

The Political Economy of Global Warming, Rent Seeking and Freedom

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The Civil Society Coalition on Climate Change seeks to educate the public about the science and economics of climate change in an impartial manner. It was established as a response to the many biased and alarmist claims about human-induced climate change, which are being used to justify calls for intervention and regulation.

The Coalition comprises over forty independent civil society organisations who share a commitment to improving public understanding about a range of public policy issues. All are non-profit organizations that are independent of political parties and government.

About the author

Wolfgang Kasper is an *emeritus* Professor of Economics of the University of New South Wales. He worked first in Germany and Malaysia, and from 1973 in Australia, as well as in the USA and most of East Asia. Apart from his academic teaching, he has a long record of research and consulting for international businesses and governments. His main interest has been industrial (re)location and institutional economics, i.e. the role of customs, laws and regulations in shaping economic life. He was an early voice for economic reform in Australia and New Zealand, and has written widely on the role of secure private property rights, small government and economic freedom in promoting prosperity. In 1988, Kasper was elected to the *Mont Pelerin Society*, an international academy dedicated to the promotion of freedom. The author gratefully acknowledges helpful pointers and astute criticism from one anonymous reviewer; all errors of fact and judgement of course remain his alone.

The Political Economy of Global Warming, Rent Seeking and Freedom

'The urge to save humanity is always a false front for the urge to rule it.'
H .L. Mencken

The global warming debate is getting shriller. For the layman, it is also becoming more confusing. On the one hand, vehement voices assure us of a 'scientific consensus' that the world's climate is getting warmer and that the main cause is human activity. We are told that the debate is over, indeed that we may already be facing apocalypse now. On the other hand, respectable scientific observers express plausible doubts about whether there is any long-term warming, whether CO₂ levels are at all systematically correlated with global temperatures and, indeed, whether it is due to human economic activity.

The more intently one listens, the more the debate sounds like a dialogue of the shouting deaf, and the more it reminds one of the passionate divisions in the run-up to Europe's wars of religion.

The climate debate is about science and political economy

Being bombarded by impassioned argument and counter-argument, the bemused layman cannot possibly comprehend the masses of contradictory scientific data and the complexities of climate modelling. Nevertheless, he will have registered that temperatures have been rising somewhat during the second half of the 20th century, an era of unprecedented growth in material welfare powered by increasing energy use in the West, and now increasingly the third world. Does this foreshadow long-range global warming, as the UN's Intergovernmental Panel on Climate Change (IPCC) and many other government reports affirm?

Others attribute changes in global temperatures predominantly to solar activity or yet ill-understood other natural factors (Singer 1999; Baliunas 2002; Carter et al. 2006; 2007; Svensmark and Calder, 2007). After all,

the earth has gone through considerable variations in average global temperatures during its long history.¹ Plausible objections to the modelling approach of the IPCC have certainly been raised, for example that the IPCC's predictions rely excessively on computer modelling and are at variance with actual observations and that observed fluctuations in CO₂ levels do not precede rises in global temperatures (Soon 2005; Carter et al. 2007).

In any event, if there is warming, it will in all likelihood be gradual and moderate. Would that be a bad thing? Siberians and surfers will welcome somewhat warmer conditions. Let us not overlook that humankind took great steps forward when global temperatures rose during the Holocene, or when humans could enjoy relatively warm centuries during what European historians call the 'Medieval climate optimum'. As the world becomes more affluent people are better able to cope with the whims of nature. Potential disasters can in all likelihood be averted by technical interventions, for example geo-engineering. The past record is also encouraging when it comes to the human cost of natural disasters. Although the number of recorded disasters has gone up dramatically, the number of lives lost has plummeted (van der Virk 2007; see also Goklany, this volume).

If temperatures rise, does it make more sense to simply adapt or to mitigate warming by cutting greenhouse gas emissions? The answer to this question depends on the assessment of costs and benefits, an exercise in economic analysis and political decision-making (Robertson 2006). What is good or bad for specific people most certainly cannot be determined by pure science. Mitigating feared temperature increases by mandatory cuts in carbon emissions will certainly inflict losses in terms of economic growth and make it more

difficult to eradicate poverty, since – at least for the next generation or two – economic growth will depend mainly on the cost and availability of carbon fuels.

This is not to say that consumers and producers should not take CO₂ emissions into account when deciding what is feasible and sensible. But often it will be cheaper to adapt, for instance by insulating homes better or raising the dams in Bangladesh by a foot or two, than to deny the next generation, including poor Bangladeshis, access to the same cheap fossil fuels that the affluent have been using for generations (Goklany 2005). Besides, there may be little that humanity can in practice do to prevent rising global temperatures.

Many natural scientists connected with the IPCC and most climate activists pretend that the natural-science aspects of the climate debate are not intimately intertwined with economic and political issues. When two economists pointed out that the IPCC's warming scenarios were based on inappropriate income statistics (Castles and Henderson 2003; also [UK] House of Lords 2005), the chair of the IPCC brashly asserted that global warming and policies to address it were a purely scientific matter, so social scientists should stay out of the debate.

This sounds at best arrogant, but is in reality ignorant. The policies that flow from the proposals of this political UN committee have pervasive economic and social consequences, so much so that climate scientists are well advised to accept some of the insights from a broad spectrum of social sciences. There can be no denying that the IPCC policies and international conventions to mandate greenhouse gas emissions are highly political.

Nor is it legitimate to suggest that any hypothetical risk of future damage to human wellbeing must be avoided *at all cost*. The appropriate approach is economic; namely, to weigh properly assessed and priced costs and benefits, taking account of fundamental social values, such as freedom, justice, security and peace.

The fundamental economic issues entailed in the climate debate became clear when two, albeit separate, groups of eminent experts examined the Blair government's Stern Report (Stern 2007; Carter et al. 2006; Byatt et al. 2006). This report concluded that immediate action to

mitigate climate change would be cheap and worthwhile, but postponement would reduce global production by between 1 to 5 per cent – far higher than what other climate economists had previously assumed ([UK] House of Lords 2005).

The two groups of reviewers – one consisting of natural scientists (Carter et al. 2006), the other of economists (Byatt et al. 2006) – came to the conclusion that the Stern Report contained fundamental economic and scientific errors, and that the scientific evidence is far from settled to merit major and costly policy action.² The top-down *dirigiste* approach advocated by Stern and the British government is predicated upon a model built around implausible economic assumptions. A previous study of the economics of climate change, conducted under the auspices of the British House of Lords (2005), came to much less alarmist conclusions than the Stern Report – but it was the Stern Report that captured the plaudits of the 'climate fraternity' and Europe's political establishment.

Astute observers of the process by which the findings of the IPCC have been promulgated and conveyed to policymakers have also found a certain 'disconnect' between the science in the IPCC's full Fourth Assessment Report and the summary of the findings, which is of course always the politically influential output of the IPCC. Matters of inordinate complexity and uncertainty, which thousands of government-appointed experts may have raised and which cannot be attributed to a single factor other than by relying on abstract computer models, are condensed in a text negotiated by political operators and bureaucrats, who frequently have no scientific expertise (McKittrick et al. 2007; Henderson 2007).

This adds to the above point that the IPCC goes beyond the objective analysis of natural phenomena and intends to convey implicit political messages that promote more top-down government interventions.

As long as it is denied or ignored that climate management is essentially an issue of political economy, we will observe a continued and fruitless 'dialogue of the deaf', political decisions will produce costly blunders, and arrogant advocacy will dominate the debate at the expense of sensible entrepreneurial solutions.

