressure the government for regulatory and legislative changes that will leave fossil fuels underground.
- Redirect investment towards the renewable energy sector. Any focus on reinvestment will also need to offer more than the ‘green growth’ and ‘green capitalism’ narratives which tend not challenge the fundamental problem of continued consumption growth (Jackson 2011).

<table>
<thead>
<tr>
<th>The role of banking</th>
<th>A need for a continuing dialogue about the impact of fractional reserve banking in terms of whether it encourages growth and debt bubbles.</th>
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<tbody>
<tr>
<td></td>
<td>Encouraging investigation into the suitability and viability of full reserve banking as an alternative banking model that can help address these concerns.</td>
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<td></td>
<td>Further discussion on other reforms of the banking and finance system that can help enable a steady state economy, and possibly:</td>
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<td></td>
<td>A graduated move towards full reserve banking so as to reduce it as a cause of debt bubble growth.</td>
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</tbody>
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<tr>
<th>The Genuine Progress Indicator: An indicator to guide the transition to a steady-state economy</th>
<th>Report it! People tend to value what is measured. Today the Australian Bureau of Statistics only measures GDP and refuses to report on the GPI. If the GPI was also measured then people would rapidly see that a measure that considers positives and negatives is not rising, for we have reached uneconomic growth.</th>
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</table>

| Sustainability tariff structure | Be ready to call out the myth that Australia cannot take significant positive measures to create a steady state economy without the rest of the world following |
in unison.
- Support further research by the government, academia and other research organizations on how a practical, realizable system of compensating tariffs and capital mobility restrictions could be implemented that address the problems raised above.

9) Corporate reform

**Corporate Reform - Corporate Governance**

- Greater support for cooperatives, such as Mondragon
- Creation of an equivalent Australian scheme to the UK Community Interest Companies
- Greater support of ‘not-for-profits’

This involves:

- **Incorporating Externalities**: All major corporate externalities (both positive and negative) must be measured and reported as disclosures in the annual financial statements of companies.
- **Resource Taxation**: Taxes and subsidies have to be transformed to tax the ‘bads’ (such as resource extraction and fossil fuel use), and support the ‘goods’ (such as wages and profits) rather than the other way around.
- **Limiting Leverage**: Accountancy bodies and financial regulators must introduce rules and limits to govern financial leverage, especially if the borrower is considered ‘too big to fail’ (Growth fuelled by excessive debt may not be real productive growth).
- **Accountable Advertising**: Advertising norms and standards must be introduced so that advertising is responsible and accountable (Sukhdev 2012, 2013).

10) Education and communication

**The Steady State Economy and High School Education**

- Talking in our education system about the dangers of a growth economy and the solution of a SSE.
- That means that the Australian curriculum needs to include discussion of ecological economics and the SSE in its material.
- State syllabuses then need to follow the curriculum in discussing the need for a SSE.
- Classroom teachers of science, geography and economics should work together to develop a coherent and positive message to their students, creating dialogue on this essential topic.

**Steady State Economics as a Counter-Hegemony**
- A large-scale education campaign would help to educate the public on SSE issues, and offer an SSE vision for the Australian economy. Networking with people from likeminded organisations is required to develop a campaign about capping resource use and achieving a steady state economy. Some of the organisations to target would be The Greens, the Climate Action Network and The Bower. The more organisations join the network, the more perceived legitimacy the message will have. The network could be given a name such as ‘Coalition for a Steady State’ or something similar, and develop a campaign to change Australian laws and the behaviours of large organisations in terms of the use of natural resources.
- Simultaneously, efforts to change the economic system through cooperative production help to ‘prefigure’ (Maeckelbergh 2011) new economic processes and demonstrate that alternatives to economic growth exist.

**Communication tools to gain mainstream commitment to transition to a Steady State Economy**
- Communicate with your friends, business colleagues and larger networks about transitioning to a steady state economy (aka a life-sustaining society). Ready-to-use communication tools are freely available at www.GreatTransitionInitiative.net.

**Gaining meaningful dialogue**
- Be aware that denial is very common and all of us can slip into this human habit, we may ourselves, so may our friends and family.
- Dialogue beats denial, so talk about the insanity of an endless growth economy and the SSE as a solution.
- But don’t be angry, self-righteous or judgmental (all these switch people off!). Ask someone who disagrees if he/she would enter into dialogue about this. Ask them ‘What would it take to change your position?’ as such questions can get someone to consider their own denial.
- Approach dialogue via ‘true listening’ and ‘mutual respect’ (and let others know that these are
prerequisites, along with an open mind).
- Urge the introduction into the school curriculum of ‘formal dialogue skills’ so that children learn how to resolve issues through discussion.
- Admit CASSE doesn’t have all the answers, hence why we need dialogue.
- Start your dialogue perhaps with the question ‘Do you think that on a finite planet one can continue to grow physically forever?’ If they don’t then there is room for dialogue. If they do (and remember some people are convinced they know the truth!) then move on to someone who will consider dialogue.

