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### ASSESSING THE ROLE OF THE ISLAMIC REPUBLIC OF IRAN IN THE EU ENERGY MARKET

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#### ABSTRACT

EU countries are among the poorest countries in the world in terms of energy resources, while energy is a vital vessel in the EU's economy, and the continued growth of people's welfare and livelihoods, as well as the strength of their industry, depends on energy resources. The bitter experience of the 1973 oil embargo and the Russian gas cut in 2009 prompted Europeans to seek diversification in their energy markets. In this regard, Iran has attracted the attention of the European Union with its vast resources of oil and gas. The EU is working to help Iran share its energy market. Using a descriptive-analytical method, this study seeks to answer the question of what role can the Islamic Republic of Iran play in the current EU energy market by examining the economic capacities and capabilities of Iran's energy market as well as the EU's energy market capacities. Our hypothesis is that, Since the EU's Green Document shows that the use of fossil fuels in the European Union is on the rise, Iran can meet the energy needs of the European economy due to its unique capabilities.

#### INTRODUCTION

Energy today is not only a strategic resource for meeting the economic needs of industrialized and developed countries, but also plays an important role in the security of performance and competition of international actors, and governments, especially in developed and developing countries; see energy as part of their political, economic, and strategic tools and often play a role in energy issues. Also, the relative adjustment of hostile space between the main poles of power in the world and the expansion of globalization waves and the increase in communication between national economies have increased the relative economic importance in international relations and, consequently, the

energy market at the international level. Continuity of access to energy resources and markets plays a decisive role in the international relations of countries and helps to increase their national power. Since energy is the main cycle of today's civilization and all governments, especially industrialized and developed European countries, are highly dependent on it due to the needs of their industrial sectors and advanced factories, access to the energy market is a major concern for them and they consider and do their best to maintain and access it. With declining fossil fuels within the European Union, these countries are facing a situation in which they must increasingly rely on imports from countries rich in this energy to meet their demand. Meanwhile, Iran has attracted the attention of the European Union with its huge oil and gas resources, geopolitical position and booming markets, and Iran is among the ten oil-producing and five gas-producing countries (Singh, 2019: 9). Iran is also the third largest producer of dry gas after the United States and Russia (Singh, 2019: 11), and although Iran prefers to send its dry gas to neighboring countries, it cannot ignore the lucrative European market (financialtribune.com) European countries, both in the form of the European Union and individually, have been interested in establishing relations and using Iran's economic capacities since the victory of the Islamic Revolution.

The question we are asking in this study is what role does Iran play in the current EU energy market and how can it strengthen its presence in the future? Due to the importance of energy for the European Union and the fact that by 2030 the use of fossil fuels in EU countries will increase (according to the EU green document), it seems that Iran, by having 15% of gas resources and 11% of The world's oil resources can play a significant role in the energy market for the European Union. In this study, we begin by presenting a theoretical framework and, after stating the position of energy in the EU's foreign policy, we will examine the needs of the European market, the advantages of the Iranian market, and finally the opportunities facing Iran and the European Union in terms of energy.

## **THEORETICAL FRAMEWORK**

### **Rational choice**

Rational choice plays a decisive role in the intentional and behavioral approach of the human mind. According to the assumptions of this approach to behaviorism, man is not a natural being who behaves only according to external factors, but is an calculating being. The philosophy of Adam Smith and John Locke is the philosophical underpinning of intentional behaviorists. These two thinkers see man as a calculating being who seeks to increase his profit and reduce his loss, so man is a wise being who chooses wisely. According to this theory, social phenomena are the same set of actions of calculating individuals (Pourian, 2017: 218)

The attractiveness of rational choice theory (which was also the reason for its spread) was first described by James Coleman. In Coleman's view, rational choice theory as the basis of a theory is uniquely attractive because its meaning is so complete and practical that it leaves no more questions.

Coleman argues that it is necessary to use the concept of rationality used in economics, a concept that forms the basis of rational activism in

economics theory. It has an actor and is accompanied by an principle of action that can be expressed in such a way that the actor chooses an action that will give him the maximum benefit (Javadi Yeganeh, 2008: 35). The rational model of decision-making, by assuming the sciences of economics, presents an economic picture of man and decisions, the most important characteristic of which is the calculation of monetary profit and loss. (Pourian, 2017: 210)

Little mentions the model of an equivalent rational actor (rational discretion) and states that in this model, it is assumed that people in a dilemma choose the path that agrees with their goals and calculate the profit and loss of each choice. After examining the pros and cons, they choose. (Little, 2009: 65)

This model is based on the principle that human beings, as an economic being with full wisdom in a well-known environment, make the best choice, and the choice from the point of view of such a person is synonymous with success in completely achieving the goal of the organization or to achieve the most desirable result (Soleimani, 1390: 377)

Many believe that the theory of rational choice considers political actors as analytical units that regulate their behavior in a rational way. In this approach, it is assumed that actors' behavior and decisions are based on environmental conditions, structural constraints, expectations and values. Material possibilities are formed and actors in the form of these frameworks and limitations seek to maximize their profits. In other words, in the theory of rational choice of society, there is a set of people who have rational action, rational action in this perspective is rational action aiming at goal based on Weber's definition or rationality-based action is instrumental in the sense that these conscious, autonomous, and purposeful individuals seek to maximize their own profit in any situation (Goodarzi, 1397: 138).

Given this theoretical framework (rational choice), relations between Iran and the European Union are based on profit and benefit, as the European Union needs to supply its energy, it seeks a relationship with Iran. On the other hand, Iran is trying to establish a relationship with the European Union because it wants to remain in the EU energy market and sell its oil and gas.

The place of energy in the convergence of the European Union.

A quick look at the evolution of the European Union clearly shows that the role of energy in European integration is not limited to recent years, but has played a prominent role since the formation of the European Union. What laid the foundation for European unity was European society, the formation of which dates back to French Foreign Minister Robert Schuman's proclamation on May 9, 1950, in a joint plan for coal and steel, which was coined and designed by Jean Monnet, and Schumann as The foreign minister accepted responsibility for the plan. The reason for the announcement was that France concluded that the presence of coal resources and steel mills in the Rhineland or Rocher region of Germany, which is its main source of economy, was a major factor in German military supremacy. The year after World War II in 1950, it offered full participation in all coal and steel products of France and Germany, and Germany welcomed the offer. In the United States, West Germany, the Netherlands, Belgium, Luxembourg, and Italy, it was well received. The

agreement was signed on April 18, 1951 between six European countries: West Germany, France, the Netherlands, Belgium, Luxembourg and Italy in Paris, as the coal community achieved success.

