

The challenge of cheap oil

"Historic records" have followed one after another, we have been told on a regular basis since some months on the subject of petrol prices. It is true that the recent rise is spectacular. However, these reports are somewhat moderated if one takes into account the general price rises which have occurred over these last thirty years. The record registered in 1980 at the time of the second oil crisis has still not been reached."

It is quite right to consider that the phenomenon is preoccupying since energy at low prices is a factor in prosperity. However, it causes contradictory reactions. One promotes political action to fight against this rise. It is this which inspired in France and in the United States the recent threats of an exceptional tax against oil companies¹. The other foresees the end of the petrol era² and of civilisation such as we know it and thus implies that a continuous rise in its price is inevitable.

Ill founded, these reactions are based on a flawed diagnosis, proposing ineffective remedies likely to result in higher bills for consumers. Current policies that some propose to reinforce, such as taxation at nearly 80% of Super in France, can only force prices up. They are the main obstacle to the challenge of cheap energy. A true price fall is not possible except through the lifting of governmental restrictions on production.

The myth of market price manipulation

Each time the price of oil "inflames", oil companies are condemned. They would fix prices to their advantage, in contempt of their customers' interests, which they would not hesitate to exploit. This idea can seem convincing. After all, don't oil companies themselves decide the prices they announce? And there is no reason to suppose that these prices are fixed according to altruistic con-



siderations. These companies are guided by the search for profit. All this cannot be more probable but does not provide any explanation as to price rise. If a price went up, it was lower before. But these firms were certainly no less able to "fix" their prices at that moment. Why weren't their old prices already as high as those today? Does one suppose that before companies made gifts? And how does one explain the fall of oil prices observed in the past? Would companies' directors have been touched by a zest for "citizenship"?

Actually, industrialists cannot fix prices to their liking independently of the preferences of those from whom they hope to obtain their incomes. Price is one aspect of the exchange and one exchanges nothing alone. Its determination cannot thus depend on the will of only one. At any moment, a price depends on the supply and demand of the good in question, that is to say of existing stock and of the amounts which people are ready to buy or to keep. The market price, for oil as for any other good, tends to establish itself at the level where demand equals supply (unless a government blocks exchanges at this level), that is to say at the price where the quantity which people wish to have at their disposal is equal to existing stock. Any attempt to sell at a higher price is exposed to failure, competitors having thus an interest to under-bid.

When demand increases or when supply decreases, the price tends to rise. In the current context, it is clear that the development of Asian countries such as China corresponds to an increased demand for oil. Combined with the impact on supply of political instability in Middle Eastern countries, this provokes a rise in its price.

¹ Libération, "Pour Thierry Breton, les pétroliers font trop de profit", 9 September 2005.

CNN Money, "Record oil earnings stir talk of windfall profit tax", 28 October 2005.

² Le Monde, "M. de Villepin appelle à entrer dans "l'ère de l'après-pétrole"", 13 September 2005

The permanent impact of tax on oil price

A price rise is not thus caused by a sudden brain fever of oil producers, deciding alone against all that it should be higher. It reflects an increased scarcity of the resource in relation to needs. More generally, prices cannot be raised for the sole reason that sellers want them to be thus. Does that mean that there is nothing else that can be done for the consumer of fuel or other products derived from oil, other than to accept these high prices as fate? Certainly not. The prices of products derived from oil are permanently higher than they could be, due to government imposed restrictions³. Tax on oil products has this restrictive character and in particular provokes a rise in its price.

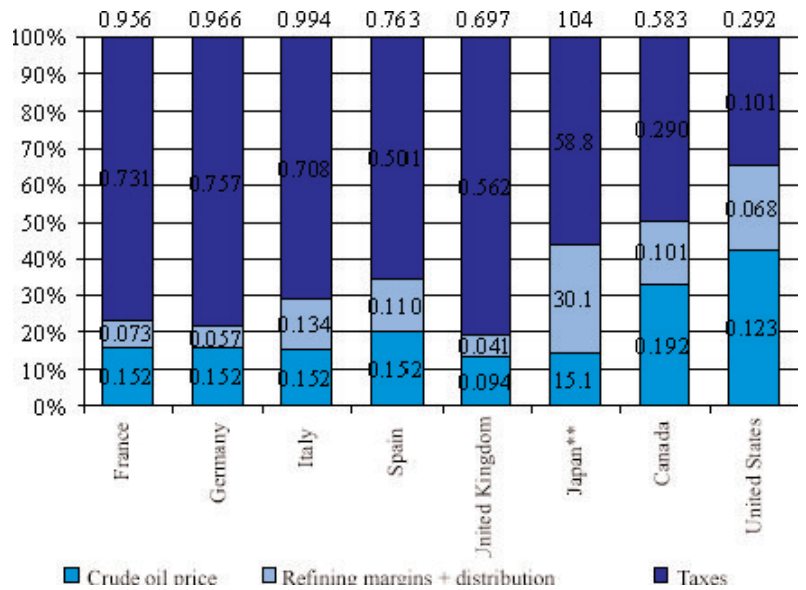
The price of a good is determined by its demand and its availability. But before being exchanged, this good must first be produced. The availability of the product is the result of past decisions by producers, based on their anticipation of consumer demand and on the costs involved in responding to it. Ultimately, the incomes of everyone taking part in the production of the good depend on what consumers are ready to pay. If these incomes were to be entirely removed, it is clear that the production would cease. There would be no fuel to sell and to consume. But that means that any step in this direction, any setting up or increase in tax on these incomes must reduce the profitable volume of production and thus increase its scarcity and its price.

