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THE IMPACT OF THE PERSIAN GULF INSTABILITY ON THE OTHER COUNTRIES' NATIONAL ENERGY STRATEGY: THE CASES OF CHINA AND ITALY

MASTER'S THESIS: DEVELOPMENT AND INTERNATIONAL RELATIONS

SCHOOL OF CULTURE AND GLOBAL STUDIES

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Abstract

The Middle East is a region whose peacefulness and stability are always in doubt, and recent events such as the assassination of General Qassim Suleimani have once more brought it to the brink of a conflict. The ever-present unpredictability of the geopolitical situation within the most prolific oil extracting region in the world affects all the nations which acquire crude petroleum from it. Indeed, the energy security of countries all over the planet would suffer harshly in case a conflict broke out within the Persian Gulf region, due to their dependence on imports from it. Oil prices would likely skyrocket, and a disruption of the supply would not be a farfetched possibility either. The interests of several states are on the line, and countermeasures are likely to be taken.

This thesis, therefore, aimed at pointing out in which way the recurrent instability of the Gulf region is influencing the energy strategy of the nations which historically import high quantities of oil from them. China and Italy, two countries that historically rely strongly on the unstable geographical area for their energy needs, were chosen as case studies.

To answer the research question, the concepts of asymmetrical interdependence and geopolitical theory were applied to the data regarding the case studies' energy strategy. They allowed the situation to be analysed from two different angles, and gave a more complete picture of the change, or lack thereof, in the Chinese and Italian national energy policies.

The application of the theories highlighted the different reaction of the two countries to the risk of their oil imports being disrupted once again: China was found to have both intensified its diversification of energy sources in order to reduce its dependence on the Gulf's situation, and to have sped up the implementation of self-centered measures to protect the four A's of its energy security (*accessibility* and *affordability* in particular). The Italian energy strategy, instead, was discovered to be only partially undergoing a process of diversification, thus showing a more limited change in its nature.

The analysis of the recent development of the two case studies' energy strategy allowed to, therefore, conclude that the two nations are responding to the Persian Gulf's instability in different ways, with China strongly pursuing diversification and protective measures, and Italy only implementing the former, incompletely.

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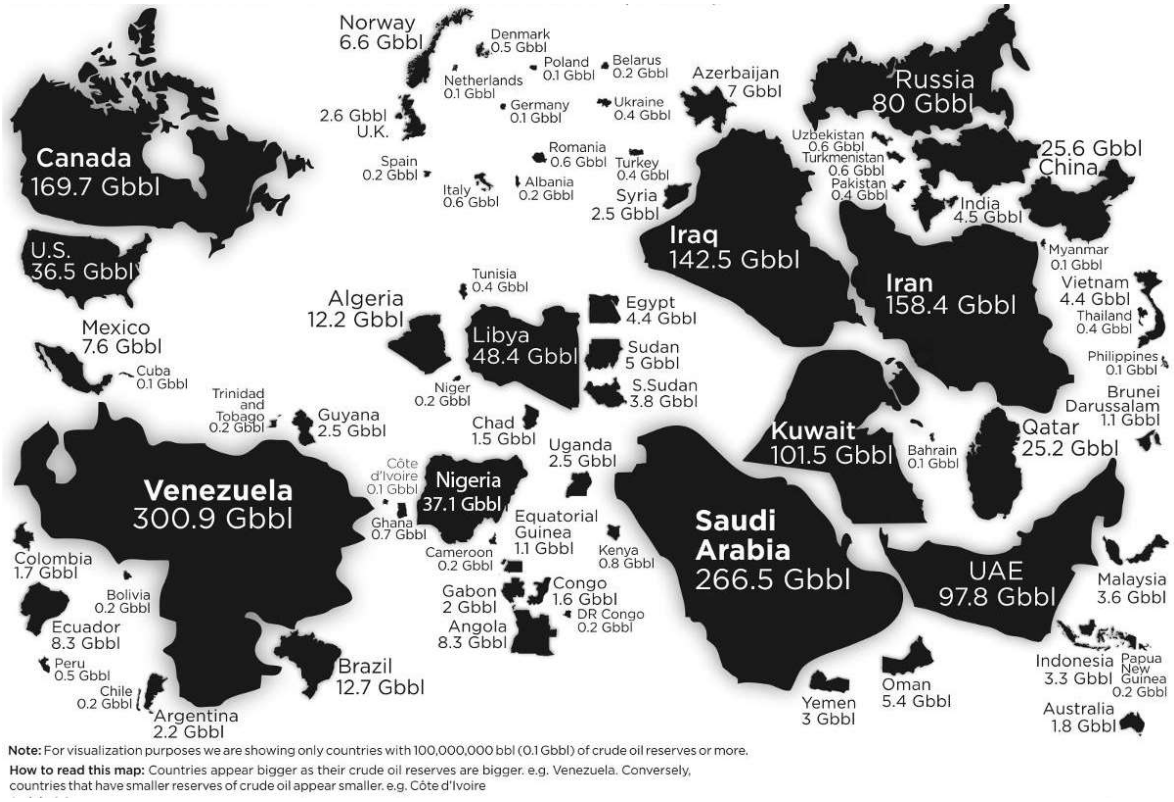
Introduction

Notwithstanding the impressive expansion and progress in the sector of the renewable energies, most of the current world is still heavily reliant on fossil fuels to fulfill the needs of the ever-growing population. Energy drives most of the economy of every state, making it a priority on the politicians' agenda. As a matter of fact, a small number of states can, although, rely consistently on renewables: this is the case in Iceland (Pantzar, 2019), Norway (Ministry of Petroleum and Energy, 2016), and Paraguay (International Hydropower Association, 2019), countries close to reaching the objective of relying only on "clean" sources of energy. The main reason why these countries can manage their green energy policies so effectively is, though, clearly represented by the small size of their population.

