

Summary

Economic growth is supposed to deliver prosperity. Higher incomes should mean better choices, richer lives, an improved quality of life for us all. That at least is the conventional wisdom. But things haven't always turned out that way.

Growth has delivered its benefits, at best, unequally. A fifth of the world's population earns just 2% of global income. Inequality is higher in the OECD nations than it was 20 years ago. And while the rich got richer, middle-class incomes in Western countries were stagnant in real terms long before the recession. Far from raising the living standard for those who most needed it, growth let much of the world's population down. Wealth trickled up to the lucky few.

Fairness (or the lack of it) is just one of several reasons to question the conventional formula for achieving prosperity. As the economy expands, so do the resource implications associated with it. These impacts are already unsustainable. In the last quarter of a century the global economy has doubled, while an estimated 60% of the world's ecosystems have been degraded. Global carbon emissions have risen by 40% since 1990 (the Kyoto Protocol 'base year'). Significant scarcity in key resources – such as oil – may be less than a decade away.

A world in which things simply go on as usual is already inconceivable. But what about a world in which nine billion people all aspire to the level of affluence achieved in the OECD nations? Such an economy would need to be 15 times the size of this one by 2050 and 40 times bigger by the end of the century. What does such an economy look like? What does it run on? Does it really offer a credible vision for a shared and lasting prosperity?

These are some of the questions that prompted this report. They belong in a long tradition of serious reflection on the nature of progress. But they also reflect real and immediate concerns. Climate change, fuel security, collapsing biodiversity and global inequality have moved inexorably to the forefront of the international policy agenda over the last decade. These are issues that can no longer be relegated to the next generation or the next electoral cycle. They demand attention now.

Accordingly, this report sets out a critical examination of the relationship between prosperity and growth. It acknowledges at the outset that poorer nations stand in

urgent need of economic development. But it also questions whether ever-rising incomes for the already-rich are an appropriate goal for policy in a world constrained by ecological limits.

Its aim is not just to analyse the dynamics of an emerging ecological crisis that is likely to dwarf the existing economic crisis. But also to put forward coherent policy proposals (Box 1) that will facilitate the transition to a sustainable economy.

In short, this report challenges the assumption of continued economic expansion in rich countries and asks: is it possible to achieve prosperity without growth?

The Age of Irresponsibility

Recession throws this question into sharp relief. The banking crisis of 2008 led the world to the brink of financial disaster and shook the dominant economic model to its foundations. It redefined the boundaries between market and state and forced us to confront our inability to manage the financial sustainability – let alone the ecological sustainability – of the global economy.

This may seem an inopportune moment to question growth. It is not. On the contrary, this crisis offers the potential to engage in serious reflection. It is a unique opportunity to address financial and ecological sustainability together. And as this report argues, the two things are intimately related.

Chapter 2 argues that the current turmoil is not the result of isolated malpractice or simple failures of vigilance. The market was not undone by rogue individuals or the turning of a blind eye by incompetent regulators. It was undone by growth itself.

The growth imperative has shaped the architecture of the modern economy. It motivated the freedoms granted to the financial sector. It stood at least partly responsible for the loosening of regulations and the proliferation of unstable financial derivatives. Continued expansion of credit was deliberately courted as an essential mechanism to stimulate consumption growth.

This model was always unstable ecologically. It has now proven itself unstable economically. The age of irresponsibility is not about casual oversight or individual greed. If there was irresponsibility it was systematic, sanctioned widely and with one clear aim in mind: the continuation and protection of economic growth.

The failure of this strategy is disastrous in all sorts of ways. Not least for the impacts that it is having across the world, in particular in poorer communities. But the idea that growth can deliver us from the crisis is also deeply problematic. Responses which aim to restore the status quo, even if they succeed in the short term, simply return us to a condition of financial and ecological unsustainability.

