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The impact of political decisions on OPEC countries

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Abstract:

OPEC continued its efforts to strengthen and stabilize the global oil market in the 2000. Increasing market volatility and the collapse of the global financial sector have unfortunately led to an economic recession. The Organization then began to support the oil sector to address the crisis.

The purpose of this article is to provide an explanation from the Organization of Petroleum Exporting Countries.

To begin with, we will give some general information on this organization and with the help of statistical data we will give an analysis of the evolution of the price of oil correlatively with the events which marked the oil industry which will enable us to see that the principle of supply and demand is respected in the form, because oil prices fluctuate with supply and demand levels.

Keywords: OPEC, Global Production, Oil reserves, Oil production .

JEL Classification Codes: D51, E23, L11, R32, R48.

Introduction :

The Organization of OPEC Oil Exporting Countries is an international organization that was founded in 1960, on the initiative of Venezuela, notably the Venezuelan Minister of Mines Juan Pablo Perez Alfonso, in order to coordinate the actions to be taken by the exporting countries in the face of falling oil prices.

Originally OPEC was made up of five members: Saudi Arabia, Iran, Iraq, Kuwait and Venezuela. Other members joined the organization: Qatar in 1961, Indonesia in 1962 and withdrew in 2008, Libya joined in 1962, the Emirates in 1967, Algeria in 1969, Nigeria in 1971, Ecuador in 1973 and withdrew in 1992 and returned to the organization in 2007, Gabon in 1975 and withdraws in 1996 and finally Angola which joined in 2007.

The headquarters of OPEC from its inception were in Geneva until 1965, when it was transferred to Vienna. The O.P.E.P., which has set itself the objective of coordinating the oil policies of the Member States, has played the role of a forum where the level of export prices for crude oil is set – including, before Indonesia's departure in 2008, Nearly 75% of the world's proven reserves were located in the member countries of this organization.

Faced with the dizzying collapse in crude oil prices that began in 2014, OPEC members agreed at the end of 2016 with ten other oil-producing countries to limit their production: Russia, Mexico, Kazakhstan, Azerbaijan, Bahrain, Brunei , Malaysia, Oman, Sudan and South Sudan. Their alliance has held for three years, and is now known as "OPEC+". These ten allies pumped 18.15 mbd in May according to the IEA, including 11.44 mbd for Russia alone.

Do they respect the set production levels?

The 24 members of OPEC+ agreed in December to reduce their cumulative supply by 1.2 mbd compared to October to raise prices, an agreement extended yesterday for nine months. Iran, Venezuela and Libya are exempt from these production cuts.

But the 11 OPEC countries concerned are doing better than applying the quotas since they produced 25.58 mbd in May, even less than the 25.85 mbd provided for by the agreement, according to the IEA. With a very random respect: Saudi Arabia pumped 9.70 mbd in May, well below the agreed 10.31 mbd, ensuring the bulk of the total reduction. Conversely, Iraq and Nigeria have on the contrary inflated their offers.

For their part, the ten OPEC+ partner countries extracted less than the target of 18.41 mbd set in December. Russia is a good student, with an offer of 11.44 mbd in May, against a target of 11.52 mbd. But its compliance was extremely patchy and uneven in the first months of the year, with its drop in production being only a fraction of the commitment made by Moscow.

OPEC Oil Production/Global Production:

The historical evolution of oil production from 1965 to 2014, shows overall a downward trend in the production share of OPEC countries, compared to world production during the period 1965 to 2014.

Indeed, after reaching a peak of 53% in 1973 and 1974, it wavered to 49% in 1975, as a result of the position taken by the OPEC countries against the countries supporting Israel during the Youm Kippur conflict, and also the rise of this organization that began to impose its conditions on international oil companies, and in some cases proceed to the nationalization of their oil.