The only other currently competitive and developed enough source of energy available to limit dependency on imports is represented by nuclear power. This is a possible option to reduce the dependence from imports, and to fossil fuels in general, albeit being controversial under many aspects. In the current age, though, only 30 countries in the world can count on the presence of active nuclear power stations on their territory, thus keeping this type of energy a possibility limited to selected nations.

Therefore, fossil fuels remain, at the present time, the name of the game in the energy sector, giving strong economic and geopolitical importance to the states that can extract them from their territory. They remain so vastly important that the behaviour of the nations within the international field can be influenced by them, often generating conflicts involving the countries rich in these resources (Huth in Colgan, 2013, pp. 2-3). Indeed, oil has a significant presence only in few geographical areas of the planet, the largest reserves being in the Persian Gulf region (with massive ones in Saudi Arabia, Iran, Iraq, Kuwait, and the United Arab Emirates), and in South America (mostly in Venezuela). The Canadian and Russian reserves follow, and smaller ones are present in China and North Africa, as shown in the following image, in which the size of each country represented is given by its degree of richness in oil.

Figure 1: Crude oil reserves in Billion barrels, by country



(Desjardins, 2019)

Although, the numbers above refer simply to the amount of oil present in these nations' soil, whereas certain countries extract more of it than others. The market is, in fact, still mostly driven by the Organization of the Petroleum Exporting Countries. Indeed, the 14 member nations currently account for around 60% of the world oil exports (U.S. Energy Information Administration, 2020c) with the ones surrounding the Persian Gulf having the largest shares (World Population Review, 2020). The pattern of the world oil market is closely linked to these nations, and oil prices worldwide depend on them.

Although one main problem is present, represented by the fact that the area of the Gulf has for years been characterized by conflict and unrest: be it for religious or political matters, this region is never peaceful, oftentimes because of nations on rough terms with each other, as in the case of

the ongoing feud between Iran and Saudi Arabia (Cliffe, 2020), or in the circumstance of the Qatar embargo (Smith, 2019). The division between Sunni and Shia Islam, as well as the policy of close bonds, or of contrasts, with the United States that each of these nations pursue, have been known for generating tensions within the region. In the more recent months, another factor has entered the game, in the shape of the USA colliding directly with Iran after the early January assassination of Qasem Soleimani, the former leader of "the foreign-facing branch of the country's powerful security apparatus" (Zraick, 2020). For a brief period, a direct conflict between the contenders was deemed to be imminent, and the tension between the contenders is currently still present (Tehran Times, 2020). The whole region is walking on a thin line.

The continuous arguments between these countries and their neighbours represent a massive obstacle for the international oil market. They indeed keep it always on the alarm, with ever-present uncertainty. This can generate a change in the behaviour of the nations poor of fossil fuels all around the world, traditionally importers of huge amounts of the oil produced in the OPEC countries to fulfill their needs. In many of them, this trend is indeed beginning to change: the continuous instability within the Gulf region worries many customer nations that the prices may suddenly skyrocket, or worse, that the supplies might be interrupted in the case of a conflict (Turak, 2019).

The states members of OPEC have been linked to worldwide economic issues before, as in the case of the 1973 oil embargo or of the 1979 oil crisis, which broke out in the wake of the Iranian revolution, therefore, countries importing fossil fuels from the area are forced to hurry and strategize a backup plan to protect themselves.

China is among the countries facing the need to pursue an alternative path. The Asian power, as mentioned above, can count on consistent oil, coal and natural gas resources to exploit (Elmer, Xie, 2019); (U.S. Energy Information Administration, 2020b); (WoodMac, 2019), but, being the nation with the world's largest population, and having to continuously propel its massive economic expansion, it is far from being able to rely on the domestic oil extraction solely, with the internal production able to provide only a third of the amount needed (op. cit., U.S. Energy Information Administration, 2020b). It is the largest consumer of energy in the world (Institute for Energy Research, 2015) with the energy demand continuously growing in the last years, and at the same time the Chinese government, as well as the international community, are stressing the importance to diminish the consumption of coal, the fossil fuel which releases the highest amount of carbon

dioxide when consumed to produce energy (U.S. Energy Information Administration, 2019). Coal has traditionally represented the primary source of Chinese energy production (op. cit., Elmer, Xie), but Beijing's ambition to meet the goal of starting to reduce its carbon footprint within the next ten years, as agreed in the context of the Paris agreement, will not allow for coal to maintain this fundamental role in the future (Stanway, 2020).

