

THE ASSOCIATION FOR THE STUDY OF PEAK OIL AND GAS “ASPO”

NEWSLETTER No 43 - JULY 2004

ASPO is a network of scientists, affiliated with European institutions and universities, having an interest in determining the date and impact of the peak and decline of the world's production of oil and gas, due to resource constraints.

The following countries are represented: Austria, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Missions:

- 1. To evaluate the world's endowment and definition of oil and gas;*
- 2. To study depletion, taking due account of economics, demand, technology and politics;*
- 3. To raise awareness of the serious consequences for Mankind.*

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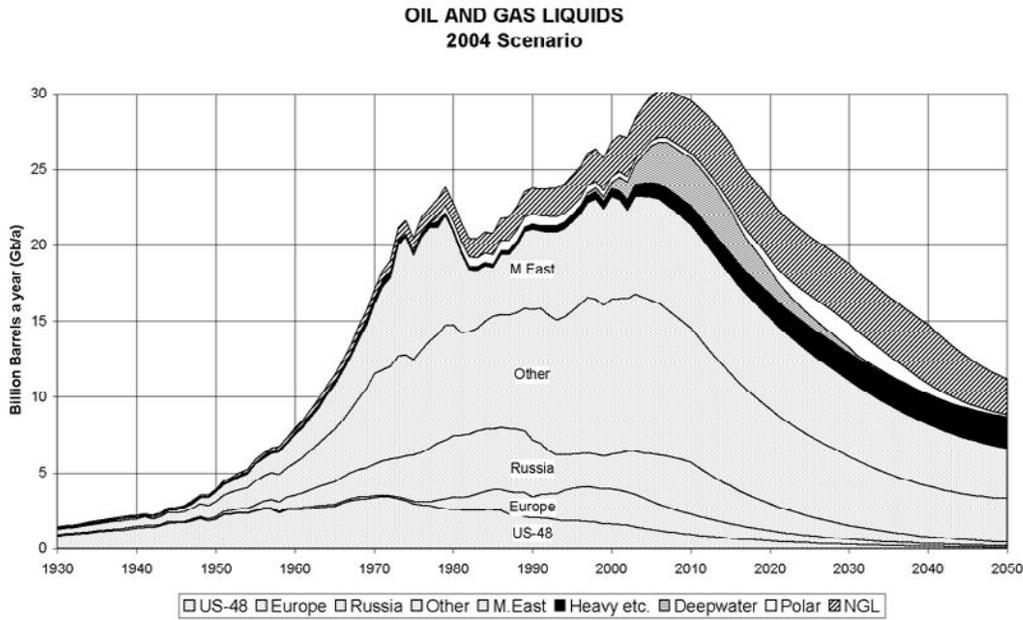
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CONTENTS

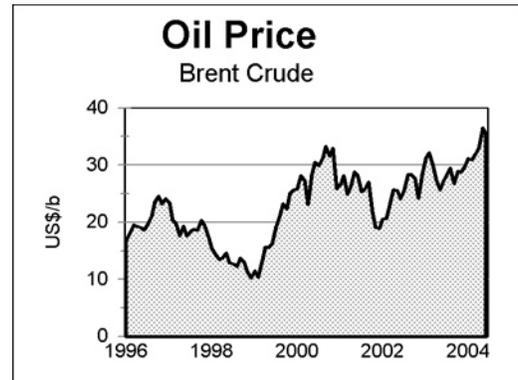
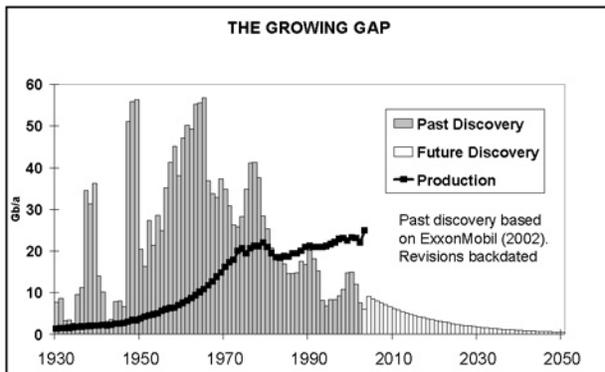
- | | |
|--|--|
| <i>376. Oil effectively traded in Euros</i> | <i>382. Tanker shortage</i> |
| <i>377. Oil, money, and war - the end of the New American Century?</i> | <i>383. Dwindling Exploration</i> |
| <i>378. A Most Critical Development</i> | <i>384. BP takes responsibility for false reserve numbers</i> |
| <i>379. Country Assessment - Italy</i> | <i>385 The Truth about Oil and the Looming World Energy Crisis</i> |
| <i>380. UK Balance of Payments</i> | |
| <i>381. An Oil Enigma: Production falls as Reserves rise</i> | |

Abu Dhabi	42	China	40	Iraq	24	Norway	25	UK	20
Algeria	41	Colombia	19	Italy	43	Oman	39	USA	23
Angola	36	Ecuador	29	Kuwait	38	Russia	31	Venezuela	22
Argentina	33	Egypt	30	Libya	34	S. Arabia	21		
Australia	28	Indonesia	18	Mexico	35	Syria	17		
Brasil	26	Iran	32	Nigeria	27	Trinidad	37		