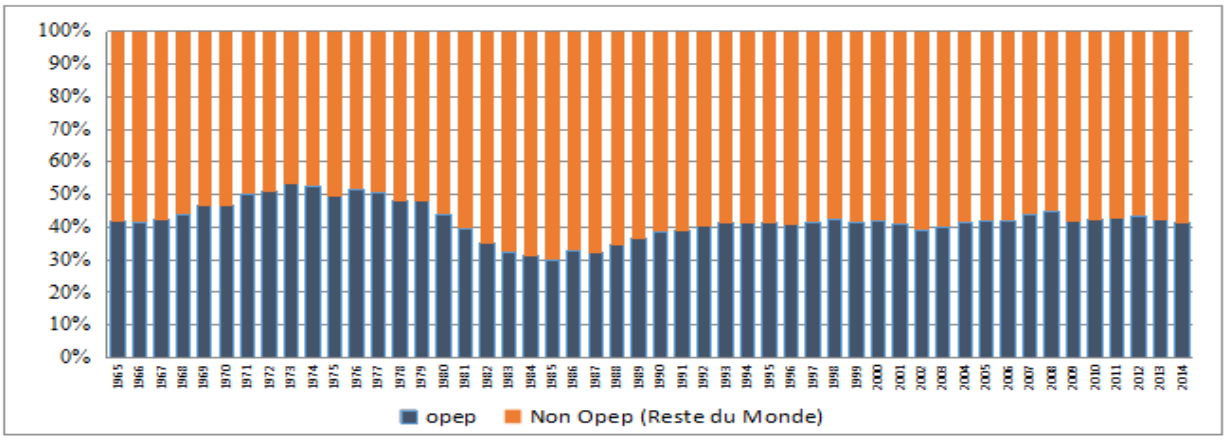
During the period 1980 to 1985, a significant decrease in the proportion of oil production in OPEC countries is observed, induced by the strategy taken by the members of this organization to reduce their production, in order to keep oil at a high price, which began to decline during this period. In 1985, OPEC's share of world production was only 30%. However, a reversal of the trend is operated, by the members of OPEC and especially Saudi Arabia, to regain the share of lost markets, to the benefit of new producers, to stabilize around 41 and 43% from 2010 .(www.econologie.com)

The following table shows the chronological evolution of OPEC oil production shares in relation to world production :

1965	42%	1974	53%	1983	32%	1992	40%	2001	41%	2010	42%
1966	41%	1975	49%	1984	31%	1993	41%	2002	39%	2011	43%
1967	42%	1976	52%	1985	30%	1994	41%	2003	40%	2012	43%
1968	44%	1977	51%	1986	33%	1995	41%	2004	41%	2013	42%
1969	47%	1978	48%	1987	32%	1996	41%	2005	42%	2014	41%
1970	47%	1979	48%	1988	35%	1997	42%	2006	42%		
1971	50%	1980	44%	1989	37%	1998	42%	2007	44%		
1972	51%	1981	39%	1990	39%	1999	41%	2008	45%		
1973	53%	1982	35%	1991	39%	2000	42%	2009	42%		

Source :OPEC

Graph Fig.1 below shows the development of oil production shares, OPEC countries and non-OPEC countries (rest of the world) from 1965 to 2014



OECD & International Energy Agency :

After a long period of cheap oil, during which international oil companies of American and European nationality in their majority, had a total monopoly on almost all oil reserves through concession contracts, which benefited the economies of the consuming countries further favoured by current prices which remained very low for a long period. A new era took hold with the advent of OPEC, an international organization created to defend the interests of producing countries against oil companies.

Thus, and After the first oil shock of 1973, which saw the rise of OPEC and its power of influence on the price of oil and by extension on the world economy, the consumer countries and especially those of the OECD, accustomed to very low oil prices, were surprised by the sudden development of the oil market. A real threat to the economic growth and well-being of developed OECD countries. (world Energy Outlook 2013 AIE)

In order to cope with the crisis and embargo situation of 1973, the OECD countries, and to coordinate their actions, undertook crisis management measures, including the creation of the International Energy Agency in 1974, whose main objective is to coordinate the energy policies of OECD countries in order to ensure the energy security of its members and the coordination of actions to be taken in the event of crisis or threat.

