



MASTER THESIS

**The Role of Italian State-Owned Companies in Azerbaijan's Energy Sector
Development**

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Abstract

Within the framework of bilateral cooperation agreements, this paper investigates the role of Italian state-owned companies in contributing to inward foreign direct investment (FDI) and economic development in Azerbaijan's energy sector. With a key focus on key actors such as ENI, Saipem, Ansaldo Energia, and Technip Energies Italy, the study examines how Italian firms have leveraged strategic and legal frameworks to establish long-term, impactful operations in Azerbaijan. Through qualitative analysis of official documents, intergovernmental memorandums, and corporate projects, such as the 1997 Bilateral Investment Treaty and joint declarations from the 2010s, the research indicates that Italian companies contribute not only financial capital, but also advanced technology, infrastructure development, renewable energy capacity, and human capital enhancement. These contributions align with Azerbaijan's energy diversification goals and EU market integration strategy while supporting Italy's energy security objectives and commercial interests. The study comes to the conclusion that bilateral political alignment between Azerbaijan and Italy is a crucial element in facilitating mutually beneficial energy cooperation. However, limitations due to the scarcity of publicly available data and limited scholarly coverage of Azerbaijan–Italy energy relations are also highlighted. These findings once again stress the importance of sustained institutional collaboration and the need for further research into underexplored bilateral energy partnerships.

Keywords: Azerbaijan-Italy, foreign direct investment, energy sector, bilateral cooperation, economic development

1. Introduction

Located at the crossroads of Europe and Asia, Azerbaijan is renowned for its abundant natural resources, particularly in oil and gas. Since the early days of oil production, the country has played a crucial role in the global energy market. This strategic importance became even more crucial after Azerbaijan gained independence from the Soviet Union, opening up to endless new opportunities. Since regaining its independence in 1991, strong economic and political ties with developed countries have always been on the agenda of Azerbaijan. In addition, the turning point for the country was the signing of the Contract of the Century in 1994 with major oil companies across the globe, enabling large-scale foreign investment in the energy sector (Azerbaijan.az, 2024). In addition to the oil and gas industry, Azerbaijan has rapidly turned its focus to diversifying its energy sector, specifically via the development of renewable energy resources. The country has a great potential for solar, wind, and hydroelectric energy, with both governmental and private sector efforts to benefit from these resources (International Energy Agency, 2025).

In this context, Italy has been one of the major partners of Azerbaijan for decades, showing special interest in the energy sector, with projects like the Southern Gas Corridor strengthening bilateral cooperation between the two countries (APA, 2024). In addition, Italy has invested more than \$770 million in Azerbaijan's economy since independence and there are currently 114 Italian companies operating in Azerbaijan across various industries such as energy, trade, agriculture, and construction. These companies have a strong economic presence, with 277 projects worth \$9.9 billion in Azerbaijan's oil and gas sector, and 37 projects worth \$708 million in the non-oil sector (Azernews, 2024). Italian companies like ENI, Saipem, Technip Energies Italy, and Ansaldo have been key players in Azerbaijan's energy development, bringing their technology, expertise, and investment to the country.

Italian companies are actively engaged in the operations in the oil & gas field, with the most notable representative being ENI. The company owns 5% shares of the Baku-Tbilisi-Ceyhan pipeline and exploitation of "Dan Ulduzu" and "Ashrafi" offshore oil fields (Pashayev, 2014). Moreover, in the framework of COP 29 and environmentally sustainable initiatives, ENI CEO Claudio Descalzi has signed a new agreement with the State Oil Company of Azerbaijan Republic (SOCAR) CEO Rovshan Najaf on evaluating potential cooperation, production of hydrocarbons, HG emissions reduction, and energy security (ENI, 2024). Another active Italian energy company in Azerbaijan is Saipem S.p.A, which has entered a new agreement to continue offshore activities in Shah Deniz gas and Azeri-Chirag-Gunashli oil fields with a value of approximately 300 million USD (Saipem, 2024).

Considering the importance of environmentally sustainable initiatives and projects in Azerbaijan in recent years, including COP 29, to use the full potential of renewable sources new discussions have been held during bilateral discussion relations between Italy and Azerbaijan (AIR Center, 2024). The president of Azerbaijan, Ilham Aliyev has also invited Italian companies to establish new cooperation considering the huge renewable energy potential of Azerbaijan during numerous Italian-Azerbaijan business forums (Azerbaijan.az,

2021). Taking into account the dramatically increasing new reconstruction projects in the liberated territories of Azerbaijan, there are opportunities for Italian companies to be involved in those projects, especially for renewable energy sources where Italian companies have already commenced reconstructing generations (Azernews, 2024).

In conclusion, the strong partnership between Italy and Azerbaijan has significantly impacted the country's energy landscape, with Italian firms like ENI and Saipem leading vital projects in both oil & gas and renewable energy sectors. As Azerbaijan continues to prioritize sustainable development and infrastructure, the collaboration with Italian companies promises opportunities for economic growth and energy security. Further, the cooperation between Azerbaijani companies like SOCAR and Italian companies has both contributed to Azerbaijan's growth as an energy powerhouse and fostered economic and political ties between the two countries, contributing to the broader energy security framework of the European Union (EU).

The aim of this research is to examine the role of Italian state-owned and energy-focused companies in promoting inward foreign direct investment (FDI) and supporting economic development in Azerbaijan's energy sector, with a focus on both traditional and renewable energy sources. Azerbaijan is a key global player in the energy sector, considering its rich resources, thus understanding the contributions of foreign companies would provide insights into how international collaboration can influence energy security, economic development, and sustainability in the country. In addition, the research would help to understand the strengthening dynamics of the bilateral relations between Azerbaijan and Italy. Moreover, taking into account the recent emphasis on sustainability and renewable energy sources, it is essential to analyze how Italian firms influence Azerbaijan's transition toward renewable energies and sustainability policies. By analyzing key bilateral agreements and memoranda between Italy and Azerbaijan, the study seeks to understand how political and institutional frameworks have contributed to Italian engagement in Azerbaijan, especially in the bigger picture of Azerbaijan's economic goals. The research also explores the strategic importance of energy cooperation within the context of evolving diplomatic and economic relations between the two countries.

The following research question aims to explore the role of Italian companies in Azerbaijan: What are the technological, infrastructural, and strategic contributions of Italian state-owned companies to inward foreign direct investment and economic development in Azerbaijan's energy sector, within the framework of bilateral and geopolitical cooperation?

There is a gap in the existing literature on the performance and impact of Italian companies operating in the energy sector of Azerbaijan. Although Italian companies have been active in Azerbaijan for several decades, there is limited scholarly research examining their specific contributions, both in terms of economic impact and technological advancements in the energy sector. Also, much of the existing literature explores broader geopolitical implications of energy relations and foreign investments in Azerbaijan's oil and gas industry, leaving a significant gap in understanding how these Italian companies influence the development of

Azerbaijan's energy infrastructure and contribute to the country's long-term energy sustainability goals. Therefore, this research aims to fill these gaps by providing a detailed analysis of the strategic contributions of Italian state-owned companies to Azerbaijan's energy sector and contribute to the academic findings on the topic.

This paper commences by providing background on Azerbaijan's energy sector, its role as a strategic energy supplier of the EU, the relations between Italy and Azerbaijan, with a particular focus on the energy sector, followed by methodology. It then moves onto the description of findings and discussion, ending with concluding remarks.

