

The Political Economy of Energy in the Second Half of the Age of Oil

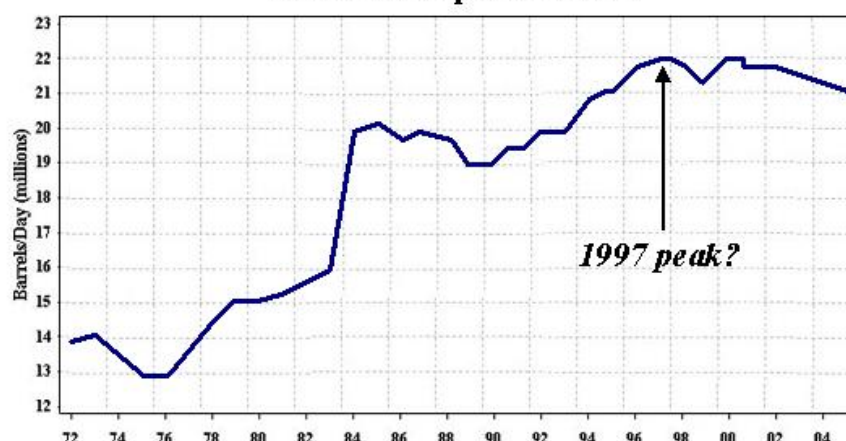
Chris Sanders

Director, Sanders Research Associates Ltd.

www.sandersresearch.com

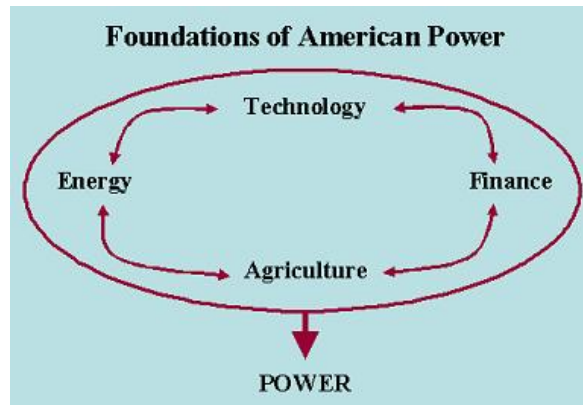
Talking about the political economy of energy may seem a little odd to those accustomed to thinking about politics on the one hand and economics on the other. This habit of mind has become so ingrained that it is useful to keep in mind that the formal academic division of the two into separate disciplines is only a hundred or so years old. It is particularly useful to keep this in mind when thinking about something as important to society as oil and gas, whose economics cannot be separated from the political environment in which they are used. I am put in mind of the words of the late American journalist, Walter Karp: "Nothing happens that is not the deeds of men."

OECD: oil production



concretely, The first half of The Age of Oil is so intimately associated with the rise of the Imperium Americana about which so much hot air and printers ink is being spilt, that it is really not terribly useful to talk about one without talking about the other, and if the advent of Peak Oil has meaning for any one country more than another, that country is surely the United States, and the men, women and families that run it. This raises the million dollar question: does this mean the end of the American Era?

Now, there is some dispute about exactly when the production of petroleum will reach its worldwide peak, but about a peak occurring, there is little disagreement since it is, fundamentally, a geological matter. This is going to propel changes in the world political economy as well. The reasons for this are various, but fundamentally boil down to the complex interaction of technology, population growth, energy, finance, and economic activity. The shape of things to come cannot really be understood, however, without knowing something about how they have been.