With the expansion of economic activities and joint cooperation, the Dutch Foreign Minister presented a plan in 1955 at a meeting of the foreign ministers of the six member states in Brussels, known as the Benlux Project. The plan, which focused on economic, customs and financial cooperation, eventually led to the formation of a common European market. The Benelux Group proposed that a joint organization be established for the peaceful use of nuclear energy. On March 25, 1957, the Treaty on the "European Economic Community" and the "European Atomic Energy Community" were signed in Rome. January 1, 1959 officially began. One of the goals of the Treaty of Rome was to create close unity among the people of Europe (Khalouzadeh, 2004: 14).

Since mid-1987, when the European Union document came into force, political convergence in Europe has accelerated, in a way that in less than five years, the revision of the Treaty of Rome has been ratified by the European Union, the European Union treaty that brought about fundamental change. Germany's reunification on October 3, 1990, encouraged some member states to make decisions based on the requirements of the time for economic, monetary, and ultimately political unity in Europe. For this reason, the leaders of the European Community met in the Dutch city of Maastricht on December 9 and 10, 1991, to discuss and sign the pre-determined agreements of the foreign ministers of this community. These agreements are based on the three principles of economic, political and monetary unity, as well as the unification of foreign policy. The goal of the treaty is to make this society the first European economic power, followed by the world, so that it can appear in the political arena of the world with one voice and defend its territorial integrity with a military force. The 212-page Maastricht agreement was signed on February 7, 1992 by representatives of 12 European member states. Of course, the agreement was supposed to be implemented on January 1, 1993, but for various reasons, such as the rejection of the treaty in Denmark's first referendum, its relatively weak approval in France, and Britain's delay in ratifying it, the treaty effectively It was implemented on January 1, 1995, and the name "European Society" was changed to "European Union" (Khalouzadeh, 2004: 23).

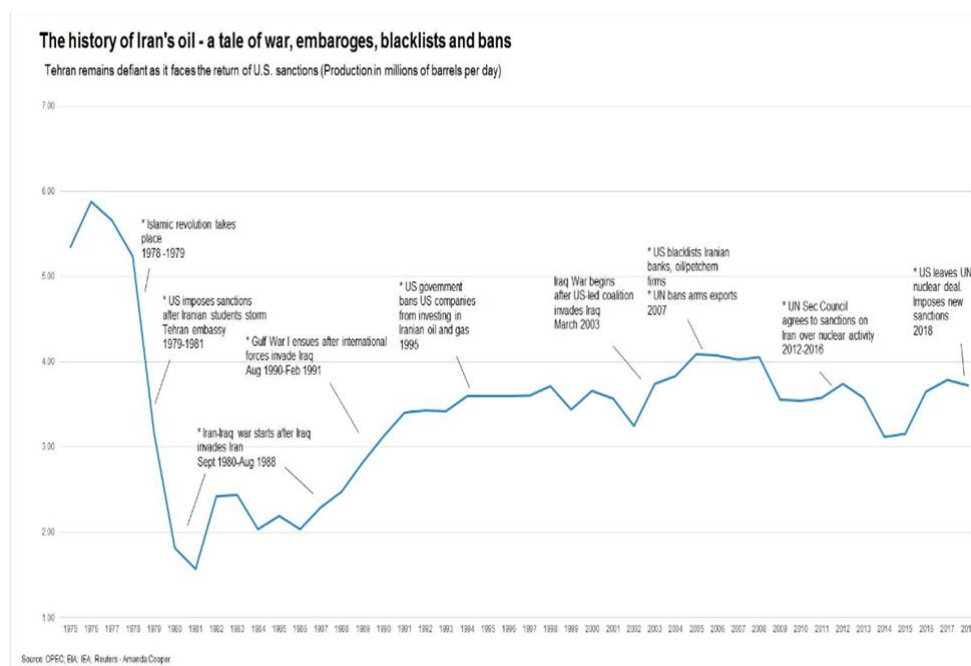
Although energy convergence has begun, energy issues have been gradually forgotten over the past five decades. Effective factors such as easy access to the rich fossil resources of the Middle East, US financial and economic guarantees, non-dense population and factories and heavy industries, and the lack of prominent economic and commercial competitors such as India, China, Japan and others were the reasons for such an attitude. But with the arrival of the third millennium, a multitude of complex and intertwined problems and crises plunged the energy issue and the prospect of fuel transit security into Europe into a haze of ambiguity, and once again raised the issue of energy from the lower echelons of EU policy. Leads to a critical strategic decision level. In other words, European officials see a return to the energy agenda and the reorganization of the worrying energy situation as inevitable (Soltani, 2011: 216).

### **History of Iran-EU relations in the field of energy**

William Nichols of England dug a 662-meter-deep well in 1906 and a 592-meter-deep well in 1907, but both wells were dry. On May 16, 1908, the smell of gas wafted around the excavated site (GEOXPRO, sorkhabi, rasoul, 2008). This increased the smell of carbon dioxide and was a sign that he was approaching oil exploration in the area. With this hope, they continued their work, and on May 26, 1908, William Nichols, an Englishman, dug Iran's first oil well in Masjed Soleyman and founded the Oil Company. (Perry, Jane, 2016: 149) The discovery of oil in Masjed Soleyman was the beginning of the discovery, exploration and extraction of oil in the region. The importance of this material led to many changes in the region and the history of the world. One of the first effects of the discovery of oil was that the British Navy changed the fuel of its ships from coal to oil (WIRED, RANDI, ALFRED, 2008). After exploration in this area and the use of this raw material and after the advancement of science in the field of oil and chemistry in 1950, the British created the largest refinery of the time in Abadan, and also to transfer it, three large ports were created. A 2,000-kilometer pipeline and 1,500 kilometers of road were built in this regard (HISTORY TODAY, Cavendish, Richard: 2001) This volume of investment showed the great importance of oil for the British. At that time, the world was rapidly moving towards industrialization, which required energy to accelerate, which increased the use of energy resources. Most of the share of oil extraction was in the hands of the British, and a small share of the oil went to Iran, which had oil reserves. With the appointment of Dr. Mossadegh as Prime Minister of Iran, this led to a dispute between Iran and the United Kingdom, and Dr. Mossadegh nationalized oil and expelled the British from Iran. The crisis ended in a coup against the legitimate government of Dr. Mossadegh in 1953. Iran was also able to generate a lot of revenue in the 1973 oil crisis caused by the Arab embargo on Israel, which accelerated the modernization and expansion of facilities. In 1976, Iran's oil production reached a maximum of 6 million barrels per day.