2. Literature review

To understand the involvement of Italian state-owned companies in Azerbaijan's energy sector, it is necessary to trace the broader evolution of the sector itself. This section provides a historical overview of Azerbaijan's energy development, mentioning key stages and turning points that laid the basis for international partnerships, continued with the importance of the EU-Azerbaijan energy cooperation, and current Italian involvement in Azerbaijan's energy sector.

2.1. Background on Azerbaijan's energy sector

Azerbaijan has rich natural resources for the energy supply, both traditional and renewable. Nevertheless, traditional energy sources, especially oil and gas, have been the backbone of the country for centuries. The oil industry history of Azerbaijan starts as early as the 10th century, with the oil extraction from wells located in Baku (Azerbaijan.az, 2024). Moreover, the first mechanical production stage started in 1847 with the development of Bibieybat and later Balakhany fields. Further, in the XX century, Azerbaijan provided 75% of the oil produced in the Soviet Union during the Second World War (Azerbaijan.az, 2024). With the dissolution of the Soviet Union and Azerbaijan's newfound independence, the country entered a new chapter in its energy development. Azerbaijan's new stage in offshore oil production commenced with the Neft Dashlari platform in 1949. However, the most crucial step in the country's oil history was the Contract of the Century signed in 1994 with 13 global oil companies regarding oil extraction from Azeri, Chirag, and Guneshli platforms in the Caspian Sea. The Azerbaijani body responsible for oil production in the country is the State Oil Company of the Republic of Azerbaijan (SOCAR) which has obtained agreements for BTC (Baku-Tbilisi-Ceyhan) and SCP (Southern Caucasus Pipeline) (Azertac, 2020). Additionally, to diversify the Azerbaijani economy, the State Oil Fund was established in 1999, responsible for allocating revenues obtained from oilfields to the economic and social development of the country (Azerbaijan.az, 2024).

For gas industry, "AzeriGas" Closed Joint-Stock Company is owned by SOCAR, which involves Shah Deniz gas field, and expansion of the Southern Caucasus Pipeline (SCP), Trans-Anatolian Pipeline (TANAP), and Trans-Adriatic Pipeline (TAP) (Azerbaijan Energy Regulatory Agency, 2025).

The history of the renewable energy system of the Republic of Azerbaijan dates back to 1883 with the installation of a 220-volt power plant by the Nobel brothers (Azerbaijan Energy Regulatory Agency, 2025). Since then Azerbaijan has significantly worked on realizing its renewable energy potential with the utilization of solar, hydro, and other green energy. The country has huge potential in solar, wind, geothermal, biomass, and hydropower energy (International Energy Agency, 2025). There are 36 hydropower stations, 8 wind power stations, 2 bioenergy stations, 13 solar energy stations, and 2 hybrid power plants in the country (Ministry of Energy of the Republic of Azerbaijan, 2024). Besides that, the aim to reduce greenhouse gas emissions and increase renewable energy capacity by 30% has been included in the country's strategy until 2030 (International Energy Agency, 2025). Additionally, in 2021 President Aliyev signed an order to establish a Green Energy Zone in the liberated territories (Ministry of Energy of the Republic of Azerbaijan, 2024).

Azerbaijan's energy policy since 2007 has been to implement vital infrastructure projects and increase capital investment overseas, thus creating more value rather than being a raw material producer (AIR Center, 2021). In this regard, SOCAR has dived into the petrochemical industry and established branches like "SOCAR Methanol", "SOCAR Polymer", and "SOCAR Carbamide" (AIR Center, 2021). Furthermore, SOCAR has been promoting the "Azeri Light" oil brand abroad and conducts business activities in more than 100 trade centers in more than 40 countries (Azertac, 2020). Therefore, since the 1990s, Azerbaijan has been present in major oil and gas projects, and strengthened its position with its financial power, knowledge, and technology.

In conclusion, Azerbaijan's energy sector has passed through a significant transformation from ancient oil extraction methods to modern offshore platforms and renewable energy initiatives. This evolution has positioned the country as a significant regional energy hub. As Azerbaijan continues to strengthen its presence in global markets, the involvement of foreign partners becomes increasingly important. The following section explores the growing role of Azerbaijan in the international, particularly European arena.

2.2. Azerbaijan as a strategic energy supplier of EU

Azerbaijan has a strategically important role for the European Union as a supplier of energy in the lens of Europe-Asia connectivity. The mutual cooperation between Azerbaijan and the EU is fruitful for both sides and has become especially crucial in the recent geopolitical instabilities in the region. Furthermore, the Russia-Ukraine war has created an obstacle for the EU in obtaining oil and gas resources. As the President of the European Commission Ursula von der Leyen mentioned, Azerbaijan is a reliable partner of the EU, considering its abundance of natural resources and long-term partnership with the EU (AIR Center, 2024).

In 2024, a strategic partnership was signed with the European Commission enforced by the Southern Gas Corridor Advisory Council, focused on shared goals of the country and the organization for energy cooperation opportunities (AIR Center, 2024). The Southern Gas Corridor and the Trans-Adriatic Pipeline stand at the root of cooperation in energy relations

with the EU. TAP has a capacity of 10 billion cubic meters, with possible expansion to 20 billion cubic meters to be achieved by the end of 2027 (Opinio Juris, 2024). The pipeline currently supplies 10% of Italy's gas needs along with other European countries, assisting in reducing dependence on Russian energy resources (Caspian Policy Center, 2023).

In his speech at the international forum in Cernobbio, Italy, President Aliyev divided EU-Azerbaijan energy relations into three stages (President.az, 2022). The first stage covers the early years of independence of Azerbaijan, where major European energy companies were invited to work in the Caspian Sea, making Azerbaijan a great oil supplier of these countries. Additionally, two strategic oil pipelines were constructed, ending in the Mediterranean port of Turkey and the Black Sea port of Georgia (Ascani, Crescenzi, & Iammarino, 2016). The second stage covers the development of gas fields, considering 2,6 trillion cubic meters of gas reserves of Azerbaijan. Here, the Southern Gas Corridor pipelines were built, which include the South Caucasus pipeline, Trans-Anatolian, and Trans-Adriatic. The last stage of cooperation covers the renewable energy potential of Azerbaijan, such as electric energy, solar, hydrogen, and green hydrogen.

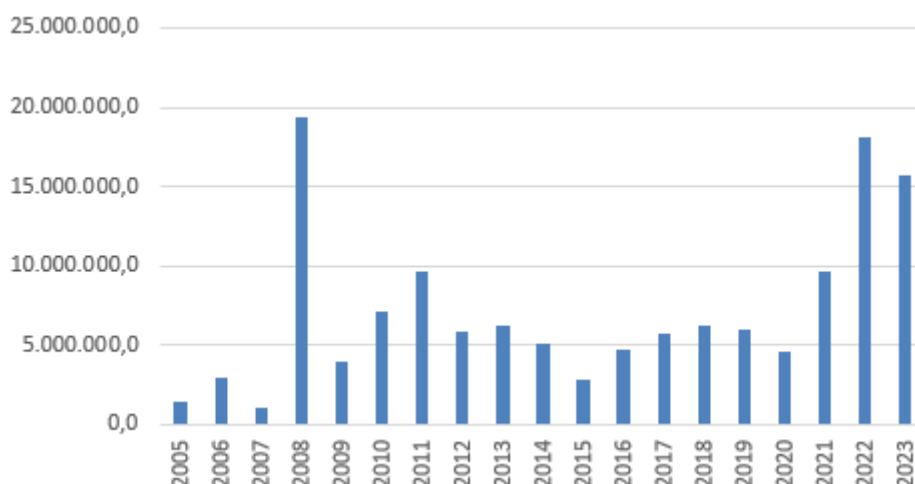
Additionally, the EU-Azerbaijan partnership is increasing in scope from traditional energy to renewable energy. Last year, the partners signed a memorandum of understanding on wind energy cooperation within the EU-Azerbaijan Green Energy Advisory Council (AIR Center, 2024). These kinds of agreements aim to benefit both sides, as to facilitate the clean energy transition of Azerbaijan and explore new renewable energy supplies for Europe. Moreover, as Azerbaijan hosted COP 29, the focus on renewable energy resources continues to increase. As President Aliyev highlighted, renewable energy in the Caspian Sea is the next agenda item for Azerbaijan, with 157 gigawatts potential, helping to reduce dependence on traditional energy sources - natural gas (AIR Center, 2024).