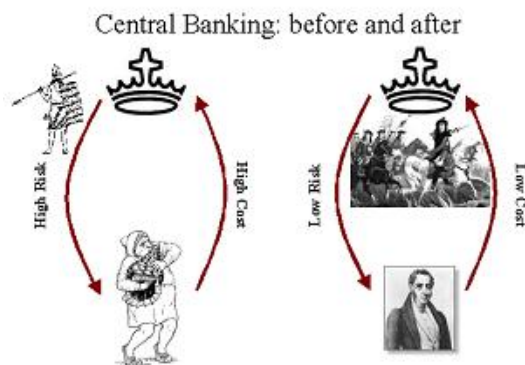


One might think that this is easy, but in fact there is tremendous disagreement about the past, and even the recent past. Nevertheless, we need to look back on the formation of the United States and particularly its evolution in the 20th century if we are to formulate any useful conclusions about where we are headed in the 21st. To do this I am going to examine the close links between technology, energy and finance, agriculture, and ultimately, power.

Doing this we are going to see the intimate connection between energy and the War on Terror. Hopefully, this will be a constructive exercise that enables us to more realistically judge between potential outcomes and choices.

Technology in the form of improved medical care and public health had by the end of the 18th century considerably accelerated the pace of population growth in the newly industrialising world. For the provision of energy, which up to that time had been largely provided by muscle and wood, societies turned to coal, and by the late 19th century, were beginning to convert to petroleum. Finance, too, began to change in a parallel process that began with the Glorious Revolution in England, a hostile takeover, if you will, by military and commercial forces that had coalesced around William of Orange. This very quickly led to the “liberalisation” of British finance with the creation of the Bank of England.

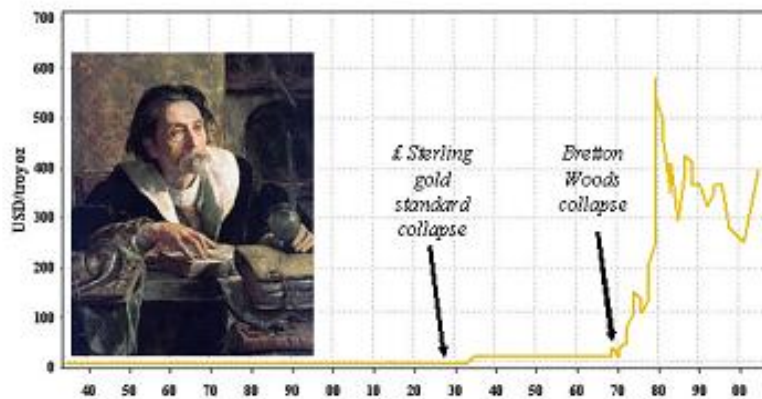
For the purposes of this discussion, this was important because it revolutionised the process of raising money by the state for war or other purposes by effectively swapping the credit rating of the sovereign for that of the Bank’s owners, and so set in motion the most efficient means of financing war hitherto known to man.



How did this development come about? Basically, it was rooted in the endless need of the state for money. Historically the state was the Crown, or sovereign. Sovereign credit in those days was some of the worst credit on offer, not the theoretically “risk free” bet that it has become today in the case of, for example, US Treasury bonds. The Crown was a bad risk precisely because it enjoyed a quasi monopoly on the use of force, which could be dangerous for a would-be lender, and which resulted in very high rates of interest demanded by any lender willing to take the risk. This circle was squared with the creation of the Bank of England, in which the sovereign, employing his superior force, granted and enforced a monopoly to a group of merchants and bankers with much better credit. In return for this monopoly, they raised money for the Crown’s wars by borrowing using their credit, bringing the cost of financing war for the British crown at least, crashing down, and forging an alliance between the financial sector and the state that persists to this day.

From that point to the end of the 19th century at least, finance was still generally ruled by the notion that the monetary system had to be based on a unit of exchange with a commonly agreed value, either gold or silver or both. Credit growth was thus dependent on the supply of these metals that could be mined or stolen, as the history of early European exploration and conquest shows.

The Holy Grail of Finance or the Alchemist’s Dream: the “liberation” of money from gold (Price of gold)



The holy grail of finance was then, as it still is today, a means of liberating finance from this constraint while still keeping control of credit and the state, and it is clear from the manner in which the alliance between finance and the state was forged that this, too, would have important strategic implications. Among these is the role that money plays in society and especially the role of gold as money; today the same people who tell us that oil is abundant tell us also that gold is worthless. Think about it.