(E-INTERNATIONAL RELATIONS, BREW, GREGORY, 2016)

As can be seen in the chart below, from the beginning of the victory of the Islamic Revolution in Iran, relations between Tehran and European capitals faced major challenges, and Iran's oil production declined sharply.



With the formation of the European Union, four major challenges have been overshadowed by the EU's claim that Iran supports terrorism, the proliferation of weapons of mass destruction by Iran, Iran's disruption of the Middle East peace process and the unfavorable human rights situation in Iran and Iran-EU relations. These challenges have been exacerbated, in particular by allegations of nuclear proliferation since 9/11 and its impact on relations between the two countries. Pointing to these challenges and asking Iran to provide the EU's views is a preference for the majority of statements and summaries published in recent years after various EU meetings at various levels and occasions.

The union's views were not only reflected in the statements, but also in their statements on the occasion. EU High Representative for Foreign Affairs and Security Policy Javier Solana said in an interview: "The European Union is ready to establish fundamental relations with Iran in order to conclude trade and economic agreements." However, this readiness will be conditional on Iran taking steps on the human rights situation in the country, the fight against terrorism, the destruction of weapons of mass destruction and the Middle East peace process. If we add another important challenge to the above four issues, namely Tehran's accusation to the union of interfering in Iran's internal affairs, as well as Iran's security concerns, the circle of disputes and challenges will be completed. (Moradi, 2006: 110)

In addition to the existing challenges, there are opportunities in Iran-EU relations that can be properly exploited to minimize the challenges and put the relationship in a logical direction, which are: Iran's position in the region, resolving regional crises, Europe's energy resources and strategy dependence on Iran, and trade cooperation between Iran and the European Union at a time when both Iran needs the European market to sell its oil and gas, and the European Union needs Iran's oil and gas to supply its energy. These opportunities can play an important role in the relationship between

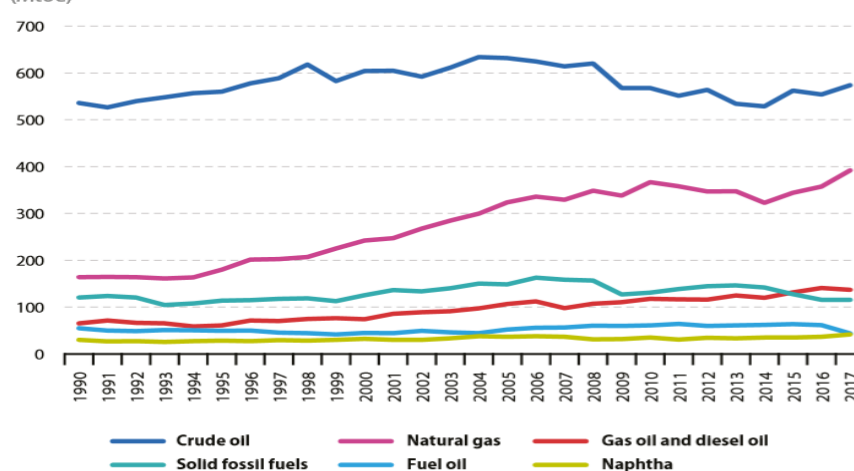
the two and bring them closer together, especially now that the role of energy has become more prominent.

### Europe's energy market needs

With 500 million members, the European Union is the world's third largest population after India and China. The European Union, with 27 member states, is one of the world's leading groups, and now has a quarter of its wealth and revenue, more than a fifth of its global trade, and more than half of its global development assistance. The conversion of the euro into the world's second most important foreign exchange reserve and trade currency has helped boost the union's international influence. The union is the world's largest trading hub, accounting for 30 percent of international trade. International trade, such as the International Monetary Fund, the World Bank, and the World Trade Organization, has a special role to play and is one of the world's leading industrial, technological, financial, and credit investment hubs (Vaezi, 2008: 29). Europe also imported 64 percent of its gas in 2009, which is expected to reach 80 percent by 2030 (Blockmans, 2016: 47). In addition to energy imports, it has taken a wide range of measures, from saving energy, finding alternative oil and gas resources, finding alternative oil and gas suppliers, political and legal mechanisms to military and security measures.

Over the years, the European Union has sought to overcome its vulnerability by developing a comprehensive energy security strategy and not allowing bitter experiences such as the 1973 oil crisis and the Russian gas cut in 2009. Over the years, the European Union has pursued ambitious plans and projects, including the Baku-Jahan pipeline, the North Stream pipeline, the Nabako pipeline, and the brick pipeline (consisting of Azerbaijan, Georgia and Romania). Savat Stream pipeline and Caspian pipeline. Of course, many analysts believe that many of them are not feasible or that they do not have the capacity to solve this security problem. (Aminian, 1392: 97-98)

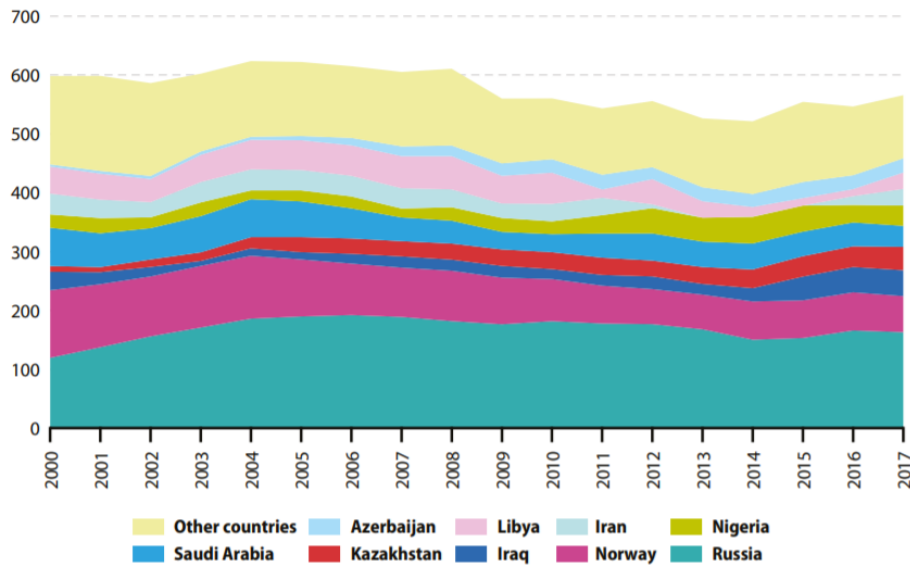
**Figure 1.2.1:** Imports of selected energy products, EU-28, 1990-2017 (Mtoe)