Redefining Prosperity

A more appropriate response is to question the underlying vision of a prosperity built on continual growth. And to search for alternative visions – in which humans can still flourish and yet reduce their material impact on the environment. In fact, as Chapter 3 makes clear, the voluminous literature on human wellbeing is replete with insights here.

Prosperity has undeniable material dimensions. It's perverse to talk about things going well where there is inadequate food and shelter (as is the case for billions in the developing world). But it is also plain to see that the simple equation of quantity with quality, of more with better, is false in general.

When you've had no food for months and the harvest has failed again, any food at all is a blessing. When the American-style fridge freezer is already stuffed with overwhelming choice, even a little extra might be considered a burden, particularly if you're tempted to eat it.

An even stronger finding is that the requirements of prosperity go way beyond material sustenance. Prosperity has vital social and psychological dimensions. To do well is in part about the ability to give and receive love, to enjoy the respect of your peers, to contribute useful work, and to have a sense of belonging and trust in the community. In short, an important component of prosperity is the ability to participate meaningfully in the life of society.

This view of prosperity has much in common with Amartya Sen's vision of development as 'capabilities for flourishing'. But that vision needs to be interpreted carefully: not as a set of disembodied

freedoms, but as a range of 'bounded capabilities' to live well – within certain clearly defined limits.

A fair and lasting prosperity cannot be isolated from these material conditions. Capabilities are bounded on the one hand by the scale of the global population and on the other by the finite ecology of the planet. To ignore these natural bounds to flourishing is to condemn our descendants – and our fellow creatures – to an impoverished planet.

Conversely, the possibility that humans can flourish and at the same time consume less is an intriguing one. It would be foolish to think that it is easy to achieve. But it should not be given up lightly. It offers the best prospect we have for a lasting prosperity.

The Dilemma of Growth

Having this vision to hand doesn't ensure that prosperity without growth is possible. Though formally distinct from rising prosperity, there remains the possibility that continued economic growth is a *necessary condition* for a lasting prosperity. And that, without growth, our ability to flourish diminishes substantially.

Chapter 4 explores three related propositions in defence of economic growth. The first is that material opulence is (after all) necessary for flourishing. The second is that economic growth is closely correlated with certain basic 'entitlements' – for health or education, perhaps – that are essential to prosperity. The third is that growth is functional in maintaining economic and social stability.

There is evidence in support of each of these propositions. Material possessions do play an important symbolic role in our lives, allowing us to participate in the life of society. There is some statistical correlation between economic growth and key human development indicators. And economic *resilience* – the ability to protect jobs and livelihoods and avoid collapse in the face of external shocks – really does matter. Basic capabilities are threatened when economies collapse.

Growth has been (until now) the default mechanism for preventing collapse. In particular, market economies have placed a high emphasis on labour productivity. Continuous improvements in technology mean that more output can be produced for any given input of labour. But crucially this also means that fewer people are needed to produce the same goods from one year to the next.

As long as the economy expands fast enough to offset labour productivity there isn't a problem. But if the economy doesn't grow, there is a downward pressure on employment. People lose their jobs. With less money in the economy, output falls, public spending is curtailed and the ability to service public debt is diminished. A spiral of recession looms. Growth is necessary within this system just to prevent collapse.

This evidence leads to an uncomfortable and deep-seated dilemma: growth may be unsustainable, but 'de-growth'¹ appears to be unstable. At first this looks like an impossibility theorem for a lasting prosperity. But ignoring the implications won't make them go away. The failure to take the dilemma of growth seriously may be the single biggest threat to sustainability that we face.

The Myth of Decoupling

The conventional response to the dilemma of growth is to call for 'decoupling': continued economic growth with continually declining material throughput. Since efficiency is one of the things that modern capitalist economies are supposed to be good at, decoupling has a familiar logic and a clear appeal as a solution to the dilemma of growth.