Now, it is worth noting that the invention of the internal combustion engine and the resulting leap in the demand for petroleum interacted with these developments in ways that are both obvious and subtle. Finance was first revolutionised by the creation of a more efficient means of financing war in the form of central banking.

The popularisation of petroleum use too did not take off until its military potential was first realised when the Royal Navy adopted it in place of coal. This ignited a world-wide arms race and inadvertently ceded to the hydrocarbon self-sufficient United States a critical strategic advantage. Britain with this fateful choice went from being self-sufficient in energy in the form of coal to being utterly dependent on the oil resources of the Middle East thousands of miles away and threatened by competitive interests in Germany and France which likewise needed it. It “solved” the problem by concluding a non-aggression pact with the US — not only self-sufficient in oil but the main naval threat to the Empire.

The foundations of the contemporary political economy of energy cannot be complete without a nod towards the development of the corporation, especially in the United States, and the revolutionary changes that this brought to the American society and political economy.



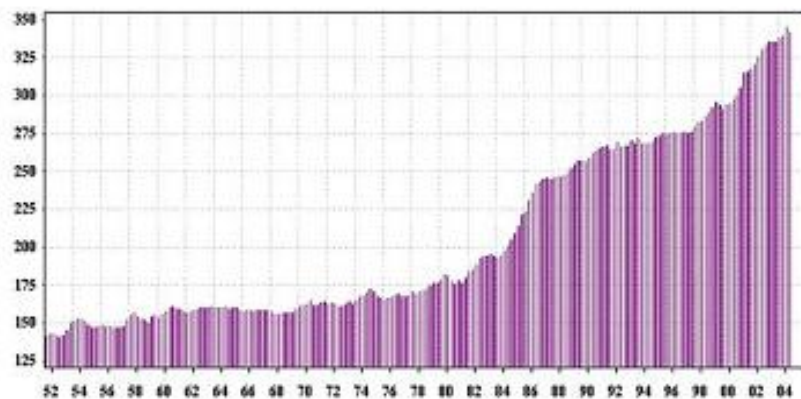
In 1887, the legendary American financier and crown agent JP Morgan brought together the eight men who controlled virtually all of America’s energy transportation and basic industrial processes in a room at his Fifth Avenue mansion in New York and hammered out a non-compete agreement that, by and large, defined the future path that the country would take, which was not republican with a small “r”, so to speak, but with a very big “R” as in Republican and Rich. Only a few years later, the US had become an Asian colonial power, and within three decades had established a central bank, completing de jure what had been de facto control of American finance. From this it emerged as the world’s most formidable financial power.

Much of this it owed to oil, being the world’s biggest producer and exporter. The global strategic challenge for America of establishing hegemony became one of denying free access to oil to those European and Asian powers that were, and are, net oil importers.

American victory in the Second World War completed this process, setting the stage for several decades of American dominance of the world scene with one notable exception, the USSR, which was also energy self-sufficient.

The collapse of the Soviet Union is usually attributed to factors such as its lack of free markets, the inability to match American military spending and so on, but almost certainly it also was due to the collapse of oil prices in the middle 80s which severely impacted its hard currency earnings and decimated state revenue while increasing the financial burden of supporting its Warsaw Pact allies. The US meanwhile was able to draw upon its position as the issuer of the world's reserve currency to run up a huge debt bill.

Total US Debt as % of National Income
Deficits don't matter?



These days it is fashionable again as it was in the 70s to worry about debt levels in the industrial world. For two decades or so this was not the case as the political marketplace was dominated by ideas of government budget discipline and disinflation as fiscal and financial priorities. These priorities were honoured more in the breach than in the observance, that observance being focused narrowly on forcing labour to accept lower wages rather than on controlling credit or money, but they are relevant to our discussion of the political economy of energy for the simple reason that they highlight the truth that it is not finance that makes economies “grow” but real factors such as population growth and energy availability. And it is real factors too that underlie the distribution of political power in a society – who does what to whom.