Source: Eurostat (online data code: nrg\_bal\_c)

The European Union needs millions of tons of different types of energy each year. The amount of energy required is determined by the type of material, and the chart below shows which country the EU imports this amount of energy from.

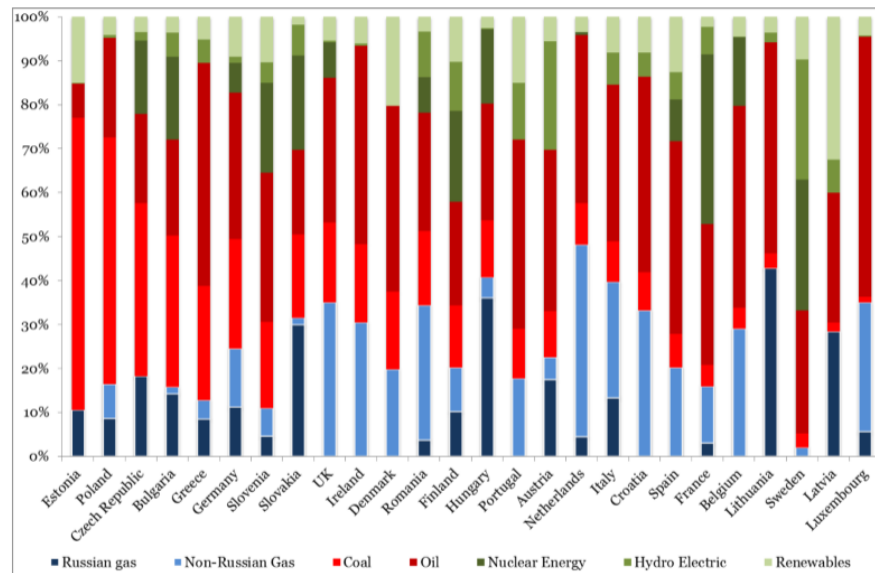
**Figure 1.8.2: Crude oil imports by country of origin, EU-28, 2000-2017 (Mt)**



Source: Eurostat (online data code: nrg\_ti\_oil)

It is also important to know how much energy and what combination of energy each country needs, as shown in the figure below.

**Figure 3.6 Individual energy mixes of EU countries, 2014**

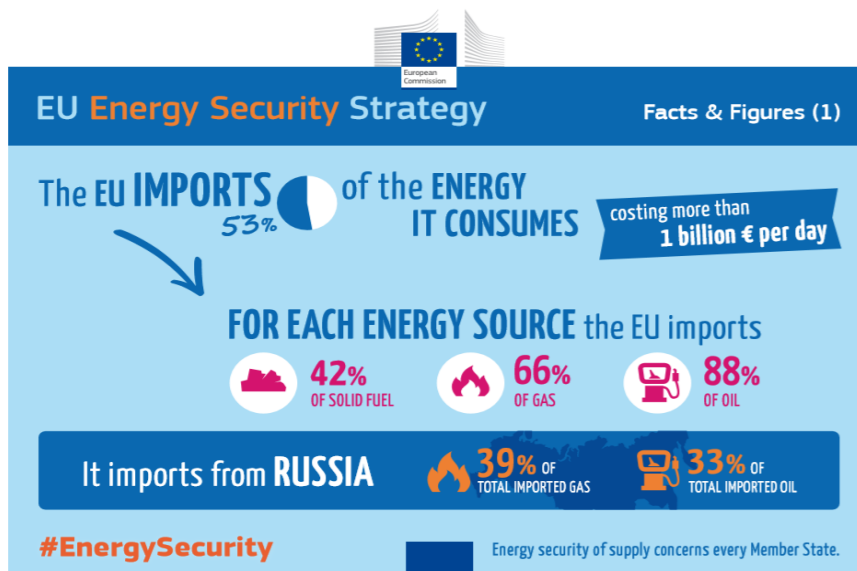


Source: Chyong and Tcherneva, European Council on Foreign Relations, 2015

According to forecasts made by the European Commission in the form of a (green document), by 2030 the Union's imported oil will increase from 76% to 90% and imported natural gas from 50% to 80%. It is also predicted that EU energy demand will grow by 7% over the next 20 years,

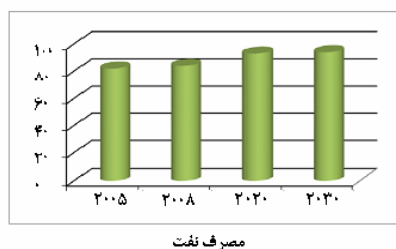
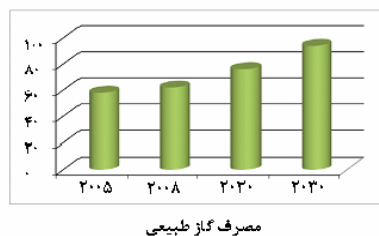


oil and gas will remain the dominant fuel source, and even gas will have the highest consumption growth rate in the EU market. According to the EU's security strategy, the EU imports 90% of its oil, 66% of its gas, 42% of its solid fuel and 40% of its nuclear fuel. (European Energy Security Strategy)



"50 percent of the EU's oil and gas supply comes from foreign sources, and if this trend continues, the EU's dependence on imported oil and gas will increase to 70 percent by 2030," EU Commissioner Barça said in a 2011 speech. (Vesuqi, 2015: 133)

Energy consumption of oil and gas in the European Union from 2005 to 2030, according to Barso's forecast



It should also be noted that the increase in gas production in the world is done through the three countries of Iran, Australia and Russia. (British Petroleum, 2019: 5)