Some concerned natural scientists have accepted this point (Pielke et al. 2005; Kunkel et al. 1999; Reiter et al. 2004; Reiter 2007), but most aspiring 'climate managers' in politics and advocacy groups are reluctant to draw the appropriate conclusions. They already have chosen their preferred solutions and wish to close out the wider economic, ethical and political debate. This allows them to stay on the safe grounds of their specialist scientific knowledge and to avoid the fields of political economy and public policy, which are *terra incognita* to them. However, the climate experts will fail if they disregard the fundamental insights of these social-science disciplines. Experts frequently fail in their pursuits not because they make a mistake in the narrow area of their expertise, but because they overlook some very fundamental insight in another discipline.

One salient example is the IPCC's Fourth Assessment Report, which makes predictions many years ahead. Two eminent experts in the art of forecasting, supported by numerous colleagues, looked at the methodology of the report, and asked: "... is [the IPCC report] a good basis for developing public policy?" They concluded: "Our answer is 'no'", because the most fundamental principles of forecasting were violated (Armstrong and Green 2007: 1).

Politics and economics also come to the fore when decisions are made about who should shoulder the burden of mitigation. Should it be only those nations which are currently affluent, or everyone? As soon as redistributive issues enter a public-policy issue, the problems become immediately more intractable. And burden-sharing certainly is not a mute question at a time when two coal-fired power stations are opened in a rapidly growing China *every* week on average (US Energy Information Administration, 2007a). In the era of high mobility of international financial and human capital, it is relevant to know whether energy-intensive industries such as aluminium smelting would move from Kyoto-handicapped, though relatively 'clean' and energy-efficient Canadian or Australian producers, to exempted and poorly policed locations, for example in India or South Africa.³ Long-term targets, which are fixed by central political horse trading at a global level, pose particular headaches for rapidly growing economies and those with high population growth and a comparative

advantage in energy-intensive exports, such as the United States and Australia.

The method of negotiating internationally to fix mandatory targets raises another complex of problems about which economists have much to say: Should climate management rely on top-down central planning with mandated targets, or spontaneous, competitive innovation as new circumstances evolve and incentives change? The UN's global Kyoto Protocol clearly represents the central-planning approach. The fundamental and overwhelming problems with this method of coordinating human endeavours, which has been analysed exhaustively in the economic literature and which has produced uncontroversial conclusions (Kasper-Streit, 1998: 142–152), has hardly been given any attention in connection with the Kyoto exercise of centralised planning and target-setting.

The central-planning route may be plausible to natural scientists and engineers, but it meets with profound professional distrust by economists, historians and the friends of liberty. Central planning, even at the national level and even when enforced with draconian penalties, has hardly ever worked. To the contrary, it has all too often led to unforeseen, deleterious consequences.

More importantly, such top-down social engineering has hindered the attainment of fundamental human values, such as freedom, prosperity, justice, social harmony and security (Dorn 2007). Historians and economists have learnt the lesson that economic freedom and the resulting prosperity are essential for human enterprise to cope with new challenges, such as possible climate changes. If globe-spanning planning and regulations were to take us down a restrictive track, it would constitute the single biggest threat to freedom since the demise of the Soviet Union. It would also destroy much entrepreneurial competition, the time-tested social mechanism which has empowered humanity to cope with emerging problems and to prosper.

The upshot of all of this is that climate-change management is about social interaction and the economic feasibility of human responses to natural phenomena. Policymakers, who deal with undesirable natural developments, must take account of the lessons that historians and economists have drawn from the

experience of sustained economic growth over the past two to three centuries, and must do so in an integrated way, not as a separate side issue. Climate scientists cannot go on ignoring the fundamental lessons about how emerging bottlenecks and scarcities are typically overcome.

The remainder of this essay outlines some of the straightforward insights from economic history and political economy, which natural scientists and policymakers typically overlook. To begin, we shall ask what has driven the amazing material progress of humankind over the past six generations and why that material progress rests on tenuous foundations. We will then ask why the experience of economic progress has not changed the minds of the doomsayers, although they have in the past been proven consistently wrong. We shall then elaborate on why most economists consider central planning and Kyoto-style target-setting to be a bad idea, and why many of them conclude that this method can endanger the very driving forces behind the human capacity to cope creatively with emerging problems such as possible global warming.

The costs of mitigation

Given attempts to keep troubling economic questions out of the climate debate, it is probably not surprising that properly assessed costs of temperature mitigation schemes of the Kyoto kind are few and far between. Nonetheless, estimates of the costs of various Kyoto-style schemes to cut carbon emissions now before the US Congress have now been reported:

- An MIT analysis of the consequences of the rather drastic Sanders-Boxer and similar bills currently before the US Congress arrived at an annual cost of US-\$4,500 per American family by 2015, as well as an estimated 4.5 million job losses, mainly due to steeply rising energy costs (Paltsev et al. 2007).
- The US Energy Information Administration estimated that the cost of implementing Kyoto (cutting CO₂ by 5% below 1990 levels) for every American household would be equivalent to an additional tax of \$7,000, inflicting 2.5 million job losses. (US Energy Information Administration 2007 b; Driessen 2007).

- WEFA Inc., an economic forecasting firm tied to the prestigious Wharton Business School, estimated the additional burden of the proposed emission controls on every American household at \$ 3,700 (WEFA 1998).

These new cost burdens amount to between 8 and 15% of average American household incomes in 2005. Such orders of magnitude point to heavy new taxation of average citizens in the affluent countries. This also applies to European households, where the orders of magnitude can be assumed to be similar, although this author is not aware of authoritative cost estimates about the burden for European consumers. It should also be noted in this context that most European countries have so far failed to meet their Kyoto targets⁴.

The public in wealthy, developed countries seems oddly ambivalent about bearing the costs of policies that are intended to mitigate global warming. Public opinion surveys indicate that climate change has become a general concern in affluent societies, but also that most people do not wish to sacrifice their own comfort and income. A recent survey in Germany, for example, showed that only 21% of respondents would give up flying to vacation destinations if that were to 'save the earth'. In reality, global air traffic will continue to expand, and governments are busy preparing for that expansion. Likewise, traffic authorities work with projections that the number of cars in the world will increase fivefold by 2050. These sections of governments are working with projections which are hugely at variance with what the climate officials are planning. Meanwhile, huge numbers of people in emerging economies are moving into energy-intensive high-rise apartments and adopt patterns of consumption and production that require more energy. Is this hypocrisy or wilful inconsistency for reasons of political convenience?

Huge, politically mandated burdens certainly should require elected parliamentarians to take great care that the science on which the need for such imposts is based is absolutely solid, and that the alternative of adaptation has been carefully assessed. Alas, citizens cannot feel assured about this when they read "that we cannot even be certain whether the global human signal is one of warming or cooling. The gentle global warming that

probably occurred in the late 20th century falls within previous natural rates and magnitudes of warming and cooling, and is *prima facie* quite unalarming” (Carter et al. 2007: 21).

Mitigation costs in terms of lost long-term global economic growth are much more difficult to assess than the household costs inflicted by specific legislative proposals. Politicians and bureaucrats around the Western world are now imposing piecemeal regulations ‘to save the planet’, often without much analysis of their effectiveness and the costs. Energy users are being burdened with costly regulations and compliance costs; taxes are being diverted into subsidies for some politically preferred solutions; and new ‘climate regulations’ block otherwise promising avenues for wealth creation. These costs of climate mitigation will without doubt on balance be massively negative.⁵

Since material wealth and technical prowess based on affluence will be essential to coping successfully with temperature changes, it would be foolhardy to subject current economic growth to major new political risks. Global economic growth of the sort attained over recent decades seems an excellent method of ‘future proofing’ human civilisation, should the need really arise. To understand these assertions, it is necessary to comprehend what has enabled growing numbers of human beings to realise such increases in material wellbeing.