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In the free market, buyer expenditure equals sellers' incomes. But taxation creates a divorce between the two: sellers' incomes are reduced by the amount of tax. Consequently, taxation penalizes production. The volume of profitable production is then reduced in line with the rise in taxation. This reduction in the supply of oil products can only make their prices go up. High taxation accentuates this. Now, oil products - fuels first and foremost - are heavily taxed all

over the world (see diagram 1). In France for example, tax revenue obtained from VAT and internal tax on oil products represents nearly 80% of Super's price. Under these conditions, consumers see themselves deprived of part of the production which they would have obtained otherwise and must pay what remains at higher prices. Tax thus acts as a partial prohibition to production and consumption. There is not therefore any fate in high prices since they depend on political decisions which are revocable.

Proportions of the crude oil price, refining margins, distribution and taxes in the final price of Super (RON 95) for various countries, January 2002, price in national currency per litre.



Source : UNCTD estimation elaborated according to statistics from Datastream and the IEA

The future of oil production

The prices of oil derived products could thus be permanently much lower than they are. But isn't this a short term view? Isn't it obvious that the prices of these products and of crude oil are in any event lead to increase due to the exhaustion of resources, as the spectacular rise of the barrel of Brent from \$18 to \$65 recorded over these past four years allows us to predict? Of course, a reduction in supply provokes a rise in price and a non-renewable resource cannot see its supply be renewed indefinitely. But some colours in this gloomy picture are certainly missing. How could one otherwise explain that there are still abundant non-renewable natural resources?

Repeated announcements about the inescapable end of the cheap energy era and of the civilisation that it supplies are exaggeratedly alarmist. Actually, nothing is inescapable because in that matter everything depends on the energy

³ Insofar as oil companies press governments to set up or to reinforce such restrictions to the detriment of existing or potential competitors, one can say that they are on the initiative. Nevertheless, this cannot happen without governmental intervention and would not thus constitute an example of price "manipulation" in a free market framework.

public policies decided in the future. If governments multiply interventions restricting the production, prices will increase. On the contrary, if production is made free, prices will remain moderate as in the past.

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Apocalyptic predictions invalidated by the history are almost as old as the use of the resources of which they predicted exhaustion. In 1865, the economist William Jevons wrote a book claiming that the end of coal was nigh in the United Kingdom and that prosperity linked to its use should become exhausted with it. In 1908, the American president Theodore Roosevelt announced the imminent exhaustion of natural resources. In 1982, the forecast for the year 2000 by experts questioned on the crude oil price by the International Energy Workshop was \$400⁴. In 1972, the very renown Club of Rome claimed that oil would be exhausted in 1992 and natural gas in 1993⁵. However, oil reserves have never been as important as today. They are estimated to be between 140 and 160 billion tons⁶, corresponding respectively to 53 and 63 years of reserves based on current consumption levels. And the inflation corrected prices, as diagram 2 shows, have rather decreased from the middle of the 70s to the end of the 90s, not taking into account price peaks following the rarefaction of supply due to geopolitical disturbances⁷.

