
PETROLEUM – STRATEGIC RESOURCE FOR WORLD ECONOMY

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Abstract: Petroleum is the most important resource for global energy production, far exceeding the role of coal and natural gas, the role of river energy and wind energy, and also the role of nuclear fuel.

All highly industrialized countries are making great efforts to ensure the energy needs of the functioning of economies under the conditions of fierce global competition. None of the world's first 10-12 economies can give up on petroleum imports, and the exporting countries benefit from large financial resources from petroleum.

Saudi Arabia, Qatar, United Arab Emirates, Venezuela, Russia and other petroleum-rich countries secure themselves significant foreign revenue for their economic development, defense and overall well-being.

Key words: petroleum, energy, economy, environmental protection, trade balance, competitiveness.

JEL CLASSIFICATION: E22, E44, F10, L71, F72, Q43

1. Introduction

The continuous development that has taken place since the world's entry into the "industrial era" more than 200 years ago, started from the image of our planet's "unlimited" dimensions and its ability to "ensure endlessly" non-renewable mineral resources, unlimited livelihoods and well-being conditions for an expanding population, the ability to continually take up the pollutants resulting from domestic, agricultural and animal husbandry, and from industrial processes - the latter are on the way to get unimaginable dimensions, reported to the mankind entry time in the industrial age.

The amount of pollutants discharged into the atmosphere, into waters and on the ground has increased at an alarming rate, exceeding the ability of natural factors to self-purify. We have already reached the limits of our Planet's supportability. Thus, with disappointment it was found out that the possibilities of the Planet, considered infinite, are in fact limited. The natural balance of million and millions of years on the planet is in danger of being severe disturbed, if not irreparably disturbed, endangering the existence of life on Earth. Damage to the human species, of a

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mismanaged development, left in the face of market rules and profit, began to be felt only in the second half of the 20th century.

The last century has been the one of resources diversification in order to produce the energy needed for global economic development. Coal, the classic fuel, has gradually been replaced by petroleum and methane, then the 1950s and 1960s have brought to the fore a new, revolutionary type of fuel, *the nuclear fuel*, which was supposed to surpass classical energy by 2000.

After a "force demonstration" in the first 20-25 years of investment in the new nuclear power plants of the world's most developed countries (USA, USSR, France, Germany, Great Britain and Japan), the nuclear energy remained somewhere below 15% of global energy production. However, at the level of 2000, the nuclear power exceeded the energy produced from coal according to the data in the table 3 "The evolution and structure of global energy production".

The coal "suffers" due to the large amount of CO₂ resulting from its burning. On the contrary, nuclear fuels are not sources of CO₂ greenhouse gases, accused of global warming and climate change. From this point of view, the electro-nuclear power plants are "clean", but the critical accidents in recent years, especially those in Chernobyl and Fukushima, have brought to the forefront their huge destructive potential on long term (Canete, 2015, p. 7).

2. European Union, world leader in environmental protection

In the climate change negotiations, the European Union has committed itself to reduce the greenhouse gas emissions by 20% by 2020 compared to 1990 and by 80-90% by 2050. The energy production sector, the consumer of some huge amounts of fossil fuels, will have to make the highest efforts, because it generates 80% of greenhouse gases.

Europe is well known as a "climate leader" - most member countries are introducing renewable energy targets or carbon replacement schemes when producing energy. The European Union officially declares, through the voice of the main European powers of the G-7, that it is ready for the new measures adopted in Paris, coming up with ambitious proposals to reduce pollution.

However, due to the difficulties the European Union is undergoing, Europe's voice does not seem to be so firm, and a number of countries such as Poland, the Czech Republic and Hungary have said that the proposals are against their national interest. These, as well as other European countries, continue to rely on fossil resources (coal) in order to continue their economic development, countries including Romania.

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In order to achieve the goals of the Paris Agreement, of course, the greatest efforts must be made by the main energy consumers, the most developed countries of the world, by encouraging the technical and the technological progress.

Heat, lighting, transport, industrial production, etc. all are energy-based. The energy sector is a strategic area, because today's society can no longer exist, and cannot grow without energy consumption. In order to move towards a low-carbon emission economy, the energy sector will have to promote a "new technological revolution" - as it was called at the Paris Conference in December 2015. To reduce the pollution in the large urban centers, the role of electricity will mainly increase, particularly in the transport sector: cars, buses and trucks (Paşa, 2016, p. 16).

