

Sustainability: Utopian and Scientific

Introduction

To make the move to a sustainable future where people are no longer threatened by an ecological catastrophe will require a number of things – above all a strong and broad movement with effective and intelligent leadership and an accurate understanding of the current problems and how they can be overcome. Sadly, only some parts of this constellation of forces are in place today. In particular the green movement is not an effective political and social movement and the left is still in disarray, largely concerned with defensive politics and harking back to a world long gone.

As for ideas and analysis of the situation and what needs to be done, some powerful critiquesⁱ of the current economic orthodoxies have recently appeared that set out an alternative way in which the wellbeing and prosperity of the population can be achieved and maintained. However, these contributions are insufficient since they do not provide a sufficiently profound diagnosis of the causes of the problem. Without such a diagnosis there can be no convincing prescription for a remedy. But the situation is even worse than that. There is also no convincing approach to obtaining the necessary changes.

The situation is not unlike that which Frederick Engels faced in the 1870s when he wrote “Socialism, Utopian and Scientific”ⁱⁱ. Engels respected the utopian socialists Saint-Simon, Fourier and Owen for their identification of the dire effects of the super-exploitative capitalist system as its growth gained speed in the first half of the 19th century. But he pointed out that they had not understood the generative mechanisms by which it dominated society and caused these dire consequences for working people. Nor had they any convincing praxis – that is to say they neither had a theory of how its domination might be ended nor a programme for hastening that end. He counterposed *scientific socialism* – that is socialism that has an understanding of the causes of class dominance and the role of the working class in their own emancipation – with *utopian socialism* which named the problem, proposed utopian alternatives, but was idealist in the sense that it thought it would be enough to convince enough people of the rightness of the alternative way. It will be argued here that an analogous situation exists today with regard to the agenda of sustainability and specifically with the idea that economic growth is not sustainable.

There is still a striking consensus about the nature of the economic development that is needed, not just in the UK but on a global scale. The main political parties, business, the unions, the international agencies, the so-called economists and the pundits in the media all assume that economic growth must continue, year on year.

First we need to look at the argument against this.

The problem with economic Growthⁱⁱⁱ

Growth over the last 10 years in the UK has averaged 2.64% p.a. - an economy that *doubles* in size every 26 years^{iv}. The global economy is almost 5 times the size it was 50 years ago^v. It is generally assumed that around 3% growth per annum is healthy for an economy.

Such growth has an environmental cost. The ecological footprint of the UK is 5.3 hectares per person – that is to say we each depend on that area for our consumables, recreation, carbon sequestration and so on. But the available ‘biocapacity’ of the UK provides little more than half that (3.7) – a negative ecological debt^{vi}. As growth increases our ecological debt increases along with that of all the other countries. As the Global Footprint Network puts it:

Today humanity uses the equivalent of 1.3 planets to provide the resources we use and absorb our waste. This means it now takes the Earth one year and four months to regenerate what we use in a year.

Moderate UN scenarios suggest that if current population and consumption trends continue, by the mid 2030s we will need the equivalent of two Earths to support us. And of course, we only have one.

Turning resources into waste faster than waste can be turned back into resources puts us in global ecological overshoot, depleting the very resources on which human life and biodiversity depend.^{vii}

Some have suggested that it is possible to decouple growth from material throughput – that is to make growth happen without corresponding growth in resource inputs (fuel, food, materials) and waste outputs (emissions of all sorts) – having our cake without getting obese. But the evidence, as reviewed by Tim Jackson, Economics Commissioner for the UK government’s Sustainable Development Commission^{viii} is that only a *relative* reduction in throughput is feasible. The *absolute* level of resources needed and waste produced continues to rise. So the ecological overshoot or ecological debt just goes on getting worse.

