

## Section I - Major Positive Steps

### Chapter 1 - What *is* the steady state economy?

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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

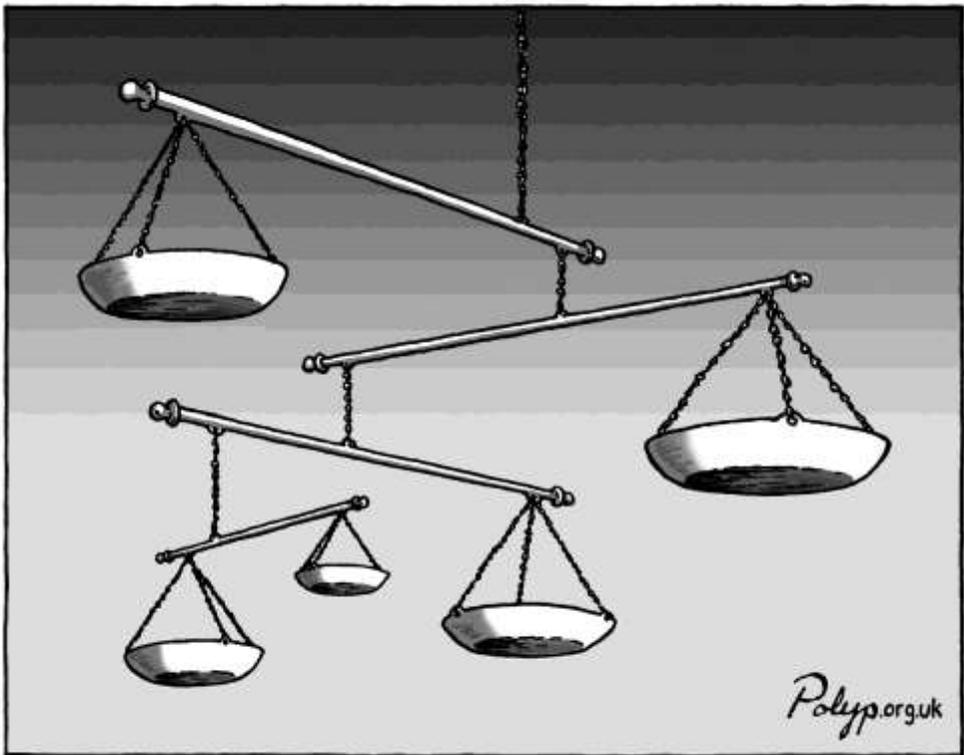
The answer you get depends on who you ask.<sup>2</sup> The conventional neoclassical economist would be inclined to tell you that there have always been measurable efficiency, income, and quality of life improvements under conditions of economic growth. If the economy continues to grow, so their theory goes, ecological limits will be overcome with technological solutions and a structural shift towards a post-industrial knowledge economy.<sup>3</sup> 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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<sup>2</sup> 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.

<sup>3</sup> 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).<sup>4</sup>

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<sup>4</sup> See Czech (2000, 2013), Victor (2008), Jackson (2009), Simms et al (2010), Heinberg (2011) and 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.<sup>5</sup> 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).

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<sup>5</sup> For a more substantive policy list, see Daly (1991, 1996, 2008), Layard (2005), Czech (2000, 2013), Victor (2008), Jackson (2009), Simms et al (2010), Heinberg (2011), Brown (2011), Stiglitz (2012), Dietz and O'Neill (2013), Sukhdev (2013) and Costanza et al (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 Kurzarbeit 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)**

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