

Self-Control and the Future of Capitalism

By Avner Offer

Published in Kurt Almqvist and Alexander Linklater (eds.), *On Capitalism* (Stockholm: Ax:son Johnson Foundation, 2011), 213-222.

My father rode a camel. I drive a car. My son flies a jet plane. His son will ride a camel.
Saudi epigram (apocryphal)

The liberal order rests on the assumption of informed choice. People know what they want and act on their desires. More formally, they can rank their preferences consistently, they know all the options, and their choice is free from outside influence. In economic theory, that is what it means to be “rational”. When these conditions are met, and ignoring some further assumptions, private choices are aggregated by the “invisible hand” to maximize the welfare of all. As Milton Friedman wrote in *Capitalism and Freedom* (1962):

Both parties to an economic transaction benefit from it, provided the transaction is bilaterally voluntary and informed... Exchange can bring about co-ordination without coercion... A society organised through voluntary exchange is a free private enterprise exchange economy.

For liberals, a great deal is at stake in this model. The social efficiency of individual choice is what justifies a liberal society. And freedom to choose is not only instrumental – it is also a good in itself. It is the essence of personal dignity.

But these prerequisites of consistency, information, and independence may not always be satisfied. Coffee or tea? Immediate choice is trivial. In contrast, choice over time is often intractable. Get married or walk away? It is hard to be sure, even in retrospect.

David Hume wrote that “there is no quality in human nature which causes more fatal errors in our conduct than that which leads us to prefer whatever is present to the distant and remote.” In other words, myopia leads to bad choices. The reason is not merely ignorance of the future. Myopia, says Hume, is an intrinsic bias in human

nature. Over the last several decades, a pervasive myopic bias in animals and humans has been detected and studied independently within economics, psychology, politics, and animal behaviour.

Consider two future rewards, one twice as high as the other. The low reward (£100) is delivered in ten years, and the high one (£200) in 15. How much is it worth paying now to secure these payoffs? And which is worth more in the present? The current ranking and ratio of these two future payoffs depends on how intensely one prefers the present to the future. This can be expressed as a “discount rate” or, more colloquially, as the rate of interest. The higher the discount rate, the less we value the future. The present value can be calculated by plugging the discount rate into a standard equation (“exponential discounting”). The two values will remain at the constant ratio to each other regardless of when the payoffs fall: there is adequate compensation for any delay. This ranking invariance is called “time consistency”, and exponential discounting is the rational and most efficient way to choose over time. It is used in such calculations as mortgages and annuities.

This may sound complicated, and it is – rationality does not come naturally. Even with the help of a calculator, most of us would find it difficult to do it on the spot. Any other method of discounting, whether formal or informal, is not time-consistent.¹ The opposite, “time-inconsistency”, can have damaging consequences. If, from a distance, the high reward is ranked above the lower one, then as we approach it closer in time, the low payoff comes to overshadow the more distant one, just as a tall building can be hidden by a small one. As the smaller payoff approaches, desire intensifies and preferences are reversed. The immediate payoff, “smaller-sooner”, becomes more compelling than the delayed one, “larger-later”. That is myopia. Under myopia, there is no overall best choice. At one point in time, £200 is more attractive. Just a little later, we prefer £100.

Take another example. A dieter is tempted by dessert, but would also like to be slim. She decides she will skip dessert, but only tomorrow. When tomorrow arrives it is today again, and she has dessert once more. Both of her desires are equally valid – but how to choose between them? There is no unique solution to this problem – it is indeterminate. In his poem, “The Feaver”, John Donne captures this dilemma in words addressed to his lover:

I had rather owner bee
Of thee one houre, than all else ever

As a seduction line, this is credible enough. There are two rewards at different points in time: first comes the “one hour” of bliss, then “all else ever”. For the lovers themselves, there is only subjectivity, with no algorithm available. The choice is genuinely intractable. If one thinks that “all else ever” is better than an hour of bliss, or that a slim body is better than a tempting dessert, the psychic challenge is how to sacrifice something now for the sake of something better later. That is the “commitment problem”.

Apart from these puzzles of time-inconsistency, making a choice over the future is difficult for other reasons. Maybe the future will not even arrive. Different goods attract different discounts, so consistency becomes impossible: pensions last longer than pizzas, art for longer than ice cream. Social psychology tells us that memories diverge predictably from how events felt at the time, which makes it difficult to learn from experience. It is similarly difficult to predict future wants reliably. Neuroscience suggests that myopia may even be “hard-wired”. We respond impulsively to emotional incentives: to desire, shame, anger, provocation, stimulation. Immediate rewards excite “emotional” brain locations, whereas long-term awards excite the so-called “planning” regions. Evolution may be implicated. Myopia is associated with the core amygdala “reptilian” brain, while foresight excites the calculating frontal lobes of the brain. Some writers on myopia suggest that it is our natural view of the future. There may truly be no way to calculate the best choice.