The twin pillars of modernity, and the end of dire scarcity

The emergence of the modern world and the advent of the sustained rise in living standards are based on two inter-related achievements: rational science and economic freedom (Taverne 2005). Only when humans began to analyse natural phenomena rationally and explicated them in systematic ways – when lightning and thunder were seen as electric phenomena, rather than signs of the gods’ anger – was the systematic improvement in production technology possible. *Scientific discoveries* by themselves, however, do nothing to improve mankind’s material condition. Nor is this achieved by mere *inventions* and laboratory models. It takes entrepreneurs, who assume the risk of testing and

utilising scientific discoveries, to bring about product and process *innovations*. Entrepreneurs evaluate risks and benefits and incur assessed risks in the hope that this will yield them a profit (Schumpeter 1961; Blandy et al. 1985; Nelson, 1988).

As we have known since David Hume (1711–1776), such practical discovery procedures can only come about when entrepreneurs are assured of secure private property rights, free markets and rule-bound government, in short: economic freedom (Kasper-Streit 1998: 220–253). In this context, it should be noted that entrepreneurship is not confined to producers. Societies with a pervasive entrepreneurial culture tend to be characterised also by well-informed, risk-taking buyers who rival with each other with what they know and own. They are an essential aspect of a genuinely innovative economy (Nelson-Winter 1977; Blandy et al. 1985).

Rational science, including its engineering applications, and economic freedom are therefore the twin pillars upon which modern civilisation is built. Where these two elements came together, an industrial revolution occurred and sustained economic growth took off.

This was an epochal event, whose profound psychological and societal consequences have not yet been completely absorbed. For tens of thousands of previous generations of human existence, dire scarcity kept human numbers in check. Starvation, illness, short life spans and material insecurity were the norm. Whenever additional resources were discovered and productive capacity increased a little, human numbers increased and this again whittled down average living standards to a basic survival minimum.

The dour clergyman-turned-economist Robert Malthus (1766–1834) made a name for himself by ‘discovering’ this dismal ‘fact’. Alas, he wrote in the late 1780s, precisely when conditions began to change fundamentally with the industrial revolution. In the eight or so generations since, productivity and living standards have been raised persistently, first in north-western Europe and the overseas Anglo-Saxon ‘offshoots’ in America and Downunder, later also in Japan.

It is only over the past one or two generations that scarcity, in the strict traditional sense of the word, has

also been overcome in a growing number of other communities. We now live in most unusual times in human history: 'the end of dire scarcity' for a growing number of fellow humans. Many economists now hold optimistic views of the future, namely that high living standards can spread to all and can continue to improve for everyone.

The theory of economic growth – a complex, evolutionary process – has preoccupied economists for many generations. Up to the middle of the 20th Century, many focussed on the accumulation of physical capital (as Karl Marx had done earlier). After this, others looked to the mobilisation of labour, skills, natural resources and the advances in technical knowledge. This was the era of neoclassical growth economics and model building, when OECD governments, the socialist camp and less developed nations alike were searching for a 'magic bullet' to raise the national growth rate (measured by real per-capita income).

Yet, an older tradition of economics looked to less mechanistic explications of the growth process. These economists focussed on the need for structural flexibility, since rigidified organisms do not grow. They saw entrepreneurship and innovation as the essential catalysts necessary to mobilise the proximate causes of growth, such as capital, natural resources or technology. And they asked why entrepreneurs were able to mobilise resources for growth in some societies, but not in others. The answer was that ultimately, a society's institutions (i.e. the rules of coordination, which range from ethical norms and customs to legislation and regulations) create an environment in which the resources are mobilised for growth, or are not if such institutions are absent.

What became known as the 'new growth theory' turned out to have been elaborated by the classical thinkers of the Scottish Enlightenment in the late 18th and early 19th Centuries. The core to explaining economic growth, then and now, is secure private property rights, free markets in which owners voluntarily use these rights, and the rule of law (in short: the institutions of economic freedom). Economists of that description consider the economy as a complex system in open-ended evolution. They make little use of abstract models.

Neither does this brand of economics – now known as the 'neo-Austrian' or 'institutional/evolutionary economics' – shy away from making normative judgements about what is good or bad. Although this school of thought appears less 'scientific' than the neoclassical closed-system models, it has inspired economic reforms around the world since the 1980s and has been politically influential in advancing the present-day record of global economic progress.⁶

It now seems uncontroversial that the blessings of modern science and technology have become more accessible wherever economic freedom has been improved (Gwartney-Lawson, *passim*; Kasper-Streit 1998, chapters 13 and 14). Even the world's largest communist country, China, has meanwhile *de facto* privatised most agriculture and industry. It has also ensured a moderate protection of private property rights, which allows the people to revive old habits of competing.

On the other hand, the benefits of greater economic freedom have eluded all those whom private thugs and corrupt officials still deny private property rights under the rule of law (Soto 2001). Lenin's and Mao's resolute attempts became costly failures when they tried to mobilise modern science and technology in order to lift the masses out of poverty through state ownership and central planning, but without private property and competing entrepreneurs. A rich literature about long-term economic history and intercultural comparison is now available to document the interaction between basic economic freedom and objective, rational scientific inquiry as the *only* means of generating durable, widespread affluence and indeed modern civilisation (for a good survey of the findings of long-term economic history, see Stokes 2001). Exhaustive factor analysis has demonstrated that some 85% of the inter-temporal and international differences in real per-capita incomes are associated with, and explicated by, differences in economic and political freedom (Roll and Talbot 2001). It is indeed the institutions that matter.

The growth of the world economy over the past generation has accelerated to an average of 3.6% p.a., a historically unprecedented record. The mature economies are growing somewhat less fast, while others are growing much faster – such as China and other

Asian countries who are in a process of catching up with the affluent, old West. In the West, the old spectre of acute scarcity has been vanquished. People no longer live in a Malthusian world, but take rising living standards for granted.

However, there are still vast income gaps in the world. For example, the average Chinese produces and consumes still only about one-seventh of what the average North American does. The emerging economies such as China and India are therefore driven by a resolute will to 'catch up'. Globalisation will enable them to grow at a historically unprecedented pace and to lay claim to growing amounts of natural resources. The impact on natural resource exploitation will be attenuated by the gradual slowdown of world population growth and a massive shift to less material-intensive services in the global product mix. Nevertheless, CO₂ emissions in the emerging economies can be expected to grow rapidly. India's CO₂ emissions are predicted to more than double between 2003 and 2030, and China's to rise by 2.5 times. The combined carbon dioxide output of these two and other non-OECD countries in Asia will be triple that of Europe in 2030 (US Energy Information Administration 2007a: 93).

It is inconceivable that the spread of modern economic growth could somehow be stopped any time soon. It is completely unlikely that a global political compact could be reached even to slow the pace of global economic growth to stabilise greenhouse gas emissions. For the foreseeable future, much energy will be needed to power humanity's economic progress and most is bound to come from fossil fuels. Nor do we need to worry about global energy shortages (Huber-Mills 2005). Compulsory restrictions on the use of fossil fuels would not worry the post-modern children of affluence, but the world's poor and their governments, such as those of Brazil, South Africa, China and India, will certainly not allow their aspirations to be hampered.