11) Relation of SSE to other economies

The Sharing economy and its relation to the steady state economy

- The key positive step would be for advocates of the Sharing economy to network with advocates of a SSE to integrate the two. Such a dialogue most likely would be constructive and positive.
- To escalate the use of services to replace ownership of ‘things’ is positive, as it reduces material use.
- The support of deliberative democracy in decision-making is positive and needs to be escalated.
- The support of the Sharing economy for laws and policies, that means that unlike neoliberalism it support regulation of corporations for the common good (though it is not spelled out this clearly in the principles).
- Advancing the support for ‘systems thinking’ (even if this is not applied broadly currently in the principles of ‘The People Who Share’).

Relating the Steady State Economy to the Green and Circular Economies

- Proponents of the Steady State Economy, who agree on the vital importance of efficiency and waste minimization in production, product design and utilization of goods and services, would do well to learn and embrace many of the innovative ideas of the circular and green economies.
- However, we should also be concerned as to whether the popularity of these discourses may also be suppressing a vital set of complementary concerns that are voiced in the SSE discourse. Given the thin
evidence (or lack thereof) to date of the viability of an ‘absolutely decoupled’ economy, the need for critical debate on the sanity, ethics or feasibility of the endless growth mantra is clear. As Kopnina (2016) notes, the Circular Economy can be subverted. So can the Green economy - to support a business-as-usual growth approach. This is arguably why they have become far more popular than the Steady State Economy, which challenges endless growth.

- In conclusion, we would suggest that while the strategies in the Green and Circular economies are all useful, they tackle less than half the problem. They fail to consider population growth and overconsumption (driven by advertising). As such, we do not believe these more recent economies can replace the broader (and more ecologically realistic) focus of the Steady State Economy.

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<th>12) Democratic change</th>
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<td><strong>Democracy in the digital age</strong></td>
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</table>
| Who do you vote for? Familiarise yourself with your political party’s policies and core values (you’ll find these on the official party website). Is this really the best choice for you? Read up on other parties’ policies and compare. Vote for the party which represents you best, even if it means NOT voting for one of the main two parties and instead giving your vote to a smaller party who you think will never get elected. Don’t believe the ‘wasted vote myth’.

- Who do you invest with? Find out what your bank, superannuation, or other financial institution’s business activities consist of and where they are investing your money. Take an interest in these companies as a shareholder. Do you agree with their management style and values? Are there any ethical alternatives? Find out and compare their long-term investment options with your current account or fund, keeping in mind how markets and industry are likely to change over the next few decades. Rather than choosing short-term gain, choose the company who you feel acts the most...
responsibly and has long-term goals.

**Make Connections**

- Who are your local MP’s and representatives? Find out what they’re doing in your area and whose goals and values are most aligned with your own. Find out the most effective ways to contact them and consult with them on any particular campaigns or issues you feel strongly about. Be a positive influence. Inspire and encourage them to be active and support your causes.

- Who is already doing what you want to do? Find out if there are any campaign groups, NGO’s, charities or other organizations working towards similar goals or ideals as your own. (Use your search engine and ask around). Is there an active group or chapter in your town/city/region? Subscribe to their newsletters and find out about their meetings and events. Can you volunteer your time or resources? If there isn’t an active group in your area is there enough local support or interest to start your own? (Consult with existing groups before starting new ones).

- Use social media to join with campaign or special interest groups. Share posts and messages about causes you feel strongly about with your friends and followers, even if you’re not sure they’ll be appreciated by everyone.

- Sign online petitions and share with friends by email, and other social media. Or start your own online petition!

**Speak Your Mind**

- Next time you hear a friend/colleague/family member complain about a politician, corrupt businessperson, social injustice or ‘the government’, share with them your knowledge of alternative economic/political structures which aim to improve transparency, fairness, and ecological sustainability. Give examples of schemes that are operating around the world and delivering positive results. Remind them that change is possible if enough people want it and are prepared to make the effort. (Maybe these people prefer the current state of democracy because it gives them something to
Positive Steps

- Point out to them that defeatist attitudes make it easier for the ‘powers that be’ to continue getting away with corruption and injustice.

