Peak Oil: a view from the summit

The smoking gun of this recession… and the next?

Sequoia Spotlight

Received wisdom states that American subprime mortgages are to blame for triggering this recession. We've been led to believe that a toxic mix of fraud and stupidity undermined the entire global banking edifice – although quite how a few impoverished and misguided homeowners in the USA could achieve this feat has never really been explained in a satisfactory way.

Spin back to mid 2008 and the headlines were not about economic meltdown - they were about oil prices. The cost of crude had shot through $130 a barrel and Sequoia were engaged by a major multinational to test their Supply Chain strategy in the likely event of prices hitting $200+. We ran a well-received "Leading Thinkers" seminar arguing that Peak Oil could be upon us – the point when the maximum rate of global petroleum extraction is reached, after which the rate of production enters terminal decline.

Is it just coincidence that this preceded the financial meltdown? We think not. And if not, the current bottoming-out of the recession may be just the first of a series of economic bounces we will experience until structural changes in the pattern of our (mainly US) energy consumption have been made.

Price hikes

So what actually happened to oil prices? In 2007 crude oil averaged $70 a barrel - 8% up on 2006, but 85% up on 2004. By July 2008 it had reached $130 a barrel – a 100% increase on 2006 and an alarming 240% up on 2004.

The UK, in common with most of Europe, was buffered from this rise in two ways. While oil prices were rising the dollar was falling, so in Euro or Sterling terms the hikes were mitigated – though still very marked. More significantly, fuel taxes are so high in most European countries that the percentage increase in the retail petrol price was dramatically diluted. To take the UK as an example, a jump of 95% in the crude oil price caused a considerably smaller increase of 25% in retail fuel costs.

US effects

The USA "enjoys" much lower fuel tax, and much lower retail fuel costs - but its economy is therefore much more closely coupled to oil prices. In 2007 gasoline prices in the USA averaged $2.75 per gallon at the pump – in itself a hike of 45% over the heady days of 2004. In 2008 they shot up to $4.00 a gallon. Still a bargain by European standards – but let's put this into economic context.

$4.00 a gallon is the highest cost of fuel in real terms ever experienced in the USA. The change from $2.75 to $4.00 in around six months cost American consumers $385 billion dollars at annualised rates.

That's $385bn taken away from expenditure on other items and redirected into gasoline. The average American citizen was spending about 5% of their household budget on gasoline, but poor Americans were already spending nearer 20% - a figure which threatened to shoot up to 30% over a six month period. Unsurprisingly something had to give, and it would appear that in many cases what had to give was the mortgage payment.

Yes, there was already a global asset price bubble ready to be pricked. But we would contend that the primary agent of recession was actually the exceptional increase in oil prices – almost certainly driven by the fact that we have now hit peak oil. Not only was $385bn diverted out of other consumer expenditure, but something like $400bn was driven out of the US economy altogether. The US imports two-thirds of its oil, so when the price doubles, huge sums of money leave American pockets and land in sovereign wealth funds.

Panic over?

Of course, talk of peak oil is no longer fashionable now that oil is back down to the $50 mark. Stocks of oil in developed economies are at an unprecedented high and talk of a fuel crisis is far behind us. Yet of course this is an illusion. Recessionary effects have driven oil consumption down from the ceiling it hit in 2008. American oil consumption has dropped by 10% and globally it is down 6%. The world is no longer trying to consume more oil than it is possible to extract – so stocks and prices reflect this fact.

Change needed

But what happens when we try to pick up the pace again? If this thesis is correct, then the world cannot extract more than around 89m barrels a day. Currently we appear to be using 83m. When global output picks up we may again try to race beyond 88m barrels – the 2008 figure – because little or nothing structural has taken place to alter our fuel requirements.

In Europe, the relentless march of fuel taxation has taken petrol prices to at least 50% higher than even the peak price experienced by the USA – but this happened over a long period of time. Individuals and companies were able to order their affairs to cope with the change. Vehicles are more economical; commuting distances shorter; public transport more popular. And yes, the US has plenty of scope to change. But it cannot effect this change overnight. If oil prices ramp up again, as they did in 2008, they will again smash into the US economy like a battering ram. Something will have moved since 2008. It will perhaps not be quite such a shock. But it may again be enough to bounce the world back down into recession - consumption will collapse, oil prices will drop, economies will recover and pick up until...

Maybe this is how peak oil plays out. We could have prepared for it; Marion King Hubbert, the father of peak oil theory, gave us 50 years of warning.

But we - notably the USA - did not prepare. If economic transitions are not managed gently they can be violent and shocking. There are signs that the age of cheap energy may be coming to an end. Significant changes of lifestyle and corporate structure may be forced upon us whether we like them or not. It is going to be a roller coaster ride – but if we understand what is happening it will be less frightening and we will be better able to make the right calls to emerge intact into the new energy economy that will await us on the other side.