Thus, Azerbaijan has established itself as a key energy partner for the European Union, amidst geopolitical instability and energy security concerns in Europe, leading to stronger cooperation in both traditional and renewable energy sectors. This partnership is expected to increase, with the country meeting Europe's energy demands.

2.3.General Information on Italian-Azerbaijani trade relations

Italy and Azerbaijan have been cooperating on numerous fields from economic to cultural throughout the decades. Italy is Azerbaijan's leading trading partner, with bilateral trade value being around \$11 billion as of 2024 (Azernews, 2024). Italian companies play a crucial role in increasing industrial production and helping to diversify Azerbaijan's economy. Besides this, since Azerbaijan's independence in 1991, Italy has invested more than one billion USD in the country. As of the end of 2024, 114 Italian companies operate in Azerbaijan in various sectors, including energy, trade, agriculture, and construction. Overall, Italian involvement in Azerbaijan's economic projects is classified in 277 projects worth \$9.9 billion in Azerbaijan's oil and gas sector, and 37 projects worth \$708 million in the non-oil sector (Azernews, 2024). Moreover, Italy had a role of 30.6% in Azerbaijan's foreign trade turnover, holding the first

place with 44.86% of exports (Azernews, 2024). In addition, another important recent strategic goal for Azerbaijan is the reconstruction of liberated territories, where Italian companies were among the first foreign companies that contributed to the economic development of those regions (APA, 2024).



Graph 1. Italy-Azerbaijan trade turnover (State Statistics Committee, 2024)

Table 1 Products exported by Italy to Azerbaijan (millions of US dollars).

Products	2022*	2021	2020	2019	2018	2017	2016	2015	2014	2013
Chocolate and chocolate products	1,2	1,4	1,5	1,7	1,7	2,2	2,2	2,2	2,5	2,8
Medicines	-	23,5	15	12,8	12,8	10,7	7,4	12,6	5,3	8,3
Metal structures	-	-	-	8,7	4,3	7,4	5,4	4,6	3,2	1,1
Plastic mass pipes, hoses, and their fittings	-	3,2	1,8	1,7	1,3	1,4	1,06	0,2	0,7	0,2
Shoe	4,2	-	4,6	5,6	5,9	5,6	4,8	0,7	2,4	1,5
Pipe fittings made of ferrous metals	-	11,1	21,4	9,8	3,7	4,2	7,6	36,6	12,1	3,1
Seating furniture	9,03	2,6	2,9	3,4	3,5	3,4	4,4	0,9	0,6	1,7
Wooden office, kitchen, bed, and other furniture	-	5	5,04	8,1	9,9	8,9	13,6	6,8	5,8	4,7

Source: Azerbaijan State Statistics Committee, <https://www.stat.gov.az/source/trade/> (13.11.2022).

Note* Trade indicators for 2022 cover January-September 2022.

Graph 2. Italian exports to Azerbaijan (State Statistics Committee, 2022)

Table 2 Products exported by Azerbaijan to Italy (million US dollars).

Products	2022*	2021	2020	2019	2018	2017	2016	2015	2014	2013
Crude oil	5.674	6.064,5	4.121,2	5.536,7	5.834,7	5.292,7	4.274,2	2.137,1	4.538,1	5.812,4
Natural gas	8.821,8	3.079,4	-	-	-	-	-	-	-	-
Shelled hazelnuts	23,5	34,7	28,9	33,2	20,4	51,4	40,1	31,8	10,1	9,2
Heavy distillates or gasoils for other purposes	30,8	35,3	9,8	58	11,4	-	9,5	53,2	136,4	107,3
Liquid fuel	-	1,6	1,9	0,7	-	0,4	4	22,4	94,5	59,7
Acyclic alcohols and their derivatives	9,9	7,8	8,8	8,4	-	0,9	0,8	5,8	-	-

Source: Azerbaijan State Statistics Committee, <https://www.stat.gov.az/source/trade/> (13.11.2022). Note* Trade indicators for 2022 cover January-September 2022.

Graph 3. Azerbaijani exports to Italy (State Statistics Committee, 2022)

Economic relations between the countries were established at the institutional level in 2004 with the signing of the Joint Declaration on the establishment of an intergovernmental

commission on economic cooperation (Embassy of Italy in Baku, 2025). There are numerous institutions that participate in trade between Azerbaijan and Italy. A notable step in economic cooperation was the establishment of the Intergovernmental Commission between countries (Ministry of Foreign Affairs, 2025). Additionally, there is a local branch of the Italian Institute of Foreign Trade (ICE) that actively participates in the development of economic and commercial relations, especially cooperating with AZPROMO (Pashayev, 2014). Moreover, one of the most important indicators of mutual trade is the Italian-Azerbaijani Chamber of Commerce (ITAZERCOM). Established in 2012, the organization aims to strengthen friendship and cooperation between Azerbaijan and the Italian companies (Italian-Azerbaijani Chamber of Commerce, 2025). In addition, business partners like the Embassy of Italy in Azerbaijan, the Embassy of the Republic of Azerbaijan in Italy, the Italian Trade Agency “ICE”, the Italian Ministry of Economic Development, SIMEST, and SACE institutions play a crucial part in the operation of the Chamber. In particular, numerous treaties were signed in 2012-2014 between AZPROMO and ITAZERCOM Enterprises operating under the Ministry of Economic Development of the Republic of Azerbaijan confirming the Chamber as the official representative (Italian-Azerbaijani Chamber of Commerce).

The political relations between Italy and Azerbaijan are quite stable and progressive, which also enhances the economic exchange between the countries. Economic cooperation between the two countries has developed and strengthened in parallel with the intensification of political dialogue. In the context of a multilateral framework with reference to the United Nations, the Council of Europe, the OSCE, and the European Union, bilateral political dialogue has strengthened in recent years (Ministry of Foreign Affairs, 2014). Frequent exchanges of official visits between high-level persons occur, which result in the signing of agreements in industries like energy cooperation, maritime transport, economic development, culture, and sport (Azernews, 2024).

Country	Thousand USD	% proportion to whole population
Total	5090838.13	100
Italy	1432818.37	28.15
Turkiye	483292.95	9.49
Russia	411813.07	8.09
China	379557.03	7.46
Germany	283431.9	5.57
Australia	226683.21	4.45
Czech Republic	208500.05	4.1
Great Britain	193992.72	3.81
Croatia	188904.31	3.71
Mexico	180208.57	3.54
Other countries	1101635.96	21.64

Graph 4. Main countries in trade turnover (State Customs Committee, 2025)

From the legal side, Azerbaijan and Italy have signed numerous documents on enhancing bilateral economic development. These include Investment promotion and protection agreement (1997), Agreement for the avoidance of double taxation and the prevention of tax evasion with respect to taxes on income (2004), Agreement on air transport (1997), Agreement on cooperation in the field of tourism (1997), Agreement on the prevention of customs violations (2005), Joint declaration on economic cooperation (1997), Memorandum of understanding on cooperation in the field of small and medium-sized enterprises (2002) (Pashayev, 2014). There are 79 bilateral agreements signed between Italy and Azerbaijan, once again confirming the statement that Azerbaijan constitutes around 95% of Italy's trade turnover in the South Caucasus (Ministry of Foreign Affairs, 2025). Moreover, the meeting between President of the Republic of Azerbaijan Ilham Aliyev and President of the Italian Republic Sergio Mattarella in 2020 resulted in the signing of Joint Declaration on Strengthening the Strategic Partnership that points out to political, economic, cultural, humanitarian areas for collaboration within the framework of international organizations (Azerbaijan.az, 2020).