Therefore, we will have to innovate, and Europe will have the mission to reduce the gap between research and development of new eco-technologies and their introduction into the market. In its development, Europe consumes more and more energy, and for its production, Europe imports most of the petroleum and methane gas needed.

Major projects are in progress for the "green energy" sector development, especially the wind sector in the Atlantic coast of Europe, as well as the increasing of the production of solar energy in the northern Africa desert, with the electricity directing to southern Europe, project that seemed only theoretically.

But, Europe is not the only one in this competition. The United States, China, Japan and South Korea mobilize enormous resources to support technological innovation in the clean energy sector, threatening Europe's leading position.

For our Continent, these investments in green technologies, reducing CO₂ emissions, will have a significant advantage: a decrease of fossil fuels imports, mainly petroleum and methane, for which the European Union is making important and increasing financial efforts year after year.

3. Petroleum in the world economy

Petroleum is the main source of energy worldwide. The share of petroleum in the global supply of primary energy exceeded coal in the mid-1950s, the continuous increase in petroleum production at low cost, and the convenient use of "concentrated liquid energy" relatively easy to transport and store, made petroleum - the dominant energy worldwide.

The coal dominated the entire 19th century and the first half of the 20th century as the fuel of steam locomotives for rail transport, of large seagoing ships and, in general, in the machinery industry, replacing the muscular force. Early 20th Century found the coal with a share of 90% in energy production in general. (Economics Dictionary, 2011).

The low price of petroleum, the high calorific value, the possibility of producing small engines for cars and motorcycles, the use of petroleum for aircraft engines and for the production of electric power have made it the most sought fuel.

Given the increasing demand for petroleum on the world market, its price began to rise in the late 1960s, the petroleum producing and exporting countries dissatisfied with the low petroleum price in contrast to the growing price of industrial products from the highly developed countries. This is how the petroleum crisis of 1973 occurred, the year when the petroleum price grew 6 times, from \$ 2 to \$ 12 a barrel. The peak of the petroleum price at that time was reached in 1979-1980, the price reaching for a few months to \$ 32 a barrel, after which it dropped to \$ 20-25 until the early 2000 - figure 1 (Quid, 2016).

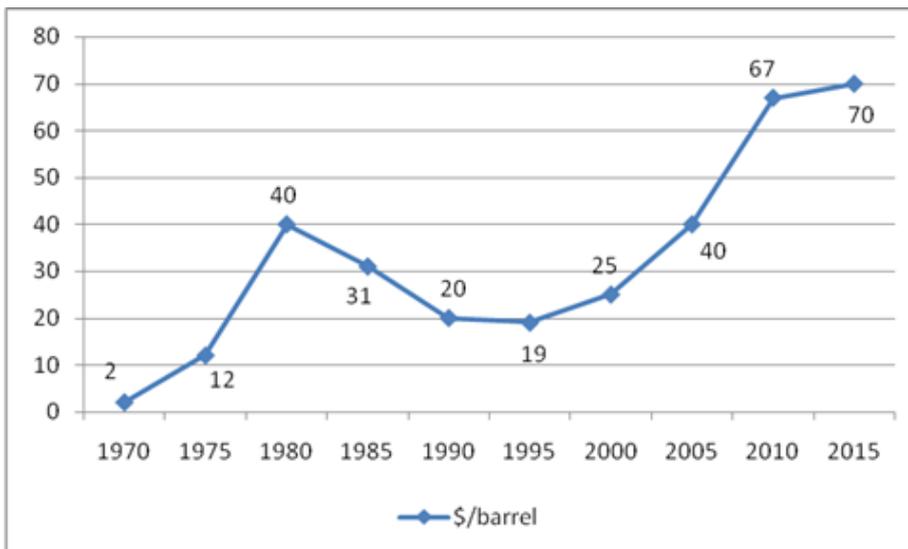


Figure 1. The evolution of petroleum barrel price (dollars / barrel)

Source: Author's processing, using data from "Quid tout sur tout" (2016)

If in the 1970-1980 the petroleum crisis were due to the rise in petroleum prices, growth demanded by producers, especially OPEC countries, after the year 2000 there were also crises followed by the decrease in petroleum price, the periods being the second half of 2008 and the whole of 2009, as well as the period 2015-2017. These last two crises with the fall in petroleum price have affected the producers (both the extraction area and the processing area) the cashing of some of them have not even covered the operating costs.