In the short term, concerted action was aimed at rationalizing energy consumption in order to cushion the shock of the rupture caused by the oil embargo.

The founding text of the IEA requires any member country to have a strategic stock of oil, with a volume equivalent to at least 90 days of imports, based on an average of the previous year. These strategic stocks will be used by OECD countries in case of crisis, and also serve as market regulators during crises. This intergovernmental body ensures

through the panoply of its experts an advisory role for its members. The International Energy Agency was created to deal with the OPEC lobby in general but also with potential non-OPEC oil producers/exporters.

World Oil Reserves:

Oil reserves are reserves capable of being extracted with reasonable certainty under current geological and technological conditions. (BP database).

Otherwise, proven reserves are reserves for which 90% are "safe" to extract.

At the end of 2014, world proven oil reserves are estimated at 1.700 billion barrels, for an average production of 84 million barrels, during the last ten years (2005-2014), making that at a constant average rate of production of the last ten years, the current stock of oil reserves will be consumed in 55 years, assuming stable consumption (2005-2014 average) without any substantial new discoveries.

The graph Fig.2 below shows the evolution of world oil reserves (in trillions of barrels) from 1980 to 2014:

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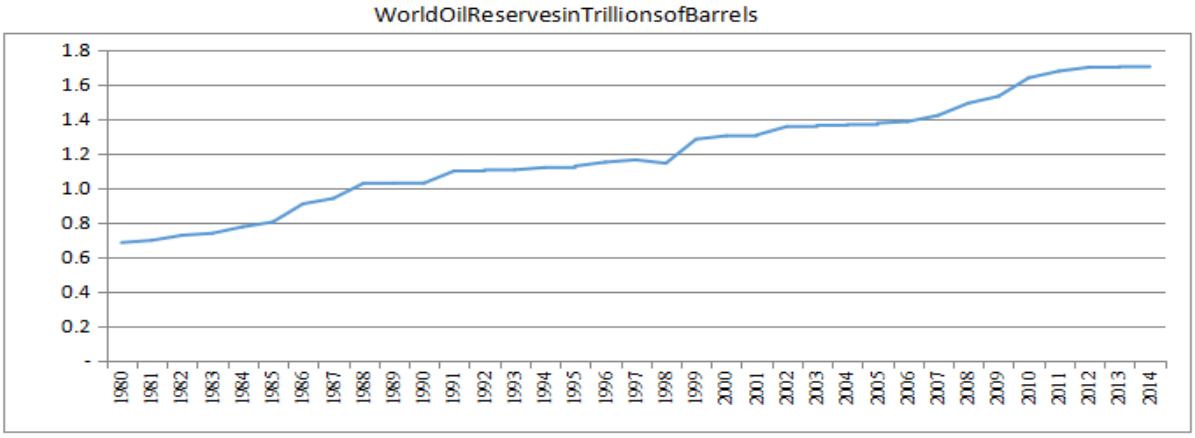


Fig.9- BP Database Data Source

Main Golf Country Oil Reserves:

The geographical distribution of oil reserves shows a high concentration of proven quantities in 2013 and 2014, in six countries of the Middle East region (Golf0 countries: Saudi Arabia, Iran, Iraq, Kuwait, the United Arab Emirates and Qatar.(Géopolitique du pétrole et du Gaz-André GIRAUD-Xavier Boy de la TOUR-page 253)

The oil reserves of these six countries, were estimated at 800 Billion barrels in 2014, for a volume almost identical in 2013, or 798 Billion barrels, bringing out a share of 47% of the world reserves.