The attractiveness of hydrocarbons has always been predicated on their uniquely productive energy release and transport characteristics, as well as the fact that their chemical makeup has rendered them useful to the production of fertilisers among other products necessary to industrial agriculture.

This has had surprising and profound results. Mechanisation and chemical fertilisers have transformed the political economy of agriculture by stripping agriculture of workers, thus neutering political movements as diverse as Ukrainian Kulaks and American populists and progressives. Contrary to contemporary received wisdom, mechanised agriculture is not always the most productive, and the use of petrochemical based fertilisers, pesticides and herbicides destroys productive land almost as quickly as new land can be brought under the plough. Citizens and voters today, however, are in no position to judge, their forefathers having been alienated from the land long before, removing the connection between those ruled and that most

basic building block of power, food production, and giving us today in consequence much food for thought about the nature of our democracies.

Arable Land & Population

1961-2002	Land under cultivation + 10%
1960-2000	World population + 100%

- Agricultural productivity has increased simply by adding more water and chemicals
- This is a one-off improvement
- It destroys land as fast as it can be brought into production*

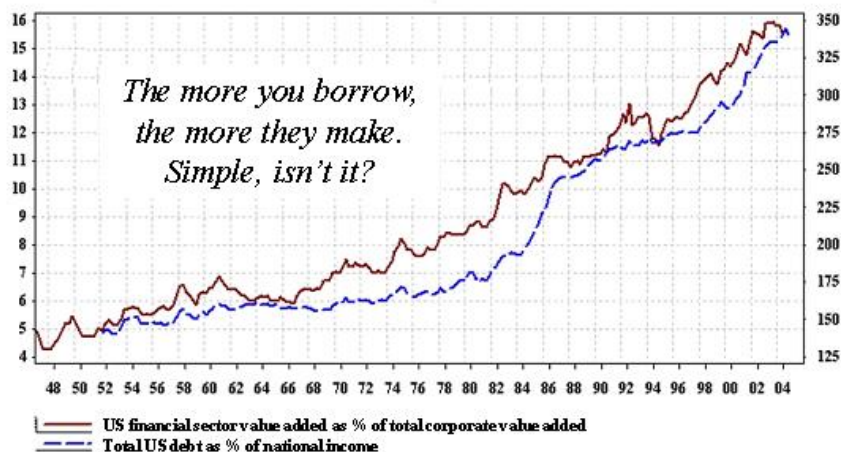
Source: FAO Stat.

*See D. Fleming, *Biotechnology Briefing – a technology we do not need.*

<http://www.sandersresearch.com/Sanders/NewsManager/ShowNewsGen.aspx?NewsID=485>

Hydrocarbons therefore are useful to the corporate state not just because of profit, which tends to be the view of what remains of the modern left, but also because they have liberated the state from concern about serious organised political opposition while simultaneously ratifying growing debt burdens. The mechanism for doing the latter has been predicated on cheap and abundant oil which has held the promise of high future output rates that could be relied on to service debt assumed in earlier years.

US Finance Profit & Debt



This has been crucial in addressing the fundamental existential problem of modern liberal capitalism, which is what to do with the surplus output of industrial activity

