The economics of ecological ENLIGHTENMENT

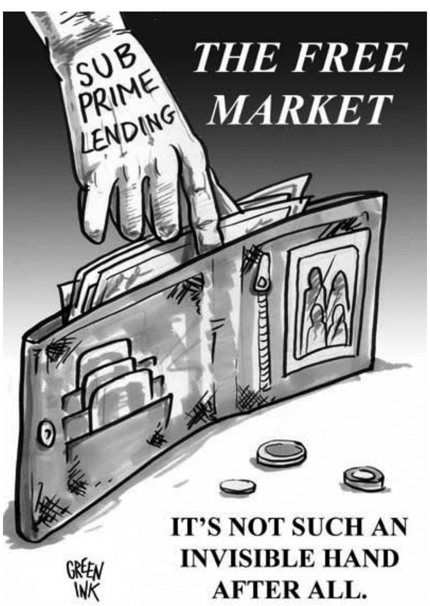
Modern capitalist economics ignores the biophysical world in which we live and is now an immensely destructive force, overwhelming the integrity of ecosystems, endangering humanity and all life on Earth, reports **CLIFF MASON**. Its failure to alleviate the crises it has caused makes it essential to construct a new whole-earth economics informed by a true Enlightenment which restores our relationship with the Earth and its natural limits.

We are in the midst of an environmental calamity caused by human activity. Despite laws and international treaties to protect Earth's life-supporting capability, the environment continues to deteriorate because of a persistent, powerful countervailing force: global consumer capitalism.

Modern capitalism is intrinsically problematic for nature and society. Driven by mutually reinforcing components, periodically supplemented by technological advances and operating in a society indoctrinated toward its ends, capitalism has become an immensely destructive force. It has made human activities of such size, speed and intensity that they are overwhelming ecosystem integrity and changing the biophysical state of the entire planet. Rather than recognising and accounting for these destructive effects, capitalism systematically undervalues natural resources by its pricing practices, discounts future effects by its accounting methods or completely ignores effects as 'externalities.' At the centre of our civilisation is an abstract system of imperatives that ignores the real biophysical world and places humanity and our fellow creatures on Earth in the gravest peril.

The power of capitalist economics comes from its part in the dominant paradigm of Western civilisation. Although many elements of our financial system are as old as civilisation itself, the secular rationalism that emerged during the 18th century Enlightenment has been most influential. The Modern world view, freed of religious dogma, saw a mechanistic world that could be engineered for human purposes, with nature a mere pool of resources for human use. People were no longer a united society fulfilling God's purpose, but were individuals who would only conditionally compromise their fundamental freedom in a social contract. This set of values and assumptions has been refined and codified in economics, building on the foundations of Adam Smith's 1776 work, *The Wealth of Nations*. This seminal book established the idea of the free market's 'invisible hand' that could turn individual desires to communal benefit. The autonomous beneficence of the market did not require ethical behaviour of its participants who contributed best by acting out of selfishness, even greed.

Smith's work was perfectly in tune with the spirit of the late 18th century, yet, it was perhaps only by 'mistake' that he emphasised the amoral mechanisms of the market.[1] His other major work, *Theory of Moral Sentiments* supports empathy and sympathy among other altruistic capacities as critical to social and individual welfare. The father of orthodox economics was himself in some conflict with the purely rational and individualistic modern world view.



Dissenters from the Modern view have at times initiated social advances or at least mollified the most hard-nosed positions of the orthodoxy. A coalition of religious and political exponents removed humanity from the commodity market by abolishing slavery. Charles Dickens, the Romantic Poets, William Morris and the Guild Socialists fought against the exploitation and despoilation of Industrial Capitalism in the 19th

At the centre of our civilisation is an abstract system of imperatives that ignores the real biophysical world and places humanity and our fellow creatures on Earth in the gravest peril century. This conflict, not just with the mechanisms and results of capitalism but with the values underpinning them, is now entering a new phase, driven by the environmental crisis. The failure of our existing institutions to alleviate this crisis and the guilt of our economic system in precipitating and sustaining it make it essential to radically change economics. This is becoming widely understood, even though it remains off the agenda of mainstream politics. In a 2009 survey conducted for the BBC by GlobeScan, two thirds of respondents thought we needed to transform the international and domestic economic system.