2.4. Italian firms in the energy sector of Azerbaijan

In bilateral trade relations, Azerbaijan has been Italy's largest supplier of crude oil, especially with the start of operation of Trans-Adriatic gas pipeline (TAP), a segment of the Southern Gas Corridor (Ministry of Foreign Affairs, 2025). The President of Azerbaijan outlined in his speech with the Italian ambassador to Azerbaijan that the Southern Gas Corridor is a project of historical importance which offers new areas of cooperation with Italian companies (APA, 2024).

As the Chairman of the Board of the Center of Analysis of International Relations Farid Shafiyev mentioned, the high-level cooperation between Italy and Azerbaijan can be majorly seen in the energy field (AIR Center, 2024). Over the past decade, Italy has purchased on average €5.5 billion worth of Azerbaijani oil annually, and since December 31, 2020, this figure also reflects natural gas from the Shah Deniz field imported by the peninsula via the Southern Gas Corridor (Embassy of Italy in Baku, 2025). Oil and gas employ the main part of Azerbaijan's energy sector which also influences the Italian companies operating in the country. In 1995, the permission granted for the Italian company Eni-Agip to explore the oil field "Qarabagh" in the Caspian Sea by the State Oil Company of the Republic of Azerbaijan implied a new step towards strengthening economic relations between the two countries (Embassy of Italy in Baku, 2025). Under the "Contract of the Century", numerous Italian companies have been involved in the exploration and development of the Caspian Sea with 5% ownership in the Baku-Tbilisi-Ceyhan oil pipeline (Caliber, 2024). Besides this, Eni-Agip has worked on the Kurdashi oil field and the Shah Deniz gas condensate field project. Further, recently several agreements were signed between President Ilham Aliyev and Claudio Descalzi, the CEO of the Italian company Eni S.p.A., particularly focusing on the application of new technologies in the oil and gas industry and renewable energy (Caliber, 2024). Besides Eni, Saipem is also involved in the offshore platforms, Maire Tecnimont has worked on the modernization of the Baku refinery, Snam holds 20% of the shares of the TAP gas pipeline,

and Technip Italia is active in the petrochemical sector (Ministry of Foreign Affairs and International Cooperation Economic Observatory Italy, 2023).

In recent years, renewable and green energy applications have been prevalent across the globe, including Azerbaijan. Italy and Azerbaijan have already started cooperation in the field of renewable energy. Italian companies have expertise in renewable energy production and the Azerbaijani government actively focuses on the initiative to stimulate the Italian-Azerbaijani joint ventures in this field (Opinio Juris, 2024). Last year the Italian company ENI signed a memorandum with SOCAR on the reduction of greenhouse gas emissions (Caliber, 2024). Additionally, another Italian company, CESI collaborated with the Ministry of Energy of the Republic of Azerbaijan on a study for a “green” energy corridor that would transport energy from the Caspian Sea through Azerbaijan, Georgia, and the Black Sea to Eastern Europe (The Ministry of Energy of Azerbaijan Republic, 2024). Another initiative is by Saipem in the construction of onshore wind power projects and the development of wind energy in the Caspian Sea (Caliber, 2024). Moreover, in the liberated territories of Karabakh, Italian firm Ansaldo is building modern electricity infrastructure (Caspian Barrel, 2020).

2.4.1. Eni

Italy’s involvement in the Azerbaijani energy sector has started with Eni since the 1990s. The company was also closely working on the discovery of the Shah Deniz field along with Lukoil’s joint venture LukAgip (ECCO, 2024). Besides this, Eni had operations in offshore Kurdashi-Araz Daniz and Kirqan Daniz fields. Although Eni was present in Azerbaijan's upstream sector, the company later transferred its shares to Saipem in 2010 (ECCO, 2024). As of 2024, Eni has signed an agreement with SOCAR in the fields of hydrocarbon exploration and production, energy security, reduction of greenhouse gas emissions, and synergies related to gas transportation infrastructure (Eni, 2024). The agreements were closely in line with the United Nations Climate Change Conference COP 29, which was held in Azerbaijan in November 2024, and ENI’s 2050 decarbonization strategy. In addition, during the visit of the President of Azerbaijan to Italy in September 2024, three Memoranda of Understanding were signed with ENI (Eni, 2024). The first Memorandum targeted the expansion of Eni and SOCAR’s cooperation on hydrocarbon exploration and production and energy security in Europe. The second one was focused on greenhouse gas emissions and improving energy efficiency in the upstream sector with the latest technologies. Lastly, the final document addressed cooperation in the biofuel production chain with regard to agro-industrial and other residues (Eni, 2024).

2.4.2. Saipem

One of the largest Italian companies operating in the energy sector of Azerbaijan is Saipem which is represented by Saipem Asia Azerbaijan Branch and BOS Shelf. These companies have been in the market since 2001 with the development of the Azeri-Chirag-Gunashli project. BOS Shelf was established between SOCAR and Saipem Group company Star Gulf LLC in 2001 and operates at Baku Deep Water Jacket Factory, 35 km south of Baku (ECCO, 2024). Here, the company offers offshore oil and gas services and has facilities to manage its transportation and installation activities. The phases of the Azeri-Chirag-Gunashli project were

finally completed in 2008 when Saipem Asia Azerbaijan Branch won a 5 year project for BP Caspian Sea Ltd for maintenance and repair in ACG and Shah Deniz fields (Saipem, 2009). In the following year, the company was again awarded another 5 year agreement from BP Caspian Sea Ltd regarding transportation & installation services from the Caspian Sea (Saipem, 2009). In this framework, Saipem had contributed to increasing oil production and recovery of an additional 360 million barrels of oil from the ACG field via new offshore facilities, construction of a new offshore platform in Shah Deniz, expanding the South Caucasus Pipeline, and onshore processing terminal at Sangachal (Saipem, 2009). In 2014, Saipem obtained the right to a new contract worth \$1.8 billion from BP on behalf of the Shah Deniz consortium (Saipem, 2014). In 2018, Saipem won yet another contract, this time from Total for the development of the Absheron field located in the Caspian Sea, operated by a joint venture between Total and SOCAR (Saipem, 2018). Furthermore, Saipem was awarded three new contracts by BP in the ACG project in 2019 valued at around 145 million USD (Saipem, 2019).

In the collaboration of Saipem with SOCAR, through Saipem entities, the governmental company has been involved in the ACG operations. In exchange, Saipem has utilized SOCAR assets like equipment, personnel, vessels, and facilities in implementing its projects. To further strengthen cooperation, the companies formed an alliance in 2007, where Saipem Asia Azerbaijan Branch acts as the Alliance Operator (Saipem, 2009). Saipem had helped with the personnel and expertise for the barge Derrick Barge Azerbaijan, which is owned by SOCAR. In addition to the benefits Saipem obtains from SOCAR, the Azerbaijan Enterprise Centre helps with locating local suppliers and subcontractors (Saipem, 2009). In terms of local subcontractors, Caspian Catering Services has been among the collaborators of Saipem, where the project was implemented in procedures on board an installation vessel (Saipem, 2009).