The following table shows the reserves of the main golf countries :

Country	Reserves 2013 (billion barrels)	Reserves2014 (Billion barrels)
Qatar	25	26
United Arab Emirates	98	98
Kuwait	102	102
Iraq	150	150
Iran	158	158
Saudi Arabia	266	267
S/Total	798	800
Total World	1 701	1 700
Middle East Country Share	**46,92%**	**47,05%**

Source : BP database

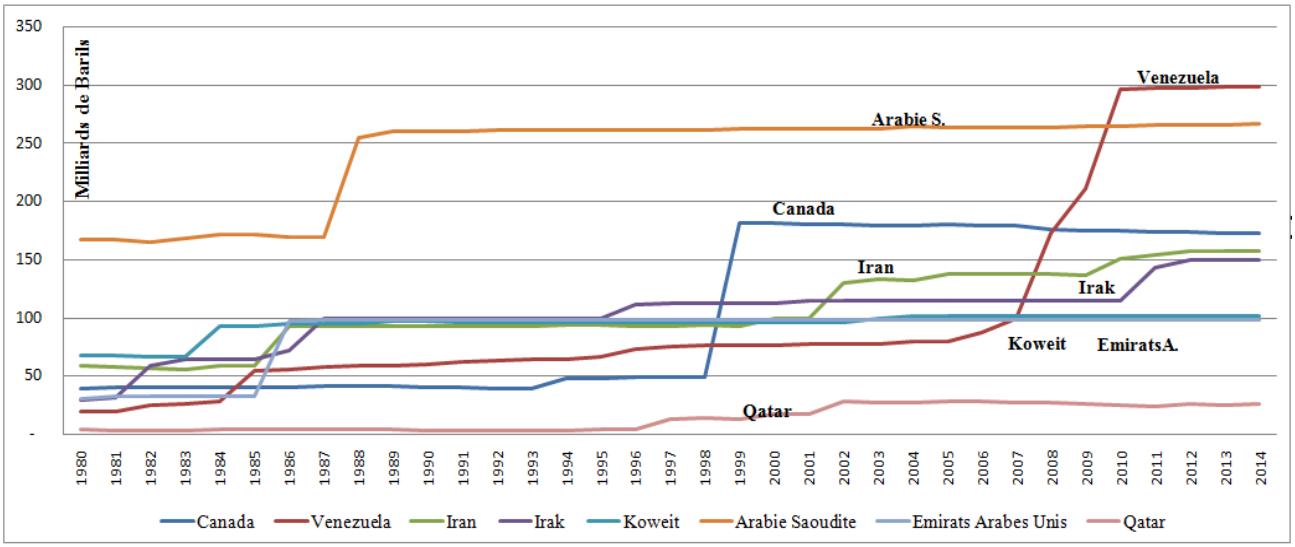
The chronological analysis of the evolution of oil reserves, highlights the high concentration of oil reserves in the Middle East, especially for the six main countries mentioned. Indeed, the evolution of proven reserves based on data from the British Petroleum database, highlights an increasing trend until 2011.

The six major reserves of the six Middle East countries combined accounted for 52% of total reserves in 1980, reaching a peak of 64% in 1989, before reaching the lowest share in 2010 with a proportion of 46% of total world reserves, before stabilizing at 47% from 2011 to 2014.

This decline in the share of the six countries with the largest reserves is mainly due to major oil discoveries in other parts of the world, notably Venezuela (OPEC Member) and Canada, which have seen their reserves soar.

While golf countries have seen discoveries of new deposits evolve gradually. The graph below shows the evolution of the oil reserves of the Gulf countries (Saudi Arabia, Iran, Iraq, Kuwait, the United Arab Emirates and Qatar), in addition to those of Venezuela and Canada.

Fig.3 below shows the evolution from 1980 to 2014 of the main oil reserves:



The combined share of the oil reserves of the Gulf countries, Venezuela and Canada, represents about 75% of the world reserves.

The distribution of major oil reserves by country remained stable between 2013 and 2014, with the predominance of the Gulf countries, Canada and especially Venezuela. The latter two countries saw their reserves grow significantly thanks to the large oil reserves of the oil sands of Alberta and Orinoco (Venezuela).