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The declining in demand is mainly due to the slowdown in China's economic growth, and more recently to Iran's free market entry, which was for more than 10 years under embargo with the ban on selling petroleum to Western countries until the end of 2015. Iran, engaging to the "big powers" that it will not produce an atomic bomb, has got "free" access the petroleum trade market, now having huge gas and diesel stocks ready for shipment from its Persian Gulf ports (Ziarul Financiar, 2016).

Table 1. The price of gasoline in some countries, between 1990-2015 (dollars / liter)

No.	Country	1990	1995	2000	2005	2008	2009	2010	2015
1	USA	0.29	0.31	0.37	0.57	0.82	0.59	0.69	0.84
2	Great Britain	0.68	0.78	1.12	1.46	1.82	1.43	1.67	1.96
3	Germany	0.66	0.99	0.86	1.39	1.94	1.70	1.78	1.86
4	France	0.88	1.04	0.92	1.32	1.84	1.55	1.65	1.82
5	Italy	1.11	0.98	0.92	1.41	1.89	1.58	1.70	2.12
6	Australia	0.49	0.49	0.49	0.81	1.12	0.94	0.85	1.30
7	China	0.29	0.30	0.30	0.43	0.76	0.82	0.93	1.25
8	Japan	0.78	1.11	1.11	1.08	1.44	1.21	1.42	1.45
9	Thailand	0.29	0.30	0.30	0.54	0.98	1.01	1.18	1.28
10	Brasil	0.26	0.28	0.51	0.62	0.73	0.63	0.71	0.91

Source: Author's processing, using data from World Almanac 2016, The New York Editor – USA

After the price drops in 2009, gasoline prices rose again in 2015, going beyond the 2008 maximum in all countries except France and Germany. The largest increases were registered in China, Thailand, Italy and Australia. In Japan the price of gasoline can be considered constant - table 1.

In 2015, the extremes were Italy and the United States, where gasoline prices were 8.50 and 3.35 dollars per barrel, the price in Italy being 2.54 times higher than in the US.

The biggest increases in gasoline prices in 2005-2008 were registered in China and Thailand, with a percentage of 82 and respectively 78. In fact, the two countries registered the highest increases in gasoline prices throughout the studied period (1990-2015), the increase for both countries being surprisingly high: approx. 340% - table 2.

On the contrary, Brazil and the United States had the lowest petroleum price rises (1.6% respectively 3.5%) and the United Kingdom registered even a fall in petrol prices in 2009 compared to 2005.

**Table 2. Gasoline price evolution in some countries
between 2005 and 2009 (percent)**

No.	Country	Price increase	Price decrease	Price evolution
		2005-2008 (%)	2008-2009 (%)*	2005-2009 (%)**
1	USA	+ 44	- 28	+ 3.5
2	Great Britain	+ 25	- 22	- 2.1
3	Germany	+ 40	- 13	+ 22.3
4	France	+ 39	- 16	+ 17.4
5	Italy	+ 34	- 17	+ 12.1
6	Australia	+ 39	- 16	+ 16.0
7	China	+ 82	+ 8	+ 90.9
8	Japan	+ 35	- 16	+ 12.0
9	Thailand	+ 78	+ 3	+ 87.0
10	Brasil	+ 18	- 14	+ 1.6

* China and Thailand recorded price increases in gasoline sales in 2009 compared to 2008, although petroleum price has fallen on the international market since 2008

** Although the gasoline price was expected in 2009 to reach the level from 2005, though its price remained much higher, China and Thailand having prices in 2009 with 87 respectively 90.9% higher.

Source: Author's processing, using data from World Almanac 2016, The New York Editor – USA

Generally, the rise of automotive fuels price is explained by taxing them and this way the collection of significant revenues to the budget of all countries, starting from the desire to reduce budget deficits.

If the petroleum share of in the world energy consumption rose spectacularly from 9% in 1920 to 52% in 1970, then the growth has moderated, followed by a gradual and slow decline. However, at the level of the year 2000, the share of energy obtained from petroleum was over 4 times higher than the one obtained from coal. It is worth mentioning that it is about the share reduction in the energy balance and not the decrease of petroleum quantity produced and used in the world. In fact, the quantity of extracted petroleum has increased 3.4 times since 1970 so far - table 3, and table 4.