This problem is brought into stark relief by two fatal challenges:

Peak energy. Oil, gas, uranium and even coal are at or approaching the point at which the rate of exploitation of resources falls behind the rate of use. This means an energy crunch. We had a taste of this in 2008 with oil prices rising steeply. That was mostly a result of speculation, but this kind of volatility is likely to increase as the gap between exploitation and usage widens.

Climate change: all the indications are that the situation is far worse than had been anticipated. Positive feedback effects (‘non-linearities’) magnify the impact of the rising carbon dioxide levels but they hadn’t been properly understood and accounted (for example by the earlier International Panel on Climate Change reports) and hence government targets, already too little and too late, now appear to be dramatically inadequate.

The first problem makes economic growth, reliant on its energy subsidy, implausible. The second problem makes it suicidal.

Utopian sustainability

We can refer to two sources as representative of utopian sustainability. Firstly, the work of the New Economics Foundation (NEF), for example the New Green Deal paper published in 2008^{ix} and the work on alternative indicators of wellbeing to Gross Domestic product (GDP)^x. Secondly, work by the Sustainable Development Commission (SDC), for example the critique of economic growth cited above. However, while critical of these efforts it is important to be very clear that they are fine so far as they go. More, they are a vital source for a 'scientific' approach to sustainability despite their utopian, or should we say Fabian^{xi}, flavour.

The problem then is that although they present sound critiques of the effects, they offer no analysis of the systemic causes. Moreover their utopian proposals come with no analysis of how changes can be brought about^{xii} – there is little or no theory of action, just a 'tell-and-hope' reformism.

Roots of the growth fetish

What we can call the growth fetish has multiple roots. These can be divided into the *ideological*, the *practical* and the *systemic*.

Firstly, a belief in the inevitability and necessity of growth seems like common sense. The idea of progress, of living better than our parents did is ingrained in our culture. As noted above, hardly anyone questions this – it is the current currency of political and economic discourse, both for those within the system and for many of those critical of it. But, common sense is not the same thing as good sense^{xiii}. It reflects the dominant interests in the social system, and in this case, as we will see, the ideology reflects and supports the interests of Capital^{xiv} - the growth fetish is *hegemonic*.

Secondly, growth has a practical appeal in the context of responding to social ills. Where the cake is growing it seems not to matter if people's shares are unequal, so long as they are all growing. This is actually illusory on two counts. Firstly, there is evidence (collated by NEF among others) that since the mid 1970s economic growth has not been associated with rises in life-satisfaction^{xv}. Secondly, this model of an increasing but unequally shared cake is flawed as a recipe for societal wellbeing: there is persuasive evidence that more unequal societies have a greater level of social ills, not just for the poor but for all strata^{xvi}. Moreover, an unequally divided cake that grows becomes means an accentuation of the inequalities in absolute terms. Flawed it may be but this supposed practical root of the growth fetish has an extraordinary appeal – maybe because it seems to postpone or even avoid the need for more profound, and difficult, social reform. It therefore adds to the ideological support for the growth fetish.

Systemic causes of the addiction to growth

The root cause of the growth fetish, however, does not lie in the ideological realm but rather is to be found in the inherent and defining feature of capitalism, the dominant economic system under and within which the majority of the earth's population now lives - an economic and social system that for some 200 years has efficiently created an explosion in production, access to goods and commodities, technological sophistication, population, longevity and knowledge. The motor for this has been capital, something that within this system has the propensity to increase^{xvii}. That increase in capital is based fundamentally on exploitation – of workers, consumers and natural resources.

Capitalism, then is first and foremost a system that reproduces capital, that is to say it accumulates capital. To do this every social process is commodified: exchange, production, distribution, investment – previously conducted through media other than markets. And no social transaction is exempt from this process of commodification. To endlessly accumulate capital it is necessary to extract profit. This is done at various points in the system, and most obviously in the theft of surplus value from workers and the unequal exchange between the core areas of the system and the primary resource producing areas. Without unequal exchange capitalism cannot work.