The track record of the doomsayers – and economic progress

The extraordinary experience of material progress has not stopped doomsayers from regularly predicting an imminent end to it all. This appeals to many, in whose

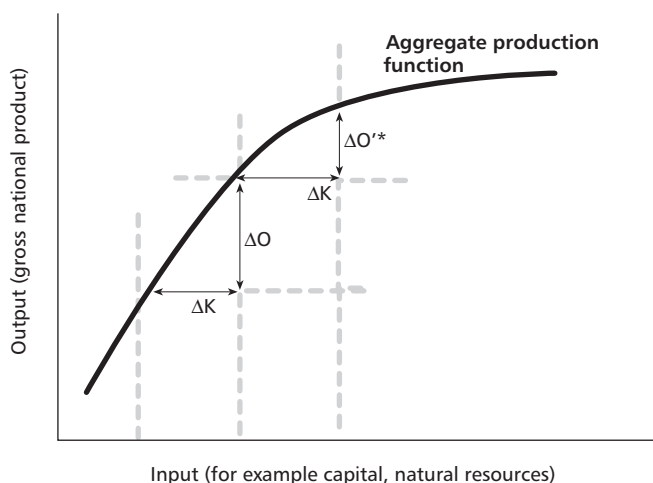
hearts and minds the very long-term human experience of dire scarcity lives on, as well as to scientists, who know that every closed system will succumb to eventual entropy. As discussed, Robert Malthus had us believe that human numbers would always be limited by the cold, cruel hand of scarcity. He was wrong. Likewise, Karl Marx – a great admirer of the creative energies of early bourgeois, capitalist society – prognosticated that the capitalist system would collapse due to capital saturation. Marx maintained (Figure 1) that successive additions to the capital stock (ΔK) would produce decreasing marginal additions to the national product (ΔO^* being smaller than ΔO in Figure 1). This would turn initial profitability eventually into terminal, system-destroying losses.⁷

Marx, too, turned out to be completely wrong: The market economy did not move along a given production function with ever-decreasing returns toward a 'crisis of capitalism'. Instead, free enterprise harnessed the growing software of scientific, technical and organisational knowledge to expand economic opportunities. New skills and new demands arose and some old 'hardware' was written off (what is often referred to as 'creative destruction'). Periodic crises occurred, but were always overcome by entrepreneurs who improved technology and industrial organisation and offered new, unimagined products (Kasper 2005; 2007).

Thus, rail and shipping networks of the steam era, when they reached their saturation points, were complemented and partly replaced by lorries, and later air transport. Today, we transport ideas nearly effortlessly and instantaneously around the globe thanks to the synthesis of computer and communications technologies. In the evolutionary process of competition, the capitalist system marches on.

Entropy is continually being postponed in the market system because there is spontaneous, competitive innovation when the right institutions enable entrepreneurs to test and utilise new knowledge and change production structures. Marx's static model misled generations of policymakers, when in reality production functions have become a movable feast. (As illustrated in Figure 2, we have not moved from point A to point B when adding hardware ΔK – capital, natural

Figure 1 Capital accumulation and entropy



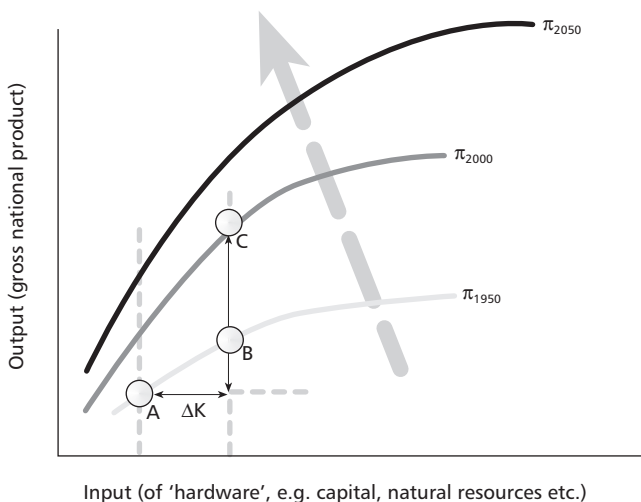
resources etc. – over the past fifty years, but instead have moved to a much higher production point C, thanks to improvements in the ‘software of development’: knowledge, entrepreneurship, institutions).

Karl Marx’s simple error is often repeated, explicitly or implicitly, when natural scientists and other critics look at economic growth and stipulate eventual entropy. However, for a long time to come, we can rest assured that the economic system is open and that new ‘software’ will save us from terminal doom.

The ideas of Malthus and Marx have underpinned more recent messages of doom – from Oswald Spengler’s *Decline of the West* in the 1930s, the ‘Club of Rome’s’ prediction that the world was about to run out of raw materials in the 1970s, and more recently, the heavily promoted book *Collapse* by Jared Diamond of the WWF.

Yet these too are misinformed on the same point. Human creativity and innovating entrepreneurs overcome feared crises, and with hindsight we do not even understand those fears. Who, for example, can still understand why the ‘Club of Rome’ garnered so much airtime with its prognostication that India was going to face mass starvation in the 1980s? Look at India now! And look at the fact that nutrition levels around the world have increased enormously and that virtually all

Figure 2 Science, technology and enterprise have turned the production function into a movable feast



The growth of the ‘software of economic development’ (knowledge, structural flexibility, entrepreneurship and institutions) is ceaselessly shifting aggregate production functions upward.

raw materials are now cheaper than ever before. The human condition has never been better (Simon 1995; Moore and Simon 2000).

The growth of the ‘software of economic development’ (knowledge, structural flexibility, entrepreneurship and institutions) is ceaselessly shifting aggregate production functions upward.

History certainly has proven the doomsayers invariably wrong. The presumption in the present climate panic therefore must be scepticism in the face of any predicted disaster. Maybe cheap, zero-emissions energy will soon be available, maybe from nuclear fusion, maybe from fuel cells fed by tide- or wind-generated hydrogen (Huber-Mills 2005). We can never know what lies ahead. It is not implausible that we will later look back on the climate scare at the beginning of the second millennium with the same bewilderment that we now experience when we read of the forebodings in the 1880s that the world was about to run out of whale-oil, so essential to modern lighting, and that horse manure would become an intractable threat to the traffic and public health of Londoners and Parisians! Of course, optimistic expectations that entrepreneurs will always sooner or

later overcome bottlenecks to continuing economic growth can never be 'proven' before they become reality.

Threats to science and freedom

Optimism about the future of humanity inspired by modern economic theory and long-term economic history needs to be tempered by the fact that we can never take material progress for granted. Objective scientific inquiry and entrepreneurial innovation can easily be stifled. In affluent, post-modern societies, objective, critical science and economic freedom already count for less than in earlier ages and 'techno-fixes' and global cooperation are frequently attacked.

The *zeitgeist* now appears to favour collectivism. At least most politicians do, which is not surprising as they are in the business of providing collective solutions, and benefit from interfering with individual pursuits. Political activism in Western democracies now habitually weakens property rights, the freedom of markets and the rule of law. Most accept this with indifference. In addition, the competitive capitalist system with its relentless challenges is uncomfortable; little wonder it has many enemies. Soviet-style socialism may be dead, but the collectivist assault on the productive system rolls on under different guises.

