

# Co-operatives as an antidote to economic growth

Lindsay Cole, Yuill Herbert, Will McDowall and Colin McDougall

We begin this paper with a caveat; the authors do not have an academic background in economics or in the study of co-operatives. We are: two sustainability consultants, a policy analyst and a fair trade entrepreneur and we all work for or with co-operatives. In our diverse experiences, we recognise the need for a different economic model and this paper is explicitly positioned to launch a discussion and debate around the role of co-operatives in a just and ecologically-sustainable society.

## Introduction

The profound insight of the field of ecological economics is that economic growth is constrained by ecological limits. This insight has been illustrated using the ecological footprint model (Wackernagel, 2002); with a comprehensive survey of the state of ecosystems (MEA, 2005), theoretically (Daly, 2004) and, is highlighted in the “real world” by a full spectrum of social, ecological and economic implications arising from attempts to negotiate a coordinated global response to human-induced climate change (UNFCCC, 2009).

Modern capitalism, which can be considered the 'operating system' of the world economy (Speth, 2008), is growth dependent and becomes unstable in the absence of growth. Economic theory indicates that human welfare is dependent on and therefore justifies economic growth, yet economic growth is undermining the ecological systems which support life on earth.

The current economic crisis has opened up intellectual space for discussions regarding the centrality of growth in policy-making.<sup>1</sup> The UK Government recently published a major study on the implications of an economy without growth (UK Sustainable Development Commission, 2009). Similarly, in France, President Sarkozy has established a Commission to explore ways of measuring 'social progress' that move beyond narrow measures of economic activity and growth such as GDP<sup>2</sup>. The Stiglitz Commission is exploring the idea that by focusing on narrow, monetary measures of social wellbeing, such as GDP, political leaders are neglecting the negative impacts of growth.

However, these conversations have occurred or are occurring primarily at the macro-economic level and limited consideration has been given to the organisational implications of an economy focused on sustainability and well-being as opposed to growth. These implications are potentially profound. For two reasons, the current financial meltdown can be viewed as a crisis of corporate governance. First because governments have failed to adequately regulate the irresponsible behaviour of the financial sector, and instead have sought to deregulate financial markets in the interests of growth. Second, and of greater interest to the co-operative movement, the ownership structure of much of the economy is based on the maximisation of profits in the interest of creating and growing shareholder value. In other words, the ownership of business is organized solely in the interests of profits and growth. Social and environmental concerns, while a necessary consideration under this model, become a constraint to be managed within the context of financial return. In contrast, co-operatives recognise that the objectives of a society are more than financial success alone. Instead of focusing on maximising shareholder value defined in narrow, monetary terms, co-operatives work to the general benefit of their members. In the case of co-operatives, it is financial return that becomes the constraint to be managed within the context of maximizing member benefit.

This paper explores key drivers for a no growth economy -the underlying theory and its implications - and why co-operatives can make an important contribution to an economy that is not focused on growth. Co-operatives are not a panacea to solve all the ill-effects of global capitalism; however, we argue that the co-operative model offers a structure of governance that is better suited to an economy that aims for sustainable wellbeing and prosperity rather than growth for growth's sake.

- 
- 1 Articles have made their way into the mainstream press. For example: Canwest News Service (2009). Time for a Green Bottom Line. March 28, 2009. Published in the Vancouver Sun, Ottawa Citizen. Accessed March 2009 at: <http://www.canada.com/technology/Time+green+bottom+line/1438673/story.html>
  - 2 The Stiglitz Commission includes a number of nobel-laureate economists. See: <http://www.stiglitz-sen-fitoussi.fr/en/documents.htm>

## **The growth dilemma**

### *Growth is unsustainable*

Ecological economists have argued for years that economic growth, at least in its current form, is unsustainable. Their ideas, once dismissed as peripheral, are increasingly being heard by policymakers and civil society more broadly. Global society faces an imperative to reduce greenhouse gas emissions (IPCC 2007, Stern Review 2006), and to reduce current pressures on ecosystems (MEA 2005). Regional economies face pressing needs to reduce pollution and reduce water consumption.