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The intrinsic problems of capitalist economics are clarified by considering its history and social context. The feudal system of the Middle Ages preserved Commons, from which those who owned no land might obtain a livelihood, until the 14th and 15th centuries when 'Enclosure' progressively made areas of land legal and exclusive property. The peasantry, separated from their means of subsistence, were forced to sell their physical effort as the only resource at their disposal. This 'great transformation' destroyed the Commons and turned land and labour into 'factors of production.'[2]

Enclosure reached its apotheosis in colonialism as powerful European nations claimed new lands, heedless of the interests of indigenous peoples. In the greatest expansion of cultural and political power the world has seen, the Anglophone colonisation of the American West, Canada, Australia and New Zealand spread capitalism across the globe.[3] The New Zealand Association, a group with religious affiliations, was formed to realise the colonial ideals of EG Wakefield with profits from speculative purchases of land by English aristocrats to be used to finance emigration from England's labouring poor. It was forced by the British Government to become a chartered company. The founding of New Zealand occurred in a convergence of capitalist speculation, philanthropic zeal and a government wishing to maximise financial benefits and minimise political risk. This collaboration was characteristic of Western democracies in the past two centuries.

Private property is a basic requirement of capitalism conferring on owners not only the benefits of use and amenity but also the ability to trade for profit. Civilised societies with large populations, broad tastes and specialised labour need the mediation of a market. Adam Smith recognised the importance of the division of labour and free operation of markets in wealth creation. His successors in the 19th century further emphasised the intrinsic value of markets with the theory of comparative advantage: we can be better off by exchanging whatever we make best with others and this will benefit both parties.

New Zealand could best produce commodities from pastoral agriculture but only a few landowners became truly wealthy and the country became export dependent. The 19th century economy included mining and timber milling and required large numbers of workers who, like the landless in the mills of contemporary industrial England, had to sell their labour in order to survive. Adam Smith saw in this labour the primary creation of value that was embodied in the product. More hard-nosed political philosophers like David Ricardo and Thomas Malthus conceptualised labour as a commodity itself, priced according to supply and demand. The 'marginal utility' of the next prospective employee and the barest subsistence needed to allow a labourer to raise the next generation of his kind determined minimal remuneration for labour. Darwin's new theories on evolution were co-opted into the social sphere to justify this as the natural order of things.

Karl Marx however interpreted capitalist profit as theft of the value produced by labour and equated economic with political power. Vesting this power collectively in society as Socialism or individually as Capitalism formed the competing ideologies which dominated the 20th century. But in capitalist economies, progressive development of the welfare state addressed many Marxist concerns. New Zealand led the world in such changes, a source of national pride for much of the 20th century.

Markets create a new measure of value, not determined by labour or the usefulness of the product or service. This new measure is the value in exchange; the market price. Orthodox theories of economics place great store on price as representing the balance between supply and demand, moving in response to changes in these variables but in so doing, creating counteractive incentives for market participants to restore balance. In the idealised market of economic theory, participants are both willing and able to make these behavioural changes in short order. Markets are also assumed to be composed of many independently operating producers from which perfectly informed consumers may make an independent choice, motivated only by a utilitarian drive to maximise consumption at the least possible cost. In the late 19th century, WS Jevons devised mathematical models to describe this market behaviour, and economics acquired not

only the mechanism but also the aura of a science and its theories the cachet of natural laws.

By the 1920s orthodox economics had assured most western governments that capitalism was a self-regulating system that would continuously generate broad social advantage. Yet exchange value can move progressively upward or downward with buyer optimism. In boom times of rising asset prices, speculators will borrow money to buy assets and banks, profiting from interest, are willing to lend. Both parties reinforce each other to inflate a credit bubble. Should change in circumstances or perceptions reverse the rise in asset value, both borrower and bank can rapidly be in trouble, spreading via the latter to the wider economy. This was the scenario worldwide that led to the 1929 stockmarket crash and the Great Depression.

New Zealand responded conventionally to the Depression by cutting government expenditure, with detrimental results. Economist JM Keynes proposed an alternative remedy of intentional stimulation of aggregate demand by government borrowing and spending. America's President Roosevelt successfully applied this in the New Deal, leading to new acceptance of a primary role for government in controlling the economy and for economists as government advisors. Keynesian stimulus came to be applied not just as a corrective measure but as a perennial stimulus to economic growth which became itself a primary concern of all politicians.