Index of country assessments with Newsletter Reference



ESTIMATED PRODUCTION TO 2100							End 2003			
Amount			Gb	Annual Rate - Regular				Gb	Peak	
Regular Oil				2005	2010	2020	2050	Total	Date	
Past	Future		Total	US-48	3.7	2.8	1.9	0.4	200	1971
Known Fields		New Fields		Europe	5.1	3.6	1.8	0.3	75	2000
		780	150	Russia	9.1	9.0	5.3	1.1	210	1987
920	930		1850	M.E. Gulf	19	19	17	10	675	1974
All Liquids				Other	27	29	25	11	690	2012
990	1710		2700	World	65	59	43	20	1850	2005
2004 Base Scenario:				Annual Rate - Non-Regular						
M. East producing at capacity (anomalous reporting corrected)				Heavy etc	2.6	3	4	6	300	~
				Deepwater	4.0	7	4	0	65	2013
				Polar	0.9	1	2	0	60	2030
				Gas Liquid	8.2	9	11	6	400	2027
Regular Oil excludes oil from coal, shale, bitumen, heavy, deepwater, polar & gasfield NGL				All	80	80	64	32	2700	2006
Revised 24-06-04										



The following article points out that rising oil prices have matched the decline in the dollar. There may indeed be a relationship but it is less sure if it was a deliberate action by the oil producers or simply the consequence of market behaviour. So long as oil trade continues to be denominated in dollars, it will pass a considerable hidden tribute to the United States under the mysterious workings of international finance. The trade is effectively a matter of book transactions by US banks that serve to increase their collateral for domestic debt

OPEC Has Already Turned to the Euro

Published by GoldMoney

As the dollar's rate of exchange continues to fall against the world's major currencies, there has been much speculation about the likely knock-on effect. One area receiving a lot of attention is crude oil in general, and OPEC in particular.

It has been suggested that OPEC may begin pricing crude oil in terms of the euro, and further, that OPEC may actually begin invoicing its crude oil exports in terms of euros. This latter step would require shifting out of dollars, with OPEC receiving euros in payment.

These possibilities have been scoffed at by many whose interests are tied to the fate of the dollar, but it seems that OPEC has already taken the first step - it appears to be pricing crude oil in terms of the euro. This conclusion is apparent from the following table. The import data is from the Department of Commerce report entitled *U.S. International Trade in Goods and Services*. The source for the euro exchange rate is the Federal Reserve, and I have calculated the euro's average exchange rate to the dollar for each year based on daily data.

US Imports of Crude oil

	2001	2002	2003
1) Import kb/d	3,471,066	3,418,021	3,673,596
2) Value k \$US	74,292,894	77,283,329	99,094,675
3) Unit price US\$	21.40	22.61	26.97
4) US\$-Euro Exchange	0.8952	0.9454	1.1321
5) Unit	23.91	23.92	23.82

We can see from Row (3) in the above table that in 2001, that each barrel of imported crude oil cost \$21.40 on average for that year. But by 2003 the average price of a barrel of crude oil had risen 26.0% to \$26.97 per barrel. However, the important point as shown in Row (5) is that *the price of crude oil in terms of euros is essentially unchanged throughout this 3-year period.*

As the dollar has fallen, the dollar price of crude oil has risen. But the euro price of crude oil remains essentially unchanged throughout this 3-year period. It does not seem logical that this result is pure coincidence. It is more likely the result of purposeful design, namely, that OPEC is mindful of the dollar's decline and increases the dollar price of its crude oil by an amount that offsets the loss in purchasing power OPEC's members would otherwise incur. In short, OPEC is protecting its purchasing power as the dollar declines.

The US also imports oil from non-OPEC countries, but these countries have the same economic interest as OPEC. They too want to preserve their purchasing power of the crude oil they exchange for dollars, so they would logically be amenable to OPEC's apparent pricing scheme.

Thus, it seems clear that OPEC and the other oil exporters are already pricing crude oil in terms of euros, at least tacitly. Whether they start invoicing their crude oil sales in terms of euros remains to be seen.

The above table is also interesting for another reason. Row (2) shows that the import cost of crude oil has risen by approximately \$25 billion from 2001 to 2003. This increase has directly added to the trade deficit. Therefore, the dollar has entered a vicious circle. As the dollar declines, the oil exporters raise the cost of their oil to protect them from a loss of purchasing power, and this rise in the price of crude oil further worsens the trade deficit, which causes the dollar to weaken further and the oil exporters to raise prices yet again.

Last week the US reported a record trade deficit for 2003 of -\$489.4 billion, -\$71.3 billion greater than the 2002 deficit of -\$418.0 billion, which was the previous record. Crude oil imports therefore represent 20.2% of the total deficit. This amount rises to 26.5% if other energy related petroleum products also imported are included with crude oil imports. One can therefore conclude that as the price of crude oil and other petroleum products rises to offset the weak dollar, the trade deficit will worsen. So can a weak dollar really reduce the trade deficit?