### *Growth isn't what it used to be*

In poor countries there is a 'development imperative' (Giddens 2009) due to the suffering caused by extreme poverty, and there is very strong evidence that economic growth is essential for improving wellbeing in poor societies. However, this is no longer clearly the case in wealthy societies. Research indicates that beyond a certain level of material satisfaction in Northern countries, reported 'well-being' or happiness does not rise as income rises over time (Frey, 2001). In other words, not only is growth not sustainable, it may not even be delivering the gains in wellbeing that society seeks.

As society's end goal, the definition of human well-being is at the heart of the matter. The relevance of economic performance is that it must be viewed as a means to an end. That end is neither the consumption of beef burgers, nor the accumulation of television sets, nor the control of inflation rates, but rather the enrichment of humankind's well-being. Economic performance matters only in so far as it makes people happier (Oswald, 1997). A broader concept of well-being requires a more complex analysis, provided through a recent burst of research into what factors support happiness, and how this relates to economic growth (e.g. Layard 2006).

If growth does not increase well-being in wealthy societies, it is remarkable that it remains the dominant policy objective of governments in these societies. The UK Sustainable Development Commission goes further, to argue that the pursuit of growth may in fact be undermining well-being (UK SDC 2009).

### *Growth is necessary*

While growth may not contribute to higher levels of wellbeing, a halt to growth, at present time, would risk being a disaster. Our economies are dependent on continuing economic growth. Technological changes contribute to economic growth by increasing output per any given unit of labour, capital and resources. The consequence for society is an increased reliance on economic expansion to maintain a constant rate of employment. If the economy ceases to expand, increases in labour productivity will drive up unemployment, and spending power will fall along with consumer confidence.

As incomes fall, investment and tax revenues decline. Governments must then borrow not just to maintain public spending but also to stimulate demand. As the national debt increases, interest takes up a larger proportion of the national income. If the economy and consequently tax revenues decline for a prolonged period, funds available for public service can decline geometrically. The capitalist model of the economy therefore depends on growth for stability; it must grow or it will collapse.

### *The growth dilemma*

The UK Sustainable Development Commission (2009) sums up this state of affairs as 'the dilemma of growth', characterized by two core propositions:

- Growth is unsustainable – at least in its current form. Burgeoning resource consumption and rising environmental costs are compounding profound disparities in social wellbeing.
- 'De-growth' is unstable – at least under present conditions. Declining consumer demand leads to rising unemployment, falling competitiveness and a spiral of recession.

We are forced to seek economic growth, even though it may be undermining the ecological foundations of the economy, and even though it does not add to society's wellbeing, but because our current economic structure demands growth to prevent falling wellbeing.

### **Getting over unsustainable growth**

#### *The limits to de-coupling*

Various authors <sup>3</sup> have argued that one solution to the dilemma is to decouple the economy from resource consumption. This scenario achieves the steady state requirements of a constant throughput of energy and resources while allowing the economy to continue to grow. For example, the economy would grow from two units of wood to two units of wood, one unit reclaimed wood and one unit of culture- in other growth is achieved without increased harvesting of trees. Growth in the fields of culture or health, for example, theoretically can continue ad infinitum without increased resource consumption.

The UK Sustainable Development Commission (2009) rejects *absolute* decoupling:

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 or 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. Resource efficiency, renewable energy and reductions in material throughput all have a vital role to play in ensuring the sustainability of economic activity. But the analysis... suggests that it is entirely fanciful to suppose that 'deep' emission and resource cuts can be achieved without confronting the structure of market economies.

The idea of decoupling draws on the example of the trend within Northern economies towards an increasing component of services, rather than manufacturing (Mulder and de Groot, 2004). A similar argument is based on the environmental Kuznets Curve (EKC). The EKC used data on air pollution to demonstrate that as a population moves from low to medium income, air pollution increases, and then from medium to high income, air pollution will decrease. The fundamental flaw in both of these arguments, as demonstrated by their sample population, lies in the assumptions that environmental impacts are tied to a particular geographical region. As economies have globalised, the resource consumption that supports the "basic needs" of the Northern economies has moved offshore and with it, the environmental impacts. Substituting the ecological footprint, a more comprehensive measure, for air pollution, reveals that as the income of Northern countries has risen so has the ecological impact (Wackernagel, 1999).