In the affluent, post-modern West, both pillars of modern civilisation are therefore now under threat, primarily because of the very success of the new affluence. Since the traditional condition of dire scarcity has ceased to pose an ever-present threat to people's wellbeing, we have observed a rise in relativism and spreading indifference to the conditions of progress. The affluent beneficiaries of sustained economic growth are frequently given to neo-romantic dreams and show no interest in understanding the foundations of our affluence (as outlined above). Institutions with sanctions for violators – such as secure property rights – are out of favour; self-seeking opportunism and fantasy are in. Such long-term consequences of the new affluence were foreseen by the great Austrian-American economist Joseph Schumpeter who – in the darker mood of his old age – feared the downfall of capitalism, because a new class of affluent pleasure-seekers would jettison the very institutions that underpin the capitalist

success (Schumpeter 1947; Taverne 2005). They have a point.

In the West, secure private property rights are – it is true – no longer threatened by wholesale, Soviet-style expropriation, but we witness almost daily attacks on individual property rights by stealth. For example, elected parliaments prevent landowners from deciding freely what to do with their assets by proliferating land-use and environmental regulations, and industrial-relations legislation habitually prevents people from using their labour and skills as they see fit. Thus, property rights are nowadays being socialised piecemeal, one step at a time. Property is, after all, not the physical possession of an asset, but rather the source of an open-ended bundle of rights to make the best possible uses of what one owns, often by combining one's own rights with the property rights of others, for example a land developer or an employer (Kasper 2004). Even worse, parliaments and administrations confiscate individual property rights without just compensation.

Present-day governments have a tendency to assume that individual property uses cause others some harm. This is taken as a justification for placing the burden of proof on property owners that no harm is caused by specific uses of their property. However, it is a fundamental characteristic of individual freedom that the individual does not have to *prove* his right to exercise it. In a free society, it is the affected claimant who must prove, with reference to the body of existing laws, that he has been unduly harmed (Jasay 2002; and forthcoming). When people must apply to some authority before they exercise a property right and prove that such an exercise is permitted, they are unfree serfs. Nonetheless, the proliferation of licensing, permits and regulations seems unstoppable in Western democracies.

The second pillar of our affluence – rational, objective science and modern technology – is also under attack. Post-modern generations seem receptive to romantic, irrational notions about nature. They often reject scientific insight in favour of unproven myths (Taverne 2005). Thus, the tested knowledge of conventional medicine is now often rejected in favour of naturopathy and new-fangled psycho healing, which is neither tested objectively nor critically reviewed by peers. Astrology and creationism are on the rise despite the total absence

of scientific evidence supporting these belief systems. People are readily impressed by unproven scares, from fear of magnetic waves to hysteria about gene-modified organisms. Dubious assertions of crusading ecologists pass muster in special environment courts, where normal juridical scrutiny is suspended and the rules of due process are not applied. Peer-reviewed scientific evidence is often rejected in favour of shoddy, undocumented assertions by activist amateurs. Environmentalism often also conflicts with our time-tested constitutions, which have served the advanced countries well (Ratnapala 2007).

In the global climate debate, too, it is easy to find overdrawn assertions which have not been tested by the usual scientific methods of critical peer review, publication and repeated, documented experiment. Nor are many policy-relevant scientific assertions these days explicated by relating them to a body of accepted scientific principles.

The problem is further heightened by a new breed of committed activists who reject the whole notion of progress and capitalist cooperation. Their objective is to undermine economic freedom and our growing affluence. Paradoxically, that affluence has allowed people to adopt new and diverse priorities, such as environmentalism, to give meaning to their lives. The fear of global warming can then serve as the ultimate justification for rejecting our existing society and a crusade to create a new breed of man.

As the late American sociologist Aaron Wildavsky pointed out: “Global warming is the grandmother of all environmental scares..... [It] is capable of realising the environmentalists’ dream of an egalitarian society based on the rejection of economic growth in favour of a smaller population eating lower on the food chain... and sharing a much lower level of resources much more equally” (Wildavsky 1992).

Other affluent Westerners are unhappy with the diversity and cynicism of modern, pluralist society and wish for a new, unifying purpose, a collective task with which self-appointed elites can inspire the masses. It is revealing that US climate campaigner Al Gore sees the global-warming challenge as “a compelling *moral purpose*; a shared and unifying cause; the thrill of being

forced by circumstances to put aside the pettiness and conflict that so often stifle the restless human need for transcendence... Those who are now suffering from a loss of meaning in their lives will find hope” (Gore 2006: 11, italics original). Similar motives to provide collective salvation induced Napoleon and Hitler to embark on wars, Roosevelt on the New Deal and Johnson on launching the ‘Great Society’. All these collective ventures ended in tears.

The fact that all past doomsday scenarios have turned out to be wrong has never deterred ‘the Anointed’, as American economist Tom Sowell called them. They quickly drop one cause if that turns out to be mistaken and hasten to adopt another, always advocating collectivist, top-down solutions (Sowell 1995). They never seem to learn that competition among free individuals is most likely to overcome bottlenecks and offer feasible solutions.

Rent seeking for beginners

The present climate activism does not need to be explained by speculations about mass psychology, the *zeitgeist* of our prosperous times or the search of some for the ethereal meaning of life. Those versed in the economic discipline of public choice can readily identify another powerful motive: ‘rent seeking’.

Once upon a time, it was generally assumed that all agents of government acted in a disinterested manner to advance the public good. Likewise, it was assumed that producers tried to maximise their incomes by simply competing within accepted parameters of market conditions, laws, regulations and technologies. We now know that this is not so, because rent seeking is pervasive.

Rent seeking is defined as recourse to political means to obtain material advantages and incomes, which could not be obtained by purely economic competition in free markets. Rents are sought by well-organised groups who demand interventions by legislators or regulators in the market or changes in the rules. They hope that this will ease the pressures of competitive rivalry and distort prices in their favour. The demand from rent-seekers is often met eagerly by suppliers of such interventions, who expect political support, party donations and maybe even corrupt payments in return; they may even have an

ideological predilection that coincides with the interests of the rent seekers.

Markets are typified by a few suppliers and many buyers. The few suppliers therefore have a concentrated interest in attaining artificially higher prices. Because they are small in numbers, they organise themselves to lobby; in contrast, the many buyers each face relatively small material losses from such interventions, and have little incentive to organise themselves against supplier lobbies.

For example, a government that imposes a car tariff will allot massive additional profits to the few car producers and marginally disadvantage the many buyers, who may buy a car only every five or seven years. If such privileges proliferate, the long-term consequence is that producers compete less avidly with innovative ideas (product and process innovation). Then economic growth slows down. Not only are the many buyers unfairly disadvantaged by higher prices, but all suffer losses in growth opportunities (Robertson 2006).

The observation that producers compete not only with technical and economic performance but also with political lobbying is one of the most important contributions to economic and political science over the past half century. (For a good introduction to public choice theory and rent seeking, see Buchanan 1978; and Gwartney, Stroup, et al. 2006; for more references see Kasper 2007: 46–50).

An important aspect of rent seeking is that politicians and their clients nearly always disguise their true motives by invoking the ‘common good’. Thus, the tariff is ‘sold’ to the electorate as a scheme to grow industrial capacity and create or protect jobs, or to provide national security. Never mind that none of these objectives have ever been met by protectionism over the long run. Deception is part of the game.

Seen from a slightly different angle, public choice and rent seeking are part of the eternal fight between individual autonomy and spontaneous coordination, and collectivism, political power and self-appointed elites that play coercive political games. The collective push is rarely held in abeyance. There are of course legitimate causes where competitive individual efforts tend to fail, for example in national defence. But the proponents of

collective action regularly expand into the terrain where collective action is counterproductive in purely economic terms.

Political agents find fertile ground for expanding their power in the area of environmentalism, where individual actions can have external effects that justify some collective intervention. They frequently brush aside methods of least possible damage to economic freedom to attain agreed public purposes in favour of coercive, interventionist policies. This is why sound policies are so often distorted by rent seeking that destroys the dynamic efficacy of the market system.