Given the apparent action by the oil exporters to offset the weak dollar, the portion of the trade deficit related to petroleum products (26.5% in 2003) will not be affected, assuming the oil exporters continue to raise prices to offset the weaker dollar.

In recent years the mantra of numerous Treasury secretaries has been that a strong dollar is in the best interests of the US. This analysis of petroleum imports presents one reason why that truism is correct. The oil exporters will not be cheated by a weaker dollar.

(Reference furnished by Virginia Abernethy)

A penetrating analysis of the hidden role of world reserve currencies, petro-dollars, and economic neo-imperialism has been published by F. William Engdahl, under the title **A New American Century? Iraq and the hidden euro-dollar wars**. It appeared in the June 2003 edition of *Current Concerns* (www.currentconcerns.ch). It is too long to be reproduced here but some of the salient points are summarised below.

1. Currency is primarily a medium of exchange whose validity rests on confidence. In earlier years, paper currency was backed by gold, which was universally recognised as a finite commodity having a scarcity value. But in times of stress, such as occurred in wars or the Great Depression, countries left the gold standard, in the belief that a release of liquidity would stimulate economic growth that itself would sustain the value of the currency.
2. The United States emerged supreme at the end of the Second World War, with a vibrant economy and massive gold reserves, some received from Britain, the previous world power, to pay for its war effort. The Bretton Woods agreement established the dollar's pre-eminence for the post-war period, establishing fixed rates of exchange.
3. The US international banks grew in parallel, financing world trade including oil imports, in turn facilitating the entry of US controlled international companies into foreign markets.
4. By the 1960s, the system had come under stress as the US Government built up deficits, partly from the cost of foreign conflicts as in Vietnam, and partly as a resurgent Europe began to intrude.
5. The oil shocks of the 1970s further undermined the system, leading to the recycling of petrodollars as high risk Third World debt, impoverishing those countries in the process. These commercial debts were policed by the IMF that sought to prevent natural defaults, as threatened by Mexico in 1982, for fear that it could set a precedent undermining the global house of cards.
6. The oil exporters with massive surpluses, such as Saudi Arabia, were persuaded to come to a cosy arrangement whereby they converted the proceeds into US Treasury bonds, such that the payments in effect became book transactions in American banks, which themselves provided collateral for extending domestic credit. Evidently, a secret accord promised military support for the Saudi royal family in return for its help in this matter
7. The basic weakness of the system became more evident as time passed causing ripples of political concern and reaction. The tension was exacerbated by the creation of the Euro in 2000, especially when Iraq began to sell its oil in that currency under the Food for Oil programme. The proceeds were deposited in a special UN account maintained by a leading French bank.
8. Leading European government figures, from the Deutsche Bank's Norbert Walter to France's President Chirac went to major holders of dollar reserves - China, Japan, Russia - and tried to convince them to shift at least part of their reserves into Euros. Then, the dollar began to lose its attraction for foreign investors following the debacle of dot.com bubble, various financial scandals and deepening recession. The Euro gained steadily until the end of 2002. As France and Germany prepared their diplomatic strategy to block war in the UN Security Council, rumours surfaced that the central banks of Russia and China had quietly begun to dump dollars and buy Euros. The result was a dollar free-fall on the eve of war. But Washington, the leading New York banks and the higher echelons of the U.S. Establishment clearly knew what was at stake. Iraq was not about ordinary chemical or even nuclear weapons of mass destruction. The 'weapon of mass destruction' was the threat that others would follow Iraq and shift out of dollars, creating mass destruction of the United States' hegemonic economic role in the World.
9. In September 2000, a Washington think-tank developed *The Project for a New American Century*, releasing a major policy study: '*Rebuilding America's Defenses: Strategies, Forces and Resources for a New Century*'. On Iraq, it states, '*The United States has sought for decades to play a more permanent role in Gulf regional security. While the unresolved conflict with Iraq provides the immediate justification, the need for a substantial American military presence in the Gulf transcends the issue of the regime of Saddam Hussein.*' It provided the basis for the Presidential White Paper, entitled *The National Security Strategy of the United States of America*, which offered a *blueprint for maintaining global U.S. pre-eminence, precluding the rise of a great power rival, and shaping the international security order in line with American principles and interests. The American Grand Strategy*

*must be pursued as far into the future as possible. Further, the U.S. must, 'discourage advanced industrial nations from **challenging** our leadership or even aspiring to a larger regional or global role.'* (emphasis added).

10. It becomes increasingly clear to many that the war in Iraq is about preserving a bankrupt American Century model of global dominance.
11. Simply replacing the petro-dollar by the petro-Euro would serve little purpose, when what is needed is an entirely new World financial order, especially as rising oil prices, caused by capacity limits, increase the role of the petro-currency, whatever it may be.