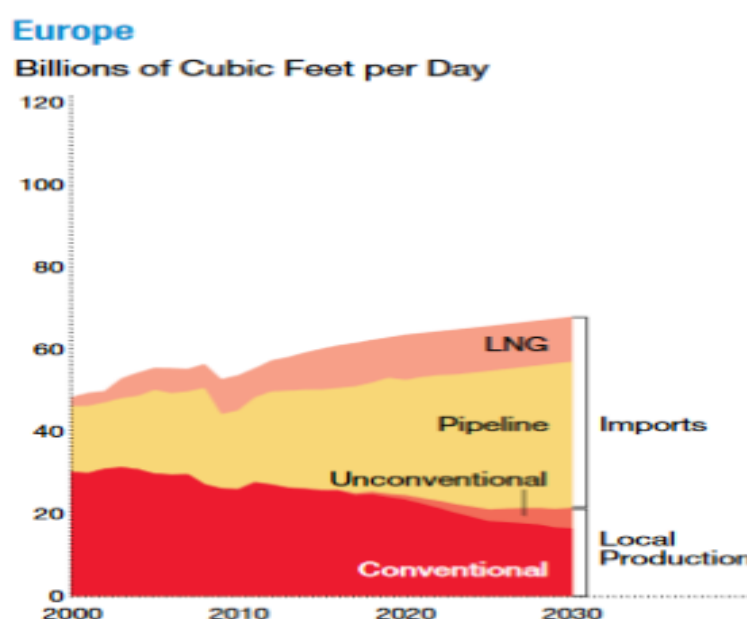
According to British Petroleum estimates, more than 80 percent of Europe's oil and about 60 percent of its gas is imported, with Russia's share of EU imports being very significant. European countries, for example, import 33 percent of their oil from Russia, and Russia's share of EU gas

imports is about 40. In January 2017, Russia broke the record for exports to Europe by transferring 18 billion cubic meters of gas. Increasing Europe's dependence on Russia's oil and gas reserves is being used as an effective tool to exert political pressure not only on European countries but also on countries such as Belarus and Ukraine, which carry energy routes from their homeland. Russia has an absolute advantage over Europe in terms of energy, and Europe is highly dependent on Russia in this regard. Europe currently provides about 50 percent of its energy needs through imports, and If the current situation continues and fundamental changes do not take place in the field of new energy sources in Europe, the amount of EU imports will increase and this is not in the interest of the European Union at all. (Faraji Rad, 2017: 49)

European countries with 13,532 billion barrels of oil are among the poorest countries in the world in terms of oil reserves, and due to these small reserves, the oil production of the countries of this union is very limited, in a way that Norway and the United Kingdom with 2,342, And 1.448 million barrels per day respectively are the main producers of Europe, and the next three countries, Denmark, Germany and Italy, are 262, 156 and 146 thousand barrels per day, respectively. (Agha Alikhani, 2012: 50) However, it is predicted that due to the desirability of gas as a cheaper fuel and in accordance with environmental standards, the demand for gas consumption in tourism will increase further. According to the forecast, European natural gas imports will increase by 236 billion cubic meters per year between 2006 and 2030. It is predicted that gas imports from Europe will increase by about 5 to 6 times by 2030, while Russia's exports will increase by only 30 Up to 60% of this amount. (Aminian, 2013: 90)

In this chart, which shows the European energy consumption outlook, we see that gas will be welcomed by the European Union as fuel until 2030.

- The prospect of European energy consumption by 2030



Given the above, it is natural that energy should be one of the top priorities of European countries, and these countries are trying to find an efficient solution to this crisis, although the European Union has tried to use renewable energy alternatives to solve its energy problem. But this is a time-consuming task, and they should try to multiply the countries from which they import energy, in which case Algeria, Bolivia, Egypt, Equatorial Guinea, Iran, Libya, Nigeria, Qatar, Russia, Trinidad and Tobago and Indonesia are the major countries that control 36 percent of world production and 47 percent of global gas trade, and the European Union can reduce its vulnerability to energy by importing energy from them (Coordinator, 2013: 7).

The EU's continued economic progress requires energy, meaning that in order for the EU's economic engine to thrive, it must always have access to energy resources in order to play an active role in the international arena. The oil embargo of 1974-73, as a turning point in the domestic and global energy markets, made it very difficult for oil suppliers to access affordable oil. The turmoil in the global economy has focused on disrupting energy supply for consumer countries. These oil consumers have taken several steps (individual and collective) to reduce the impact of the disruption and reduce their energy vulnerabilities, including the establishment of the International Energy Agency, the storage and supply of oil in strategic reserves, and the encouragement of energy storage among other supplies. Although industrialized nations, including Europeans, have tried to reduce their dependence on fossil fuels and have succeeded in doing so, their parent industries have continued to depend on fossil fuels, including oil and gas. Therefore, energy security is necessary for these countries. (Behjat, 2014: 21) As mentioned, one of the options for the European Union is Iran, which has both a good geopolitical position and rich oil and gas resources.

### **Capacities of Iran's energy market**

The Persian Gulf is one of the most important and sensitive areas in the world due to its huge energy resources, the most important shipping lines, huge fisheries resources and very rich mineral resources. In connection with the energy reserves of this region, due to having huge oil and gas resources, it has always been of interest to large countries. For example, the world's largest oil field, Al-Safaniyah, owned by Saudi Arabia, and the world's largest gas field, South Pars, owned by Iran, are located on the Persian Gulf continental shelf. North and Gulf of Mexico are ranked second and third, respectively (Hafeznia, 2014: 87). The Islamic Republic of Iran was the first country in the Persian Gulf where oil was discovered, oil is an important commodity for Iran and has a great impact on the decisions of the Iranian government (Jerrold, 2009: 9)

Iran has the world's largest proven oil reserves (after Saudi Arabia), the fourth largest crude oil producer (after Saudi Arabia, Russia and the United States), and the second largest producer and exporter of OPEC oil after Saudi Arabia. Iran's proven oil reserves account for 137 billion barrels (12 percent) of the world's oil, making it the second largest after Saudi Arabia. Also, the Islamic Republic of Iran produces about 4% of the world's oil by producing about 4 million barrels of oil per day (Sohrabi, 2013: 155).

