

WHEN KING KONG MEETS GODZILLA



When Hollywood throws its big beasts together in a sci-fi movie, the storyline is usually about which of them will rule the world. The subtext, for human beings, is whether we can survive, whatever the outcome. In real life, we are set to face a similar crisis.

When climate change meets peak oil, meets a global recession, all the rules of the game – in terms of how societies work – are going to be thrown out of the window. What will make this even harder is that most politicians barely have a grasp of any one of these issues, let alone all three. National governments are even worse. Most live in a world of denial, where ‘business as usual’ mantras describe the world of globalised free trade as a Never-Never Land that stretches into infinity. There is a real urgency about exploring the focus likely to blow this picture apart.

The conventional economic crisis is probably the easiest starting point. The sub-prime lending fiasco in the United States continues to send shockwaves through the global economy. We are nowhere near the end of this. Banks started to act as bookmakers. Believing that they could ride a never-ending wave of rising property prices, they lent money to people with no ability to repay and to projects with no prospects of repaying.

The financial world launched itself into Enron accounting. When the bubble burst, the illusions did too. We now know the whole banking system is carrying vast levels of ‘toxic debt.’ It isn’t just that financial institutions are posting big losses and write-downs. There is almost certainly at least one more institutional collapse waiting in the pipeline.

For some, there was a crumb of comfort in this in that it triggered a further collapse in the value of the dollar. It triggered hopes of an export-led revival in the US, or at the very least a slowing down in the growth of their deficit. What was not factored into the calculations was China’s decision to cease acting as the buyer of last resort for US foreign debt. One way or another, the US will have to start to pay its own way out of the crisis. Reversing the tax concessions to the rich or cutting further into services for the poor will be a US domestic decision. But let no-one pretend it is going to be anything other than painful.

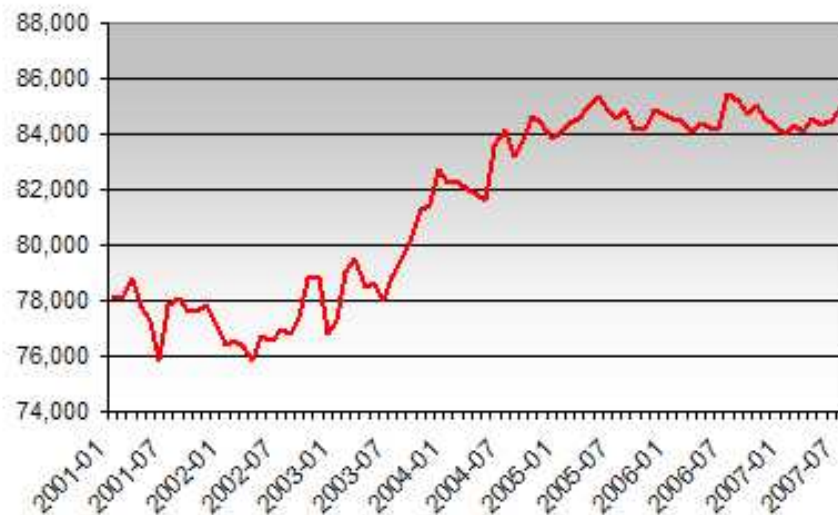
Somewhere within their sub-consciousness, political leaders returning from the Bali Conference on climate change knew that scientists had given them a stark warning. There is a six to eight-year window of opportunity in which to transform our whole approach to energy systems (and a lot more besides). After that, nature’s own feedback mechanisms will start to run away with the scale of environmental crises. These feedback mechanisms will disrupt conventional industrial production and food production at the same time as the credit crunch kicks into the ability to pay.

The latest deep freeze in China is a classic example of how this will impact – not just upon their domestic economy but also upon China’s ability to supply the rest of the world with cheap consumption goods. All

available energy resources just went into keeping people alive. On a less dramatic scale, the same was true for the series of floods that swept through England's towns and cities during the last six months. Press images inevitably focused on the disruption of people's lives and the number of homes that became inhabitable. No less severe, however, was the loss of economic production and the loss of food production, from lands left sitting under water.

This is the disruption that comes with climate change. It is the consequence of damage we did thirty years ago. We cannot undo our past and we will have to live with its consequences as they pour out of the climate pipeline. What cannot be in doubt is that these consequences will send seismic shocks through the notion of globalised markets. It's at this point that we have to feed in the issue of peak oil.

**World Oil Production by Month, Focus on Peak -
2001-2007**



Most of the headlines about oil issues have focused on the inexorable price rise towards \$100 a barrel. Far more significant are the figures about global oil production.

For decades the oil industry has encouraged the world to believe there is a limitless supply of oil to be obtained. Even now, those who don't want to face the crisis continue to talk about oil 'resources' rather than 'reserves'. The important difference between the two is that the latter is the volume that is readily available and the former isn't.

Everyone in the oil industry has had a vested interest in lying about the volume of oil reserves. Oil countries have a production quota based on how large their reserves are claimed to be. Oil companies have share prices propped up by claims about their reserves.