Capitalism establishes institutions to support itself, the State with its legal and governmental system, the educational system, the welfare systems, and the armed forces. When unequal exchange is threatened, the legal and military systems are brought into action.

Capitalism as a system that reproduces capital must ever expand, finding new markets, new cheaper workforces, and new sources of raw materials, new products and new means of production. This is because the reproduction of capital means that there is always an oversupply. This means that new investment opportunities are continually sought. The oversupply problem has been a major contributor to the historical cycles in the world economy. Currently this is compounded by excess productive capacity and the suppression of wages since the late 70s – hence the extension of credit. Capitalism then tends toward crisis.

Capital, then, has to grow – that is the condition for its survival. It is this inexorable and inherent dynamic of capital accumulation that causes the growth fetish, the addiction to growth. Because there are powerful interests linked to this source of growth, telling the facts about the sustainability of economic growth will have little or no impact. The system simply cannot learn another way, it would be like suggesting that human beings should not drink water and the calls for sustainable growth are like saying 'well let them drink tea instead'.

It is the failure of the 'utopian' advocates of sustainability to properly identify the logic of capital accumulation as the root cause of the growth fetish that marks their distance from an adequate 'scientific' understanding of the nature of the problem and its resolution. In that sense they stand in a similar place as the C19th utopian socialists, incapable of doing more than calling to

people of good will in the hope that their ideas will – against all the evidence – be taken up by a system that is fundamentally opposed to them – that knows no other way than capital accumulation and the associated economic growth.

Scientific socialism

Now this term ‘scientific’, used by Engels in his famous pamphlet needs some explanation and justification. Engels explained the term as follows:

These two great discoveries, the materialistic conception of history and the revelation of the secret of capitalistic production through surplus-value, we owe to Marx. With these discoveries Socialism became a science. The next thing was to work out its details and relations^{xviii}.

Engels is pointing here to the systematic and evidence-based revelation of the underlying, historical causes of the features of the economic and social system. Socialism was the desirable state and he and Marx never lost the humanist, ethical impulse that inspired their work to that end, but ethical direction was not enough there had to be a proper grounding. As he indicates, this was work in progress, never finished by he and Marx, either in terms of the full analysis of the system or in terms of what the socialist alternative would look like^{xix}.

The analogy with natural science is helpful, so far as it goes:-

Active social forces work exactly like natural forces; blindly, forcibly, destructively, so long as we do not understand and reckon with them. But once we understand them, when once we grasp their action, their direction, their effects, it depends only upon ourselves to subject them more and more to our own will, and by means of them to reach their own ends. And this holds especially of the mighty productive forces of today. As long as we obstinately refuse to understand the nature and the character of these social means of action – and this understanding goes against the grain of the capitalist mode of production and its defenders - so long these forces are at work in spite of us, in opposition to us, so long they master us...^{xx}

Engels is not suggesting that social forces are exactly like physical forces (he alludes to the ideological component in the last sentence), but he is pointing out that attempts at reform that take no account of their workings will be doomed to failure.

For Marx and Engels two key ideas made the connection between a scientific political economy as explanation of capitalist exploitation and the programme of the struggle for socialism: contradictions and class struggle.

Contradictions

The complex system that is capitalism, being composed of different elements in motion, requiring simultaneous coordination but pulling in different directions, creates internal contradictions that force it into recurrent crises. Marx

and Engels pointed to the contradiction between forces of production and relations of production – putting large groups of workers together meant creating new social relations, a new social force, the proletariat that by its concentration was able to organise together. Similarly the need to educate sections of the labour force also led to proletariat becoming more self-aware, more able to diagnose what was wrong with the world and to provide counter-system information, and persuasion. They also showed how the expansion of production contradicted the impoverishment of working people leading to repeated crises of oversupply and underconsumption, leading to the cycle of boom and bust (in Engels' day about every ten years). It was through its contradictions that the old order would be ended, although these would not be enough on their own without the key social movement of the working class.