As Chapter 5 points out, it's vital to distinguish between 'relative' and 'absolute' decoupling. Relative decoupling refers to a situation where resource impacts decline relative to the GDP. Impacts may still rise, but they do so more slowly than the GDP. The situation in which resource impacts decline in absolute terms is called 'absolute decoupling'. Needless to say, this latter situation is essential if economic activity is to remain within ecological limits.

Evidence for declining resource intensities (relative decoupling) is relatively easy to identify. The energy required to produce a unit of economic output declined by a third in the last thirty years, for instance. Global carbon intensity fell from around one kilo per dollar of economic activity to just under 770 grams per dollar.

Evidence for overall reductions in resource throughput (absolute decoupling) is much harder to find. The improvements in energy (and carbon) intensity noted above were offset by increases in the scale of economic activity over the same period. Global carbon emissions from energy use

have increased by 40% since only 1990 (the Kyoto base year).

There are rising global trends in a number of other resources – a range of different metals and several non-metallic minerals for example. Worryingly, in some cases, even relative decoupling isn't happening. Resource productivity in the use of some structural materials (iron ore, bauxite, cement) has been declining globally since 2000, as the emerging economies build up physical infrastructures, leading to *accelerating* resource throughput.

The scale of improvement required is daunting. In a world of nine billion people, all aspiring to a level of income commensurate with 2% growth on the average EU income today, carbon intensities (for example) would have to fall on average by over 11% per year to stabilise the climate, 16 times faster than it has done since 1990. By 2050, the global carbon intensity would need to be only six grams per dollar of output, almost 130 times lower than it is today.

Substantial economic investment will be needed to achieve anything close to these improvements. Lord Stern has argued that stabilising atmospheric carbon at 500 parts per million (ppm) would mean investing 2% of GDP each year in carbon emission reductions. Achieving 450 ppm stabilisation would require even higher levels of investment. Factor in the wider capital needs for resource efficiency, material and process substitution and ecological protection and the sheer scale of investment becomes an issue. The macro-economic implications of this are addressed in Chapter 8.

More to the point, there is little attempt in existing scenarios to achieve an equitable distribution of incomes across nations. Unless growth in the richer nations is curtailed, the ecological implications of a truly shared prosperity become even more daunting to contemplate.

The truth is that there is as yet no credible, socially just, ecologically sustainable scenario of continually growing incomes for a world of nine billion people.

In this context, simplistic assumptions that capitalism's propensity for efficiency will allow us to stabilise the climate and protect against resource scarcity are nothing short of delusional. Those who promote decoupling as an escape route from the dilemma of growth need to take a closer look at the historical evidence – and at the basic arithmetic of growth.

¹ De-growth (décroissance in the French) is an emerging term for (planned) reductions in economic output.

The 'Iron Cage' of Consumerism

In the face of the evidence, it is fanciful to suppose that 'deep' resource and emission cuts can be achieved without confronting the nature and structure of market economies. Chapter 6 exposes two interrelated features of modern economic life that together drive the growth dynamic: the production and consumption of novelty.

The profit motive stimulates a continual search by producers for newer, better or cheaper products and services. This process of 'creative destruction', according to the economist Joseph Schumpeter, is what drives economic growth forwards.

For the individual firm, the ability to adapt and to innovate – to design, produce and market not just cheaper products but newer and more exciting ones – is vital. Firms who fail in this process risk their own survival.

But the continual production of novelty would be of little value to firms if there were no market for the consumption of novelty in households. Recognising the existence, and understanding the nature, of this demand is essential.

It is intimately linked to the symbolic role that material goods play in our lives. The 'language of goods' allows us to communicate with each other – most obviously about social status, but also about identity, social affiliation, and even – through giving and receiving gifts for example – about our feelings for each other.

Novelty plays an absolutely central role here for a variety of reasons. In particular, novelty has always carried important information about status. But it also allows us to explore our aspirations for ourselves and our family, and our dreams of the good life.