(Reference furnished by Jean Laherrère)

378 A Most Critical Development

In the light of the foregoing, the move by Iran to trade oil in dinars seems to be a most critical development, possibly explaining moves by the United States to accuse it of posing a nuclear threat

The Iran takes on west's control of oil trading Terry Macalister Wednesday June 16, 2004 The Guardian

Iran is to launch an oil trading market for Middle East and Opec producers that could threaten the supremacy of London's International Petroleum Exchange.

A contract to design and establish a new platform for crude, natural gas and petrochemical trades is expected to be signed with an international consortium within days.

Top oil producing countries are determined to seize more control of trading after being advised that existing markets such as the IPE and Nymex in New York are not working in their favour.

Three years ago a former compliance director accused the IPE of manipulating prices, although these allegations were dismissed after an investigation.

The Tehran oil bourse is scheduled to open in 2005, according to its architect, Mohammad Javad Asemipour, who is a personal adviser to the Iranian energy minister.

379. Country Assessment - Italy

Italy forms a long peninsula from the Alps almost to Africa, covering an area of 300 000 km². The lowlands of the Po Valley in the north separate the Alps from the Apennine Range, forming the backbone of the country. In addition to the mainland are two large islands, Sicily to the south and Sardinia to the west, as well as extensive territorial waters, including the prospective Adriatic Sea.

The country supports a population of about 58 million. The Roman Empire and the Etruscans before it made Italy one of the cradles of civilisation, which came of age with the great cultural flowerings of the Middle Ages, epitomised by the works of Michelangelo. By way of balance, it also provided Europe with its first bankers and the *Mafia*. The modern State dates from 1861 when a large number of principalities were unified. The people, however, retain their regional identity, with the industrial north, centred on the second city Milan, contrasting with the rural south.

In the First World War, Italy, which had long felt a certain threat from its northern neighbour, the Austro-Hungarian Empire, decided to join the side of Britain and her allies. Benito Mussolini was the editor of a Socialist Newspaper, who supported the war in the belief that it would bring an end to capitalism. When peace returned, he emerged as leader of a new Fascist Party, which many saw as the best hope of dealing with the difficult economic conditions of the time. He came to power by popular election, but later took on dictatorial powers, disbanding the Constitution. He turned to the so-called corporate state backed by an amalgam of trade unions and employers. The country did indeed make substantial economic progress under

ITALY		Regular Oil
Population M		58
Rates Mb/d		
Consumption	2003	1.94
	per person b/a	12.2
Production	2003	0.9
	Forecast 2010	0.8
	Forecast 2020	0.6
Discovery 5-yr average Gb		0.01
Amounts Gb		
Past Production		0.91
Reported Proved Reserves*		0.62
Future Production - total		1.1
	From Known Fields	0.69
	From New Fields	0.4
Past and Future Production		2.0
Current Depletion Rate		3.1%
Depletion Midpoint Date		2005
Peak Discovery Date		1981
Peak Production Date		1997

* Oil and Gas Journal

this system, which was tacitly backed by the Catholic Church from its headquarters in the Rome.

He turned to overseas expansion, strengthening his hold on Libya, taking Ethiopia and the Isle of Corfu, while eyeing Yugoslavia. He also supported Franco in the Spanish Civil War, and formed a somewhat lukewarm alliance with Germany following the latter's assimilation of Austria on his border. He was hesitant to join the Second World War on Germany's side but eventually did so after the fall of France when a German victory seemed assured. It was a miscalculation that eventually cost him his life in 1945, when Communist Partisans hung him, together with his mistress, from a lamp-post in Milan.

The Communists, who had dominated the Resistance Movement, continued to have a prominent role in post-War Italy, but the country became a founder member of the European Union in 1957. It has since evolved into a prosperous State currently led by a media tycoon, Sr Berlusconi, who in 2002 sent Italian troops to support the invasion of Iraq. Hopefully, he will be spared the fate of his predecessor who also misjudged the outcome of a war to which he committed his country. Whatever the politics, Italy remains a beautiful and romantic place, where history seeps from every stone.

In geological terms, the country is broken up into several distinct provinces, mainly of Mesozoic and Tertiary age. The prospective Po Basin in the north contains a number of oil and gas fields. The latter are remarkable in so far as their Mio-Pliocene reservoirs are in communication with shallow biogenic source-rocks, which continue to replenish them. Also present is a deep giant gas-condensate field at Malossa, which is related to thrusts in the frontal structures of the Alps. Another important field is Villa Fortuna. It is a very mature province. It has been under the exclusive control of ENI, the national company, which is now making way for foreign companies, but it is rather doubtful if they will find much that ENI missed.