Struggle and the movement

Engels and Marx saw the struggle for socialism as the struggle of classes; that is as the struggle between groupings with contradictory interests, defined by their position within the system of capitalist production and capital accumulation. Capitalism would fall through the increasing power of the proletariat, itself created by capitalism (another contradiction) that would eventually overthrow the bourgeois order, either through revolution or through the ballot box.

Scientific sustainability

What does this analogy with scientific socialism tell us about the process of achieving sustainability in a system that is even more dominated by the power of Capital than was the case in the C19th? An answer will be attempted, in outline here, in relation to the two key Marxist concepts of Contradiction and Struggle.

Contradictions and Crisis

Capitalism, throughout its existence has been faced with repeated crises resulting from the internal contradictions it generates. Time and time again has it overcome these contradictions, showing a strategic flexibility that Marx and Engels could not have imagined. These crises have largely been crises in capital accumulation driven by the falling rate of profit, the saturation of markets, the successful struggles of workers and other 'subaltern' populations, and the excessive productive capacity of the system. Each time 'fixes' have been found, technological, social, military, political, and financial, sometimes applied separately and sometimes together. Without going into a detailed analysis of these fixes, the following can be identified as particularly significant:

- \$£€¥ Employment of new, cheap forms of energy (the energy subsidies).
- \$£€¥ Development of new technologies for production, distribution or as commodity lines to sell.

- \$£€¥ Importation of cheaper labour or outsourcing of production to sites with cheaper labour.
- \$£€¥ Use of internationally distributed operations to play one currency against another and evade taxation.
- \$£€¥ Creation of and expansion into new markets.
- \$£€¥ The use of State power to provide subsidies (e.g. education and training for the workforce, health and welfare, infrastructure whether canals or satellite communications).
- \$£€¥ The use of State power to subdue internal or external threats to capital accumulation by legislation, force or economic sanctions and incentives.
- \$£€¥ The turning of areas of social life and nature into commodities (e.g. urban space, water, beaches, folk music, mutual aid and so on) that can be traded or the return of such areas to the market (e.g. the privatisation of public services) and hence as nodes of capital accumulation and the transfer of public assets into private hands.
- \$£€¥ The formation of cartels, whether as commercial trusts or through the legitimised international policy instruments of the World trade Organisation, IMF, World Bank, European Union, NAFTA and so on.
- \$£€¥ Financialisation – the hyper-development of credit and debt into generators of capital for example through gambling on stocks, speculation and the invention of complex financial instruments.

The most recent phase of capitalist expansion, the neoliberal period, has been characterised by the deployment of all these elements in concert. As a result the capitalist model until very recently seemed unassailable. Yet as the present situation clearly demonstrates, the contradictions are coming home to roost again. And while up to now it has been the internal contradictions of capital that have created crises, now there are both internal contradictions and contradictions between the capitalist forces of production and the natural environment on which they depend (the contradiction between production economy and earth economy). So at this moment the world is faced with a set of interlocked crises – the financial crash and recession, the food crisis, the energy crisis, the water crisis, climate change, and the accompanying legitimisation crises that take differing forms in different global locations and in different social sectors.

It is these contradictions and their resultant crises that provide the key to a transition to a different sustainable system. We do not know the precise point at which the contradictions will prove fatal for capital accumulation. Nor do we know how bloody that end will be. But what is now beyond doubt is that capitalism, at least in its totalising dominant viral expansionist mode will end through a combination of internal and external contradictions that can not be fixed. It is possible, indeed likely, that a restricted capitalism will continue in

certain sectors, but it can not continue to be the one principle that structures the whole economy and therefore (in the last analysis) all social arrangements.

However, these contradictions and crises will not just end unsustainable capitalist growth by themselves; this depends on there being a protagonist – the midwife of history.