Perhaps the most telling point of all is the almost perfect fit between the continual production of novelty by firms and the continuous consumption of novelty in households. The restless desire of the consumer is the perfect complement for the restless innovation of the entrepreneur. Taken together these two self-reinforcing processes are exactly what is needed to drive growth forwards.

Despite this fit, or perhaps because of it, the relentless pursuit of novelty creates an anxiety that can undermine social wellbeing. Individuals are at the mercy of social comparison. Firms must innovate or die. Institutions are skewed towards the pursuit of a materialistic consumerism. The economy itself is dependent on consumption growth for its very

survival. The 'iron cage of consumerism' is a system in which no one is free.

It's an anxious, and ultimately a pathological system. But at one level it works. The system remains economically viable as long as liquidity is preserved and consumption rises. It collapses when either of these stalls.

Keynesianism and the Green New Deal

Policy responses to the economic crisis are more or less unanimous that recovery means re-invigorating consumer spending so as to kick-start economic growth. Differences of opinion are mainly confined to how this should be achieved. The predominant (Keynesian) response is to use a mixture of public spending and tax cuts to stimulate consumer demand.

Chapter 7 summarises some of the more interesting variations on this theme. It highlights in particular the emerging international consensus around a very simple idea. Economic recovery demands investment. Targeting that investment carefully towards energy security, low-carbon infrastructures and ecological protection offers multiple benefits. These benefits include:

- freeing up resources for household spending and productive investment by reducing energy and material costs
- reducing our reliance on imports and our exposure to the fragile geopolitics of energy supply
- providing a much-needed boost to employment in the expanding 'environmental industries' sector
- making progress towards demanding global carbon reduction targets
- protecting valuable ecological assets and improving the quality of our living environment for generations to come.

In short, a 'green stimulus' is an eminently sensible response to the economic crisis. It offers jobs and economic recovery in the short term, energy security and technological innovation in the medium term, and a sustainable future for our children in the long term.

Nonetheless, the default assumption of even the 'greenest' Keynesian stimulus is to return the economy to a condition of continuing consumption growth. Since this condition is unsustainable, it is

difficult to escape the conclusion that in the longer term something more is needed. A different kind of macro-economic structure is essential for an ecologically-constrained world.

Macroeconomics for Sustainability

There is something odd about the modern refusal to countenance anything but growth at all costs. Early economists such as John Stuart Mill (and indeed Keynes himself) foresaw a time in which growth would have to stop.

Herman Daly's pioneering work defined the ecological conditions of a steady-state economy in terms of a constant stock of physical capital, capable of being maintained by a low rate of material throughput that lies within the regenerative and assimilative capacities of the ecosystem.

What we still miss from this is a viable macro-economic model in which these conditions can be achieved. There is no clear model for achieving economic stability without consumption growth. Nor do any of the existing models account fully for the dependency of the macro-economy on ecological variables such as resources and emissions. In short there is no macro-economics for sustainability and there is an urgent need for one.

Chapter 8 explores the dimensions of this call in more detail. It presents results from two specific attempts to develop a macro-economics of sustainability. One of these suggests that it is possible, under certain assumptions, to stabilise economic output, even within a fairly conventional macro-economy. A crucial role is played by work-time policies in this model, to prevent rising unemployment.

The second model addresses the macro-economic implications of a shift away from fossil fuels. It shows that there may only be a narrow 'sustainability window' through which the economy can pass if it is to make this transition successfully. But crucially, this window is widened if more of the national income is allocated to savings and investment.

These exercises reveal that a new macro-economics for sustainability is not only essential, but possible. The starting point must be to identify clearly the conditions that define a sustainable economy.

These conditions will still include a strong requirement for economic stability as the basis for

protecting both people's jobs and their capabilities for flourishing. But this condition will need to be supplemented by conditions that ensure distributional equity, establish sustainable levels of resource throughput and emissions, and provide for the protection of critical natural capital.