Furthermore, as production is globalized, the environmental impacts of wealthy consumers are borne by poorer producers. Thara Srinivasan et al. (2008) show that while high-income citizens are responsible for 5.7 times more GHG emissions than the poor, the low-income group will experience climate damages for more than two times its own emissions. The same inequitable distribution of environmental responsibility and environmental harm is found for a number of other pollutants.

Srinivasan's paper raises another critical point that, while beyond the scope of this paper, must be noted. Any and all efforts to develop a new economic model which addresses the ecological crisis must also address global distribution of resources. A failure to do so condemns a large part of the world's population to desperate poverty. It is also important to note that several so-called "third world" countries are fully cognisant of the failures of the dominant economic model and are developing alternative paths for example from Bhutan's Gross National Happiness initiative. The North can and must learn from these efforts.

#### *Is a low- or no-growth world possible?*

If de-coupling isn't the answer, can the growth dilemma be overcome? In response to a physically constrained

---

3 Two key examples are von Weizsäcker, E. Lovins, A. And Lovins, H. (1995) Factor Four- Doubling Wealth, Halving Resource Use" and Hawken, P., Lovins, A., and Lovins, H.L, (1999), "Natural capitalism: creating the next industrial revolution", New York: Little, Brown, and Company.

economy, Daly (2008) developed the idea of a steady state economy that seeks qualitative development, but halts aggregate quantitative growth. Daly argues that so-called “economic” growth is in fact uneconomic because the quantitative expansion of the economic subsystem increases social and environmental costs faster than production benefits, at least in high-consumption countries. He defines a steady state economy as a constant flow of throughput at a sustainable (low) level, with population and capital stock free to adjust to whatever size can be maintained by the constant throughput that begins with depletion of low-entropy resources and ends with pollution by high-entropy wastes.

There is a paucity of literature beyond the theoretical concept of a steady state economy. One of the few examples that uses real data was developed by Victor and Rosenbluth (2007). Their macroeconomic model of Canada, LOWGROW, uses real data to model national income, fiscal balance, national debt, employment, greenhouse gas emissions and poverty over a 30 year period to 2035. While the no growth scenario entered a “disastrous, downward spiral”, a low growth model in which GDP stabilises by 2020 results in no Canadians living below the poverty line, successful implementation of the Kyoto Protocol, and an unemployment rate of 5.5%. This model demonstrates that there may be room, even within capitalism, to stabilise macro-economic output. Peter Victor’s work shows that it is indeed possible to meet environmental goals, keep unemployment low, and reduce poverty.

#### *Working towards sustainable prosperity, rather than growth*

Increasingly, policymakers are recognising that the pursuit of economic growth, as measured by GDP, is not taking into account the full picture of wellbeing. Broader metrics are required to understand social progress and wellbeing, which take into account environmental harm and social issues. The establishment of the “Beyond GDP” initiative under the sponsorship of the European Commission and the OECD<sup>4</sup> and President Sarkozy’s Commission on the Measurement of Economic Performance and Social Progress<sup>5</sup> are clear evidence that governments are now taking seriously the idea that growth alone is not enough, and that narrowly economic measures of social benefit are insufficient for a sustainable prosperity.

#### **Corporate governance, growth and wellbeing**

Part of the problem with economic growth is to be found in modern structures of corporate governance, which have been designed to maximize the profit-making ability of firms, and hence maximize their contribution to economic growth. In a well-functioning free market economy, goods, services, labour and capital are freely traded. Governments intervene in markets to ensure basic rights are respected, to prevent monopolies from abusing market power, and to protect public goods including the environment. Within that framework, firms are expected to maximize profits and returns to shareholders and individuals are expected to act as self-interested consumers.

With the exception of respect for the law and the protection of brand image, this framework means that social and moral responsibilities are constraints that hinder the efforts of firms to maximise profit. The capitalist argument asserts that it is the self-interested actions of firms that provide prosperity, and in a well-functioning market with appropriate regulations, society will be best off where businesses seek to maximise profits. These ideas are perceived to be codified in law (Freshfields Bruckhaus Deringer, 2005): the legal duty of boards of directors in public traded companies is to seek the maximization of shareholder value in the sense of financial performance.