To most natural scientists, concepts such as public choice and rent seeking are of course unfamiliar. They therefore fail to understand that social scientists and the public are cynical about the climate advocacy of recent years, which they view as a case of massive rent seeking. This is the main reason why economists are recalcitrant to uncritically accept the assertions of the climate activists.

Widespread rent seeking also explains the public’s cynicism about democratic government. An increasingly better-informed public knows instinctively that interventionism boils down to a gross violation of their fundamental freedoms, in particular their property rights and the freedom to use their assets as they see fit, as long as others are not harmed. Pervasive rent seeking is counterproductive in economic terms, as well as profoundly unjust. To the extent that arguments about global warming are detected as just a new excuse for rent seeking, they will be treated with disdain and contempt – regardless of their scientific merit.

For a long time, it was assumed that scientists are above such political selfishness, interested only in finding and testing the truth about natural phenomena. They have developed a strong professional ethic and relied on accepted scientific methods – an image, which the scientific community has of course cultivated.

Now, we observe that not only politicians but also the practitioners of science are not above the opportunistic pursuit of advantage by political manipulation. In science, for example, political ends seem to justify shortcuts with accepted scientific methods, thereby skewing the published findings. The competition for

research funding, much of which comes nowadays from politically manipulated budget resources, all too frequently acts as an inducement to rent seeking by means of not-quite-objective research. Scientific establishments are nowadays typically led by savvy political operators, who are more interested in promoting their organisations than the scientific truth. Alas, scientists are, after all, as opportunistic as everyone else, if they can get away with it.

Such aspersions are of course greeted by scientists with dismay. When this was bluntly stated on the recent television programme *The Great Global Warming Swindle* (Durkin, 2007), it led to widespread moral outrage among some climate scientists, but produced no substantive refutation. Meanwhile, the scientists interviewed in the programme treated the debate as purely scientific. Unfortunately, they too missed the public-choice point, namely that political demand for global warming theories is expressed by copious research funding and produces a ready supply of such theories by eager scientists.

Rent seeking, climate concerns and socialism

A critical look at the current climate debate easily reveals particular self-interest and robust rent seeking. Scientists, who must rival with many other pressure groups for scarce tax dollars, often realise that nothing is a better attention-grabber than the announcement of a potential danger which their research can fix, if only it is funded generously. Some of the brightest scientific minds have cooperated to convince the public and politicians that more climate research is the way to save the world.

The vehemence and impatience with which the global-warming protagonists now try to railroad the public and politicians into accepting the need for massive and costly action seems in itself an indication of rent seeking. As so often is the case, subsidy seekers find willing rent- and subsidy-creators in politicians and bureaucrats, who see career opportunities and greater power in adopting the new cause. Political action mobilises financial resources for those scientists who help to convince the public that political subsidies and

interventions are indeed needed to avert a threat to humanity – the rent seeking machine thus feeds upon itself!

This is all the easier because the issues are complex, and span disparate fields of specialist science and political economy, so that citizens can hardly judge the veracity of the arguments. As usual the media and political attention seekers, from Gorbachev to Gore, jump on the bandwagon, all the while making us believe that they act for the public good and not their own gain. Thus, we now see ourselves confronted by rock and film stars who organise huge public events, telling us that “life on earth is endangered”. They profit greatly from the campaign. Is this anything but pure, opportunistic rent seeking?

Frequently, assertions by scientists reveal blatant attempts at rent seeking. Thus, the ‘hockey-stick’ controversy was one give-away that the IPCC is not primarily interested in just analysing the scientific data, but in spinning a political message. The ‘hockey stick’, which appeared in the IPCC’s Third Assessment Report, was derived by complicated statistical transformations of the raw data and was used to indicate accelerated warming over the past century. However, inquisitive scientists fed random data in the model that had yielded the famous ‘hockey stick’ – and still obtained a hockey stick (McKittrick 2003). What conclusion other than political intent can be drawn from this?

More recently, climate activists have come up with the ‘tipping point theory’. Whereas a time-tested tradition in climate science was to consider the global climate as a system with self-stabilising characteristics, the ‘tipping point’ school considers the global climate as an inherently unstable system. According to this opinion, moderate temperature increases create cumulative greenhouse gas releases that drive up temperatures further, so that human life as we know it would soon be endangered.

US climate scientist Roger Pielke recently pointed out in a lively on-line discussion of the tipping-point theory among climate experts that “while the climate system does have ‘tipping points’, the reality is, since our knowledge of the real world climate system variability and change remains limited, that we do not know if human activity moves us closer or further from them.”

(Pielke, 2006; also Rial et al. 2004) It seems certainly a gross exaggeration to claim that only small human populations will be able to survive in what is now Antarctica (Lean 2004). Such untested assertions again point to transparent political spin-doctoring.

The climate scare has also been embraced by political leaders of all stripes as well as international organisations in search of more influence. The European Union – whose draft constitution rejected ‘free and undistorted competition’ and who has made ‘neo-liberal’ a term of political abuse – is deftly using climate concerns to expand its political influence. And the huge, unelected United Nations bureaucracy, confronted with regular failures in its primary roles of ensuring human rights and international peace, appears to have discovered its salvation in managing global emission standards. It now advocates planning methods and mandatory top-down controls that conflict with the protection of basic human rights, of which economic freedom is an integral part.

In Europe and other mature industrial locations, tax and regulatory cost burdens – most notably the welfare state – have seriously handicapped industrial competitiveness. Western Europe’s remaining industrial core now specialises predominantly in turning cheap imports of raw materials and labour-intensive components into sophisticated manufactures. For example, imported aluminium is turned into automobile components. When firms in high-cost locations are under cost pressure, it makes political sense to try to inflict additional costs for energy use on sophisticated competitors in America or China. It also makes sense to grant exemptions under the Kyoto Protocol to unsophisticated raw material processors who supply European industry with raw materials, but cannot compete with it in markets for the sophisticated end products.

This kind of opportunistic policy – a lesson in how to handicap competitors with global regulations – is also being pursued by the EU through bans on gene-modified agricultural products and its chemicals policy (Kasper 2007: 59–63). In all these cases, protection is never mentioned and the political opportunism is disguised by reference to scares that have no foundation in proper scientific analysis.

Scientific and industrial observers, who probably do not feel confident to side with one radical view or the other on global warming, accept that there is a *risk* of growing costs to humanity through global warming. They argue that it is wise to avert the risk by restraining man-made greenhouse gas emissions. At first sight, this sounds reasonable and plausible. But a mere, remote possibility is not a probability, which rational policy should tackle. Further analysis shows that this violates the basic economic principle that we must always weigh probable risks and costs against predicted gains. Looking at the potential costs alone yields a distorted picture. Entrepreneurs engage in cost-benefit analysis and assess expected profits before incurring risks. By contrast, politicians, who have recourse to compulsory taxation and regulation, do not. And bureaucrats tend to shirk risks, because they can rarely appropriate the gains from risky decisions.

Thus, a heavily politicised community foregoes the benefits of proper economic assessment and economic freedom, which are many – from a longer, healthier life and lower child mortality, to easier work, greater comfort, better education and greater civil and political liberty (Gwartney-Lawson, *passim*). These benefits of course carry greater weight in emerging economies, like China and India, and in poverty-stricken regions of the world, so that we cannot assume that they will sign up to costly measures to address the mere possibility of global warming.