In operational terms, there will be important differences in the way that the conventional variables play out in this new macro-economy. The balance between consumption and investment, the split between the public and the private sector spending, the nature of productivity improvements, the conditions of profitability: all of these will have to be re-negotiated.

The role of investment is particularly crucial. Sustainability will need enhanced investment in public infrastructures, sustainable technologies and ecological maintenance and protection. These investments will operate differently from conventional capital spending (Appendix 2) and will have to be judged and managed accordingly.

Above all, a new macro-economics for sustainability must abandon the presumption of growth in material consumption as the basis for economic stability. It will have to be ecologically and socially literate, ending the folly of separating economy from society and environment.

Flourishing – within Limits

Fixing the economy is only part of the problem. Addressing the social logic of consumerism is also vital. This task is far from simple – mainly because of the way in which material goods are so deeply implicated in the fabric of our lives.

But change is essential. And some mandate for that change already exists. A nascent disaffection with consumerism and rising concern over the 'social recession' have prompted a number of initiatives aimed at improving wellbeing and pursuing an 'alternative hedonism' – sources of identity, creativity and meaning that lie outside the realm of the market.

Against the surge of consumerism there are already those who have resisted the exhortation to 'go out shopping', preferring instead to devote their time to less materialistic pursuits, to their family, or to the care of others.

Small scale 'intentional' communities (like the Findhorn community in Scotland or Plum Village in France) are exploring the art of the possible. Larger

social movements (such as the ‘transition town’ movement) are mobilising people’s desire to live more sustainably. These initiatives don’t appeal to everyone. But they do provide an invaluable learning ground, giving us clues about the potential for more mainstream social change.

Chapter 9 discusses their strengths and limitations. It explores why people may turn out both to be happier and to live more sustainably when they favour intrinsic goals that embed them in family and community rather than extrinsic ones which tie them into display and social status. Flourishing within limits is a real possibility, according to this evidence.

On the other hand, those at the forefront of social change are often haunted by the conflict of trying to live, quite literally, in opposition to the structures and values that dominate society. These structures represent a culture of consumption that sends all the wrong signals, penalising ‘good’ environmental choices and making it all but impossible, even for highly-motivated people, to live sustainably without personal sacrifice.

In this context, simplistic exhortations for people to resist consumerism are destined to failure. Urging people to insulate their homes, turn down the thermostat, put on a jumper, drive a little less, walk a little more, holiday at home, buy locally produced food (and so on) will either go unheard or be rejected as manipulation for as long as all the messages about high street consumption point in the other direction.

For this reason, structural change must lie at the heart of any strategy to address the social logic of consumerism. And it must consist in two main avenues. The first is to dismantle the perverse incentives for unproductive status competition. The second must be to establish new structures that provide capabilities for people to flourish – and in particular to participate meaningfully and creatively in the life of society – in less materialistic ways.

The advantages in terms of prosperity are likely to be substantial. A less materialistic society will enhance life satisfaction. A more equal society will lower the importance of status goods. A less growth-driven economy will improve people’s work-life balance. Enhanced investment in public goods will provide lasting returns to the nation’s prosperity.

Governance for Prosperity

Achieving these goals inevitably raises the question of governance – in the broadest sense of the word. How is a shared prosperity to be achieved in a pluralistic society? How are the interests of the individual to be balanced against the common good? What are the mechanisms for achieving this balance?

Particular questions arise about the role of government itself. Chapter 10 identifies an almost undisputed role for the state in maintaining macro-economic stability. For better or worse, government also ‘co-creates’ the culture of consumption, shaping the structures and signals that influence people’s behaviour. At the same time, of course, government has an essential role to play in protecting the ‘commitment devices’ that prevent myopic choice and support long-term social goals.

History suggests a cultural drift within government towards supporting and encouraging a materialistic and individualistic consumerism. This drift is not entirely uniform across all countries. For example, different ‘varieties of capitalism’ place more or less emphasis on de-regulation and competition. But all varieties have a structural requirement for growth, and rely directly or indirectly (eg in export markets) on consumerism to achieve this.