Iran's economy is an oil economy, and the single-product, structural structure that creates such an economy is a rentier economy that has a special feature:

1. They are highly dependent on primary goods.
- 2- Due to the large volume and financial windfall, rent is easily created in the structure of this type of economy (Kamfiroozi, 2014: 63)

Having a single product economy, many economic and security problems can arise for Iran. Oil prices have changed a lot, so with the changes in oil prices, the country's budget will change a lot, which can create a country with different crises. For example, with the increase in oil prices, Iran's economic growth reached 7.84 in 2007, but dropped to 0.83 in 2008, which caused problems for Iran (Kafaie, 1397: 29). So resources can be both useful and negative. Cronen says: "In general, resource wealth can be considered a double-edged sword. On the one hand, this wealth can increase the rate of development by increasing national income, and on the other hand, it can reduce growth by disrupting growth in various sectors of the economy and the main emphasis of the economy on the production and export of raw materials. Many countries rich in natural resources are unable to develop competitive industries outside of raw material production and experience lower growth rates than similar economies without natural resources. »(Kurronen, 2015: 208-209)

In general, from 1349 to 1385, the oil industry has increased Iran's gross domestic product by 20%. Therefore, it can be argued that oil plays an important role in Iran's economy, and this is an opportunity that Iran can use for further development. (Mosalla Nejad, 2012: 49) (Crane, Keith, 2008: 83). Natural gas indices should also be considered. Iran is the second largest country in the world in terms of proven gas reserves (after Russia). Tehran also has strategic facilities such as proximity to lucrative Asian energy markets and close to Europe with easy access to overseas, despite significant geographical and land advantages. Cognition, Iran's current position remains below its real potential. (Behjat, 2014: 202)

"The European Union needs to strengthen its energy relations with Iran," said the European Commission's Climate Change Commission (CLIMATE HOME NEWS)

- The amount of Iranian gas production in different time periods

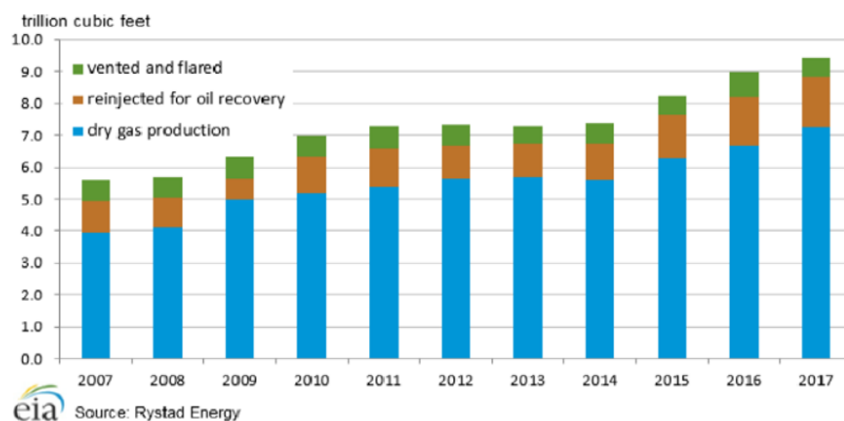


Figure 15. Natural gas production in Iran

The use of natural gas in recent years has increased due to the existence of huge resources of natural gas, growth in energy demand, the growing need for clean fuels and less pollution of the environment in Europe, while at the end of 2016 Iran with 33.5 Millions of cubic meters of proven natural gas reserves account for 18 percent of the world's total reserves and the world's largest reserves, and Iran's natural gas production in 2016 included 202.4 billion cubic meters, equivalent to 5.7 percent of global production. Consumption of this year has been 200.8 billion cubic meters, equivalent to 5.7% of the total global gas consumption. (Kasraei, 2017: 112)

An examination of Iran's natural gas reserves over the past few years shows that despite an average annual growth rate of 10 percent in natural gas consumption due to new explorations of energy reserves in Iran, not only has it not decreased but it has experienced significant growth. BP figures for Iran's natural gas reserves in 1985 were 13.99 million cubic meters, up from 19.35 million cubic meters in 1995 and 2004 and 26.74 million cubic meters, respectively. (Manzoor, Asadi, 2006: 48) The expansion of gas fields was also the third important decision of Iran's energy policy since 1990. (Moshiri, 2015,21)

The most important independent gas fields in Iran are:

South Pars gas fields store 280 to 500 trillion cubic feet of gas, which contains 35% of the world's gas, and 61% of the Middle East's gas is in this field (Blockmans, 2016: 48).

North Pars gas fields with 53 trillion cubic feet of gas storage

Kangan gas fields with 29 trillion cubic feet of natural gas reserves

Nar field with 13 trillion cubic feet of gas storage

Khangiran gas field with 11 trillion cubic feet of natural gas

There is no doubt that having potential capacity and acceptable export potential is a prerequisite for presence in global natural gas markets. This in itself requires large investments and careful planning to build the necessary capacity to achieve export goals. (Manzoor, Asadi, 2006: 48)

Of course, in addition to the advantages of the Iranian energy market, there are also challenges such as the strong role of competitors of the Islamic Republic of Iran, such as Russia, the Gulf Cooperation Council and Egypt in the EU's energy supply: Russia supplies about 40 percent of Europe's gas, and according to some estimates, by 2030, that rate will be as high as 60 percent. Russia's energy relations with the European Union in the field of natural gas are more important than the relations between the two sides in the field of oil. In particular, Russia has the richest and most durable natural gas reserves in the world. Some of these countries rely more or less on natural gas imports from Russia. For example, Russia supplies 35% to Germany, 42% to Poland, 39% to Ukraine, 100% to Lithuania, Latvia, Slovakia and Moldova, 90% to Estonia, 59% to Austria, 100% to Bulgaria, 40% to Croatia, 24 Percentage was imported to France, 70% to Greece, 65% to Hungary, 36% to Italy, 25% to Romania and 2% to Britain in 2006 (Vosoughi, 2015: 132).