Saipem thoroughly values Azerbaijani climate and as the former CEO of the company, Umberto Vergine mentioned, the Caspian region is a strategic place for the oil and gas industry to deliver gas to Europe (Saipem, 2014). As for the past year, the company and its BOS Netherlands branch signed a new agreement with BP Exploration for offshore activities in the Caspian Sea operating the SCV Khankendi, a vessel owned by the Shah Deniz consortium (Saipem, 2024). The contract was valued at 300 million USD, where Saipem would provide marine services. These contracts once again confirm Saipem as a reliable partner for the energy industry in Azerbaijan.

2.4.3. Technip Energies Italy

Technip Energies Italy also operates in the energy sector of Azerbaijan, especially in the “green” energy field. In 2016, the company won a contract for reconstruction of the Ethylene-Polyethylene Plant (Azertag, 2023). In 2024, in a meeting with Azerbaijan Investment Company, a new framework for cooperation was adopted with regard to renewable energy resources and sustainable development to diversify the economy of Azerbaijan (Azerbaijan Investment Company, 2024). As a result of this cooperation, "Ecostar Green" LLC, a joint venture was established by the "Azerbaijan Investment Company" OJSC, "SOCAR Downstream", and Technip Energies. Its "Waste Monetization" project is being implemented,

with a value of 97 billion Euro, which aims at green gas production from the recycling of plastic waste obtained from the raw material base of Azerkimya, a SOCAR-owned chemical plant. Moreover, it is planned that a plant with a capacity of 30,000 tons of olefin (gas mixture) and 10,000 tons of fuel gas annually built in Sumgayit will support the circular economy with the application of "green" technologies and offer sustainable waste management (Azerbaijan Investment Company, 2024). Moreover, last year a contract for the establishment of a joint venture was signed between Technip and SOCAR Downstream for the "Production of Pyrolysis Oil from Plastic Waste" project (Azernews, 2024). This "green" project aims for efficient waste management and reduction of carbon emissions.

Another notable action by Technip is the local talent training and education, when in 2019 the company jointly with Heydar Aliyev Foundation developed a new Master's Program in the country (Technip Energies, 2025). The aim of the program was to develop student's skills and knowledge in oil and gas, energy, and sustainability. This step implies a close integration between Italian expertise and local communities as the program alumni now work on numerous local and international projects.

2.4.4. Ansaldo

Ansaldo is another valuable partner of Azerbaijan in the field of renewable energy. Last year a new energy contract was signed among the parties worth 170 million USD for power generation with Azerenerji, Azerbaijan's biggest electrical power company (Caspian Policy Center, 2023). For the project, four gas turbines and one power-generating plant with a capacity of 1280 megawatts will be installed in the Mingachevir region to increase energy efficiency (Ansaldo Energia, 2023). Currently, the wind turbines are being assembled in Italy and will be sent to Azerbaijan at the next stage (Azernews, 2024). This project allows the saving of 1.2 bln m³ of natural gas annually, and the amount of carbon dioxide emissions into the environment will be reduced by 1.5-2 million tons (Azernews, 2024). Furthermore, a Memorandum of Understanding between Ansaldo and the Republic of Azerbaijan touches upon the construction of a hydrogen production plant with electrolyzer technology developed by Ansaldo Energia Group (Ansaldo Energia, 2024). Further, it calls for the training of new staff, know-how exchange initiatives, and joint participation in projects dedicated to carbon capture and storage, nuclear small modular reactors, and energy storage systems using hydrogen (Ansaldo Energia, 2024). Another notable step by Ansaldo was in the liberated territories of Azerbaijan, where the company will provide equipment for four substations with a capacity of 110 kilovolts each, to be built in Aghdam, Fizuli, Kelbajar and Gubadli regions (Caspian Barrel, 2020). Also, in 2024, within the framework of the bilateral Italy - Azerbaijan meeting, Ansaldo CEO and Minister of Energy Azerbaijani signed two vital energy agreements in the fields of conventional and renewable energy (Ansaldo Energia, 2020). The first agreement pertains to a ten-year service contract for two of the country's existing combined cycle power plants and the construction of the new Yashma plant, a 1000 megawatt power plant. The other memorandum gives insight into energy potential and the creation of suitable conditions for investments in the country in sustainable and renewable energy projects (Ansaldo Energia, 2020).

2.4.5. Snam

Responsible for the transport of natural gas from Azerbaijan to Italy, today Snam holds a 20% share in the Trans Adriatic Pipeline which has a capacity of 10 billion cubic metres (ECCO, 2024). Since 2020, Snam has agreements with SOCAR in the framework of benefiting from new technologies in the TAP pipeline and efficient use of renewable gas. The agreement is in three directions, which include research on biogas and biomethane, promotion of sustainable mobility using compressed natural gas (CNG), liquefied natural gas (LNG) and hydrogen, and establishment of partnerships with car manufacturers (ECCO, 2024).

2.4.6. SACE

In the petrochemical industry, SACE has signed a memorandum with the Azerbaijan Investment Company (AIC) and SOCAR for GPC Project, that envisions the construction of a petrochemical plant for matching the demand of the European and Chinese markets (ECCO, 2024). The involvement of Azerbaijani state fund further confirms the aim for diversifying the non-oil sector. Overall, the company has been present in Azerbaijan for nearly a decade and assists with the financial side of the energy industry (SACE, 2016).

Company Name	Main Sector of Involvement	Main Activities in Azerbaijan's Energy Sector	Turnover (2024)	Employees in Azerbaijan
ENI	Oil & Gas (Upstream)	Exploration and production of oil & gas (e.g., Shah Deniz), MoUs on biofuels and energy security with SOCAR	€23.1 billion	Not publicly disclosed
Saipem	Oilfield Services & Engineering	Offshore platform development (e.g., ACG field), pipeline engineering for TAP	€14.5 billion	462
Ansaldo Energia	Power Generation Equipment	Installation of gas turbines (e.g., Mingachevir plant), hydrogen and CCS initiatives	€1.4 billion	Not publicly disclosed
Technip Energies	Engineering & Clean Tech	Pyrolysis oil plant, renewable initiatives, student training program	€6.9 billion	Not publicly disclosed
SNAM	Gas Transport & Infrastructure	20% ownership in TAP pipeline; R&D collaboration with SOCAR in renewable gas (biomethane), hydrogen, CNG/LNG mobility	€3.5 billion	Not publicly disclosed
SACE	Export Credit & Project Financing	Financing petrochemical plant project with AIC and SOCAR; supports diversification of non-oil sector	€3.6 billion	Not publicly disclosed

Graph 5. Summary of Italian companies in Azerbaijan's energy sector

In summary, throughout Azerbaijan's energy sector has undergone significant evolution, from its early oil extraction to its current efforts in diversifying energy sources with a focus on renewables. The country's strategic importance as an energy supplier to Europe has grown, particularly with energy security challenges. Among the EU countries, Italy has been Azerbaijan's major partner in numerous fields, particularly the energy sector. Italian companies like Eni, Saipem, Ansaldo, and Technip play a crucial role in Azerbaijan's energy transformation, contributing to both the development of Azerbaijan's traditional and renewable energy. Once again, these partnerships stress the significant role international players have had in shaping Azerbaijan's energy sector as they continue to influence the country's future energy path.