Rarefaction of discoveries:

By analysing the annual history of the Reserves/Production ratio, an indicator giving an estimate of the number of remaining years of operation or production to fully deplete the estimated reserve in a given year, this at the same rate as the year in which the ratio was estimated, shows an upward trend between 1980 and 2014, from 30 years to 53 years of operation, a change induced by the sharp increase in oil reserves, which went from 683 million barrels in 1980 to 1700 billion barrels in 2014, an increase of 149%, while world production went from 63 million barrels in 1980 to nearly 89 million barrels in 2014, an increase of 41%. And by analysing the evolution of production, we see that the reserves of 1980, were completely exhausted in 2005, that is five (05) years less than the estimate of 1980 which was 30 years, this without counting the technical and geological constraint, than an oil reserve (an oil well) cannot be extracted 100%, despite technological advances in oil extraction. (world Energy Outlook 2016 AIE).

The graph Fig.11 below shows the evolution from 1980 to 2014 of the life of oil reserves, according to the average consumption of the previous year:

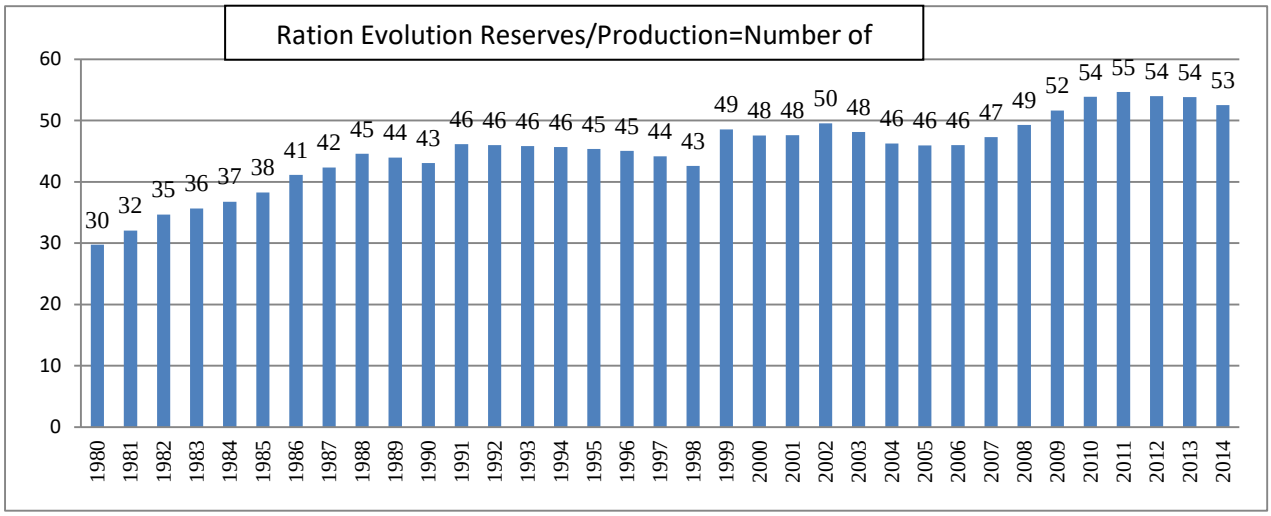


Fig.4 - BP Database Data

The scarcity of oil is an issue that has been raised by virtually every expert in the field, unanimously saying that this resource is exhaustible and non-renewable, and there will come a time when oil will no longer be a source of energy. which will correspond to the drying up of all the deposits exploited or to be discovered.

However, differences between experts lie in the timing of the end of the oil era or the beginning of decline in world production, which corresponds to the peak of Hubbert (Marion King Hubbert). Opinions diverge on the beginning of a decline in oil production, between pessimistic and optimistic assumptions.

Pessimistic Hypothesis:

Thus, pessimistic opinions to justify the imminence of the beginning of the rarefaction (called depletion) refer to the decrease of new discoveries of large conventional oil deposits, despite technological advances in prospecting and also the availability of significant financial resources for both the producing countries and the oil companies, thanks to increases in the price of oil, encouraging a strong investment potential in the search for new deposits, when in reality the pace of discoveries is sparse, without any large deposits being discovered in the last five years.

Pessimistic claims are supported by the options taken by several countries to exploit unconventional oil (shale oil and oil sands), such as the United States and Canada and Venezuela.