Following the establishment of the Gulf Cooperation Council in 1981 by six Arab countries (Saudi Arabia, the United Arab Emirates, Bahrain, Qatar, Kuwait and Oman), the European Union entered into a trade agreement in 1985. The agreement included cooperation in various

fields, including energy. Accordingly, Article 6 of the agreement stated: The parties to the Energy Agreement shall endeavor to encourage and facilitate; Cooperation between the two regions with the energy commitments of the member states, joint evaluation of trade between the two regions in the fields of crude oil, natural gas and oil products and analysis of ways and tools to improve trade, exchange views and information on energy issues. The Persian Gulf Cooperation Council has become an actor in the global economy, good relations with the West, and from this perspective a relatively reliable partner in the field of energy, the council has 37 and 22 percent of the world's crude oil and natural gas reserves, Increasing the importance of energy exports by these countries in the future and the continuation of the importance of fossil fuels are good justifications for strengthening relations between the European Union and the Gulf Cooperation Council (Alikhani, 2012: 56)

Since the early 1990s, foreign companies have increased their exploration activity in Egypt and discovered various gas fields in the Nile Delta, the Nile Delta coastal waters and the western deserts of Egypt. Egypt's natural gas industry is expanding rapidly today, and its gas production has grown by about 240 percent between 2000 and 2006. Egypt has targeted natural gas exports through pipelines, and has held talks with Libya and Italy to connect the country's western pipelines to Libya, which is still in the negotiation stage, but in the east of the country, pipeline exports have been achieved. Arab gas pipelines will export Egyptian gas to Jordan, Syria, Turkey, Lebanon, Cyprus and Europe. The first section of the pipeline runs from Al-Arish in Egypt to the port of Aqaba in Jordan, completed in July 2003 at a cost of \$ 220 million. The second section of the pipeline, from Aqaba to Jordan, is located 24 kilometers from the Syrian border. The section is 390 km long and costs \$ 300 million to build, the second part of which was built in 2005. The third section, 324 km long, will run from Jordan to the Deir Ali power plant, from where it will continue to the Syrian city of Ryan, and then to Turkey, and from there to the Nabucco pipeline. As a result, with the expansion of these lines, Egypt will become an important supplier of gas to Europe and the Middle East. (Behroozifar, 2011: 90)

### **Opportunities facing Iran and the European Union**

The history of Iran-Europe relations after the Islamic Revolution shows that Europe has always separated its economic considerations from those of its political considerations. Therefore, the economic relations between Iran and the European Union continued to live with ups and downs, even in the most critical political conditions of the parties (Sanaei, 2003: 57). Therefore, Europe's view of Iran is primarily economic and utilitarian. European Commission in February 2000: In a very important report to the Council of Ministers of the European Union in February 2001 on the interests of the European Union in cooperation with Iran, the EU noted that the EU has both political and economic reasons for developing relations with Iran and for economic and political reasons. For economic and political reasons, it is in the interest of the European Union to establish closer ties with Iran. Iran is an important economic and strategic resource in

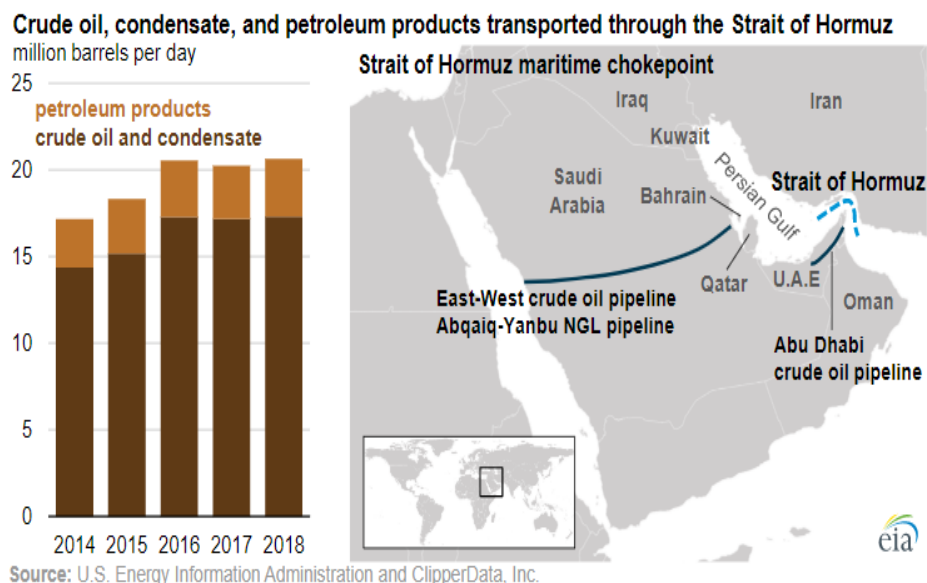
the region and has major interests in neighboring regions, including Central Asia.

As a regional economic partner, Iran can have a strong potential in the future and provide Europe with important opportunities for trade and investment. Chrispatten, the European Commission's foreign relations commissioner, suggested in the report that a trade agreement between Iran and the European Union could provide the necessary framework for enhancing bilateral political and economic relations (Khalouzadeh, 2012: 105). In late May 2001, the Council of Europe approved the European Commission's report on the development of relations with Iran. The Council of Europe stated that the proposals presented in the Special Report of this Commission are based on the gradual strengthening of the Union's economic relations with Iran along with the objectives of Brussels (Sanaei, 2003: 64).

Therefore, Iran is one of the important and developing economic axes in West Asia; It has a large and suitable consumer market, the most suitable transit route for goods to Afghanistan, Central Asia and the Caucasus, and the creator of the North-South air corridor; Having the longest border with the Persian Gulf, the Oman Sea and the Caspian Sea, it is a good place for economic interactions with the European Union (Khalouzadeh, 2012, 102). Also, before the sanctions, the European Union was the third largest export destination for Iran, 90% of which is energy-intensive, with Iran being the sixth largest supplier to the European Union (Blockmans, 2016: 49). Iran is a country of great geopolitical importance. Iran is at the center of more than 75% of the world's energy. This special geopolitical situation, if used well, can significantly increase Iran's influence in the world (Shabani, 2009: 432).

Also, Iran is a good place for transit and transshipment due to its suitable geopolitics. Oil swaps generate a lot of revenue for Iran and, in addition, increase Iran's strategic importance (IRNA1394).

The Strait of Hormuz is one of the most strategic places in the world, through which millions of barrels of oil pass daily, and we will refer to it in the chart below.



As can be seen in the chart above, large quantities of oil, gas condensate, and petroleum products are exported daily through the Strait of Hormuz to other parts of the world, which demonstrates the strategic importance of the Strait of Hormuz. Also, many energy transmission pipes pass through the Strait of Hormuz, which is well expressed in the table below.