3. Methodology

This research employs a qualitative research design utilizing a documentary analysis approach to examine the role and impact of Italian state-owned companies in promoting inward foreign

direct investment and supporting economic development within Azerbaijan's energy sector in terms of technological, infrastructural, and strategic contributions. The study focuses on the examination of bilateral and multilateral treaties and agreements signed between Italy and Azerbaijan, as well as between Azerbaijan and the European Union, particularly in the domains of energy cooperation, foreign investment, and sustainable development. The primary data sources for this analysis include official treaties, memoranda of understanding (MoUs), bilateral investment treaties (BITs), energy cooperation frameworks, and sustainability-related agreements. These documents were collected from publicly available databases such as government websites, international organizations, and reports from relevant institutions like Ministries of Foreign Affairs of both sides.

The analysis focuses on political exchange in several key areas. First, it analyses the Bilateral Investment Treaty signed in 1997 between Italy and Azerbaijan which outlines the legal framework for protecting and encouraging Italian investments in Azerbaijan's energy sector. Next, it delves into the Memorandum of Understanding on economic cooperation between the countries indicating the groundwork for bilateral economic cooperation between Azerbaijan and Italy, and the importance of areas of collaboration. Moreover, the Joint Declaration "On the Strategic Partnership between the Republic of Azerbaijan and the Republic of Italy" investigates this cooperation from a level of strategic long-term shared goals. Another essential document is the Joint Declaration of the President of the Republic of Azerbaijan and the Prime Minister of the Republic of Italy on cooperation in the field of energy", which is the declaration that reinforces the importance of energy cooperation. In addition, the Protocol on cooperation in the natural gas sectors of Italy and Azerbaijan specifically provides state-level insight into the natural gas sector, which is crucial considering partnership in this area.

The selected documents are analyzed to identify recurring themes, strategic priorities, and institutional commitments that incentivize and shape Italian FDI. Through this analysis, the study aims to explore how these policy frameworks shape the involvement of Italian companies in Azerbaijan, and how this partnership contributes to the country's energy diversification and economic development goals. By focusing on treaties and formal agreements, the methodology ensures an in-depth understanding of the high-level strategic context behind Italian companies' growing role in Azerbaijan's energy landscape.

4. Findings

4.1. Bilateral investment treaty on the promotion and protection of investments signed between Azerbaijan and Italy

The bilateral investment treaty on the promotion and protection of investments signed between Azerbaijan and Italy in 1997 outlines the establishment of favorable conditions for improved economic cooperation between the two countries, in the frame of capital investments by investors (World Trade Institute, 1997). The treaty acknowledges the mutual protection of investments which will foster business ventures and economic development of both states in the framework of international agreements. The Article 1 of the treaty defines investments,

which include movable and immovable property, shares, equity, and other forms of securities, intellectual property rights, and any economic rights accruing by law or by contract including the right to prospect for, extract, and exploit natural resources (World Trade Institute, 1997). Furthermore, Article 2 mentions parties to encourage investors of the other state to invest in their territory according to relevant regulations. In addition, the article states just and fair treatment of investors of the opposite party and not be subject to unjustified or discriminatory measures. Besides this, each party should create and maintain favorable economic and legal conditions in order to permit investments of investors of the other Contracting Party in accordance with its legislation (World Trade Institute, 1997). Next, Article 3 of the treaty is concerned with National Treatment and the Most Favoured Nation Clause, stating that both parties shall offer investors no less favourable treatment than to its own investors or investors of Third States. Additionally, Article 6 touches upon the repatriation of capital and profits related to investment without any delay in any convertible currency. Lastly, the treaty calls for amicable settlement of disputes between investors and contracting parties or an appeal to the Arbitration Tribunal, in compliance with the arbitration regulation of the United Nations Commission on the International Trade Law (UNCITRAL) or The International Centre for Settlement of Investment Disputes (ICSID).

4.2. Memorandum of Understanding on economic cooperation between the Republic of Azerbaijan and the Republic of Italy

The Memorandum of Understanding on economic cooperation between the Ministry of Economy of the Republic of Azerbaijan and the Ministry of Economic Development of the Republic of Italy was signed in 2014 and is among the crucial documents reaffirming economic relations (E-qanun, 2016). The MoU mentions the desire to promote the development of their economic cooperation in areas of common interest on the basis of equality, mutual benefit, and reciprocity, within obligations arising from other international agreements to which the countries are parties. Moreover, the treaty takes into account the mutual benefit resulting from the increase in trade and to further strengthen relations by promoting bilateral trade, economic relations, and closer cooperation. Article 1 of the memorandum encourages both states to make every effort to develop and strengthen economic relations on the widest possible basis and in all mutually interested areas. Additionally, Article 2 calls for both states to create favorable conditions to enhance economic collaboration, especially through the exchange of business information, promotion of the establishment of new relations, and expansion of existing relations between business circles of both countries through visits, meetings, and other interactions, exchange of information on development priorities, and promotion of participation of small and medium-sized enterprises in bilateral economic cooperation activities (E-qanun, 2016). Another important clause is Article 3, which also includes promoting long-term activities in the fields of chemical and petrochemical industry, water management, environmental issues, and other areas of mutual interest.

4.3. Joint Declaration “On strategic partnership between the Republic of Azerbaijan and the Republic of Italy

The Joint declaration “On Strategic Partnership between the Republic of Azerbaijan and the Republic of Italy” was signed in 2014 and outlines the strategic goals of mutual cooperation between the countries (E-qanun, 2014). The declaration also mentions the importance of treaties like the 1997 Bilateral Investment Treaty on the promotion and protection of investments signed between Azerbaijan and Italy, the 2005 Azerbaijan-Italy Joint Declaration, and the 2013 Joint Declaration on Cooperation in the Field of Energy. The declaration covers numerous areas, one of which is economy and trade. In this field, the joint declaration suggests deepening cooperation in terms of bilateral and multilateral economic and trade issues, also in the energy field, through the enhanced work of the Intergovernmental Commission on Economic Cooperation between the Republic of Azerbaijan and the Republic of Italy. In addition, it calls for “organizing a high-level dialogue between the institutions of the Parties on energy policy, with the participation of business circles, and expanding bilateral relations by supporting institutional energy cooperation, exchange of experience, and cooperation between their companies” (E-qanun, 2014). Another crucial clause is regarding the development of cooperation and coordination for the timely implementation of projects on the Trans-Anatolian Natural Gas and Trans-Adriatic pipelines, to enable the supply of natural gas from Azerbaijan to Europe, thus enhancing Europe's energy security through the diversification of natural gas delivery routes. Besides, the joint declarations mention establishing joint projects between cities and regions in both countries to promote trade and economic cooperation.

4.4. Joint Declaration of the President of the Republic of Azerbaijan and the Prime Minister of the Republic of Italy on cooperation in the field of energy

The joint declaration on cooperation in the field of energy was signed in 2013, which largely considers the transportation of natural gas from the second phase of the Shah Deniz field from Azerbaijan to Europe via the Trans-Adriatic Pipeline and Trans-Anatolian Natural Gas Pipeline (E-qanun, 2013). The declaration enhances the joint support for the implementation of the TAP project and stressed the need to establish an intergovernmental working group to coordinate further steps. In addition, the declaration calls for further strengthening bilateral relations in the energy sector, recognizing that Azerbaijan is one of the main oil suppliers of Italy and also expected to become an important partner in the natural gas sector. Besides oil and gas, the declaration also covers renewable energy, in particular in the electricity and petrochemical industry, and energy efficiency in all areas. The governments of both countries also agreed to promote collaboration in the energy sector through institutional cooperation and exchange of experience.