Government itself is conflicted here. On the one hand, it has a role in ‘securing the future’ – protecting long-term social and ecological goods; on the other it holds a key responsibility for macro-economic stability. For as long as macro-economic stability depends on economic growth, government will have an incentive to support social structures that undermine commitment and reinforce materialistic, novelty-seeking individualism. Particularly where that’s needed to boost high street sales.

Conversely, freeing the macro-economy from a structural requirement for growth will simultaneously free government to play its proper role in delivering social and ecological goals and protecting long-term interests.

The narrow pursuit of growth represents a horrible distortion of the common good and of underlying human values. It also undermines the legitimate role of government itself. At the end of the day, the state is society’s commitment device, *par excellence*, and the principal agent in protecting our shared prosperity. A new vision of governance that embraces this role is urgently needed.

The Transition to a Sustainable Economy

The policy demands of this analysis are significant. Chapter 11 presents a series of steps that governments could take now to effect the transition to a sustainable economy. Box 1 summarises these steps. They fall into three main categories:

- building a sustainable macro-economy
- protecting capabilities for flourishing
- respecting ecological limits.

The specific proposals flow directly from the analysis in this report. But many of them sit within longer and deeper debates about sustainability, wellbeing and economic growth. And at least some of them connect closely with existing concerns of government – for example over resource scarcity, climate change targets, ecological taxation and social wellbeing.

A part of the aim of this report is to provide a coherent foundation for these policies and help strengthen the hand of government in taking them forward. For at the moment, in spite of its best

efforts, progress towards sustainability remains painfully slow. And it tends to stall endlessly on the over-arching commitment to economic growth. A step change in political will – and a renewed vision of governance – is essential.

But there is now a unique opportunity for government – by pursuing these steps – to demonstrate economic leadership and at the same time to champion international action on sustainability. This process must start by developing financial and ecological prudence at home. It must also begin to redress the perverse incentives and damaging social logic that lock us into unproductive status competition.

Above all, there is an urgent need to develop a resilient and sustainable macro-economy that is no longer predicated on relentless consumption growth. The clearest message from the financial crisis of 2008 is that our current model of economic success is fundamentally flawed. For the advanced economies of the Western world, prosperity without growth is no longer a utopian dream. It is a financial and ecological necessity.

Box 1: 12 Steps To a Sustainable Economy

Building a Sustainable Macro-Economy

Debt-driven materialistic consumption is deeply unsatisfactory as the basis for our macro-economy. The time is now ripe to develop a new macro-economics for sustainability that does not rely for its stability on relentless growth and expanding material throughput. Four specific policy areas are identified to achieve this:

1. Developing macro-economic capability
2. Investing in public assets and infrastructures
3. Increasing financial and fiscal prudence
4. Reforming macro-economic accounting

Protecting Capabilities for Flourishing

The social logic that locks people into materialistic consumerism is extremely powerful, but detrimental ecologically and psychologically. A lasting prosperity can only be achieved by freeing people from this damaging dynamic and providing creative opportunities for people to flourish – within the ecological limits of the planet. Five policy areas address this challenge.

5. Sharing the available work and improving the work-life balance
6. Tackling systemic inequality
7. Measuring capabilities and flourishing
8. Strengthening human and social capital
9. Reversing the culture of consumerism

Respecting Ecological Limits

The material profligacy of consumer society is depleting natural resources and placing unsustainable burdens on the planet's ecosystems. There is an urgent need to establish clear resource and environmental limits on economic activity and develop policies to achieve them. Three policy suggestions contribute to that task.

10. Imposing clearly defined resource/emissions caps
11. Implementing fiscal reform for sustainability
12. Promoting technology transfer and international ecosystem protection.

For further details see pages 103-107