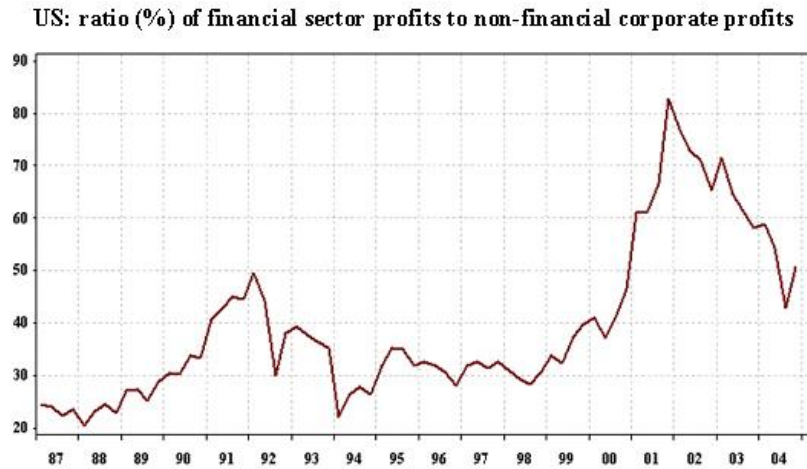
without losing control of the political economy to the workers. By allowing society to consume today using tomorrow's savings, thanks to petroleum today's production is higher than it would otherwise have been for a given level of profit. And the prevalence of the mortgage and leasing contract for all manner of commodities whether it be land, a house, a car, or an airplane, has further separated the average person from the material foundations of society, leaving him or her with a legal obligation in the form of a financial liability with no asset other than his or her ability to work to set off against it. This is a neat trick if you can pull it off: as our governments have sold our gold they have also loaded us, the taxpayers, with the liabilities that they, their policies, and their bankers have created.

A world in which oil is priced for scarcity instead of the rhythms of cyclical supply and demand would represent a very different world than the one which we live in today, in which oil and gas are priced as if they are infinitely renewable, and economic growth is largely a matter of debt growth and balance sheet inflation. We live in a world of temporal limits and limitless possibilities. The conflation of these two realities is a source of, well, limitless confusion, especially at the intersection of politics and economics. The future may hold infinite promise, but we still have to eat. The choice is not between a world with and a world without oil, but (among other choices) between a world organised around oil as the primary propellant for growth and military and political supremacy, and a world organised around people as the organic drivers of growth. This point can be illustrated by the concept of "growth" itself, which we measure conventionally by an additive function called gross domestic product.

Being additive, GDP tells us nothing about the quality or the nature of the actions of real people that added together are GDP. Investment in a factory is not the same as swapping fixed for floating debt, but add up enough of the latter and you can arrive at the same GDP figure. In the United States, where the financial sector's profits are half of those of the rest of the economy, this matters. American society has become increasingly disconnected from the foundations of its productive livelihood, an observation that inevitably raises questions about the fundamental valuation of American assets. For instance, the Enron fraud amounted to some 1% of GDP. Add AIG, WorldCom, Fannie Mae, Freddie Mac and others to this and you get the point: US GDP is overstated by a statistically significant factor, which makes its net foreign debt, which will rise to some 40% of GDP this year using the government's own numbers, something bigger still. By comparison, the UK and Swedish economies collapsed in the late 80s with foreign debt less than half this big.

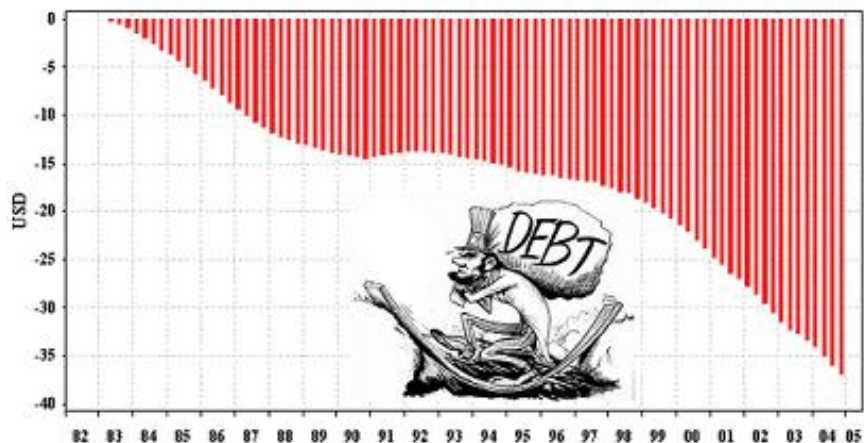
The post World War Two alignment of the world political economy disintegrated in the late 60s under pressures and circumstances remarkably like those we are experiencing today. In the bi-polar global configuration that existed at that time, the US was able to impose a "solution" in the form of a floating fiat reserve system based on the dollar and secured by American military and security guarantees. For the first few years after the closing of the gold window at the Fed in August 1971, the US attempted half heartedly, but with financial and economic orthodoxy, to raise its savings rate to help stabilise the international financial system.