4.5. Protocol on cooperation in the natural gas sector between the Ministry of Economy of the Republic of Azerbaijan and the Ministry of Economic Development of the Republic of Italy

Another important document, the protocol in the field of natural gas was signed in 2007 between Azerbaijan and Italy (E-qanun, 2007). The protocol takes into consideration Azerbaijan being an important natural gas producer with vast opportunities for increasing local production with the possibility of exporting natural gas to the European market. On the other hand, it mentions Italy joining the development of a gas pipeline connection project that will pass from Turkey-Greece-Italy Corridor, allowing the export of Azerbaijani natural gas resources to Italy. The protocol also mentions SOCAR's involvement in oil and gas production in the Republic of Azerbaijan, both individual and joint production with other companies. In addition, the protocol implies that via TAP and TANAP projects, approximately 8 billion cubic meters of natural gas per year will be supplied by Italy. Article 1 covers the aim of the protocol which is in the gas sector between Azerbaijan and Italy, in accordance with the European Energy Charter Treaty. Also, Article 2 states the establishment of a commercially attractive transport corridor for the sustainable and reliable transit of Azerbaijani gas to Italy, which will contribute to the enhancement of the development of natural gas reserves.

4.6. Implementation by Italian Companies

A five-pillar Memorandum of Understanding was signed between the state-owned electrical company Azerenerji JSC and Ansaldo Energia in 2024. The first article of the MoU is related to the implementation of new projects in installation, maintenance, and modernization of power generation equipment towards environmentally efficient systems in Azerbaijan (Ansaldo Energia, 2024). Signed during the COP 29 week in Baku, the MoU also includes the construction of a hydrogen production plant in the country, using the electrolyzers technology developed by Ansaldo Energia. Furthermore, the memorandum also involves the training of staff, know-how exchange initiatives and the joint participation in projects like nuclear small modular reactors and carbon capture and storage systems (Ansaldo Energia, 2024). Additionally, in this framework 4 AE94.3A gas turbines were installed by Ansaldo in the Mingachevir power plant, ensuring electricity supply for 1.2 million households and saving more than 2 million tonnes of CO₂ emissions annually. Moreover, in the last 3 years, Ansaldo has increased the capacity of renewable energy in Azerbaijan up to 270 MW.

Besides Ansaldo, in 2024, ENI signed three Memorandums of Understanding with SOCAR concerning energy security, biofuel production chain, and reduction of greenhouse gas emissions (ENI, 2024). The MoUs include clauses like strengthening the energy security of Europe and improving energy efficiency of the upstream sector in Azerbaijan, via applying best available technologies.

5. Concluding Discussion

The economic and geopolitical implications of the presence of Italian companies can be analysed via various aspects. Azerbaijan has achieved numerous gains from the operation of

Italian companies in its territory. In the lens of the bilateral state-level agreements, it has achieved the increase in energy production, benefiting from technology and expertise of Italian companies, collaboration with state level companies, large exposure to the EU market, and increase in foreign currency reserves.

Firstly, starting with the overall promotion and protection of Italian FDI, the bilateral investment treaty on the promotion and protection of investments signed between Azerbaijan and Italy in 1997 mentions the mutual protection of investments which in its turn will encourage business ventures and economic development of both states. This implies that Azerbaijan is eager to promote the operations of Italian companies in the country, in line with international and local regulations. Article 1 commences with the definition of investment, which means that Italian companies may invest in the forms of movable and immovable property, financial instruments, etc., which in reality have been plants, equipment, and other services in the energy sector. Moreover, Article 2 calls for attracting more Italian companies to invest in Azerbaijan, at the same time providing fair and non-discriminatory measures against them. The clause regarding creating and maintaining favorable economic and legal conditions to permit Italian investments means that there is a great interest in receiving FDI from Italian companies (World Trade Institute, 1997). Furthermore, Article 2 of the MoU outlines further cooperation via visits, meetings, and forums in bilateral economic cooperation activities. There have been numerous state-level meetings and business forums with Italian companies in both the traditional and renewable energy sectors (President.az, 2023). In addition, Article 3 supports cooperation in the fields of chemical and petrochemical industry, water management, and environmental issues. This focus is on the development of non-oil sectors, and already the Italian presence in Azerbaijan in these fields is consistently increasing, such as the works of Ansaldo Energia, Technip Energies Italy, etc. The 2014 Joint Declaration “On Strategic Partnership between the Republic of Azerbaijan and the Republic of Italy” also enforces the vision of Azerbaijan in relation to Italian companies. The declaration mentions the organization of a high-level dialogue between the institutions of the Parties on energy policy, with the participation of business circles, and expanding bilateral relations by supporting institutional energy cooperation, exchange of experience, and cooperation between their companies (E-qanun, 2014). This means that Italian companies are not merely commercial partners, but strategic actors in Azerbaijan’s energy transition and economic development agenda. It implies that Italian firms are expected to contribute not only capital and technology, but also to support Azerbaijan’s long-term objectives such as diversifying energy sources, adopting low-carbon solutions, and aligning with EU market standards. This strategic frame upgrades the position of companies like ENI and Ansaldo Energia from transactional investors to policy-aligned stakeholders in Azerbaijan’s development.

Azerbaijan also vastly benefits from the technology and know-how of Italian companies in the energy sector of the country. Both BIT and the 2014 Memorandum on Strategic Partnership encourage Italian companies to utilize the latest technological advancements in increasing the energy supply of Azerbaijan. Moreover, the joint declaration on cooperation in the field of energy of 2013 mentions the involvement of Italian companies with the latest technology in the extraction of gas from the Shah Deniz field. Considering the current involvement of Italian

companies like Saipem and ENI in this area, Azerbaijan has an opportunity to increase its energy production with the latest energy-efficient technology of Italian companies. At the meeting of the Minister of Economy of Azerbaijan Mikayil Jabbarov and SOCAR President Rovshan Najaf met with Marco Villa, the CEO of the Italian company "Technip Energies," the importance of international experience and the application of modern technologies in realizing the potential for active cooperation is undeniable (Azernews, 2024). One of the examples is "Ecostar Green" LLC, a joint venture established with Technip Energies. The venture will utilize innovative Alterra pyrolysis technology to produce pyrolysis oil from plastic waste (AIC, 2024). This way Azerbaijan will be introduced to up-to-date global practices of Italian companies and benefit from its effectiveness. Moreover, another initiative is by Ansaldo Energia, where two wind turbines and two generators were installed in the new power plant in Mingachevir city. The fuel consumption of the new plant will be 225 grams per kilowatt-hour, which will save 1.2 grams of fuel per kilowatt-hour. This number is equal to saving 1.2 bln m³ of natural gas per year. Besides, the CO₂ emissions will be reduced by 1.5-2 million tons annually as a result (Azernews, 2024). Among other ventures that benefit from Italian technology include a polypropylene plant in Sumgayit, built jointly with Maire Tecnimont, and the usage of Italian technology to assemble low-medium-and-multi-tonnage trucks from the leading European manufacturer IVECO (Caliber, 2024).

Regarding the increase in production, notable projects are being implemented in the renewable energy field. A joint venture with Technip Energies on the "Production of pyrolysis oil from plastic waste" project, being built on Sumgayit Chemical Industry Park aims to produce 23000 tons of pyrolysis oil from 36000 tons of plastic annually (APA, 2024). Another project by Technip Energies of 2016, Ethylene-Polyethylene Plant reconstruction has increased annual ethylene production from 100-120 thousand tonnes to 192 thousand tonnes, and doubled propylene production from 80-90 thousand tonnes to 187 thousand tonnes, also extending the plant's operating life by 20 years (Azertag, 2023). Additionally, gas turbines installed by Ansaldo in the Mingachevir power plant help with electricity supply for 1.2 million households and save more than 2 million tonnes of CO₂ emissions annually. In the traditional energy field, since its establishment in the country, Saipem has contributed to more than 500 million barrels of oil from the ACG field through offshore facilities (Saipem, 2024).