But choices still have to be made. So instead of calculation, people typically fall back on social conventions, norms, and institutions. These are devices that society has evolved for sacrificing something now in return for something better later. Tried-and-tested commitment strategies, whether psychic or social, can be described as “commitment technologies”, or “commitment devices”. Civilisation is a web of such devices.

Commitment may be achieved by means of personal rules: diverting attention away from temptation – using “bright line” rules, such as “no eating between meals” – or committing in advance to take a high penalty for loss of self-control. Social methods of commitment rely for enforcement on third parties. In contracts such as insurance, mortgages, deposit accounts and pension plans, compliance is mandatory and lapses are punished by loss. History is full of commitment devices: counting, the calendar, the clock, the weekly rest day, religion, money, the gold standard, central

banks, law, constitutions, contracts, education, examinations, marriage, insurance, mortgages, pensions, commercial brands, even exponential discounting. They underpin the capacity to undertake a sustained task. They arise in history, evolve, do useful work, and decline. The building-blocks of society are clusters of commitments. Personality, class, family, culture, ideology, policy, national character: all of them are clusters of priorities over different ranges of time. All of them constrain freedom of choice. Government may also be seen as a commitment agent for individuals and for society, helping to achieve objectives beyond the reach of unaided individuals.

But commitment devices are undermined by the flow of novelty. Affluence is a sequence of new and cheaper forms of arousal, experiences and opportunities. If they turn out to be harmful in the long run, this knowledge is not yet available. Cheap cigarettes appeared around the beginning of the 20th century. By the 1950s, about three quarters of men and more than half of women were smoking in the UK. Around that time, medical scientists identified a link between smoking and cancer. It took a decade or so for governments to pick this up, another decade for the message to penetrate the middle class. Slowly the level of smoking declined, and by now, smokers are increasingly isolated and ostracised. Soon they may join other addicts in prison.

The cornucopian flow of novelty contains both goods and bads. It is difficult to predict the long-term effect of innovations. So this flow of innovation imparts a short-term bias to consumption under affluence. For example, the rise of obesity in affluent societies since the 1970s was partly a response to the abundance of cheap, energy-rich, pre-cooked food. It was also a response to the disorientation experienced increasingly by people in competitive market societies.ⁱⁱ In the past, cooked food was mostly available only at mealtimes at home. This commitment mechanism was rendered obsolete by supermarkets and fast-food outlets. Obesity shows how abundance, cheapness, variety, novelty and choice can make a mockery of rational consumers, how it entices only in order to humiliate. True prosperity can be seen as a good balance between short-term arousal and long-term security. The flow of new rewards can swamp the capacity to enjoy them and can degrade appetites and emotions. It gives rise to habituation, which reduces pleasure. The challenge is not to maximise consumption, but to pace it back to the level of optimal satisfaction.

Myopia may help to evaluate the future of capitalism. Advocates of globalisation argue that international specialisation has allowed every country to exploit its advantages at the global level. Everybody was better off. The global market was in a benign self-correcting equilibrium. As the prices of capital, labour, knowledge and natural resources shifted incrementally, the markets reallocated resources to their best uses and users. This vision was underpinned by economic theory, and it became the policy norm that guided the World Bank, the IMF, the WTO, the OECD and the European Union. It was only natural to extrapolate it into the future.

But look a little further into the past, and progress has not always been so smooth. The previous great period of globalisation, from 1870 to 1914, ended with the disaster of the First World War. This was not merely the outcome of atavistic warmongering but arose out of the tensions generated by the growing international division of labour and the consequent extension of global supply chains. The war was followed by bolshevism, fascism, the Great Depression, the Second World War, the Cold War and bloody violence in Africa, Asia, and Latin America. In the course of this period, the market societies of the West converted twice into wartime rationing economies and suffered decades of high military spending.

Is the future going to be incremental, like the last six decades, or is it due for big shocks, like the four preceding ones? If the future remains in equilibrium, then little is required beyond business as usual. The opposite contingency, of big shocks, calls for some active preparation. It is difficult to rule it out entirely.