The option of exploitation of shale oil and shale gas is also being considered by several other countries with shale oil and gas reserves, thanks to high oil prices on the world market, knowing that shale oil extraction costs are high compared to conventional oils.

The Climate or Environmental Constraint:

In addition, several consumer countries dependent on oil or gas imports opt for other forms of energy, guaranteeing security and energy independence, vis-à-vis traditional suppliers.

The graph below shows the overall trend in the proportions of energy use, which shows a decline in the share of oil compared to coal and gas. The same applies to hydroelectricity, nuclear energy and clean energy (solar, wind and biomass).

Indeed, the proportion of oil consumption rose from 41% in 1965 to 32.6% in 2014, despite the increase in world consumption during this period from 1.530 million tonnes to 4211 million tonnes, an increase of 175%. A similar trend is also shown by coal consumption.

Between 1965 and 2014, other forms of energy recorded considerable increases in both the volume of consumption (in tonnes of TOE equivalent) and in proportions.

The following graphs summarize the consumption shares of the main energy

(Data source: British Petrol database)

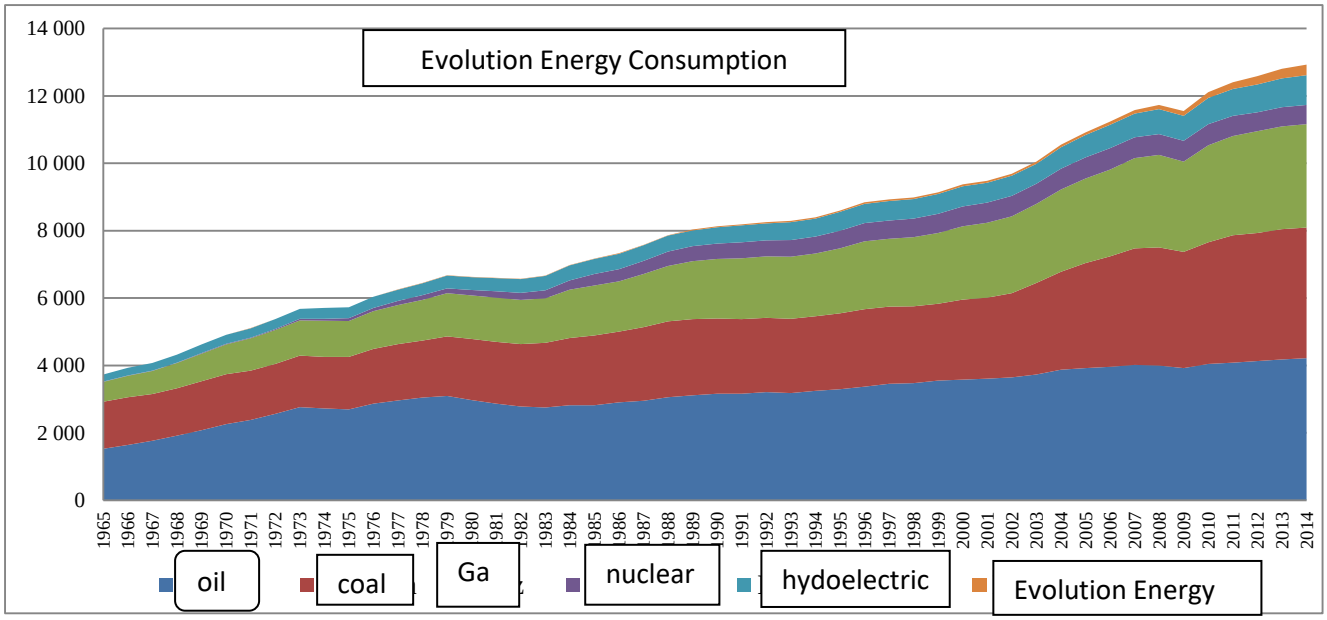
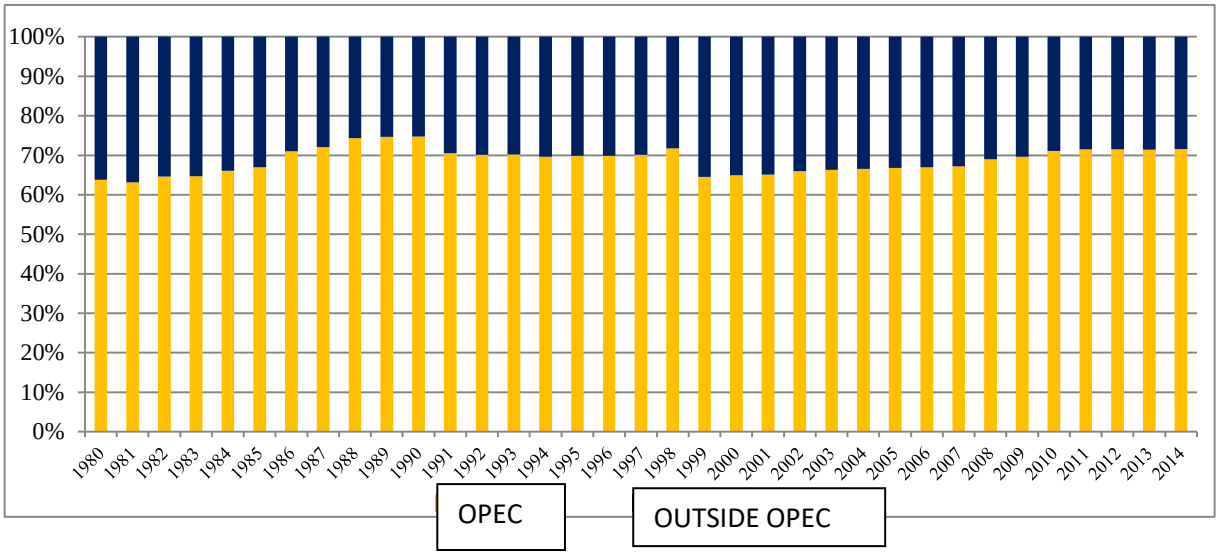