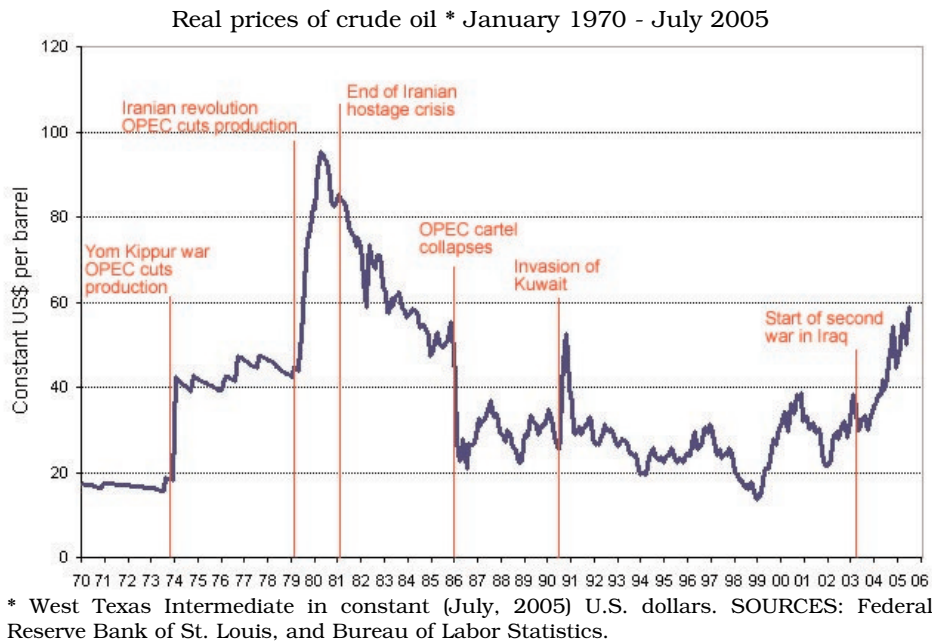
If prices have not generally increased, despite the fact that petrol is a non-renewable

resource, it is because other factors - often ignored in catastrophists' forecasts - played the other way around. First, competition between the manufacturers of equipment using oil based fuel pushes them to find technical solutions allowing their users to have the lowest possible energy bill. Such developments lower the demand and price of fuel. Incidentally, the production of other energy sources becomes more profitable when the price of oil increases, insofar as it becomes advantageous to replace equipment functioning with petrol by machines using these other sources. Once adjustment is carried out, that is to say once the demand for petrol has decreased, its price drops.

Let us consider the question of "proven reserves", expressed in years. One generally omits to say that this c o u n t d o w n applies to known resources under current economic and technical conditions. It is calculated starting from a given stock, whose exploitation is regarded as profitable at current prices and techniques. The prices and the future annual rates of extraction are those of today, by assumption. But when the price increases, for example because of increased demand, the exploitation of known resources, hitherto non-profitable, becomes so. In other words, the reserves increase! Supply

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increases and so lessens the initial rise in price. Moreover, the price rise propels increased research efforts for new oil fields. Greater production and a lower price are the outcome of such efforts.



⁴ This amount corresponds to a median forecast.
⁵ Dennis and Donella Meadows, *The Limits to Growth* (New York, Universe Books: 1972), p. 193.
⁶ Respective estimates of the *Oil Gas Journal* and *US Geological Survey*.
⁷ The diagram also shows that statements claiming that current oil prices reach historical records are flawed in real terms, that is to say in significant terms.

Finally, there is no reason to suppose, when one makes forecasts by decades, that technologies must necessarily remain the same. The average rate of extraction of an oil field being today about 35%, even oil fields considered to be exhausted can become new reserves, if this rate is increased. Now, producers invest in research for new technologies enabling the facilitation of the exploration and extraction of oil insofar as it is a source of income. At the end of the day, the availability of these technologies opens the way to a production increase and to a price fall. These investments - in the exploitation of new resources and the research of new technologies of oil extraction - happen only insofar as the pursuit of profit is not hampered by state intervention. If governments increase the taxes on producers while the price rises, the increase of production is not profitable. Supply remains what it is and the price stays permanently higher than what it could be. State intervention has the sole effect to maintain prices at artificially high levels.

If the real price of oil did not follow an upward trend in the long term despite its non-renewable character, it is because the factors playing a downward role were more important. Thanks to human ingenuity, supply has sufficiently increased to compensate for the impact of a rise in the price due to increased demand and state interventions in production. But ingenuity is not automatic. It is spread only insofar as it pays, that is to say when governments do not confiscate its fruits. Oil can only be cheap tomorrow only if and insofar as measures against innovation and production are eliminated.

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Conclusion

The dearness of oil is not a mysterious or inescapable phenomenon. The cause cannot be found in some special behavior of sellers as such because a market price, be it of oil, can not be manipulated without state intervention. On the other hand, governmental interventions directly or indirectly restricting its production, such as the massive taxation currently prevailing, systematically make the price higher than it would be, not only by penalizing production based on available reserves, but also by blocking the search for new resources and technical innovation. And if the production of oil must one day stop, there is no reason to see this as an apocalyptic event unless governmental obstacles increase to the point of preventing the emergence of alternative sources of energy. The United Kingdom did not see its industrial revolution fall through due to the rarefaction of coal because people had discovered that a thing hitherto considered like mud - oil - could replace it. The problem of energy is not that of an intrinsic scarcity of natural resources, it is economic and institutional. Will one allow innovators the possibility of discovering new exploitable energy sources or not?

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