US Financial Sector Profit



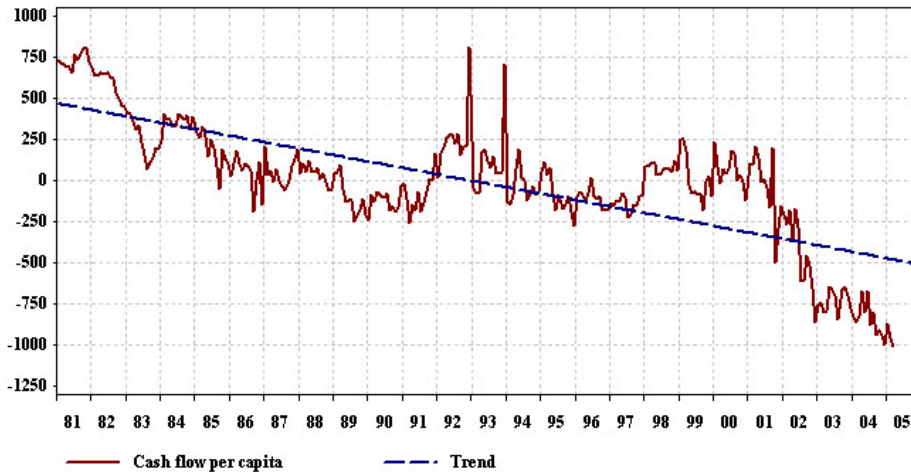
This orthodoxy was abandoned totally with the election of Ronald Reagan in 1980, beginning a cycle of debt inflation that has yet to peak, and leaving Washington with the conviction that its international position was strong enough to enable it to in effect tax the rest of the world by exchanging “paper” for real assets indefinitely. A result has been a highly destabilising effusion of dollars into the world economy that under other circumstances would have been highly inflationary. That it has not is primarily due to the system of alliances enjoyed by the United States which gives it access to foreign credit in the form of recycled dollar earnings from allies such as Japan and Germany. But this has come at a cost, the hollowing out of the US industrial economy under the twin pressures of foreign and “defence”-subsidised domestic industry destroying labour’s bargaining power and suppressing wages in the process. While demand-pull inflation has been thus kept at bay, the “excess” cash created has flowed into financial investment vehicles fuelled by the vast amounts of liquidity created by the central banking system instead of into demand for more things by the American public, whose income is devoted increasingly to debt service.

US Net Foreign Debt as % of GDP



Net annual cash flow per capita in the US of a negative \$1,000 makes the point. As 10% of the population own most of the assets, one can readily see what the implications are for the other 90% and for the viability of the American political economy.

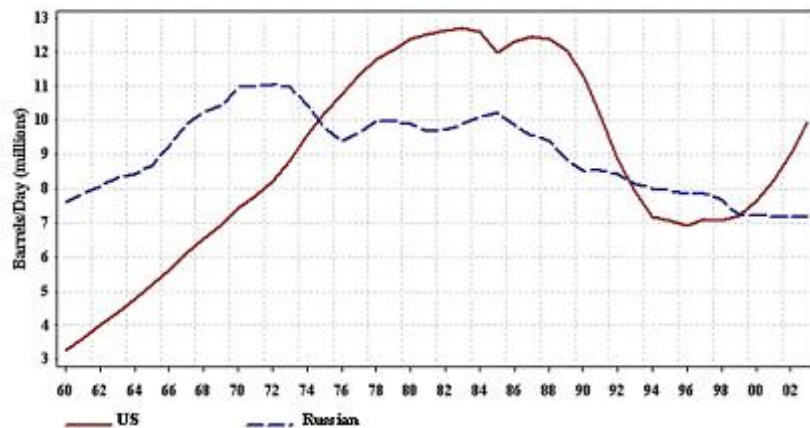
US: net annual cash flow per capita less asset income
Based on population