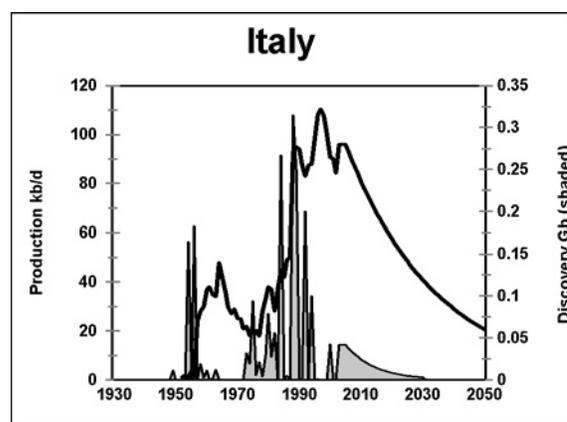
Another large basin covers the Adriatic and the eastern seaboard, extending southwards to Sicily and its adjoining shelf. The Triassic *Toarmina Formation* is the principal source-rock, with the overlying Jurassic carbonates offering reservoirs, albeit of mixed quality. The geothermal gradient is low, meaning that the window of oil generation is deep. The challenge has been to achieve sufficient seismic resolution to identify prospects in the carbonate platform, which depend on rather subtle factors. Generally, the results to-date have failed to confirm earlier promise, but the story is not over yet.

A third play is provided by the Apennines themselves where deep prospects have been found in a complex thrust belts. The eastern foothills and frontal zones also support numerous generally small gas fields fed from source-rocks within this complex pile of sediments.

Italy has had a long oil history. The industry has however long been dominated by ENI, which proved itself to be a very efficient and capable operator that did not abused its privileged position. It was previously led by a talented and maverick oilman, Enrico Mattei, who lost his life in suspicious circumstances, when pursuing a venture in Algeria. Its subsidiary Agip, has also been successful overseas with valuable positions in Norway, the United Kingdom, Nigeria, Egypt and Libya as well as the Former Soviet Union, especially the Caspian. It has survived the mergers of the past few years, although it was reportedly dancing with Elf before she fell to Total. On balance, it seems likely that it will preserve its independence, partly to protect the national interest in the coming days of crisis. It is poised to be a predator rather than become a victim of take-over, as confirmed by the acquisition of British Borneo, giving the company a strong position in the Gulf of Mexico.

Foreign companies have also been welcome in Italy under attractive terms, although in practice they have had to be content with acreage that ENI declined or relinquished. The major companies have from time to time taken positions, but generally it has been the preserve of the independents such as Enterprise and Fina (prior to their demises). Several large private Italian companies, such as Montedison, have also played a useful part. The Italian Government is rightly resisting pressure from highly misjudged European directives to liberalise the gas business, having recognised that it is a depleting national asset that should not be lightly exported for the benefit of others.

The first significant fields were Ragusa and Gela found in Sicily in respectively 1954 and 1956, with combined original reserves of about 420 Mb. They are now close to exhaustion, but the trend has been extended



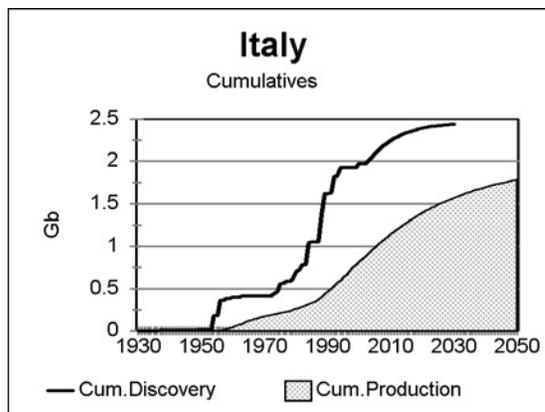
offshore, where the Vega Field was found in 1981, adding another 300 Mb. Exploration on mainland Italy and the adjoining Adriatic was stepped up in the 1980s, delivering Villa Fortuna in 1984 with about 250 Mb and later Monte Alpi with about 140 Mb. In addition is the large heavy oil field of Rospo Mare off the coast near Pescara.

The Po Valley and the eastern foothills of the Apennines support a huge number of generally small gas-fields, and still more are being discovered offshore in the northern Adriatic. A total of some 32 Tcf of gas has been found but only 8 Tcf. remain. Mention should also be made of the important Trans-Mediterranean gasline that brings Algerian gas to Europe through Sicily. This is to be further expanded to secure Libyan gas, becoming a major gas artery for Europe's supply

Although rather modest discoveries on a world scale, these oil and gas finds are important to Italy.

A total of 1500 wildcats have been drilled, but exploration drilling has declined from a peak in 1962 to between 10 and 20 a year, which is still quite a high number reflecting the complexity of the geology and the deep oil window. The deep Apennine play offers some further promise, being an example of the renewed interest in onshore possibilities which will likely be experienced elsewhere in the world as the relatively easily found offshore targets are progressively exhausted. It does however suffer from the high cost of very deep drilling and conducting seismic surveys in mountainous regions. More oil, even in sizeable amounts, could well be found but it will take much time and effort.

Italy is a major oil importer with only 5% of its demand being met from indigenous production. The cost of imports is set to rise in the face of the world depletion situation. It may be a stimulus to further exploration; as well as curbing gas exports and strengthening ENI, with its strong international dimension, which will be desperately needed to secure oil for the domestic market.