The first shock has already occurred. The financial disarray which began in 2007 has not abated at the time of writing (2010). In the meantime, economic expansion is straining the resources which feed it. Potential disturbances are related to each other. The output of oil is predicted to peak during the next two decades, and may have peaked already. Burning energy emits carbon, which is assumed to be the main cause of rising temperatures. Mitigating these emissions requires a reduction in fossil fuel burning, which will have the same effect as energy depletion. But productive farming depends on energy inputs, in the form of fertilisers, mechanical cultivation, irrigation and transport. With energy more costly, food could go short. Developing countries will be hit more severely, inducing migration. The flow of immigrants may help to support the ageing in the rich countries but will also strain the social fabric of these countries. Even without these shocks, the shift of competitive

advantage from the wealthy trade-deficit countries of the West towards the export economies of Asia and Latin America is going to place Western living standards under pressure. Growth will help developing countries to reduce poverty but is likely to increase the pressure on their environments and natural resources. If these shocks are as poorly managed as the threat of terrorism during the last decade, they could also induce political violence: casual turbulence in faraway places but also the nightmare of nuclear explosions in Western cities. Technical innovation may mitigate shocks but might inflict some itself in the form of a runaway technology like the recent oil spill in the Gulf of Mexico. Technology can go wrong in ways we cannot easily imagine, such as the emergence of the atom bomb at the end of the Second World War.

Let us focus on two of the most likely prospective shocks. Climate change may be further off but is the more salient. There is little doubt that temperatures are rising slowly but no precision about the details. The human implications of such rises, while not entirely harmful everywhere, are mostly malign. At the highest range of predicted levels, they imply a decline in global habitability.

Energy depletion is also imprecise but is more imminent. Gaps are likely to open between energy output and economic requirements, with consequences especially for transport, which depends on liquid fuel. Such forecasts emanate largely from private authors, most of them outside the establishment. But government agencies are also taking an interest. They accept that the decline of liquid fuels is imminent and that no large-scale substitute is apparent, even if it were not desirable to reduce consumption on grounds of climate change. The threat is perceived, it is not remote, but it is not defined sharply either.

If these shocks materialise in anything like their worst form, the prospects for our present way of life (and for capitalism) are dire. But it is far from certain that they will. The threat is real enough but we do not know where, how much, nor when. Under conventional (exponential) discounting and with conventional rates of interest, such disasters, world-wrenching as they may turn out to be, are discounted down to nothing by the methods of economic rationality, if they are distant enough.

So what is to be done? “Everyone talks about the weather,” said Mark Twain, “but nobody does anything about it.” President Nasheed of the Maldives (whose country is threatened with inundation) is reported to have said, “What we really need is a huge, social 60s-style catalytic, dynamic street action... If the people in the US

wish to change, it can happen. In the 60s and 70s, they did that.” But, almost in the same breath, he continued, “My sense of the US is that a fair amount of [Americans] simply don’t believe in it.” It seems that nothing will be done. Or, if it is done, it will be little and late.

*

Our way of life may be disrupted radically within two or three decades but we don’t know how much and we don’t know for sure. The risks are compelling but our confidence in them falls short of certainty. There are three modes of responding: denial, reason and commitment. Take them in turn.

Denial comes in three forms: 1. “It’s not really happening” (rational denial); 2. “I don’t want to know” (emotional denial); 3. “Something will turn up” (technological optimism). Some controversies are inconclusive by nature but not this one. Debating environmental disaster is more like predicting the result of an impending football game. The merits of the teams may be disputed but the game will end conclusively. Any prediction is objectively true or untrue, and we are going to find out.

“Rational deniers” reject evidence which is inconsistent with their interests. If your business is tobacco, you don’t want to hear about cancer. Their activities may place the future at risk but that lies beyond their horizon. Either they are free riders, who expect the current private benefit to be larger than their share of the expected social harm, or they are time-inconsistent. Rational denial brings private interests into conflict with the common good.

“Emotional denial” is myopic: “I don’t want to know”. Its purpose is to shield the emotional equipoise of individuals from the prospect of unwelcome change. When rational deniers form an alliance with emotional ones, denial becomes a social movement. Examples abound. Denial is compelling and rife: the Armenian genocide, the Holocaust, victory in Vietnam/Iraq/Afghanistan, smoking and cancer, eating and obesity, AIDS, gun ownership in the United States, the housing bubble, Climate Change, peak oil, the Gulf oil spill, and so on.

A third line of approach, “technological optimism”, is to hope for the best. Optimists typically appeal to history or to market logic. Historical optimists say that past doomsters have been wrong. This ignores those cases when they were right. Economic optimists say that rising prices will induce technological solutions, again

overlooking challenges, like the cure for cancer or the common cold, where technology has not in fact delivered. Both approaches pin their hopes on technological breakthroughs, and that cannot be ruled out. An optimistic reading of currently available alternative energy technologies suggests that even now there may be an energy mix that will allow reduced carbon emissions while providing a large fraction of the existing energy requirements, albeit at a high cost and not in the most convenient forms. There is energy enough in the sun and we may find an efficient way to harness it. The real difficulty is the large investment and long time-span required for transition, and the challenge of coordinating social action to achieve it. The best-known denialist, Bjørn Lomborg, implicitly relies on the uncertainty and remoteness of the threats to belittle them. If the future is discounted down to a sufficiently low level, then many projects that might pay back in a short period look superior. But if action is postponed, then later may be too late. And any resources diverted from long-term threats are not likely to go to the good causes (such as poverty reduction, clean water and malaria eradication) suggested by Lomborg as a higher priority.