Struggle and social movements

For Marx and Engels the protagonist, the midwife of history was to be the proletariat, the class consisting of those forced by (socially constructed) economic realities to sell their labour power to Capital. But more than a century later that protagonist no longer exists in the same form. To be sure global Capital has its proletariat, concentrated in the factories of China, the maquilas of Mexico, the polytunnels of Murcia, and these sectors will continue to struggle against their exploiters. Yet while both wings of the socialist movement, Leninist and social democrat were founded in and of the proletariat as collective subject of transition to a new world, in none of the transformative C20th revolutions was the proletariat the decisive protagonist (although they played their part in each). From the Mexican revolution through the Russian, Chinese, Cuban, Algerian and Vietnamese revolutions in no case was it the proletarian mass power that led the transformation. This was only the case in the failed revolutions of the metropolitan countries. Only in the reformist case of mitigated capitalism, best seen in Scandinavia, could it be said that the proletarian movement was the hegemonic component. And today in Latin America the progressive protagonists in Venezuela, Bolivia, Ecuador and elsewhere are again to be found in other sectors, chiefly in the alliance between sectors (indigenous communities, the urban masses of the barrios, the landless peasants) whose exclusion has been more profound even than that of the proletariat (who after all are within the system of production and reproduction of Capital) and other unorthodox elements such as progressive clergy and sections of the military.

However, the most profound areas of contradiction at present, the final limits of the capitalist mode of production (and reproduction), are to be found in the twin areas of climate change and peak energy. So for anyone concerned with sustainability as a goal, having analysed why the system is unsustainable – growth based on capital accumulation – must identify a protagonist adequate to the challenge. And having identified that protagonist it is necessary to nurture it, just as Marx and Engels did with the embryonic proletarian movement.

Who is that protagonist, that collective subject, that midwife of history at the start of the C21st? For this it is helpful to turn to the insights of Antonio Gramsci, the founder of the Italian communist party who was the first to systematically apply Marxist analysis to the more complex order of capitalism in a liberal democratic context. This is not to say that Gramsci's context was the same as ours today - further insights will be necessary. However his key contribution was the analysis of the role of ideas in collective action – essentially the roles of ideology and the nature of leadership in a mass movement. Gramsci emphasised how a bloc of interests can come together under a leadership that

can offer a unifying ideology. That ideology will not be total – different interest groups will be attracted by different facets of it and will pick and mix elements. The ideology will hold the movement together and the leadership will adapt it to circumstances. For Gramsci that leadership is composed of organic intellectuals – intellectuals who serve not the dominant system but the movement, and are embedded within it, learning their craft within the movement. He also identifies the collective nature of the leadership of a social movement – in his case that was the Party – with the metaphor of the Modern Prince – Machiavelli's statesman who showed adaptability, firmness, cunning and forethought, transformed into an ethical subject that coordinated the actions of the movement. Gramsci's notions then are quite some way from those of the Leninists who have dominated the radical left with notions of vanguard. They are also miles away from both the cynical electoral/media/power nexus politics of what is left of the social democratic movement, or the self-indulgent and ineffectual anarchism that pervades the Green movement (when it isn't being Fabian). A reading of Gramsci's politics for today (for we want to use his ideas today not in their actual context of the 1920s) is that of the progressive coalition united in diversity with an adaptive core ideology that is inclusive not exclusive for all those that want to end the unsustainable system of capitalism - planetary consumption.

Concretely this means that the protagonist has to be the broad social movement of green and left activists, trade unionists, food activists, minority rights, social and trade justice activists and internationalists. But this movement has still to be built, using local, national and international struggles as the focus, with a shared programme for transformation from capitalism to a sustainable socialist alternative. It will be essential to peel off layers of those who up to now have seen their fate as linked to capitalism, whether they are leaders who have developed their cities through Capital-funded regeneration, legislators who have tried to ameliorate capitalism through regulation and limited redistributive policies, consumers who are waking up to the con of unsustainable consumption, state officials who have until now seen their role as administering the policy recipes of neoliberal capitalism and academics who have had enough of adapting their thought, teaching and research to the dictates of the god of endless consumption and growth, accountants who now get their sums right and find they just don't add up.