The world's petroleum consumption has grown steadily throughout the 20th century, especially after 1960, with a moderation of the rate growth since 1990. Relative to the share of petroleum in the energy consumption, apart from the 1930-1940 period which was dominated by the economic crisis started in 1929, the growth was intense until 1970 when the decline of the growth began, and since 1980 the share of petroleum in the global energy production and consumption has diminished, as shown in figure 2, and figure 3.

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Table 3. The evolution and the structure of the global energy production

Year	Coal %	Petroleum %	Methane gas %	Nuclear Energy %	Hydro Energy %	TOTAL Green Energy (%)	TOTAL equiv.c.c ** • 10 ⁹ to/year
1920	86	9	2	-	3	3	1,46
1930	75	17	5	-	3	3	1,68
1940	69	21	6	-	4	4	1,90
1950	52	32	10	-	6	6	2,52
1960	36	41	16	0,13	7	7	3,50
1970	22	52	18	1,2	6	7	6,02
1980	15	55	17	6	6	7	9,53
1990	13	52	16	11	6	8	15,07
2000	12	51	16	13	7	8	18,01
2005	12	49	17	13	7	9	20,12
2010	13	47	17	13	7	10	22,04
2015	14	46	17	12	8	11	23,67

*Green Energy: rivers energy, waves energy, wind energy, photovoltaic energy etc.

**equiv.to.c.c - billion tons *conventional fuel* (coal equivalent) ... 7000 kcal / kg

Source: Monthly Energy Review & Energy Information Administration - March 2016, EIA (S.U.A.)

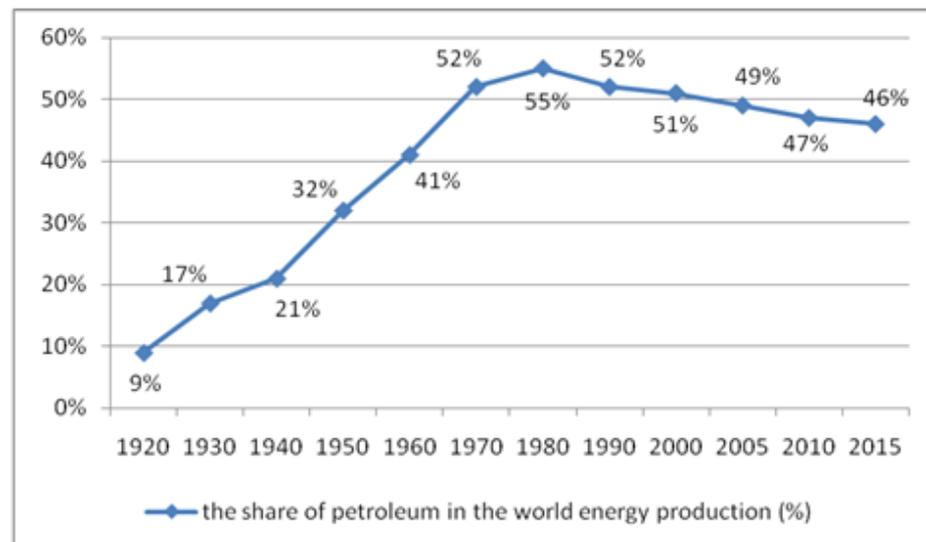


Figure 2. The share of petroleum in the world energy production (%)