#### Operating pipelines that bypass the Strait of Hormuz, 2018

million barrels per day

Pipeline name	Country	Capacity	Throughput	Unused capacity
Petroline (East-West Pipeline)	Saudi Arabia	5.0	2.1	2.9
Abu Dhabi Crude Oil Pipeline	United Arab Emirates	1.5	0.6	0.9
Abqaiq-Yanbu Natural Gas Liquids Pipeline	Saudi Arabia	0.3	0.3	0.0
<b>TOTAL</b>		<b>6.8</b>	<b>3.0</b>	<b>3.8</b>

Source: U.S. Energy Information Administration, based on ClipperData, Saudi Aramco bond prospectus (April 2019)

Note: Unused capacity is defined as pipeline capacity that is not currently used but can be readily available.

However, the important domestic market and Iran's position as a crossroads of markets in European peripheral markets are also important for EU members who have an export-oriented economy. The European Union is committed to pursuing its economic and trade interests through its presence in the Iranian market and taking advantage of Iran's position in economic and trade relations with Central Asia, the Caspian Sea, the Persian Gulf and the Middle East, and seeks to become an important economic partner of the region. (Vaezi, 2012: 970) Europe's dependence in 2017 was 55 percent, meaning Europe needs more than half of its energy needs. However, the Iranian side, after realizing the importance of foreign investment, tried to expand foreign investment in its oil fields. (Moshiri, 2016: 20)

In other words, the tension in political relations with the West was not so great to affect Iran's trade relations with the European Union. Even a decade after the victory of the revolution, EU member states abandoned the paradigm of transatlantic solidarity with the United States in trade relations with Iran and criticized it in cases such as the US government's extraterritorial sanctions, especially during Clinton's presidency. In fact, Iran's commercial attractiveness prevented the European Union and its major oil companies from continuing Iran's policy of sanctions and isolation (Fallahi, 1390: 84).

Iran and the European Union can benefit from both communication and resource utilization, variables such as the gradual decline in Europe's energy and gas production capacity, growing demand for energy in European markets, and the EU's concern Russia's political and security exploitation of oil and gas exports to the European Union and political instability in some Middle Eastern countries, the European Union needs a political platform and the application of energy diplomacy to provide energy security, in this regard, Iran is a good option for Europe. (Ahmadian, Ghanbari, 2012: 19) Also, the abundance of gas resources and proximity to Europe can make Iran one of the suppliers of European gas. (DIRECTORATE-GENERAL FOR EXTERNAL POLICIES, 2016: 58)



In fact, uncertainty about access to energy resources from centers such as the Caspian Sea, Central Asia and Russia has encouraged the European Union to consider Iran as a substitute for energy supply. In other words, by being at the center of the world's energy reserves, Iran has rich oil and gas reserves and the most appropriate way to transfer Central Asian energy to the Persian Gulf, Europe and East Asia will have a special place in EU foreign policy. Iran's access to the two energy-rich geographical areas of the Persian Gulf and the Caspian Sea, as well as 15 percent of natural gas and 11 percent of global crude oil, is a very determining factor for the European union which needs increasing hydrocarbon resources in regulating relations with Iran. (Khalouzadeh, 2012: 102-106)

Therefore, Iran is one of the most suitable options for providing energy to the European Union. In addition, it is one of the most convenient ways to transfer energy from Central Asia and the Caucasus to Europe. Iran's gas resources can meet an important part of Europe's need for gas energy. Developments in Ukraine (2014-2015) The threat of Russian energy transfers to Europe has made finding alternative energy sources a major concern for the European Union. After 2013, Iran has a special place in the EU's foreign policy due to its different approaches to foreign policy and the creation of loopholes for resolving the nuclear issue. The possibility of investing in Iran's gas resources and the possibility of exporting Iranian gas to Europe is also a reciprocal benefit that Iran will benefit from (after the gradual lifting of sanctions on its nuclear program).

The arrival of representatives of European oil and gas companies in Iran after the interim Geneva agreement and their readiness to invest in this sector shows the importance of this for the European Union. It is also expected that Iran's natural gas production capacity will reach 1820 million cubic meters per day in 2025, which will meet the country's economic needs, including domestic, commercial, industrial, power generation, transportation, transportation, petrochemicals, injection of oil fields. The country can become one of the largest players in this field by exporting 110 billion cubic meters in the form of LNG, which according to the European Union's strategy in diversifying energy resources and reducing reliance on imports from a particular country or region of Iran can Easily take 20% of the union's import increase by 2030 and send the rest of its surplus production to other natural gas markets around the world (Behroozifar, 2011: 92). Iran could also export 20 to 5 billion cubic meters of gas to Europe by 2030. (Schiffer, 2016: 54)

## CONCLUSION

As the EU's green document increases fossil fuel consumption among EU countries by 2030, it seeks to influence energy-rich countries to ensure their energy future. The important thing about the EU is that the EU is looking to diversify its energy resources to ensure energy security in the long run, and this is due to the EU's bitter experience with the 1973 oil embargo and Russia's gas cut in 2009. Iran's strategic position in the region, as well as its large oil and gas reserves, prompted the European Union to pursue stable economic and trade relations with Iran, which could include the entry of representatives of European oil and gas companies into Iran after Joint Comprehensive Plan of Action and The announcement of their

readiness to invest in this sector shows the importance of this issue. In fact, uncertainty about access to energy resources from centers such as the Caspian Sea, Central Asia and Russia has encouraged the European Union to consider Iran as a substitute for energy supply. In other words, by being at the center of the world's energy reserves, Iran has rich oil and gas reserves and the most appropriate way to transfer Central Asian energy to the Persian Gulf, Europe and East Asia will have a special place in EU foreign policy.

Iran's access to the two energy-rich geographical areas of the Persian Gulf and the Caspian Sea, as well as 15 percent of natural gas and 11 percent of global crude oil, is a key determinant for the European Union, which is in dire need of hydrocarbon resources. Also, the Islamic Republic of Iran can meet the needs of the European Union with gas by having huge gas fields such as South Pars gas field, North Pars gas field, Kangan gas field, Nar gas field and Khangiran because by 2030 the use of gas due to advantages which is increasing in Europe, and therefore Iran can play a significant role in the EU energy market

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