380 UK Balance of Payments

The Bank of England Monetary Policy Committee has issued the minutes of their May meeting, acknowledging that the balance between supply and demand in the oil industry may be on the turn. It has evidently yet to grasp that depletion is the underlying reason for rising prices, still deluding itself in the belief that supply and price are just matters of OPEC policy

The price of crude oil had risen further during the month. In dollar terms it was now at its highest levels since 1990, and in the latest month it had risen when measured in terms of other currencies too: the sterling price had risen by some 16% since the Committee's April meeting. Several factors seemed to underlie this rise: the general global upturn in activity; the low level of private inventories in the United States; particularly buoyant demand from China; market speculation that OPEC would raise its target price range; and political events in the Middle East. **These factors suggested that the balance of demand for and supply of oil might be shifting**, so that the rise in oil prices might persist. Oil futures prices for a year ahead were 15% higher in dollar terms than at the time of the February Inflation Report. Other commodity prices had on average risen modestly in sterling terms since the Committee's April meeting. The implications for monetary policy of higher oil and commodity prices depended on whether inflation expectations overall remained well anchored.

The web reference is: <http://www.bankofengland.co.uk/Links/setframe.html>, you may need to select the Monetary Policy tag on the menu
(Reference furnished by Simon Wheeler)

381 An Oil Enigma: Production falls as Reserves rise

The following is an extract from an article published in the New York Times of: June 12, 2004, hinting that the investment community begins to grasp depletion and the unreliable public data.

The fall in production at the big oil companies does not portend an immediate crisis in the industry. The four so-called supermajors produce only a small fraction of the world's oil; together, they extracted 3.2 billion barrels last year, about 10 percent of production worldwide. (Some analysts classify Total, a French company slightly smaller than ChevronTexaco, as a fifth supermajor.)

The supermajors control an even smaller share of global reserves. Together, the four companies have about 40 bil-

lion barrels of oil, or 4 percent of the world's proven reserves. They also have about 150 trillion cubic feet of natural gas, enough to produce the energy of 25 billion barrels of oil.

No one really knows how much oil remains worldwide, or whether existing fields can be quickly squeezed should more oil suddenly be needed. Estimates range from just under one trillion barrels remaining worldwide, about 34 years at current production levels, to more than two trillion.

Saudi Arabia alone says it has proven reserves of 260 billion barrels of oil.

But these estimates are far from exact. For most countries, the details of reserves and output are closely guarded secrets. During the 1980's, the members of the Organization of the Petroleum Exporting Countries sharply raised their reserve estimates, because OPEC's output quotas were based in part on national reserves.

"Countries want a higher allocation, so they tweak their numbers," Mr. Gheit said. "Everybody lies about the reserve, so you want to make sure that you lie even more than the guy next to you."

On the other hand, the Securities and Exchange Commission requires companies like ChevronTexaco to disclose detailed production data and reserve estimates to their investors each year.

The S.E.C. rules are deliberately conservative and intended to prevent companies from overstating their reserves. The mere existence of oil and gas does not make a proven reserve; companies are supposed to report reserves as proven only if they can be recovered with current technology and are economically viable.

Reserves classified as proven do not have to be producing at the time. But companies must usually have made a financial commitment to bring them into production before classifying them as proven.

New discoveries, lease extensions that give a company more time to exploit a field, or a more optimistic view of a field's potential are all cause to increase reserves. On the other hand, companies must cut reserves if they think that their initial estimates have been too high.

"The studies that I have seen show there have been upward and downward revisions, but over time, the revisions have been modestly upward," said Gene Gillespie, senior energy analyst at Howard Weil. "You're measuring something that's a couple miles under the surface of the earth that you can't see. It amazes me that over time they come as close as they do."

But in the long run, actual production is the most important proof that reserves exist. And the relationship between reserves and production is weakening.

At Exxon Mobil, oil reserves rose from 9.6 billion barrels at the beginning of 1994 to 12.1 billion barrels at the start of this year, a 26 percent increase. But Exxon Mobil's production fell 2 percent, from 909 million barrels in 1994 to 893 million last year.

At ChevronTexaco, oil reserves jumped from 6.9 billion barrels at the beginning of 1994 to 7.7 billion barrels in January 1998 to 8.6 billion barrels at the start of this year. But after surging from 644 million barrels in 1994 to 757 million in 1998, production plunged to 641 million barrels last year.

At BP, the data is considerably more confusing, because the company has had so many acquisitions and sales over the last several years. Still, BP's production at its wholly owned fields has plunged to 562 million last year from 672 million barrels in 1998, while its reserves have risen to 7.5 billion from 6.5 billion over that span.

(BP, ChevronTexaco and Exxon Mobil are all the products of mergers within the last decade; the reserves and production data reflect what the companies would have done if they had existed in their current form for the entire period.)

Shell has actually increased its production slightly since 1994, despite the embarrassment of its announcement in January that it had improperly classified billions of barrels of reserves as proven instead of probable or possible. Shell's admission shows just how muddied reserve data can be, analysts say; the reserves it reclassified are real, but they will not be developed for years because of technical and political problems, so they should not be called proven. In coming years, if those problems can be solved, Shell may be able to once again classify them as proven, said Jennifer Rowland, senior oil analyst at J. P. Morgan.