Source: Author's processing, using data from Table 3

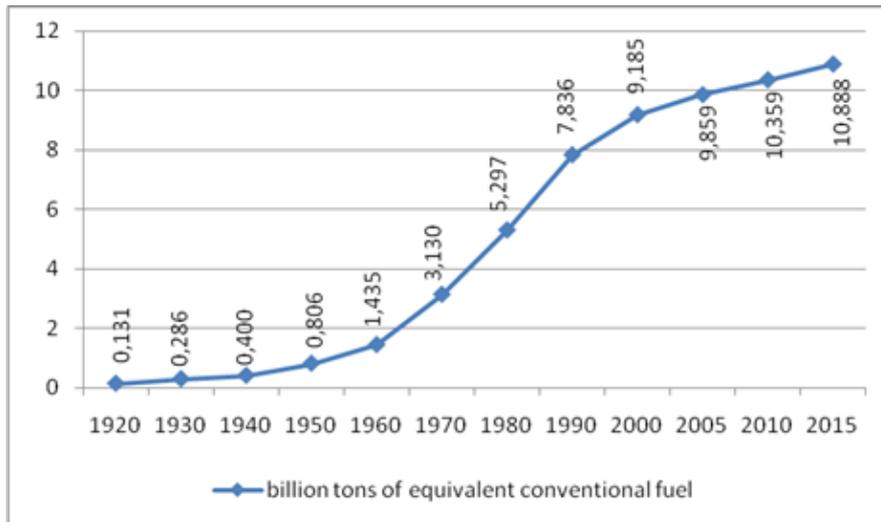


Figure 3. The total world petroleum consumption (billion tons)

Source: Author's processing, using data from Table 3

Though, since the 1960s, there have been serious concerns about the depletion of petroleum reserves over the next 40 years, it's been over 50 years, during which time the world petroleum production has grown, now over six times higher than in 1960, through the discovery of new deep reserves (over 2500 meters) also in the sea underground.

Table 4. The growth of global energy consumption for decades: 1920-2020 (billion tonnes of conventional fuel)

Decade	Billion tons	Growth %
1920 – 1930	1,46 / 1,68	15,07 %
1930 – 1940	1,68 / 1,90	13,10
1940 – 1950	1,90 / 2,52	32,63
1950 – 1960	2,52 / 3,50	38,89
1960 – 1970	3,50 / 6,02	72,00
1970 – 1980	6,02 / 9,53	58,31
1980 – 1990	9,53 / 15,07	58,13
1990 – 2000	15,07 / 18,01	19,51
2000 – 2010	18,01 / 22,04	22,38
2005 – 2015	20,12 / 23,67	17,65
1920 / 2020*	25,00 / 1,46	1600 %

* 2020 - the global energy consumption, estimated

Source: World Almanac (2016), The New York Editor

Three features define the geopolitical role of petroleum and of energy in general:

- energy can be procured without restrictions globally, the proof being the continuous development of petroleum, coal, natural gas and electrical energy international trade
- industrialized countries, due to their high consumption, play a predominant role in determining the demand for fuels and energy,
- the developing countries are usually petroleum-exporting, there are also some countries that import energy, but small quantities.

The classical energy resources (coal, petroleum, natural gas, river water etc.) are still abundant and will not limit the economic growth in the near future. The energy is one of the products that gives the main share of international trade, this trade is growing worldwide, representing a fundamental element of globalization.

In order to ensure the energy security, the countries importing petroleum, natural gas and electrical energy carry a policy of diversification / multiplication of suppliers, for example *China*, which, besides the Near East, imports petroleum from the Southeast Asian countries:

Indonesia, Brunei, Myanmar; from countries of the African continent: Libya, Algeria, Gabon, Angola; but also from the American continent: Ecuador and Venezuela; finishing with Russia and Kazakhstan. The two American Continents are an example, an example of regional integration of the petroleum, gas and electricity markets, the main pillars being the United States, Mexico, Venezuela and Brazil (Marga, 2017).

Although for over 50 years are still predicting the depletion of petroleum reserves, they are rising as a result of new deep-sea discoveries in the oilfields in operation, others in recently discovered areas (Algeria, Angola, Gabon, Ecuador, Myanmar, Kazakhstan etc.), but also in the sea waters (the Persian Gulf, the Gulf of Mexico, the North Sea and the Black Sea) or the new resource categories (bituminous shale and asphalt sands in Canada and Alaska), the latter two becoming competitive with the rise in petroleum prices on the international market. The petroleum price collapse has reversed the upward trend in US production, the domestic production dropping at the same time as petroleum prices, turning off the opening of new drilling.

The *USA* buys petroleum every year for approximately \$ 500 billion, selling gasoline at half the price in Europe (Europe Bulletin, 2016).

US military interventions in the Middle East are motivated by the interest of this world's largest economic and military power, for petroleum, the fuel that ensures the smooth functioning of the American Military-Industrial Complex.

