

# Break out the bicycles

Oil is running out, but the west would rather wage wars than consider other energy sources

“Some people have wacky ideas,” the new Republican campaign ad alleges. “Like taxing gasoline more so people drive less. That’s John Kerry.” Cut to a shot of men in suits riding bicycles.

Sadly, the accusation is false. Kerry has been demanding that the price of oil be held down. He wants George Bush to release supplies from the strategic reserve and persuade Saudi Arabia to increase production. He has been warning the American people that if the president doesn’t act soon, he and Dick Cheney will have to share a car to work. Men riding bicycles and sharing cars? Is there no end to this madness?

Like the fuel protests that rose and receded in Britain last week, these exchanges are both moronic and entirely rational. The price of oil has been rising because demand for a finite resource is growing faster than supply. Holding the price down means that this resource will be depleted more quickly, with the result that the dreadful prospect of men sharing cars and riding bicycles comes ever closer. Perhaps the presidential candidates will start campaigning next against the passage of time.

But a high oil price means recession and unemployment, which in turn means political failure for the man in charge. The attempt to blame the other man for finity will be one of the defining themes of the politics of the next few decades.

This conflict was exemplified last month by the leader of the British fuel protests of 2000, Brynle Williams. “I’m afraid to say I’m not very proud of what happened three years ago,” he admitted in a documentary broadcast on S4C on May 4. “We all want

turbo-charged motors now ... but we must remember that it's some poor sod at the other end of the world who ends up paying for it." Five days later, on May 9, he told GMTV that he was ready to start protesting again. Self-awareness and self-interest don't seem to mix very well.

To understand what is going to happen, we must first grasp the core fact of existence. Life is a struggle against entropy. Entropy can be roughly defined as the dispersal of energy. As soon as a system – whether an organism or an economy – runs out of energy, it starts to disintegrate. Its survival depends on seizing new sources of fuel.

Biological evolution is driven by the need to grab the energy for which other organisms are competing. One result is increasing complexity: a tree can take more energy from the sun than the mosses on the forest floor; a tuna can seek out its prey more actively than a jellyfish. But the cost of this complexity is an enhanced requirement for energy. The same goes for our economies.

They evolved in the presence of a source of energy that was both cheap to extract and cheap to use. There is, as yet, no substitute for it. Everything else is either more expensive or harder to use. Without cheap oil the economy would succumb to entropy.

But the age of cheap oil is over. If you doubt this, take a look at the BBC's online report yesterday of a conference run by the Association for the Study of Peak Oil. The reporter spoke to the chief economist of the International Energy Agency, Fatih Birol. "In public, Mr Birol denied that supply would not be able to meet rising demand ... But after his speech he seemed to change his tune: 'For the time being there is no spare capacity. But we expect demand to increase by the fourth quarter by 3m barrels a day. If Saudi does not increase supply by 3m barrels a day by the end of the year we will face, how can I say this, it will be very difficult. We will have difficult times.'" The reporter asked him whether such a growth in supply was possible, or simply wishful thinking. "You are from the press?" Birol replied. "This is not for the press." So the BBC asked the other delegates what they thought of the prospects of a 30% increase in Saudi production. "The answers were unambiguous: 'absolutely out of the question'; 'completely impossible'; and '3m barrels – never, not even 300,000'. One delegate laughed so hard he had to support himself on a table." And this was before they heard that two BBC journalists had been gunned down in Riyadh.

The world's problem is as follows. We now consume six barrels of oil for every new barrel we discover. Major oil finds (of over 500m barrels) peaked in 1964. In 2000, there were 13 such discoveries, in 2001 six, in 2002 two and in 2003 none. Three major new projects will come onstream in 2007 and three in 2008. For the following years, none have yet been scheduled.

The oil industry tells us not to worry: the market will find a way of sorting this out.

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If the price of energy rises, new sources will come onstream. But new sources of what? Every other option is much more expensive than the cheap oil that made our economic complexity possible.

The new technology designed to extract the dregs from old fields is expensive and doesn't seem to work very well, which is why Shell was forced to downgrade its anticipated reserves (other companies, under pressure from the US Securities and Exchange Commission, will surely follow). Extracting oil from tar sands and shales uses almost as much energy as it yields. The same goes for turning crops such as rape into biodiesel. Nuclear power is viable only if you overlook both the massive costs of decommissioning and the fact that no safe means has yet been discovered of disposing of the waste. We could cover the country with windmills and solar panels, but the electricity they produced would still be an expensive means of running our cars.

Just as the oil supply begins to look uncertain, global demand is rising faster than it has done for 16 years. Yesterday morning, General Motors announced that it is spending \$3bn on doubling its production of cars for the Chinese market. Seventy-four minutes later, we saw the first signs of entropy: the International Air Travel Association revealed that the airlines are likely to lose \$3bn this year because of high oil prices. The cheap carriers complained that they could be forced out of the market.

If the complexity of our economies is impossible to sustain, our best hope is to start to dismantle them before they collapse. This isn't very likely to happen. Faced with a choice between a bang and a whimper, our governments are likely to choose the bang, waging ever more extravagant wars to keep the show on the road. Terrorists, alert to both the west's rising need and the vulnerability of the pipeline and tanker networks, will respond with their own oil wars.

"Every time I see an adult on a bicycle," HG Wells wrote, "I no longer despair for the human race." It's a start, but I'd feel even more confident about our chances of survival if I saw George Bush and Dick Cheney sharing a car to work.

*George Monbiot's book [The Age of Consent: a Manifesto for a New World Order](#) is now published in paperback*