The everlasting-oil mythology has been sustained by a very real increase in global oil production. In 1986, the world produced 54 million barrels of oil per day (mbpd). By 2002, this had risen to 73.2 mbpd, and by 2007 to just over 85 mbpd. All the claims were that this rising production curve could go on to deliver 100 to 120 million barrels per day. The graph (above) shows that we will never see this happen.

It is likely that 85 mbpd is the peak oil production, and that we hit it somewhere near the end of 2005. Now, it's now downhill all the way.

This is a tough message for the apostles of oil who have been celebrating the rise in demand at the same time as pretending that it can be met. China has seen its oil consumption grow by 8% a year since 2002. It has doubled oil consumption in the last decade. India's oil imports are on the same rising curve and are expected to triple, to more than 5 million barrels, by 2020. The recent experience of oil price rises should tell us that increasing demand can no longer be met by increasing supply. \$100 a barrel is just the beginning. Oil prices will spiral into the stratosphere, spinning the world into an era of colossal economic insecurity.

The Iron Triangle

In the UK, the closest we have come to an engagement with this has been recognition of the impact is having on energy security for the poor. Since 2003, domestic gas prices have risen by 82% and electricity by 61%. The average household energy bill is now roughly £1000 a year. Figures just released show that 1 in 5 families with children cannot afford to keep their house warm.

Ironically, this is where the cost of peak oil is likely to be felt on our plates as much as in our fuel bills. Around 99% of food production involves oil at some stage of its production. 95% of all products in our shops are either derived from oil or dependent on oil for their delivery. Across the globe, people will feel the oil price hike in the cost of bread, tortillas, chapatti flour, and basic cereals. Even the OECD's normally optimistic international agency has now raised its concern about the prospect of a global energy crunch by 2015. In reality, the crunch is probably beginning now.

Two factors combine to conceal this from us. Petroleum geologist Jeffrey Brown describes the unholy alliance that exists within what he calls the 'Iron Triangle'. This is comprised of oil companies in one corner, the automobile, housing and finance sector in the second corner, and the press in the third. It isn't difficult to understand why the oil industry should want to live in denial about peak oil. But we have underestimated the role of the other two sectors in this culture of denial.

The housing and vehicles sector essentially wants to sell products (or the financing of products) that rely on an unlimited supply of oil. The media sector needs to sell advertising that promotes the purchasing of oil dependent products. Between them they continue to press a 'Party on Dude' message to consumers. It is a way of life that is unsustainable and which faces a more imminent collapse than it realises. As Jeffrey Brown put it, "we shall probably soon see that hell hath no fury like a Formerly Well Off Suburbanite who has just had his SUV repossessed and his McMansion foreclosed."

Rather than address this, the British Government is obsessed with trying to fabricate the case for a new generation of nuclear power stations. Even if you believed that nuclear economics made sense (which they don't), the UK could not deliver a single new nuclear power station before 2020. The energy crisis will hit us long before that. This is why the radical transformation of energy market rules (to deliver sustainable energy programmes along the lines that Germany is pioneering) becomes such an imperative.

The second factor is that oil decline always kicks in much faster than people realise. The UK went from peak oil exports to zero exports in about 6 years. The decline of 'everlasting' oil fields in Baku and Texas didn't take much longer. Optimists hope that global post-peak oil production will decline at only 2-3% per year. Pragmatists say that a contraction of 5% a year will take place. The only experience that we have had of such a contraction was in the 1973 oil crisis. What followed was recognition that, for each 1% in global oil supply you can expect a similar 1% drop in global GDP. Work out for yourselves what a global contraction of 5% a year would look like.

One consequence is entirely predictable. We will see a retreat into national energy security programs. This is already happening amongst the major oil exporters. The top 5 oil exporters in 2006 (Saudi Arabia, Russia, Norway, Iran and the UAE) consumed about 25% of their total production. The top 3 also showed a combined 3.8% decline in their net oil exports from the preceding year. In Mexico, where oil production is also in decline, the predictions are for the 5% year-on-year fall in output but an 11% decline in oil exports. Nations will increasingly meet their own energy needs before trading with others.

This retreat into mercantilism is entirely predictable. In the absence of a distinct political lead in a different direction, it also increases the risk not only of further oil wars between countries, but also that oil states were also be plagued by internal disruption from those who would be 'pirateers' of scarce oil resources. The more we put off the shift into a post-fossil fuel society, the more we risk the transition being anarchic and chaotic.

Prospects for the future are not hopeless, but they do have to be radically different. I have been working with cities and companies who are currently taking one problem (domestic waste disposal) and turning it into an energy solution (producing bio-gas that gets fed back into the mains and runs combined heat and power generators on the estates where the waste was collected from in the first place). Bi-products of the process also deliver fertiliser for the land and fuel to run the waste collection vehicles.

Done on a national scale, Britain could radically deliver sustainable energy, cut its greenhouse gas emissions and be non-dependent on Russian gas before the energy crisis really kicks in. The key change depends on citizens and cities having a legal right to become suppliers of clean energy into the system rather than just energy consumers. It means breaking the stranglehold of the current energy giants on current energy market rules. We have to break this grip if we are to find any space to breathe in.