Using wealth to create more wealth is the essence of Capitalism. The inevitable result is compounding growth in both wealth and all parts of the economy coupled to it. Growth is also driven by interest-bearing loans and competition between enterprises, directing resources to progressively more profitable ends. Capitalism has fostered a strong belief that growth's benefits are spread widely and that growth in wealth, aggregated however improbably by measurement of GDP, equates to increased human well-being.

Growth in production requires matching consumption to ensure its profitability. After the Depression and two World Wars, a general desire for security and social and material progress favoured the development of a consumer society. A common pattern evolved which combined large corporations, co-operative workers and interventional government. In America it led to a spectacularly successful economy and society which helped establish the global dominance of western capitalism. But by the 1970s this economic edifice began to crumble, eroded by wage-price spiral inflation and, a stark reminder of the dependency of the economy on natural resources, the oil price shocks. The 1972 study *The Limits to Growth*, reflecting an increasing consciousness of the environment, demonstrated that exponential economic growth would lead to overshoot of resource constraints and collapse.[4]

With widespread failure of post-war economic policies, a new approach gained credibility. Monetarism proposed to control inflation, largely by raising interest rates for money supplied via central banks. New Zealand came late to the party, but made up by pursuing monetarism and its associated rigorous economic rationalism with particular vigour. The Labour Government installed by the 1984 snap election was led by a coterie of Neoliberal theorists to transform the economy and society. These Neoliberal theories – free trade, deregulation, privatisation, reliance on markets rather than government and on efficiency rather than equity - staged a successful blitzkrieg in western democracies in the 1980s. The basis of many economies moved from production to finance.

Money is a prerequisite for a capitalist economy. It can mediate trade and investment across time

the ludicrously unrealistic assumptions at the base of economic theory have been progressively built on without serious analysis of how closely the resulting economic models fit with empirical data and space. When coinage with intrinsic value was replaced by paper money, banks became able to create money by placing notes in circulation and by making interest-bearing loans. Handling the means of exchange became a profitable business. Traditional banks were constrained by regulation specifying a 'fractional reserve' of liquid assets must be held. Neoliberals argued more progress of the capitalist system needed financial deregulation, ceding control to the market. Governments largely acquiesced and the long history of government control of credit and exchange was extinguished. The approach proved broadly successful, in its own terms. Inflation was controlled and expanded credit stimulated economic growth. New transport and information technologies allowed corporations to globalise production and sales. 'Supercapitalism'[5] resulted in giant global corporations with financial and political power to impose markets ever more broadly and to establish private property rights over ever greater areas of the public domain.

In New Zealand as elsewhere, an inflow of foreign money found its way into speculative property and financial markets. Businesses in these fields enjoyed dramatic growth in sharemarket value. Anti-inflationary policies based on imports from low-cost developing economies hollowed out the remains of the productive domestic economy worsening the international balance of payments. Growth in production of a few commodities for export incurred major environmental damage and depletion from increased intensity of agriculture, notably dairy farming. Imposing the business model on public services disrupted long-established relationships of trust and responsibility which were replaced by contractual obligations.

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There was no shortage of dissent against this programme. From 1990, voting in national elections was strongly against the incumbents. But neoliberal theories had captured parties of the left and right and have been followed by successive governments. The precious goal of continued increase in GDP was tenuously attained.

The apparent practical success of economic theory has boosted the reputation and influence of economists while the esoteric and mathematical nature of modern economics has excluded lay criticism. Behind this shield, the ludicrously unrealistic assumptions at the base of economic theory have been progressively built upon without serious analysis of how closely the resulting economic models fit with empirical data. The few who have made the analysis have shown the models are wrong.[6] Yet they are still used to direct the conduct of financial markets and political policy-making.

In the opening decade of this century the models gave reassurance of economic equilibrium. Monetary policy has eliminated inflation and derivatives were devised as new tools to minimise or 'hedge' risk in financial endeavours. These new derivative paper assets have proliferated, diversified and become subject to speculation, many by design. The result has been explosive growth in financial markets which turn over the equivalent of the entire global GDP every seven days. The growth of finance has overwhelmed the real economy and created a huge bubble of 'phantom wealth' represented by nothing other than digital data in computer systems.[7]

The dangers inherent in a runaway financial system have been dramatically illustrated by the present credit crisis. The market model, stripped of regulation, has proved disruptive and dangerous. Instruments supposed to reduce risks turned out only to have obscured them. Dependency on credit for day-to-day consumption has been encouraged by the finance and advertising industries which has placed individual subsistence and the entire economy at risk when market sentiments turn negative.