The current structure of governance is problematic for three reasons.

- First, it ensures that firms contribute to economic prosperity and growth at the expense of broader stakeholder interests. We have already argued that economic growth is not the sole measure of social progress – growth is a means to an end, and a structure of corporate governance that fails to recognise this is problematic.
- Second, the model pits enterprise against the state. A successful market economy in a democratic

---

4 <http://www.beyond-gdp.eu/>

5 <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>

society relies on the state being able to wield sufficient power over business to ensure that rules are respected, rights are protected, monopolies do not abuse power, and public goods are safeguarded. In effect, the current democratic capitalist model relies on often unspoken assumptions about the central tension in the political economy of market democracies: between the power of the state and the power of capital. Part of the problem is the increasing complexity and inter-connectedness of the global economy. In the world of finance, as has been painfully illustrated in recent months, as governments were not able to regulate the activities of firms that, in their quest for profit, innovated beyond regulation. Theories of regulation recognise this and struggle to identify strategies that prevent the proliferation of increasingly cumbersome rulebooks that hinder valuable economic activity while failing to protect broader social interests (e.g. Skidmore et al 2003). The ability of the state to set the rules is challenged as a result.

- The capitalist economy facilitates the concentration of capital and therefore power. This power manifests itself explicitly as a concentration of wealth which can then be employed to influence government in its favour and intellectually, forming a hegemony on economic thought. Perhaps there is no better illustration of the intellectual dominance of the market economy than a study by Kalmi (2006). Kalmi reviewed the treatment of co-operatives in economics textbooks used by the University of Helsinki from 1905 to 2005. He found that early books are characterised by extensive discussion on co-operatives, theoretical insights, and careful documentation, and they contain a balanced discussions on various forms of co-operation. More recent texts, in contrast, are characterised by the absence of any systematic approach to co-operatives and at worst provide misleading information. In other words, as co-operatives are not a part of the current underlying power structure of economic thought, they will be omitted from economic discourse.

### **Co-operatives: a possible antidote?**

The micro-economic implications of the steady state economic model remain somewhat opaque. For the reasons outlined above, the primary unit of capitalist economy, the profit-motivated firm is unlikely to be an appropriate organisational structure in a steady state economy. The subsequent line of inquiry quickly becomes both broad and highly speculative. What might replace profit as a source of motivation to ensure that society continues to provide affordable goods and services to meet human needs? How could such an organisation be structured? What role would the state play in the means of production? We realised that an answer lay under our proverbial noses.

The authors' involvement with co-operatives have provided us with insight and evidence that co-operatives, as organisational model, are well-suited to providing societal needs in the absence of a requirement for growth. We realised that because the model permeates every sector of the economy in every geographical and political context<sup>6</sup>, the co-operative structure is undeniably a proven alternative to the publically traded corporation. Our experiences leads us to hope that co-operatives can help overcome the problems with corporate governance identified above.

Specifically, we suggest that

- co-operatives often (but not always) take into account broader concerns than profit alone;
- the democratic ownership of co-operatives may reduce the tension between capital and the state; and
- co-operatives are less likely to perpetuate consumerism.

However, we also note that this is not always the case – many co-operatives behave much like publicly traded corporations.

---

6 For a comprehensive review of co-operatives in modern society, see Birchall, J (1997) *The International Co-operative Movement*. Manchester University Press.

## *Co-operatives*

Co-operatives are defined as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically- controlled enterprise”<sup>7</sup>. They are governed by a set of principles including voluntary and open membership, democratic member control, economic participation on the basis of membership rather than size of investment, autonomy and independence, a commitment to the education and training of their members, a commitment to co-operative with other co-operatives and a responsibility for the wider community. Behind these principles are values such as self-help, equity, democracy, equality among members, and solidarity (Birchall, 2003).