With this bank-note, the dollar, which became of global reference after World War II, which is no longer covered in gold since 1971 - with this paper bank-note worthless (in principle), the United States buys the necessary petroleum, as well as all other resources for the functioning of this great performing world economy (Stiglitz, 2005).

4. The advantages of having large petroleum reserves

Owning large petroleum reserves by some countries, is an extremely competitive advantage for them, making significant financial revenues by exporting the petroleum. The major petroleum producing and exporting countries have a positive **trade balance** (exports / imports), the export / import value ratio being over-unitary.

Due to large petroleum reserves and industrial-petroleum activities, Saudi Arabia, Kuwait, United Arab Emirates, Qatar, Sultanate of Brunei, etc. all these countries have a GDP per capita of over 50,000 \$, almost double the average of the European Union, the Qatar is exceptionally close to nearly \$ 150,000 per capita.

The countries with the largest petroleum reserves are: Venezuela, Saudi Arabia, Canada, Iran, Iraq, Kuwait, United Arab Emirates and Russia, but important reserves has also: the US, Mexico, Brazil, Ecuador, Indonesia, Myanmar, Algeria, Libya, Angola, Nigeria, Qatar, Kazakhstan, China, Norway and the United Kingdom - table 5.

**Table 5. The largest holders of petroleum reserves
(along with coal and methane gas reserves)**

	Country	Petrol bill. Tons	Coal bill. Tons	Methane gas bill. m ³
1	Venezuela	52,33	0,528	5.629
2	Saudi Arabia	45,21	0,284	8.429
3	Canada	29,12	7,255	2.125
4	Iran	27,43	1,237	34.312
5	Irak	24,07	0,456	3.314
6	Kuwait	17,37	0,106	1.830
7	UAE	17,15	0,137	6.143
8	Russia	15,62	173,110	48.228
9	Libya	8,22	2,074	1.520
10	Nigeria	6,63	0,239	5.172
11	S.U.A.	6,34	258,620	9.687

Source: World Almanac (2016), The New York Editor

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Apart from the United States, the United Kingdom, Mexico, Brazil and China, all others are large petroleum and petroleum products exporters, with positive trade balances: the exports far outweighing the imports by value speaking.

Among the mentioned countries, Russia is the largest petroleum producer (about 380 million tons annually) and Saudi Arabia is the largest petroleum exporter, with approx. 300 million tons annually (EIA-USA, Monthly Energy Review, 2016).

Above all the major petroleum producing countries, those in the Middle East have remarked themselves through a meritorious use of the collected money, investing the money in the realization of high-performing industrial, banking, commercial-tourism and sporting infrastructures which allow a standard to envy for their people. Qatar has a GDP of \$ 147,000 per capita, by far the largest in the world. For comparison, the European Union has an average GDP per capita of only \$ 34,000, yet European countries are able to provide their population an excellent living standard.

Beside Qatar, other countries with petroleum resources they have an annual GDP per capita of over 50,000 \$: Kuwait, Brunei, United Arab Emirates, Bahrain, closely followed by Oman.

The Economic development is expressed by GDP per capita based on purchase power parity - PPP (Neagu and others, 2017).

Table 6. Shows the countries with the highest GDP / capita: countries with large petroleum and natural gas reserves, respectively highly economically developed countries.

	Countries with petroleum reserves	GDP / capita	Economically developed countries	GDP / capita
1	Qatar	147.000	Luxembourg	92.000
2	Brunei	73.800	Singapore	84.300
3	Kuwait	71.600	Switzerland	61.400
4	Norway	67.400	USA	54.500
5	UAE	65.500	Australia	47.200
6	Saudi Arabia	53.200	Austria	46.700
7	Bahrain	52.300	Sweden	46.600
8	Netherlands	47.700	Germany	46.300
9	Oman	42.100	Ireland	46.100

Source: World Almanac (2016), The New York Editor

Of the developed Western countries, only Luxembourg, Singapore, Norway, Switzerland and the US have a GDP per capita of over \$ 50,000, the maximum being recorded by Luxembourg: approximately \$ 90,000.

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Other countries with a GDP of over \$ 40,000 per capita are: the Netherlands, Australia, Austria, Sweden, Taiwan, Germany, Denmark, Belgium, Finland and France. Noteworthy that all West European countries located north of France have a GDP per capita of over \$ 40,000.