The form, programme, strategy, tactics – the leadership- of such a movement have yet to emerge but without it there is no chance of the kind of sustainable future that the utopian advocates of sustainability have promoted. They have taken us so far but now is the time to get scientific – in the best Marxian sense of the word – to understand profoundly and to act.

Internationalism and localism

Capitalism is a global system. Like the life of an animal it exists at the micro (workplace, shop, household - molecular and cellular) level, at the meso (firm, organ) level and at the macro level (conglomerate, industry, economy State - whole animal) as well as existing over time from generation to generation and

through nested cycles of energy transactions, production, consumption, reproduction. Everywhere you look you see it. Everywhere you turn it is there before you. More than that it is you – in your food, your thoughts, your emotions and the systems that tie these together. Around you and in you and beyond you.

This means that it has to be fought in many places at once – locally, nationally, globally, through local projects, conversations, struggles, alliances and through actions that tie together across territories and globally. While we take the view that the bioregional level is particularly important for interventions that prefigure (another Gramscian reference) a better way of organising society, this is not to deny the importance of making alliances at other levels. It is not enough to think globally – act locally. It is necessary to act and think both locally and globally – just like Capital does.

Reform and revolution

Much of what has been written above will sound revolutionary and unremittingly oppositional. The system is dominant but its dominance is not complete. Those working within its institutions are not its unthinking servants, and their actions are not entirely constrained and determined by Capital. There are various spaces where Capital has been tamed – for example within the institutions of the local state, or where alternative social and even economic modes are in play, if only partially – like cooperatives and some non-government and community organisations. Working for transformation, being part of the new to-be-hegemonic social movement requires a strategy of simultaneous insider - outsider tactics. Where a city administration is working on a climate change action plan, for example, it is essential both to work with them to develop the plan and to work outside to keep up the pressure for real and radical action. Indeed we should aim for proposals that cannot be delivered under capitalism as part of a broader strategy of weakening the very causes of unsustainable economic activity, both to change the system but also because such proposals are the right thing to support – in this case the only way to deliver carbon reductions of sufficient size to avert catastrophic warming. As an infamous politician would say – There Is No Alternative^{xxi}.

An example of such a transitional demand^{xxii} could be the work on macroeconomic policy in Tim Jackson's SDS report^{xxiii} – not that it will have been conceived in these terms – the intention seems to have been more naïvely Fabian in style. He sets out the problem to be tackled like this:

.... when demand falls, revenues to firms are reduced and this leads to job losses and reduced investment. Reduced investment leads to a lower capital stock which, together with a lower labour input, in turn reduces the productive capability of the economy. Output falls and with less money in the economy, public revenues also fall, debt is more difficult to service and the system has a tendency to become unstable.

But does it have to work like this? Is it possible to configure the conventional macro-economic variables in such a way as to reduce the imperative for growth and yet maintain economic stability? One potential avenue

of exploration is to attempt a stabilisation of economic output by altering the role or relative importance of key variables (such as consumption, investment, public spending and so on) within the basic macro-economic model.^{xxiv}

Jackson explores the parameters for a national economy that does not depend on economic growth are explored drawing on the Canadian scenarios of Peter Victor^{xxv}. Jackson concludes that it is possible to have an economy with low growth/resource throughput with both unemployment and poverty halved. This depends in part on reducing working hours. However, greenhouse gas emissions on this model only reduce slowly. Jackson himself adds a number of cautions.

These conditions will still include a strong requirement for economic stability. Or perhaps 'resilience' would be a better word for what is required here. A sustainable economy must be capable of resisting the exogenous shocks and avoid the internal contradictions which have caused chaos in the last year.