### *Beyond profit – co-operatives and motivation*

The market economy model implies that society is best off when firms maximise profits, thus contributing to economic growth. As we have already seen, there are plenty of reasons why we should not expect the pursuit of economic growth to lead in any straightforward way to greater human wellbeing. We need to move towards an economy in which broader measures of social progress and benefit are considered, and co-operatives enable exactly this.

Co-operatives are structured so as to serve the needs of their members, not just to return profits to them. In effect, the economic relationship between a consumer co-op and its members is different from that of a retailer and a consumer; and the relationship between a worker co-op and a worker-member is different from that of a firm to its employees. As Arild Vatn and others have shown (Vatn 2006), the contexts with which one engages people affects their preferences - we are only self-interested rational economic profit maximisers if we are engaged in contexts where that is the expected behaviour. In a co-operative, the motivations are often broader.

Co-operatives exist to benefit their members, with “benefit” being widely defined. In some cases it may mean providing work; in others it may be providing a service or good that doesn't otherwise exist and in others it may be providing the best possible price for its members needs or goods. This broad definition stands in stark contrast to publicly traded corporations; the purpose of co-operatives cannot be distilled into a single end (i.e. the maximisation profit). Crane and Matten (2007) provide concrete examples of different purposes of co-operatives:

- Retail co-operatives are set up to meet retailing needs: e.g. in remote parts of Sweden consumers founded the 'Kooperative Forbundet' to provide them with shopping facilities. 'Credit Mutel', now the number four bank in France, was initially founded to supply its members with capital.
- Producer co-operatives are set up to meet production need: eg many agricultural co-operatives were founded to share tools, supplies, and know how.
- Purchasing co-operatives were set up to meet buying needs: e.g. The German “Dachdeckerinkauf” is a co-operative of small companies in the roof-laying industry that use co-operation to increase purchasing power. .

Control of co-operatives is tied to personhood as opposed to amount of capital invested. This democratic structure intrinsically places the emphasis on *people* rather than *profit*. This then creates a wider spectrum of possibility in motivations for co-operatives; a motivation that is dependent on the common needs of people as opposed to a prevalent economic ideology. Because the common needs typically encapsulate both social and economic goals, co-operatives are organisations with more than one bottom line (Pezzini, 2008). The commitment by co-operators to a broad set of goals can mean that the quality of service offered far exceed those of a private business to the extent that in the example of a home care co-operative, the service was described as priceless (Majee, 2008).

Co-operative managers and boards therefore routinely integrate complex combinations of concerns. By integrating social and economic goals, co-operatives *internalise* elements of the role of the state in protecting citizens from unconstrained capital within the democratic structure (Spear, 2000). This, again, is in direct contrast to the inherent motivation of capitalistic corporations to externalise all that does not contribute to the profit imperative. In the case of smaller co-operatives, this struggle to manage complex concerns can be

---

7 International Co-operative Alliance

resolved in the framework of participatory democracy; whereas in larger (predominately consumer) co-operatives, the tensions of representative democracy are present - including the tendency of membership to disengage, the struggle to balance autonomy and accountability within management and questions around the form and structure of representation.

A statement by the UN General Assembly(2001) sums up the essence of co-operatives : "the Governments recognise that the co-operative movement is highly democratic, locally autonomous but internationally integrated" and represents "a form of organisation of associations and enterprises whereby the citizens themselves rely on self-help and their own responsibility to meet goals that include not only economic but social and environmental objectives such as overcoming poverty, securing productive employment and encouraging social integration".

### *Co-operatives and regulatory tensions*

The democratic economic structure of co-operatives may help address the inadequacy of the state to protect common goods from capital. Co-operative directors are accountable to the co-op's membership, as opposed to being accountable to large and often disconnected corporate shareholders, Membership is by principle open to all citizens regardless of their position on the social or economic strata, their ethnicity, their religion or political convictions. This inherent openness to co-operative membership will lead to an inherent diversity within the controlling entities of a co-operative; a diversity more reflective of society at large. So in a private firm, where benefits accrue to the owners of capital, these owners will typically inhabit a very narrow spectrum of society that is buffered - by means of financial wealth and power - from environmental, social or economic impacts of their operations. This buffered separation then put extra onus on the *State* to regulate the firm, in order to protect broader society (a.k.a. the state's citizens) from potential negative impacts of the firm's operations. The diverse co-operative membership, whose *personhood* is principal to their ownership, not their financial status, is far less likely to experience this disconnect from operational impact, as they much more closely resemble the citizens that the state is interested in. A natural self-regulation is therefore in the co-operative's best interest and therefore aligns its interest more closely with that of a well-functioning government.