"It's not like all of a sudden those assets are gone," Ms. Rowland said.

Mr. Simmons, the Houston investment banker, said that the output declines suggested that the companies needed to disclose more information about the performance of individual fields so that outside analysts could judge the companies' reserves estimates.

"What we have now is meaningless data," Mr. Simmons said. Big oil companies once prided themselves on conservative reserve estimates. But today, to justify multibillion-dollar investments in politically or technologically risky fields, companies have become much more aggressive, he said.

Gerald Kepes, managing director for PFC Energy, a consulting firm based in Washington and Paris, said that the slowdown in production underlined the transition period that big publicly traded energy companies face.

"The areas that have been long producing are really starting to become very mature," Mr. Kepes said. "For the integrated oil companies, more of the remaining reserves and reserve potential are in areas where the risks are higher."

Combined with a survey from the International Energy Agency that shows rising demand, the drop in production at the supermajors offers more evidence that energy prices may stay high for the foreseeable future, said Steven Pfeifer, senior oil analyst at [Merrill Lynch](#).

"The data is starting to say that underlying all this, the supply-demand balance is tighter than we thought," Mr.

382. Tanker shortage

When oil companies and ship-owners fail to invest in refinery and tanker capacity, it may mean that they have reason to expect throughput to fall from depletion.

Got Oil? Now, Try to Find Tankers to Carry It

By HEATHER TIMMONS Published: June 9, 2004 Associated Press

LONDON, June 8 - Now that OPEC has agreed to raise its crude oil production quotas in hopes of taming high and jittery oil prices, industry experts are growing more concerned about both the capacity and the security of oil tankers, the next link in the supply chain.

The world's tanker fleet is already stretched thin by robust demand for oil, by looming deadlines for the phase-out of single-hull tankers for safety and environmental reasons, and by lengthening backlogs at the shipyards where new tankers are built. It is far from clear, experts say, whether the existing fleet can handle the new production that Saudi Arabia and others have promised in coming months.

"There is just barely enough shipping capacity at these high production levels," said Jeffrey Goetz, head of marine projects and consulting at Poten & Partners, a New York-based energy and ocean transport broker.

Charter rates for tankers, which can be even more volatile than oil prices, have been driven up in recent weeks by the tight market. Shipping costs may now add \$3 a barrel to the price of oil delivered to the United States from the Middle East, up from about \$2 earlier this year, analysts said.

Rates are likely to rise even further if Saudi Arabia steps up its production as much as Saudi officials say it could - by 1 million barrels a day, to about 10 million. Experts say much of that new oil may back up in storage tanks in Saudi Arabia waiting for scarce tanker space.

Tanker security is also a growing issue. Tankers and tanker-loading facilities have already been the targets of attacks by Al Qaeda and other anti-Western groups, threatening to disrupt oil supplies and adding to the upward pressure on prices, maritime insurance premiums and tanker charter rates.

Complicating the picture, new security regulations are scheduled to take effect July 1 for all sizable commercial vessels ships calling at American ports. Among other measures, the new rules require ship operators to make their engine rooms more secure and to demand identification from anyone who comes on board a tanker. Most major tanker owners will probably be in compliance in time, shipping experts say, but some smaller operators may not make the deadline. If enforcement of the new rules leaves some tankers excluded from delivering to the United States, it may aggravate the scarcity.

"At no other time in history have all these factors gone in one way, to make the market this tight," said Dragos Rauta, technical director of Intertanko, a trade association for tanker owners.

Some experts say that an oil tanker makes an attractive target. "It ticks all the terrorists' boxes by attracting publicity and raising economic concerns," said James Wilkes, a director of Gray Page, a London security consultant for the shipping industry.

In October 2002, a small boat filled with explosives came up next to the French tanker Limburg off Yemen and detonated, blowing a hole in the hull. Almost 100,000 barrels of crude oil spilled out and burned. The attack, which killed a member of the Limburg's crew as well as whoever was on the small boat, was attributed to Al Qaeda.

The attack on the Limburg did not produce the kind of spectacular explosion conjured by popular imagination, and shipping industry experts said it would be extremely difficult for an attacker to get a tanker to blow up that way; even direct missile hits during the Iran-Iraq war generally resulted only in spills and containable fires.

But an attack or accident that crippled even one big oil tanker could have an appreciable effect on the flow of crude, experts say, and the new security regulations do nothing to address a Limburg-style attack. "In the United States, there are 13 million registered pleasure boats alone," Mr. Rauta of Intertanko said. "Unfortunately, the security legislation has limitations in the practical sense."

Though there are more than 3,600 tankers in service in the world, about a third of the world's oil supply is transported by just 435 of them, the towering 2-million-barrel tankers known prosaically in the industry as very large crude carriers, or V.L.C.C.'s. These ships are almost always completely booked, and new ones are slow to reach the market. The shipyards that can build them all have deep backlogs of orders for tankers and other vessels, so a new V.L.C.C. ordered today would probably not be delivered until late 2007 or early 2008 at the soonest. Tankers of the next largest size, known as Suez Max tankers because they barely fit through the Suez Canal, are also booked close to capacity.