But the requirement for resilience will need to be augmented by conditions that address distributional equity, impose sustainable levels of resource throughput, and provide for the protection of critical natural capital.

In operational terms, this new macro-economy will require enhanced investment in public infrastructures, in sustainable technologies and in ecosystem maintenance. It is likely to demand a different balance between public and private goods. It will require us to reframe our concepts of productivity and profitability. Above all, a new macro-economics for sustainability will be ecologically and socially literate, ending the folly of separating economy from society and environment.

But in outlining these conditions hasn't Jackson identified enough reasons why a system built on capital accumulation cannot deliver this?

Yet the need to understand how to manage a macro-economy in a different way is a real need for a transitional strategy. The Russian, Chinese and Cuban revolutions all faced major challenges in this regard with resulting oscillations in economic policy. An understanding of how to manage the capitalist economy into something else is clearly required by strategists of scientific sustainability: without it the likelihood is of a nightmare scenario of rising civil strife, rising poverty and political instability with the key need to rapidly move to a low carbon future severely compromised.

Conclusion

Political change comes from leadership and popular mobilisation. And you need both of them^{xxvi}.

It has been argued that the valuable work done by bodies such as the NEF and SDS on the zero growth sustainable economy suffer from a kind of Utopianism. That is to say they do not fully take account of the systemic causes of the growth fetish. Nor do they identify what conditions could bring about its replacement, and as such they are bereft of political strategy. It is argued that the root cause of the growth addiction is the system of capitalism with its central motor of capital accumulation. Moreover it is argued that the internal and

increasingly the external contradictions of that system will push it into a terminal crisis. However, that crisis will not simply arrive and usher in a new era of sanity. It will require a broad social movement, broader than any we have seen yet, with an intelligent and strategic leadership. That leadership will not be based in a traditional political party but in a network of activist thinkers who share a common vision and agreement on the main dimensions of strategy. That movement and that leadership will gather strength in the months and years to come, and its nature will change over time, in response to changing conditions. But it is the duty of everyone who wants a sustainable and equitable future to build that movement and that leadership and to do that with unprecedented rapidity, for there is no time to lose.

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<http://greendealmanchester.wordpress.com>



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ⁱ These come from various sources. The New Economics Foundation is a particularly important producer of such material.

ⁱⁱ Originally published in 1877 as part of Anti-Dühring (<http://www.marxists.org/archive/marx/works/1877/anti-duhring/index.htm>), published as a separate pamphlet 1892 <http://www.marxists.org/archive/marx/works/1880/soc-utop/index.htm> .

ⁱⁱⁱ The critique of economic growth goes back at least to the report Limits to Growth (Meadows et al.) in 1972.

^{iv} <http://www.tradingeconomics.com/Economics/GDP-Growth.aspx?Symbol=GBP> The comparable international rates are 3.2% (21 years to double) for the advanced economies and 5.0% (14 years to double) for the rest (IMF members only) International Monetary Fund, World Economic Outlook Database, October 2008, cited by Manchester Independent Economic review <http://www.manchester-review.org.uk/download/?id=549>

^v Prosperity Without Growth: The transition to a Sustainable Economy. Tim Jackson Sustainable Development Commission http://www.sd-commission.org.uk/publications/downloads/prosperity_without_growth_report.pdf

^{vi} <http://www.footprintnetwork.org/en/index.php/GFN/page/trends/uk/>

^{vii} http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/

^{viii} Jackson, T (2009) Prosperity Without Growth: The transition to a Sustainable Economy. London: Sustainable Development Commission http://www.sd-commission.org.uk/publications/downloads/prosperity_without_growth_report.pdf.

^{ix} New Economics Foundation, A Green New Deal. Joined-up policies to solve the triple crunch of the credit crisis, climate change and high oil prices: The first report of the Green New Deal Group, 2008.