In the table, the Netherlands and Norway are included among the countries with large petroleum and natural gas reserves, these two countries being large exporters of these energy resources. It should be noted that of all the countries in the table, many are small and very small countries, and the natural resources place them "easily" in such a ranking: Brunei, Qatar, Bahrain, Luxembourg and Singapore, but also here can be considered the Netherlands, Switzerland and Ireland.

Regarding the high living standard of population in the Arab countries that are rich in petroleum resources, the leaders of these states deserve the merit, leaders with vision and a real desire to create welfare conditions for their citizens. From the economic science point of view, we can say that it is the lack of corruption and the right management.

Regarding this, the well-known *Richard Farmer* said: "The Management is what makes one country or another become performing and rich, or to remain always poor with all the riches it holds" (Russu, 1993).

But we would also quote *Milton Friedman*: "The real forces that determine the well-being of a nation are the features of its citizens, their diligence and inventiveness, the quality of the leaders, as well as the way of organizing politics and economics" (Harrington, 2001).

Some countries have large petroleum reserves and this is an important competitive advantage for them, by exporting petroleum they make extremely important financial collections.

5. Exports show economic performance

Major countries which produce and export petroleum, all have a positive trade balance, the value ratio: exports / imports, being over-unitary.

Kuwait has the highest export / import value ratio: $r = 4.23$ (with exports of \$ 110 billion and imports of only 26 billion).

Qatar's exports are 3.1 times higher than imports; Brunei has a ratio of 2.75 and Saudi Arabia a ratio of 2.22 with exports of \$ 360 billion and imports of 162 billion, with a trade surplus of nearly \$ 200 billion annual. Under these circumstances, Saudi Arabia can make large investments in infrastructure, defense, but also in health and education.

Other Middle East petroleum rich countries have been concerned and have managed to develop their economies: Kuwait, Qatar, Bahrain, United Arab Emirates, Oman and Iran, developing petro chemistry, energetics and metallurgy

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(especially that of aluminum, which involves high electricity consumption), tourism and banking services.

Other countries with large trade balance ratios are: Bahrain ($r = 2.00$), Kazakhstan ($r = 1.85$), Nigeria ($r = 1.79$), Gabon ($r = 1.75$), Oman ($r = 1.72$), Norway ($r = 1.66$), Russia ($r = 1.64$), Iraq ($r = 1.52$) and UAE ($r = 1.47$), all of them being major petroleum and petroleum products exporters - table 7.

Table 7. The countries with the biggest positive trade balance

	Country	GDP billion \$	Export billion \$	Import billion \$	Ratio exp / imp	Ratio exp / GDP
1	Kuwait	284	110	26	4,23	0,38
2	Qatar	321	121	39	3,10	0,12
3	Brunei	31	11	4	2,75	0,36
4	Angola	176	71	29	2,45	0,40
5	Saudi Arabia	1.620	359	162	2,22	0,22
6	Bahrain	62	22	11	2,00	0,36
7	Kazakhstan	420	87	47	1,85	0,21
8	Nigeria	1.012	93	52	1,79	0,09
9	Gabon	37	8,4	4,8	1,75	0,23
10	Oman	167	60	35	1,72	0,37
11	Norway	354	156	94	1,66	0,44

Source: Monthly Energy Review & Energy Information Administration – March 2016, EIA (USA)

Apart from petroleum exporters, few other countries (of course, heavily industrialized) have such a favorable asymmetric trade balance, none having an "exports / imports" ratio of more than 1.20 which shows the extraordinary strategic importance of natural resources, the determinant role of these resources in the economy as a whole, even in the context of today's super-technological society, in the conditions of globalization. Among the highly industrialized countries, the best situated are: Ireland ($r = 1.77$), Norway ($r = 1.66$), Russia ($r = 1.64$), Switzerland ($r = 1.18$), Germany ($r = 1.17$), Taiwan ($r = 1.16$), the Netherlands ($r = 1.13$) and Singapore ($r = 1.11$) - see table 8.

There is no country lacking natural petroleum resources between the top 10 countries with positive trade balances (the ratio "exports / imports" over-unitary). The 11th place in this ranking is occupied by Norway, a highly industrialized country, but also having surplus petroleum reserves in the North Sea.

Out of the top 10 industrialized countries with positive trade balances, only Russia, Norway and China have significant petroleum reserves, with the mention that only

the first two export petroleum products, and China, India, the United States and Japan are the world's largest importers.