(Reference furnished by Julian Darley)

383. Dwindling Exploration

We have long stressed the importance of backdating reserve revisions to obtain a valid discovery trend. The investment community comes to recognise it too referring to "organic" reserve replacement from new discovery, as the following extract from the Deutsche Bank confirms. It points out that the world is

finding 8.5 Gboe of oil and gas while consuming 28 Gboe, but can't quite bring itself to accept that this is a sign of "running-out".

10

* **Re-assessing exploration performance**

We have tracked exploration performance across the industry, and conclude that the Majors' 2001-2003 organic reserves replacement was 75%, with some 20% less reserves found than in the 1990s. Industry-wide 'hub-class' finding rates remain resilient at 8.5bn boe/year, and the world is hardly running out of reserves, however, the OECD Majors' share is falling, which looks bearish for organic growth.

* **Complex backdrop to exploration slow-down**

Parrot cries that exploration is dead look just that. The reality is that the Majors have cut their exploration budgets by 27% this decade, against the backdrop of inward-looking merger implementation, intense pressure from shareholders to commercialise stranded finds, and a wealth of development-led opportunities.

* **Risks and implications for the SEC**

SEC reserves filings are time-lagged and don't really reflect contemporary exploration performance. For 2001-2003, SEC filings showed an average 116% organic reserves replacement, but we estimate that contemporary exploration added only 75% over the same period. The Majors are booking on past glories ? a key sector risk. The SEC ought to force the disclosure of annual performance on an SPE basis along with its baseline definitions. Repsol and the Norwegians have large gas resources that could boost SEC reserves, but these companies, plus Occidental and Petro-Canada, are under massive pressure to deal.

* **Implications for recommendations**

The strong earnings power we expect from the upstream-downstream integrated oils this year underpins our positive sector stance. We value the Majors on a combination of cashflow multiple trading ranges, NAV and yields.

384. BP takes responsibility for false reserve numbers

In the 2004 Edition of the Statistical Review of World Energy, BP has significantly ended its long-held practice of simply reproducing the reserves as published by the Oil & Gas Journal. Instead, it taken estimates from different sources, thereby taking full responsibility for the selection. The Company has valid information for many countries, based on its own considerable expertise and knowledge, but now decides to give its authority to a selection of other estimates which in many cases it must know to be far wide of the mark, as virtually admitted in a footnote. It may be useful to compare its numbers with those referred to in Item 385 below, and summarised in this Newsletter. We can be sure that neither data-set is correct, but we can ask ourselves which comes closer to the truth.

On depletion, BP continues to try to perpetuate the myth that reserves support current production for 41 years. It is an absurd proposition as all oilfields are observed to decline gradually towards exhaustion, but it successfully misleads the casual reader into thinking that there is no problem for 40 years. This goes beyond being economical with the truth, and suggests a deliberate policy of denial and obfuscation, which deserves to be exposed.

385 The Truth about Oil and the Looming World Energy Crisis

A booklet by C.J.Campbell with the above title is now on sale from info@eagleoffice.net . It provides an outline of the subject in plain non-technical language, using the medium of an imaginary Public Inquiry to make the point. It includes a copy of the proposed Depletion Protocol that would better manage depletion, and a CD containing ten Power Point presentations complete with speaker notes. The booklet is aimed at the widest possible audience providing different interest groups, especially in the educational field, with the essential ingredients for lectures, courses, talks and presentations within their own spheres. The initial response has been very positive.

Other useful books on the subject include

Bardi U., 2003, *La Fine del Petrolio*; ISBN 88-359-5425-8 (in Italian)

Campbell C.J., 1997, *The Coming Oil Crisis*; ISBN 0-906522-11-0 (Reprinting)

Campbell C.J., 2003, *The Essence of Oil & Gas Depletion*; ISBN 0-906522-19-6

Cooke R.R., 2004, *Oil, Jihad and Destiny*; ISBN 1-930847-62-9

Deffeyes K.S., 2001, *Hubbert's Peak*; ISBN 0-691-09086-6

Goodstein D., 2004, *Out of Gas*; ISBN 0-393-05857-3

Hamilton-Bergin S., 2003, *The No 19 Bus - The Coming Global Energy Crisis*; ISBN 0-9545318-1-7

Heinberg R., 2003, *The Party's Over*; ISBN 0-86571-482-7

- Illum K., 2004, Oil-based Technology and Economy; ISBN 87-90221-86-9
Klare M.T., 2002, Resource Wars; ISBN 0-8050-5576-2
McCluney W.R., 2004, Humanity's Environmental Future; ISBN 0-9744461-0-6
Perrodon A., 1998, J.H.Laherrère & C.J.Campbell, 1998, The World's Non-Conventional Oil and Gas
ISBN 1 86186-062-5
Roberts P., 2004, The End of Oil: On the Edge of a Perilous New World
Youngquist W.L., 1997, Geodestinies; ISBN 0-89420-299-5

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