Fig.5 Données Base de Données BP

Optimistic Hypothesis : On the other hand, the optimistic opinions are also shared by many experts, affirming the availability of important oil resources, both in the terrestrial as well as in the marine (sea and oceans), this in addition to the polar regions, not yet explored, which could potentially contain huge oil reserves.

Also, and in view of the relative constancy of the proven reserves (see Fig. 13), the consumption times according to the ratio Reserves/Production which was 30 years in 1980, shows 53 years in 2014, almost double the estimates of the 1960.



Frédéric Encel on the Atlantico site deciphering, (29) says that oil (including shale oil) has long years ahead of it, especially that tens of millions of km², are to be explored, to which must be added the supremacy of the United States, becoming one of the world's leading producers, and by 2030 they will become net exporters, effectively competing with conventional producing countries (OPEC-RUSSIA)- (30)

This is confirmed by the decision of the American Senate, to cancel the ban on exporting American oil, a decision taken forty years before after the 1973 crisis and also at the decline of American production during the early 1970s.

Add to this energy efficiency, advocated by the largest energy consumers who are at the same time the largest producers of greenhouse gases (CO2), planning to significantly reduce their fossil energy consumption (oil, gas and coal), part of international climate protection agreements, the last of which is COP21, hold in Paris in December 2015.(Frédéric Encel sur le site Atlantico : décryptage)

The Climate or Environmental Constraint:

Warnings issued for several years on the negative effects of air pollution, in particular with regard to emissions of chloro-fluro-carbon (CFC) gases, an element incriminated in the deterioration of the ozone layer and carbon dioxide (CO2), greenhouse gases generated to a very large extent by the various forms of industrial activity on a global scale, have long been ignored by the states, until the direct impact on the climate is revealed, through global warming and its harmful and dangerous impact on life on our planet.

There has been global awareness, and a series of international agreements under the auspices of the UN have been ratified by several countries. However, these agreements,

which focus on the ultimate need to reduce greenhouse emissions, have not been ratified by all countries, anxious to preserve their levels of growth, like the United States, China, the largest emitters of CO2 in the atmosphere, however, they will sign the COP21 agreements in December 2015.(Bulletin mensuel banque royale du Canada decembre 2022)

The ultimate objective of these climate agreements is to limit global warming by 2°Celsius by 2100 through the reduction of greenhouse gas emissions, which is responsible for global warming, directly induced by human activity.