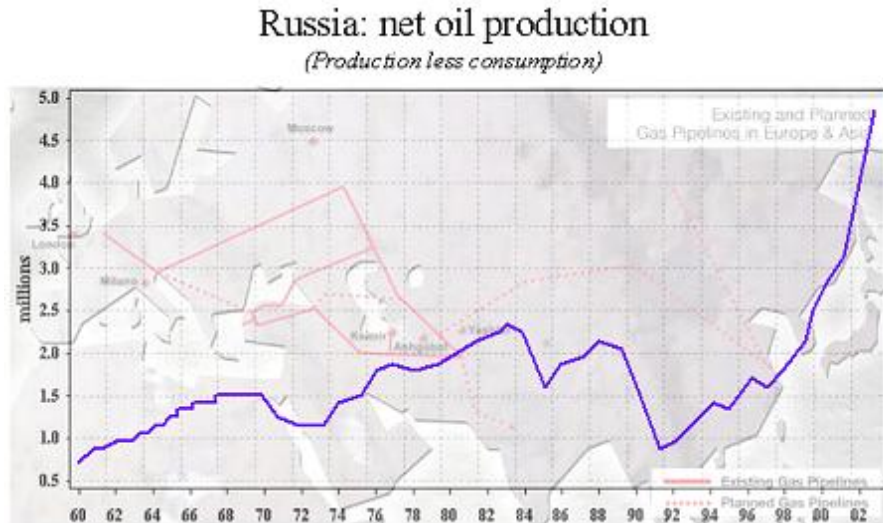
Source: Sanders Research Associates & EcoWin.

America therefore faces the world in a very different way than it faced the world in 1945 or 1971. The world's biggest creditor then, it is now the biggest debtor. Once the largest exporter of petroleum, it is now the largest importer. Then the biggest manufacturing power in history, it has now largely deindustrialised, and its flagship corporation, General Motors, the epigrammatic company of the First Half of the Age of Oil, is on a fast track to insolvency. In one area, finance, it reigns supreme and apparently unchallengeable, thanks to the alliance system it built after World War Two. Unchallengeable? Perhaps, but consider: as we have seen, America's ability to project power has been a function of its ability to deny other nations access to oil. As the world's biggest producer and exporter, this was more easily managed.

US & Russian Oil Production



As the world's biggest importer, it is another story altogether, and America now faces a Russia that is not only the world's biggest producer, but a self-sufficient exporter of energy to boot.



A glance at the military deployments of the United States since September 2001 and the series of lavishly financed revolutions in the former Soviet Union betrays the real agenda of the War on Terror.

The stakes at risk in the outcome are evidenced by the line of countries wishing to sign long term supply contracts with the Russians, as are the emerging regional cooperative arrangements in South Asia with Iran and in Latin America with Venezuela. These simultaneously challenge not just American control of world energy distribution, but challenge the financial system that is supported by it. When Hugo Chavez pledged to purchase Argentine debt with Venezuelan petrodollars in Montevideo two months ago, he fired a shot straight at the heart of the system.

It is a fact that it is more productive to conserve oil than to consume it, but conservation is the last thing on our leaders' minds, as Tony Blair reminded us last week with his endorsement of nuclear power. Look out of the airplane the next time you travel to Los Angeles or Dallas, and you will see why the Anglo-American political system refuses to conserve.

Energy economics in the second half of the age of oil require a profound change in the way we and our corporate institutions imagine the world. Look at Iraq, and you can see what the response of our leadership is to this challenge. In the words of the Great Karp: "The cynics as usual were not cynical enough."