Simply hoping for the best is not prudent. The best and the worst are not evenly matched. If you prepare for the worst and nothing happens, then preparation will have been in vain. Economic growth will be a fraction lower but levels will recover in a few years. But if nothing is done and the worst happens, then there is no easy recovery. The prospects are asymmetric. All three forms of denial leave us unprotected from disaster.

Surely we need to approach the problem more rationally? But that is not entirely self-evident. The rational strategy is to undertake a cost-benefit analysis. If the benefits of action exceed the cost, then action should follow. The question usually asked is, “What sacrifices should we make now to benefit our richer selves later?” The answer depends crucially on the intensity by which we value the present over the future or, in other words, on the discount rate. A low discount rate values the future highly. A high one does not. This comes out in the debate which followed the publication in 2006 of an extensive study of climate change directed by the economist Nicholas Stern for the British government. Stern took his cue from our supposed obligation to future generations and assumed a low composite discount rate of about 1.4 per cent, which indicated that action was called for and would not be too costly. At that discount rate, investing £1 today for a tenfold return in 30 years is worth £5.6

today – definitely worthwhile. Among his critics, William Nordhaus of Yale wrote that we need to take our cues for time preference from market rates of interest, which he put typically at 7 per cent. At that discount rate, investing £1 today for a tenfold return in 30 years is worth only 37 pence today: a waste of money. Both Stern and Nordhaus are “rational”: they are both time-consistent and use exponential discounting. But rationality does not provide the answer: it does not tell us how much we should prefer the present over the future.

There is another problem: in standard discounting, the ranking of choices is invariable over time. Consequently, if we are to be acting later, then we would be acting now as well. Our current action can serve as a diagnostic for what we are likely to do in the future. Alternatively, inaction now indicates that our actual model of action is not “rational”, but actually myopic, or time-inconsistent. Hence, our main problem is not whether it is worth acting but rather how to overcome myopia and to motivate action. In parentheses, this is also implicitly acknowledged by Stern’s critics. Nordhaus, his most vehement academic critic, does not rule out action altogether. He suggests that it might be appropriate later. That is time-inconsistent, ie. myopic by definition. And indeed Nordhaus’s own proposals show that he envisages different discount rates for different times, which is one definition of time-inconsistency. An impressive insight came from the economist Martin Weitzman, who suggested that it was unlikely that any single discount rate chosen would be the best one. It is more reasonable to assign a probability distribution over the range of discount rates or, more simply, to average the extremes. The average of two exponential discount rates produces a variable discount rate, which is time-inconsistent. It suggests that a myopic approach to the problem may be inherent in our cognitive and analytical equipment. The norms of rationality in themselves will not solve our dilemma.

By elimination, this leads to a commitment approach: how to sacrifice something now the sake of something better later? Earlier in this essay, we saw that there is no straightforward algorithm for problems of this kind. In practice, the common approach is to draw on some pre-existing commitment device, some tried and tested set of norms, traditions, or institutions that have proven their value in the past. What commitment device can be found on society’s shelf?

After thinking it over, and with some reluctance, I have come to the conclusion that the one that is commensurate with the scale of the challenge is national security. It is a social good and not a procedure to maximise private benefit.

Its attributes can be illustrated with reference to the experience of the Cold War: a threat that was (like those we face now) nebulous, uncertain, and poorly defined; an indefinite time horizon; allocation of resources with no regard for profit and loss; and support across the range of politics, underpinned by broad social consent. International cooperation used the language of cooperative alliances, rather than that of commercial advantage.

But commitment for what? The primary objective is effective action: for example, to channel investment into technological solutions; to lock in carbon taxes; and to embark on energy conservation. But that may not be enough. Such is the scale of the climate and energy problems, and of the other ones which wait in the wings, that our commitments may not succeed. If that happens, then some alternative plan is needed for harsher conditions, and framing in terms of national security may well become inescapable.

In the past, mobilisation of national security required external enemies to focus motivation. The threats I have highlighted do not currently appear to be compelling enough. The enemy in this case is ourselves: our reliance on resource-hungry lifestyles and our reluctance to face the consequences of their depletion. The shocks are internal to us. They arise out of our way of life. The challenge is to master our own myopia.

ⁱ For a short introduction, see Avner Offer, *The Challenge of Affluence: Self-Control and Well-Being in the United States and Britain since 1950* (Oxford 2006), chs. 3-4.

ⁱⁱ Avner Offer, Rachel Pechey and Stanley Uliaszek, "Obesity under Affluence Varies by Welfare Regimes: the Effect of Fast Food, Insecurity, and Inequality", *Economics and Human Biology* vol. 8, 2010, 297-308.