^x The Happy Planet Index 2.0: Why good lives don't have to cost the Earth: http://www.neweconomics.org/gen/z_sys_publicationdetail.aspx?pid=289
National Accounts of Well-being: bringing real wealth onto the balance sheet http://www.neweconomics.org/gen/z_sys_publicationdetail.aspx?pid=279
National Accounts of Well-being: bringing real wealth onto the balance sheet http://www.neweconomics.org/gen/z_sys_publicationdetail.aspx?pid=268

A Green New Deal: Joined-up policies to solve the triple crunch of the credit crisis, climate change and high oil prices

http://www.neweconomics.org/gen/z_sys_publicationdetail.aspx?pid=258

^{xi} The Fabian society, established at the end of the 19th Century took its name from the Roman general Quintus Fabius Maximus whose tactics of repeated guerrilla type assaults on the invading Carthaginians were ultimately successful. The Fabians sought a reformist path to socialism, eschewing class struggle. Their approach has tended to be based on presenting ideas and proposals, often backed with social scientific research in order to convince those in positions of power, a style of engagement identical to that of NEF, the SDC and other similar lobby groups.

^{xii} This is perhaps a little unfair in the case of the SDS – in their report *Prosperity Without Growth* they do offer the beginnings of an analysis of the appropriate macro economics of a no-growth economy. The problem is there is no analysis of what might bring this about, either in terms of the contradictions of the present system or of the social forces that could be recruited to the struggle for such an approach.

^{xiii} The distinction is from Gramsci. See page 8.

^{xiv} Capital (with a capital 'C') refers here to a cohesive subsystem in society comprised of both capital in economic terms *and* the actions, strategy, ideology of those who work to increase the accumulation of capital – its production and reproduction and expansion. These people were initially the classical industrial capitalists of the 19th Century, but over the last 100 years the function has been to greater or lesser extent become systemic in nature, with the development of professions such as accountancy and the establishment of bodies such as pension funds and corporate bonds that function objectively as the capitalist.

^{xv} E.g. Abdallah S, Thompson S, Michaelson J, Marks N and Steuer N (2009) *The (un)Happy Planet Index 2.0. Why good lives don't have to cost the Earth* (nef: London)

^{xvi} Ref to Wilkinson and the equality website

^{xvii} The SDS report (see note v) (Chapter 6) sets out a version of this cycle but sanitises the elements – referring to investment and profit rather than capital, for example.

^{xviii} Engels, F. (1892/1970) *Socialism: Utopian and Scientific*. Moscow: Progress Publishers edition, p. 57.

^{xix} “Here is a conclusion I've come to after many years: among all the errors we may have committed, the greatest of them all was that we believed that someone really knew something about socialism, or that someone actually knew how to build socialism”. Speech delivered by Dr. Fidel Castro Ruz, President of the Republic of Cuba, at the Commemoration of the 60th Anniversary of his admission to University of Havana, in the Aula Magna of the University of Havana, on November 17, 2005. <http://www.cuba.cu/gobierno/discursos/2005/ing/f171105i.html> .

^{xx} *Socialism: Utopian and Scientific* (see note xviii) p. 72.

^{xxi} Margaret Thatcher – TINA.

^{xxii} To use the Trotskyist term – which does not mean that we are either calling the SDS a bunch of Trots, nor endorsing Trotskyist politics in general.

^{xxiii} Chapter 8, see note viii.

^{xxiv} Jackson, see note v, pp 78-79.

^{xxv} Victor, Peter 2008b *Managing without Growth*. Thinkpiece for the SDC workshop 'Confronting Structure'. April 2008. London: Sustainable Development Commission. Online at: http://www.sd-commission.org.uk/publications/downloads/Peter_Victor_thinkpiece.pdf

^{xxvi} Rather interestingly this is a quotation from Ed Miliband, UK Secretary of State for Climate, December 2008 (quoted without citation in *Prosperity Without Growth*, p 98 see note v.