The recession has stimulated immediate action but limited consideration of the fundamentals of global economics. Common responses have been to scapegoat financiers and for governments to rescue failing institutions. In the wider context, concerns especially around climate change and peak oil have been addressed only by proposals for marginal adjustments to the market paradigm: monetising some environmental costs and introducing 'cap and trade' to limit resource use and waste discharges. There is a fervent belief that technological advances and continued economic growth will provide solutions.[8] But there is a growing alternative belief that capitalism is fatally flawed and nothing short of complete reconstruction of global economic systems will serve to remove the perversity of perpetual growth and establish respect for the natural limits of a finite planet.[9]

The solutions are implicit in the nature, history and root causes of our problems. There is an urgent need firstly to deflate the phantom wealth bubble with its unrealisable claims on future resources. The notional value of financial assets must be reduced by inflation, nationalisation or bankruptcy rather than legitimised by government bail-outs. Insurance must be taken against repeated monstrous growth of the finance sector with sanctions against the panoply of speculative activities which blight the real economy. Measures recently introduced by the Obama administration in the US are a step in this direction. The systemic link between money and growth must be broken by ending money creation as interest-bearing debt. The economy will then be freed from the need to expand in order to avoid collapse. Markets must be restored to proper function by limiting the power of corporations, ensuring prices fully reflect costs and encouraging production of goods and services which meet real needs, not wants artificially stimulated by advertising. Enterprise and finance that serve local communities must be favoured to meet needs with the greatest social and environmental efficiency and avoid the financial 'contagion' that has spread and perpetuated the credit crisis.[10] This New Economics agenda is now well characterised and proven in practice by both present and past examples. In New Zealand and worldwide, co-operative banks have proved resilient during recession. The new Tory government in the UK, making virtue of necessity, has a 'Big Society' strategy to rebuild community-level provision of services.

But the main target of new economics is the ethical defect at capitalism's core that goes back to its Enlightenment origins and the separations of humanity from nature and of secular from spiritual concerns. From a convergence of indigenous and religious values, ecological and physical sciences and heterodox economics, there is now emerging a coherent ethical framework to guide human behaviour, not within an abstract 'technosphere' of our own making, but within the biosphere of other organisms and the physical geosphere of planet Earth. It's built on the work of two early 20th century pioneers: Albert Schweitzer whose 'reverence for life' extended the bounds of human concern and respect to other species and American conservation biologist Aldo Leopold whose 'land ethic' brought ecological relationships within the same moral compass.

An example of this synthesis of science and ethics is the Quaker Moral Economy Project, presented at a Wanganui seminar in May 2009.[11] This proposes a whole earth economy that recognises not just the human means of acquiring the necessities of life but also the economies of all other organisms and places humanity in a right relationship with nature. Ways to achieve this include reconnecting money to tangible assets so its aggregate quantities and flows in exchange truly represent the limited natural resources on which our economy depends. Carbon credits or another synthetic currency reflecting a broad range of environmental values could be established for use in international exchange. Existing gross foreign exchange imbalances may stimulate this transformation.

Vestiges of right relationship still exist with indig-

3000 people gathered in front of Christchurch Cathedral on 13 June 2010 to build a cairn of stones as part of a protest about water policy in Canterbury.

enous peoples living intimately with natural sources of subsistence which are not owned but received as gifts demanding respect and reciprocity.[12] Maori culture has preserved a spiritual relationship with land. A public rally, Reflections on Water, held on 13 June 2010 in the Christchurch Square drew thousands of participants who built a cairn of stones in front of the Cathedral, affirming the relationship between people and the environment. It's time to admit the failure of our economics and politics: the failure to control calculating greed, failure of reductionist science and sociology to make any concessions to the progressive ecological enlightenment of the past half century. In the global crisis in which we are immersed it is critical to establish a new path toward planetary salvation. It's time for a new economics, informed by a true Enlightenment which restores our relationship with the Earth.

Cliff Mason lives in Lyttelton, New Zealand where he divides his time between subsistence, paid work as a Pathologist and advocacy for an ecological worldview.

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