Noteworthy is that over the 1.11 level in Singapore, representing the trade balance ratio, there are many other "less developed" countries, such as: Venezuela $r = 1.67$; Iran $r = 1.65$; Iraq $r = 1.52$; Libya $r = 1.19$ and Algeria is in close proximity with the ratio of 1.13.

Table 8. The highly developed countries with positive trade balance

	Country	GDP billion \$	Export billion \$	Import billion \$	Ratio exp / imp *	Ratio exp / GDP
1	Ireland	229	122	69	1,77	0,54
2	Norway	354	156	94	1,66	0,44
3	Russia	3.725	540	330	1,64	0,15
4	Switzerland	484	397	338	1,18	0,82
5	Germany	3.810	1.150	1.130	1,17	0,41
6	Argentina	953	77	66	1,17	0,08
7	Taiwan	1.123	333	288	1,16	0,30
8	China	17.700	2.300	2.000	1,15	0,13
9	Sweden	471	199	173	1,15	0,41
10	Italy	2.165	515	452	1,14	0,24
11	South Korea	1.880	590	532	1,11	0,32

* exports / imports

Source: World Almanac (2016), The New York Editor

For comparison, Romania has a sub-unit report "exports / imports" ($r = 0.89$) with a poor trade balance, the exports being \$ 9 billion lower than the imports (Univers Ingineresc, 2017).

Among the highly developed countries with positive trade balance, Russia and Norway have important petroleum resources, the other 9 countries included in the table relying their economy on a generally developed and performing industry, agriculture and a strong services sector.

6. The "exports / GDP" ratio

The overall performance level of the country's economy is given by the "exports / GDP" ratio, the highest value is recorded by Singapore with a ratio: $r_{\text{ex/GDP}} = 0.91$; followed by Switzerland with a ratio: $r_{\text{ex/GDP}} = 0.82$; the Netherlands $r_{\text{ex/GDP}} = 0.68$; Belgium $r_{\text{ex/GDP}} = 0.67$; Slovakia $r_{\text{ex/GDP}} = 0.57$; Ireland $r_{\text{ex/GDP}} = 0.54$ and Slovenia $r_{\text{ex/GDP}} = 0.51$... all of them having the export value above 50% of GDP. Close to them there are: The Czech Republic, Denmark, Norway, Austria, Sweden and, of course, Germany (World Almanac, USA 2016).

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Romania. In Romania the GDP / capita has increased over the past 10-15 years, but it does not explain the fact that the exports are small and the imports are higher. Romania has an "exports / GDP" ratio of only 0.15, and „exports / imports” 0,78 which shows that we still have a very long way to go in terms of competitiveness, earnestness being necessary, work and perseverance (Neagu and Dima, 2017, p. 29).

As far as Romania's petroleum resources and production are concerned, it is worthwhile to point out that our country was Germany's only supplier of gasoline and mineral oils during the Second World War. Romania remained a major producer until the 1970s, when petroleum reserves declined and exports reached negligible quotas. Thus, we have lost one of the greatest competitive advantages of the economy, an excellent source of revenue that ensures an active trading balance (Tribuna Economică - 2015).

Here we quote again Milton Friedman, owner of the Nobel Prize for Economics (1976): "The real forces that determine the well-being of a nation are the features of its citizens, their diligence and inventiveness, the quality of the leaders, as well as the way of organizing politics and economics."

7. Conclusions

Petroleum is the main source of energy worldwide. Generally, all the petroleum exporting countries have been able to use smartly the money from this important resource, by developing a number of large investments in infrastructure, economic diversification, tourism, banking and health care, as well as in education

Almost all of these countries have a positive trade balance, with export earnings exceeding import costs.

Among the highly developed countries: Singapore, Switzerland, the Netherlands, Belgium and Slovakia, although they are lacking of important natural resources, have the largest exports, relative to GDP, which shows a very high level of competitiveness of their economies.

Romania, from a major producer and exporter of petroleum, has now come to import some of the necessary petroleum products, losing a significant competitive economic advantage.

Romania, increasingly poorer in natural resources, will have to invest in performing areas, in order to face the increasingly fierce competition under the conditions of globalization. This requires political vision, seriousness and work.

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