Of note is that this connection to operational impact is amplified in numerous co-operative forms (e.g. worker co-operatives) where the members are also the workers of the organization and hence *physically* connected with communities in which the co-op operates.

In this fashion, co-operatives act as a bridge between the democratic state and private capital, facilitating good governance of the economy. By enabling broader and democratic ownership of capital, co-operatives make it more likely that citizens are protected from the activities of business (such as pollution) as they are themselves are either the owners of the business, or in many cases have the opportunity to become owners of the business. The incentives to dodge regulations are thus reduced, and the need to regulate reduced. It must be stated, of course, that this argument only holds where co-operatives are true to their principles: democratic member control, and member economic participation.

### *Co-operatives and consumerism*

While the steady state proposal satisfies the economic questions in recognition of an ecologically constrained world, there is also a social or cultural element that must be addressed. Consumerism or materialism is a psychological dependence on products for satisfaction (Eckersley, 2005). Even for the most highly motivated individuals, choosing a sustainable lifestyle in most contexts is difficult, due to structural issues and the UK Sustainable Development Commission (2009) highlights a need for new structures that provide capabilities for people to flourish and participate fully in the life of society in less materialistic ways. Cooperatives are inclined to address this aspect in two critical ways. Advertising, as employed by many firms, is designed to create new needs (Jackson and Marks, 1998) and therefore perpetuates growth. Cooperatives, in contrast, respond to needs and are therefore less likely to employ this medium to perpetuate and exacerbate consumerism.

Secondly, consumerism feeds on social alienation; people replace the relationships they lack with "things". Cooperatives enhance social capital (Khanna, 2003), so that the workplace becomes a place of trust and community as opposed to anxiety, isolation and fear.

## **Conclusions**

As members of co-operatives, we see many coops providing broad benefits to their members, rather than simply seeking profit. We are not persuaded by the dominant economic argument that an economy which maximises profits is an economy in which welfare is maximised. Rather, we believe that a focus on growth is now undermining wellbeing, and in the long term is undermining the ecological foundations of society. As a result, we see co-operatives as providing some hope, as a democratic form of economic and corporate organization that responds to the need to work towards multiple social goals.



## Sources

- Birchall, J. (2003). Rediscovering the cooperative advantage. Poverty reduction through self-help. Cooperative Brance, International Labour Organisation. Geneva, Switzerland
- Cleveland, CJ and Ruth, M. (1997). When, where and by how much do biophysical limits constrain the economic process? *Ecological Economics*. Vol. 22 pp. 203-223.
- Constanza et al (1999). The Development of an Ecological Economics. *Journal of Business Administration and Policy Analysis*
- Crane, A. And Matten, D. (2007). *Business ethics: managing corporate citizenship and sustainability in the age of globalization*. Oxford University Press. Oxford, UK
- Daly, H. (2008). A steady state economy. UK Sustainable Development Commission. Available at: [http://www.steadystate.org/Files/Daly\\_UK\\_\\_sust\\_dev\\_com\\_copy\\_with\\_ten\\_policy\\_addendum.pdf](http://www.steadystate.org/Files/Daly_UK__sust_dev_com_copy_with_ten_policy_addendum.pdf)
- Daly, H., Cobb, J. And Cobb, C. (1994). *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Beacon Press.
- Eckersley, R. (2006). Is modern Western culture a health hazard? *International Journal of Epidemiology*. 35(2):252-258
- European Commission (2002). Communication from the Commission concerning Corporate Social Responsibility: A business contribution to Sustainable Development, COM(2002) 347 final , 2.7.2002. See more about European Commission policies and projects at: [http://ec.europa.eu/employment\\_social/soc-dial/csr/index.htm](http://ec.europa.eu/employment_social/soc-dial/csr/index.htm)
- Frey, B. S. And Stutzer, A. (2001). What can economists learn from happiness research? *Journal of Economic Literature*.
- Freshfields Bruckhaus Deringer (2005). A legal framework for the integration of environmental, social and governance issues into institutional investment. Produced by the Asset Management Group of UNEP Finance Initiative.
- Gertler, M. (2004). Synergy and Strategic Advantage: Cooperatives and Sustainable Development. *Journal of Cooperatives*.
- Institute for Empirical Research in Economics. University of Zurich.
- Jackson, T. And Marks, N. (1998). Consumption, sustainable welfare and human needs—with reference to UK expenditure patterns between 1954 and 1994. *Ecological Economics*. 28 (1999) 421–441
- Jones, D. C. and Kalmi, P. (2009). Trust, inequality, and the size of the cooperative sector: cross-country evidence. *Annals of Public and Cooperative Economics*. 80:2, pp. 165-196.
- Khanna, R. (2003). *Globalization and Trust: Theory and Evidence from Cooperatives*. William Davidson Institute Working Paper Number 592. Available at: <http://deepblue.lib.umich.edu/bitstream/2027.42/39978/3/wp592.pdf>
- Majee, W. (2008). *Cooperatives, the brewing pots for social capital! An exploration of social capital creation in a worker-owned homecare cooperative*.
- Available at: <http://www.community-wealth.org/articles/coops.html>
- Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Synthesis*. Island Press, Washington, DC.