The argument of risk-avoidance irrespective of cost makes sense to people who are not exposed to the full costs and benefits of their decisions (the normal course of affairs in competitive markets). Many an industrial and mining spokesman (or woman) will be inclined to highlight the climate risks of coal use, for instance, once governments make subsidies available for ‘clean coal’. They will also know that restrictions on mining coal confer certain monopoly powers to existing miners, which will translate into higher profits. They will be guided by new subsidies to implement schemes – such as windmill farms and parks of solar panels – which make no economic sense. The fact that many big energy companies have joined the ‘global warming fraternity’ cannot be seen as proof that they have accepted the IPCC position.

Climate activists will of course reject such public choice considerations, but the lessons of public choice economics cannot be dismissed lightly.

The political opportunism and rent seeking bias in the IPCC has been attacked by individual scientists, who have been put off by the politicisation of their research. The IPCC, whose reports are produced at immense cost and involve a busy schedule of conferences and meetings in pleasant places, draws on the work of thousands of climate experts, many from government agencies. But it is controlled by a small group of UN-appointed officials.

The IPCC has also been found guilty of “spin-doctoring” by a team of observers led by Ross McKittrick, who took the trouble of comparing the available evidence in Working Group I of the IPCC’s Fourth Assessment Report with the conclusions of its official ‘Summary for Policymakers’ (McKittrick et al. 2007). The Summary – the most influential IPCC output in steering public and political opinion – is the product of bargaining among member governments. It reads as if the conclusions were decided before the whole evidence had been reviewed (Henderson 2007). This would not be the first such occurrence of misuse of scientific advice by policymakers. If the facts do not fit the intent, too bad for the facts!

The McKittrick team, whose work was critically reviewed by more than fifty international scientists, found no compelling evidence of dangerous or unprecedented climate changes and concluded that public perceptions of more extreme weather conditions were due to more media coverage of such events. One conclusion was: “Attributing an observed climate change to a specific cause like Greenhouse gas emissions is not formally possible”.

When independent and sceptical experts come to such conclusions, the IPCC’s political intent seems transparently obvious. Its conclusion that recent global warming is mainly caused by economic activity, prosperity and CO₂ generation has been taken up eagerly by self-aggrandizing politicians, bureaucrats, rock stars and the media.

Nations are not organisations whose actions should be planned

It has often been observed that rational, centralised planning appeals to scientists and engineers, who view the spontaneous coordination of actions in the market as disorderly chaos. In reality, markets also establish order, but in different ways. Market coordination is spontaneous because all participants obey shared rules – like flying starlings or swarming fish that proceed a dynamic order without a controller or commander. Order results when participants communicate ceaselessly and avoid conflicts.

Most observers with a scientific or engineering background are inclined to a system of coordination akin to a centrally designed and controlled train timetable, rather than the rules-based coordination of independent motor cars. Many do not seem to comprehend the working of the invisible hand. They prefer instead some high-minded, well-informed authority to sort out all necessary information prior to any action, and to control all subsequent actions. Of course, we as individuals normally plan the actions in our daily lives by first reviewing the necessary information, and weighing available alternatives in the light of our preferences. Firms do the same before launching a new product or process and periodically when they revise their business strategy. It would be irrational and costly to proceed otherwise.

But entire nations – let alone the entire world economy, as in the case of global greenhouse gas management – are not organisations like firms. A nation is an association of free individuals, not employees of a government whose orders they must obey. The citizens are the principals, and the government is but their agent. Equally importantly, the information requirements for making nation-wide plans are infinitely greater than when individuals or firms make a plan. We deal here not only with technical knowledge, but also with changing and spatially diverse bits of information, often of an implicit nature, that no one single mind or committee could ever hope to master and utilise (Hayek 1945; Hayek, 1973–1979).

Economic systems are not static or closed, but evolve with complex feedbacks and unintended consequences.

The conditions for certain decisions and actions mutate and influence variables, which in turn feed back into the original decisions and actions (Kasper-Streit 1998: 44–59 and 134–161). As discussed, the neoclassical brand of economics has a tendency to abstract from open evolution in order to simplify the subject matter, and econometricians make assumptions that typically close the economic system so that they can obtain mathematical solutions. This orthodox tradition of economic analysis misses a key point about national economies over the long run: economic life evolves in unpredictable ways, and no past trend or regularity foreshadows the surprises of real-life evolution. Natural scientists and aspiring climate managers should take note.

A separate issue with planning is motivation and agent opportunism. When people are self-responsible and entrepreneurs pursue their own profit, they weigh costs against expected gains and ensure that the two are commensurate. By contrast, a plan bureaucrat faces lopsided incentives. If he risks an innovation which succeeds, he may get a medal, but cannot appropriate the material gains. But when a risky innovation fails, he faces demotion and reprimand. In other words, planning agents behave rationally when they are risk-averse. As a result, innovation and hence economic growth is narrower and slower under central planning and command.

Yet another problem endemic in central planning, as compared with the free market order, is that information is sifted *ex ante*, and just one solution is selected. This goes at the expense of diversity. However, humans have diverse wants – Mao suits for all may have been technically efficient, but made the Chinese unhappy. Diverse alternatives which are allowed to compete in the market are often the seed for solutions that prove useful only later. If a central planning committee in 1895 had picked steam engines to propel cars (at the time this technology looked promising), then we would not have today's car industry. And a planning committee in charge of airplane development would never have been able to implement the myriad ongoing innovations that changed the contraption of the Wright brothers into the Dreamliner in the short span of just 100 years.

It is therefore no coincidence that Soviet-style central

planning was such an abysmal failure. Plan bureaucrats lacked the necessary information (which market prices signal promptly in the capitalist system) and often neglected to act even on available information. The planned economies ended in stagnation and chaos, as technology and the division of labour became more diverse and more complex. In contrast, self-interested market participants cope with these conditions effectively because they coordinate their actions spontaneously in response to frequently changing price signals.

These conclusions are in principle clear and generally accepted. Nonetheless, climate technocrats and self-seeking climate managers are now often falling back on the methods of central planning. They confound everyone's experience of micro planning with the macro task of planning global industry and transport to attain certain emission targets. Educators, too, simplify the global-warming problem, as if anyone could know the number of gigatons of CO₂ which need to be eliminated, by which industries and in which regions.⁸

Everything that should have been learnt from the Soviet experience and its Austrian-economics critique is glibly ignored. Most rich-country governments have subscribed to the Kyoto Protocol, which has all the hallmarks of central planning. The multi-objective pursuit of happiness is being denigrated as consumerism and the rich diversity of human aspirations is replaced by stifling carbon targets. Target setting has become a measuring rod by which Greens are judging the quality of a government's global-warming policies. We are in danger of, again, repeating the Soviet experience of applauding good-looking targets because we confuse mere target setting with genuine achievement.

The cause of emission reductions would be better served by pragmatic, market-directed initiatives, such as the Asia-Pacific Partnership on Clean Development and Climate, than on grandiose international accords for a treaty among more than one hundred governments, which no one can enforce.