Azerbaijan also enjoys human capital training and development as a result of Italian companies' involvement. In line with Article 2 of the Memorandum of Understanding on economic cooperation between the Republic of Azerbaijan and the Republic of Italy, Technip Energies holds a Master's Program in the country to develop student's skills and knowledge in oil and gas, energy, and sustainability and then offers employment (Technip Energies, 2025). This program allows human capital to have a closer insight into Italian expertise and increase local workforce talent. Moreover, Saipem's 2009 reports indicate that since its early times, the company has employed 100% locals in its BOS Shelf Branch and 88% locals in the Saipem Asia Branch (Saipem, 2009). This is beneficial in promoting and supporting the advancement of Azerbaijani Nationals with Italian expertise. In addition, the new Memorandum of Understanding of Ansaldo Energia includes training of staff and know-how exchange initiatives (Ansaldo Energia, 2024).

Azerbaijan also gains access to the EU energy market as a result of Italian companies' operations in Azerbaijan. Firstly, as mentioned in Joint Declaration of the President of the Republic of Azerbaijan and the Prime Minister of the Republic of Italy on cooperation in the field of energy and protocol on cooperation on natural gas, Italian companies will help with the extraction of oil and gas that will be supplied to Europe via TAP and TANAP pipelines. Also, the Memorandums of Understanding signed with ENI mention improving energy efficiency of Azerbaijan which will help to strengthen the energy security of Europe and establish Azerbaijan as a long-term strong partner.

Coming to foreign currency reserves, Article 6 of 1997 BIT mentions repatriation of capital and profits related to investment without any delay in any convertible currency. This sentence suggests that by not imposing specific requirements on currency and exchange rates, both countries aim to foster the flow of investments and create a more attractive investment climate.

On the other hand, the gain of Italy from cooperation with Azerbaijan is significant, in terms of earning profits and playing a key role in energy supply to the EU. Firstly, undoubtedly the Italian state-owned companies earn profit and thus increase their financial prosperity. Another key point is the reliable energy supply to the EU. Considering the Russia-Ukraine war and the high costs of obtaining energy locally in the EU, the region is in search of a long-term and reliable partner, of which Azerbaijan is a decent candidate (AIR Center, 2024). The protocol in the field of natural gas signed in 2007 between Azerbaijan and Italy takes into consideration Azerbaijan being an important natural gas producer with vast opportunities for increasing local production with the possibility of exporting natural gas to the European market (E-qanun, 2007). The 2007 protocol also mentions SOCAR's involvement in oil and gas production with joint production with other companies. In addition, the protocol implies approximately 8 billion cubic meters of natural gas per year will be supplied by Italy. This means that Azerbaijan has been open to Italian collaboration for both domestic and international consumption of gas since the early 2000s. In this regard, the 2014 Joint Declaration "On Strategic Partnership between the Republic of Azerbaijan and the Republic of Italy" mentions cooperation on TAP and TANAP pipelines in the supply of natural gas from Azerbaijan to Europe. This implies the geopolitical dimension of Azerbaijan-Italy energy relations, where Italian engagement is not limited to bilateral trade but within a broader European energy security framework. For Azerbaijan, this cooperation enhances the country's status as a reliable energy supplier beyond the post-Soviet sphere, while for Italy, it helps to diversify supply. Moreover, the joint declaration on cooperation in the field of energy of 2013 is concerned with the extraction and supply of natural gas from the Shah Deniz field to Europe through the Trans-Adriatic Pipeline and Trans-Anatolian Natural Gas Pipeline (E-qanun, 2013).

5.1.Recommendations and Limitations

Azerbaijan has a chance to maximally benefit from Italian foreign direct investment. Firstly, the country might encourage the operations of Italian companies and establishment of joint ventures in a way that clearly helps to achieve technology transfer goals. This would help

ensure that collaborations with Italian companies not only provide capital inflows but also contribute to domestic innovation and industrial improvements. In this framework, successful initiatives like Technip Energies' Master's Program indicate the potential of institutionalized skills development. In partnering with Italian stakeholders, the Azerbaijani government should also focus on expanding training and human capital education initiatives to build a skilled workforce in key areas such as renewable energy and green technology.

Second, Azerbaijan should further attract Italian investments in its energy sector by offering some kinds of incentives. These might involve tax benefits, regulatory support, or special industrial zones for energy projects. Such actions could attract more Italian firms and align investments with Azerbaijan's 2030 energy targets. Moreover, strengthening policy dialogue between Italian companies and Azerbaijani institutions would help to enhance transparency and ensure that the strategic partnerships are aligned with both national priorities and international environmental standards. Finally, Italian companies and the state of Azerbaijan should explore multilateral cooperation involving the EU and other regional partners. Given Italy's role as a key EU member and Azerbaijan's strategic energy location, collaborative projects in traditional and green energy corridors could further strengthen integration into the European energy landscape. Also, this would upgrade Italian companies from bilateral actors to facilitators of broader regional transformation.

This thesis has several limitations. Firstly, there is a general lack of academic literature and publicly available data on the topic of Azerbaijan–Italy energy cooperation, particularly about the role of Italian state-owned companies. This data gap limited the depth of analysis in some areas and created reliance on official sources such as government declarations and institutional reports. Therefore, these documents may have formal messaging and thus might not fully capture the real-life complexities of implementation. Second, the study focuses on large-scale cooperation frameworks involving well-known Italian state-owned firms. It does not examine the role of smaller or private Italian enterprises that contribute to inward FDI which may also be significant but remain undervalued. Lastly, the research focuses on macro-level institutional and geopolitical analysis and not assess localized social impacts of energy projects. Thus, investigating such impacts would require a different methodology which falls outside the scope of this study.

To conclude, this study explored the technological and infrastructural contributions of Italian state-owned and state-supported companies to inward foreign direct investment and economic development in Azerbaijan's energy sector, within the broader context of bilateral cooperation framework. Through an analysis of legal agreements, strategic memorandums, and project-level evidence, the research demonstrates that Italian firms like ENI, Saipem, Ansaldo Energia, and Technip Energies Italy play a multidimensional role in Azerbaijan's energy landscape. Their contributions surpass mere capital investment, extending to technology transfer, renewable energy development, infrastructure modernization, human capital training, and integration into the European energy network. Legal documents like the bilateral investment treaty of 1997 between Italy and Azerbaijan and strategic memorandums signed in the past decade provide the legal and diplomatic foundations for such engagement. Italian companies

have used these measures to both secure business operations and align themselves with Azerbaijan's national development goals, particularly in energy transition and sustainability. Moreover, the projects implemented by Italian firms in Azerbaijan have contributed significantly to the diversification and modernization of the country's energy sector. For Azerbaijan, these partnerships increase energy production capacity, promote skill development, and increase access to European markets. For Italy and its companies, the relationship secures commercial profits and positions Italy's role in the EU's energy security with the help of Azerbaijan as a strategic supplier. This mutual benefit indicates the geopolitical importance of the Azerbaijan–Italy energy partnership. Overall, the findings imply how bilateral cooperation can foster sustainable economic ties that benefit both Italian companies and Azerbaijan.

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