- Don’t verbally agree with opinions or views which you don’t support. State your arguments and challenge viewpoints which differ to your own. Debate is healthy for enlightenment. Even if you disagree with someone else’s point of view, you will often be left with something to think about, and having your own arguments challenged makes them more robust.

Make Things Happen

- If you’ve searched and found that no one is effectively campaigning for your cause, start your own campaign. Do your research beforehand and use your search engine to find tips for successful campaigns.

- Gauge public interest and record the results of your surveys. If your issue is a local concern, meet with people face to face and knock on doors. Let people know what you’re aiming to achieve and invite them to join you. With evidence of significant public support your campaign will have more weight with policymakers or local authorities.

- Consider the co-operative business structure if starting a new business or adapting an existing one. Look up support services and guidelines for co-operatives in your state and talk to people in your local area who share a similar need.

- Call meetings, start petitions, be creative and organize events which raise awareness and get people involved. Be enthusiastic and proactive. Avoid being mournful or preachy. Get people together, be radical and have fun!

Local Government and the steady state economy

- Each council or Shire should immediately create a Life Centre as a dialogue hub to discuss environmental and social issues and how to transition to a SSE. Such Life Centres – a new public institution that focuses on the processes of life and the well-being of people and nature - are the ideal places to discuss the difficult big issues such as overpopulation, overconsumption and the endless growth economy. They are also ideal institutions to foster positive solutions and practical
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<th>Positive Steps</th>
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<tr>
<td>demonstrations of how to change.</td>
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<tr>
<td>• Councils can lead by example to champion a sustainable lifestyle with low energy and material use, with strategies to protect native biodiversity.</td>
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<tr>
<td>• Councils can ensure that a key role is to foster education of their community about the environmental crisis and solutions such as a SSE.</td>
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<tr>
<td>• Councils can support the GreenPrints project of AELA (see Maloney chapter).</td>
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<td>GreenPrints</td>
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<tr>
<td>GreenPrints offers a holistic, multi-disciplinary and practical methodology for helping us change our governance systems – at all scales – so we can live within our ecological limits and achieve a steady state economy. The draft GreenPrints Handbook is available now, to help guide the steps we need to take to shift towards a healthy, Earth centred society. Over the next two years, GreenPrints will be ‘rolling out’ via several pilot projects with communities interested in using the approach. Our first community is Palm Island, where community leaders are keen to use the GreenPrints approach to create a sustainability hub and explore a long term strategy for building an ecologically focussed, steady state economy. All interested communities are invited to connect with GreenPrints via the Australian Earth Laws Alliance (<a href="http://www.earthlaws.org.au">www.earthlaws.org.au</a>).</td>
</tr>
<tr>
<td>• Connect with the ‘new economy’ movement in Australia, which is bringing together more than 100 organisations to form a new coalition. The coalition is aiming to strengthen practical steps towards building a steady state economy and inviting people to join the movement at: <a href="http://www.neweconomy.org.au">www.neweconomy.org.au</a> or email: <a href="mailto:neweconomy@earthlaws.org.au">neweconomy@earthlaws.org.au</a></td>
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<tr>
<td>Capitalism and the Steady State: Uneasy Bedfellows</td>
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<td>Take a scientific approach to economics by using current events to empirically test the theories of capitalism and steady state economics. When the theories either fail to explain or else contradict the real world, reject those theories and help build better alternatives.</td>
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<tr>
<td>• Distinguish between neoliberalism and capitalism. Neoliberalism, or unregulated capitalism, is incompatible with a SSE, while capitalism is not</td>
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necessarily totally incompatible once the central challenges of ecological sustainability and just distribution have been addressed through collective action. However, the core principles of capitalism do not support a SSE.

- Strive to create institutions that stimulate *cooperation* rather than competition. These include revitalized cooperatives, reclaiming the commons, and explicit resource rights for future generations and/or other species (Earth jurisprudence).

- It will be impossible to achieve a steady state economy without a *more just distribution* of resources (see Stillwell chapter and Consumption chapter). If capitalism is to operate within a SSE then it must evolve to accept this (possibly via not-for-profit companies, etc.).

- Strive to live within the carrying capacity of the Earth, which will require enormous reductions in fossil fuel use and material consumption. Have a great time while doing so, so that people can see that an SSE is desirable as well as necessary.
See also ‘Addicted to Growth?’, available at:
https://steadystatensw.files.wordpress.com/2015/01/addictedtogrowthdocfinalboxesprintfinaloct17th.pdf