Another problem endemic in planning is that the planners rarely know at what level of prescriptive detail to stop. If a first plan goes wrong, they tend to conclude that, next time around, planning must be more perfect

and more comprehensive. Because planners need a closed system where the key parameters are known to them, they will try to smother open-ended evolution. They impose politically preferred solutions. Thus, nuclear and hydropower are rejected, whereas wind, geothermal and solar are heavily promoted, and this without any rational analysis of the relative long-term costs and benefits.⁹

When planners develop a habit of becoming prescriptive about specific details, they risk massive errors and inflict costly distortions on economic life. Thus, we now hear that air transport is a growing contributor to greenhouse gas emissions and that specific air-transport controls (in the form of 'green' passenger taxes, bans on air-freighting specific products, a reduction in new airports to be built, etc.) must be adopted. The governments of many affluent countries have also begun to provide costly subsidies for alternative energy generation such as windmills or photovoltaic panels. These are far from being economically viable, and induce consumers to buy technical apparatus which leaves a huge 'carbon footprint' even before the first quantum of 'clean energy' is collected. The subsidies are creating eager 'green companies' and other rent-seekers that lobby for more such distortive market interventions.

Industry- and technology-specific planning – with bureaucrats and lobbyists 'picking winners' – makes no economic sense. In competitive markets, investors compare the marginal costs of *all* methods in *all* industries to find the most cost-effective way of avoiding CO₂ emissions.

Central planning under political auspices is unavoidably liable to political rent seeking and corruption. This has already become clear under the Kyoto Protocol, too. European governments, its main promoters, 'awarded' Russia huge carbon credits on the grounds that Siberia had large taiga forests. In reality, this was of course done to bribe Russia to sign the Protocol.

When they introduced cap-and-trade systems for carbon control, European governments readily yielded to the temptation of handing large quantities of 'carbon emission rights' to certain favoured industries (Open Europe 2007). When these are traded, they become valuable financial assets. Economists, however, know

that trading of such rights only serves its purpose if independent, incorruptible experts fix total quotas, for example as was done to limit the Icelandic fish catch. The recent European experience of national governments competing with each other in handing out emission licenses was a far cry from such an independent and objective standard.

The issues of knowledge and moral hazard multiply when planning is done not just for one nation, but the entire world economy. The knowledge problem is then overwhelming. Enforcement against national resistance is illusory. The EU cannot even enforce the budget targets in its Stability Pact against the opportunistic leaders of the major European countries. The UN is so demonstrably toothless vis-à-vis any agreement-breaking nation, let alone the big powers, that it is inconceivable that a UN 'world government' could monitor emission target compliance, let alone enforce sanctions for violations.

Conclusion

So, what can an economically literate observer conclude from all of this? First, the scientific evidence on global warming is not yet settled sufficiently to provide a basis for potentially very costly and major policy initiatives. All we know is that global climate change may occur and that there are many ways to adapt to higher temperatures if these bother people or if they create hardship. In the meantime, we should of course monitor all available evidence on global temperatures and not squander energy unnecessarily.

A second conclusion is this: At a time when the creative powers of free-market capitalism are widely taken for granted or even denigrated, and when rent-seekers are on the lookout for new excuses to institute interventions that further their incomes, status and careers, we risk destroying the very foundations of our modern prosperity by implementing policies that destroy the free-market order.

The cost-boosting interventions which most Western governments are now implementing to manage emissions will be detrimental for economic growth and job creation. The West will lose competitiveness at a time when many new industrial countries are improving

their institutions and raising their technical capacities. Many in the West now see China and India as an economic threat, because affluent, spoilt Westerners are understandably reluctant to join the competition with these emergent economies. The scene is set for a global tug of war between diverse national interests.

If the outcome were to be a concerted management of world industry and transport by UN climate planners, this would affect future prosperity throughout the world and our capability to cope with troublesome global warming. A UN-led global compact of the Kyoto kind will imperil individual freedom, individual property rights and openness.

This would be tragic for our children, grandchildren and the poor in the third world, for it would eliminate the single most effective means known to man to cope with emerging scarcities and challenges: economic freedom, openness and spontaneous competition. We must therefore resist those political and lobbying interests, who promote and exploit climate concerns for their own opportunistic ends. If we fail, climate control will soon become the most serious threat to individual freedom since the demise of Soviet socialism.

If the history of human enterprise (as well as the Austrian-economics research into competition and innovation) is anything to go by, a complex issue such as climate change is best addressed by spontaneous, independent reactions to credible market signals. Such signals will become evident as and when sufficient numbers of people are affected directly and adversely by global warming. Constructive responses will then be spontaneous, because numerous free, independent and property-owning agents will respond. There will be no need for 'climate change managers' – just as the starlings in the sky or fish in the sea have no need for a commanding general with a strategic plan!

Notes

- 1 Temperatures since the emergence of modern man some 200,000 years ago have been up to 7°C lower during ice ages than the 'global average in the Northern hemisphere' from 1870 to now, which covers the period since the spread of modern industry. A global average temperature is a difficult to establish concept, since regional temperatures vary so much. During the 'climate optimum' of the European Middle Ages, global temperatures were also 0.5°C higher than that average. During the 1990s, global temperatures were 0.4°C above the average since 1870 (source: Alfred-Wegener-Institute, Bremerhaven/Germany; see also: Singer-Avery 2007). Since 1998, the rise in global temperatures has apparently stopped.
- 2 The Stern model makes the mistake, which Karl Marx and neoclassical model builders made before, to assume that little technical change would occur in the future, in this case to mitigate carbon emissions. Instead, Stern relies on extreme assumptions and operates with worst-case scenarios. Another untenable aspect of Stern's prognostications is that he values the costs to future generations almost with the same weight as those of the present, despite the fact that future generations will be much more affluent and more capable to deal with warming problems than we are now. Veteran Yale University economist William Nordhaus criticised Stern's choice of such a low discount rate. He concluded that more conventional discount rates, as commonly used by individuals, governments and businesses, would wipe out Stern's alarmist conclusions. Stern's recent defence of his choice of discount rates seems to weaken his case somewhat, but does not convince (Stern 2007; Hamid, Stern and Taylor 2007; Carter et al. 2007).
- 3 Exporters of energy-intensive products, such as aluminium, are helping importing countries to avoid much of their greenhouse gas output. If global carbon-trading regimes are set up, should importers hand carbon credits to the world's specialists in energy-intensive products? At a time when everyone from the owners of the Siberian taiga to schools with green backyards is given carbon credits by eager politicians, this is a question worth discussing.

- 4 Instead, most EU countries rely on buying 'carbon credits' from third countries, which already indicates how hard it will be politically to get ordinary citizens in affluent societies to comply with even more stringent emissions targets.
- 5 The Stern Report's attempt to provide cost estimates for mitigation lacks credibility, because it was a transparent attempt to come up with very low costs for cutting emissions by making implausible model assumptions and ignoring observed facts (Carter et al., 2006, Part II).
- 6 The neoclassical orthodoxy, which often assumes 'perfect knowledge', lends itself to easy teaching and closed-system econometric modelling. It still dominates many economics departments and fills numerous textbooks and professional journals. The institutional-evolutionary brand of economics has, by contrast, found much acceptance in law schools, business schools and engineering courses, for the simple reason that it sees an explicit and valuable role for those who cultivate legal rules, take risks in business enterprise and are concerned with innovations.
- 7 This analysis is in the neoclassical orthodox tradition. It contains the assumption of decreasing returns to scale, which underlies much of the analysis, which took its inspiration from agricultural production at a time of little progress of knowledge. Some Marxian economists have imbued this assumption of eventual entropy – stagnation and the crisis of capitalism – even with a normative content, calling the end state "the Golden Age". Odd!
- 8 A good example is a simplistic, smart-alecky video presentation by the activist Swedish *Vattenfall* group on the internet <www.vattenfall.com/climatefall>, which has become a popular teaching tool in schools.
- 9 If one were to undertake proper 'carbon accounting', one has to include in the equation the emissions necessary for production of the glass, metals and plastics, which windmills, photovoltaic cells, coal power stations etc. require.

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