- Oswald, A. J. (1997). Happiness and Economic Performance. *Economic Journal*. Available at: [http://wrap.warwick.ac.uk/335/1/WRAP\\_Oswald\\_happecperf.pdf](http://wrap.warwick.ac.uk/335/1/WRAP_Oswald_happecperf.pdf)
- Mulder, and De Groot, (2004). Decoupling economic growth and energy use. Tinbergen Institute Discussion Paper. Available at: <http://dspace.uvu.vu.nl/bitstream/1871/9592/1/04005.pdf>
- Pezinni, E. (2008). Cooperatives, good companies by definition? An ethical perspective. Workplace democracy workshop: working paper no. 8. Universite catholique de Louvain.
- Schweickart, D. (1996). *Against Capitalism*. Westview Press.
- Spear, R. (2000). The Cooperative Advantage. *Annals of Public and Cooperative Economics*. 71:4
- Speth, J.G. (2008). *The Bridge at the Edge of the World: Capitalism, the Environment and Crossing from Crisis to Sustainability*. Yale University Press.
- Stern, N. (2006). What is the economics of climate change? *World Economics*. Vol. 7 No. 2.
- Thara Srinivasana, U et al (2008). The debt of nations and the distribution of ecological impacts from human activities. *The National Academy of Sciences of the USA*. Vol. 105 No.5. Available at: [www.pnas.org/cgi/content/full/0709562104/DC1](http://www.pnas.org/cgi/content/full/0709562104/DC1).
- UK Sustainable Development Commission (2009). *Prosperity without growth: the transition to a sustainable economy*. Accessed March 2009 at: [http://www.sd-commission.org.uk/publications/downloads/prosperity\\_without\\_growth\\_report.pdf](http://www.sd-commission.org.uk/publications/downloads/prosperity_without_growth_report.pdf)
- United Nations Framework Convention on Climate Change (2009). Negotiating text. Note by the Chair. Available at: [http://unfccc.int/documentation/documents/advanced\\_search/items/3594.php?rec=j&prire=600005243#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&prire=600005243#beg)
- United Nations (2001). Statement by the General Assembly. Resolution no. 56/114 Co-operatives in Social Development:
- Victor, P. and Rosenblut, G. (2007). Managing without Growth, In *Ecological Economics*. Vol. 61 pp 492-504.
- Wackernagel, M. et al. (2002). Tracking the ecological overshoot of the human economy. *PNAS* 2002 99:9266-9271; published online before print June 27, 2002, doi:10.1073/pnas.142033699
- Wackernagel, M. et al (1999). National natural capital accounting with the ecological footprint concept. *Ecological Economics*, Vol. 29, No. 3. (June 1999), pp. 375-390.