Therefore, and in order to preserve the climate and consequently the survival of man, the reduction of CO2 emissions cannot be done with the current rate of consumption of oil and also coal.

The signatory countries of the climate protection agreements, and especially the main CO2-emitting countries, the United States of America, China, the OECD countries, will commit after the ratification of the COP21 agreements, to promote clean energy sources, This will result in a gradual decline in demand for fossil fuels, oil, coal and gas.

Conclusion

We can easily attribute to the Americans, without risk of being contradicted, the birth and development of the oil industry, who are undeniable pioneers in the exploitation of this new raw material with high energy capacity and whose prices and those of its derivatives, have competed with the other products most used before the advent of oil, including whale oil and coal, which were widely used for lighting, heating and operation of trains and boats, and most mechanical machinery and equipment.

Analysis of the evolution of the oil price in relation to the events which have marked the oil industry allows us to state that the principle of supply and demand is respected in form, because the price of oil fluctuates according to the levels of supply and demand. However, the determination of the level of supply has been since the creation of the Organization of Petroleum Exporting Countries, a fact strongly influenced by the policy of the OPEC to recover from the rise in very low oil prices, by reducing the oil production of the member countries of this organization. This policy is, however, thwarted by the member countries of the International Energy Agency, defending the interests of OECD countries, whose economic growth and well-being are closely dependent on the cost of energy, and consequently oil, by placing on the market quantities of oil drawn from their strategic reserves. This balance of power was born after a very long domination of production by OECD countries.

Whereas previously, until 1973, the international oil market was dominated by seven large corporations, "Seven Sisters" or the seven sisters, which set the purchase price of oil to the producing states. This is a situation which has largely favoured the growth of

consumer countries (OECD) over a very long period. The creation of OPEC was therefore born out of an awareness on the part of the producer countries to improve their incomes, derived essentially from an exhaustible resource.

Coincidentally, 1971 was the peak of American oil production, heralding the beginning of the decline in American oil production.

And since 1973 a price war situation has arisen as a result of the OPEC embargo, which resulted in the creation of the IEA, creating a climate of mistrust between producers and consumers, The situation is aggravated by geopolitical instability in the regions of the golf producing countries, a region with the world's largest reserves of 41% (and 72% for OPEC), producing 41% of the world's volume in 2014. Repeated global economic crises have also had a negative impact on oil demand levels.

The extension of periods of high oil prices has led several consumer countries to seek other sources of energy, or to proceed to the production of unconventional hydrocarbons, like the United States of America, that have substantially increased their oil production, lifting in 2016 the ban on exporting their oil introduced 40 years ago, that is, since the decline of American oil production, and becoming almost the world's leading oil producer with 11,65 million barrels in 2014 for 11.50 million barrels for Saudi Arabia. A.I.E. predicts that the United States will become net oil exporters by 2030.

Other countries have also opted for unconventional oil (Canada and Venezuela), while others have opted for coal or gas, while the clean energy option, which despite a significant increase in its share of international consumption, remains insignificant, not only in terms of value, but also in terms of climate protection, the warming caused by the consumption of fossil fuels (oil, gas and coal), is likely to worsen further, if solutions to protect the environment are not taken by all the countries of the world, especially since almost all the countries have adhered to the principle, in particular the signing of the Paris COP21 international agreements in December 2015, promoting the use of clean energy. Given that ratification of these agreements may, however, be subject to radical reservations by some countries concerned to preserve strong growth. However, we can conclude with a bit of optimism, by highlighting the race between the major world powers, towards the development of clean energy, such as solar, wind, biofuels.

Finally, a race of advanced technology is also underway between the world powers: United States, China, France, Germany and Great Britain, on the control of nuclear fusion, which would allow it to be controlled to produce electricity on a very large scale.

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