The incapacity to fulfill the energy needs of the nation with the local resources forces the Asian power to look for a diversification of energy sources. Huge investments are being made in the nuclear, natural gas, and renewable sectors (Griffiths, 2019), but imports from abroad are currently still absolutely necessary. This is confirmed by the fact that, in 2017, crude petroleum accounted for 9.4% of the nation's total imports, with an economic value of almost 150 Billion Dollars (Observatory of Economic Complexity, n.d. b). Out of this amount of oil imports, almost 50% were originating from the countries surrounding the Persian Gulf (Observatory of Economic Complexity, n.d. a), which represented the main Chinese oil partner. This makes China heavily dependent on the Gulf's oil, and therefore also on the region's political situation. If the current state of "unstable stability" of the Gulf happened to be altered, or, worse, turn into open conflict, China's energy security would suffer major consequences.

This has already happened in the past, as proved by Chu, Limin and Yanan: international oil price shocks, derived from political troubles coming from the Gulf region, or by worldwide economic crises, have been found to be linked to the destabilization of the Chinese economy, particularly since their oil market was deregulated at the beginning of this millennium (Chu, Limin, Yanan, 2010, p. 4145). This is due to its dependency on imports of OPEC oil. The consequences of a sudden change in the pattern of the Gulf's oil exports, which could derive from a shift in the area's stability, would be immense on the Chinese energy security. Therefore, China needs to set the ground for an alternative solution.

Similar is the situation facing Italy, albeit the differences that are immediately visible when comparing these nations. Indeed, Italy has a much smaller population than China, with, therefore, energetic needs that are much lower in scope, but, much like the Asian power, the natural resources present within the national territory are not even remotely sufficient to cover the energy needs of the country. Their internal production of oil accounts for only 7.3% of the national demand (Jewkes, 2019), but, in contrast to the Chinese case, Italy has, for decades, been nuclear-free, due to the results of two different referenda: the first took place in 1987, when, in the wake of the

Chernobyl catastrophe, the population voted to express their desire to phase out the Italian nuclear program, and the second one in 2011. Planned with the hope and expectation that the population would revert the decision taken 25 years earlier, it, instead, gave the same negative results as the first one (Baracca, Ferrari, Renzetti, 2017, p. 4). The lack of enough oil and atomic power delegates an even larger importance to the sectors of imports and of the renewable energies, and much like Beijing, Rome has in the last decades invested heavily in the clean sources, which are taking up more and more of its national energy production (Belisario, Schiavo, 2019).

Despite this, the growth of green energies remains a slow and lengthy process, which means that Italy is still very strongly relying on imports of natural gas, oil, and electricity (in 2015, imports amounted to around 75% of the Italian energy consumption, according to the World Bank). Italy used to have its share of oil partner nations outside of the Gulf area such as Libya, but the ongoing guerrilla that has been devastating the North African nation for almost the whole last decade has put a halt to the trade of oil between the two states. This generates a renewed dependence on the Gulf, with Saudi, Iraqi, Iranian and Kuwaiti oil representing almost 40% of the national import in 2017 (Observatory of Economic Complexity, n.d. g). As in the case of China, Italy's energy security has also suffered during past worldwide turmoil. An example is given by the situation that was generated in 1973, when the OAPEC (consisting of the Arab members of OPEC) oil embargo generated a worldwide oil crisis, leaving the Italian oil imports diminished, with a sharp increase in the oil price. This, obviously, had harsh consequences on the Italian productivity (Bini, 2014, p. 155). The consequences could be similar in case a new oil crisis were to take place.

With nuclear energy out of the picture, and with the slow growth of the production of other renewable energies, Italy, therefore, definitely needs to find a way to efficiently diversify its sources of fossil fuels, to protect itself from the possible disruptions of the supply of oil of the Gulf states, which have traditionally had a particularly strong negative influence over the nation.

1) Research question formulation

This preliminary information stated above serves the purpose of providing the necessary background for the specific research question that this paper aims at answering. Indeed, the central

dilemma around which this work will be built is: **how do China and Italy respond, in their own specific way, to the recurring geopolitical instability present in the area of the Persian Gulf?** In past years, similar situations have taken place, which forced governments all over the world to change their policies, one of them being the aforementioned 1973 oil crisis. When the embargo was instituted, the price of crude oil quadrupled (CBC News, 2006), generating massive reforms in the affected nations. Two examples can be represented by the USA, which gradually increased the production of their energy from nuclear power, coal, and solar energy (Rapier, 2013), and Denmark, in which 1973 triggered the creation of a national energy strategy, based on a stricter regulation of the imported energy market and on the diversification of sources (Rüdiger, 2014, pp. 109-110). What changes to their past and present strategy will China and Italy implement? These two countries will be used as the case studies for this work and will provide examples of the different reforms and improvements that several states can, in the present day, pursue in their reaction to the Gulf's unpredictability.

The aim of this thesis is, thus, to investigate how the instability burdening the Persian Gulf area more heavily than in the recent past can influence the energy policy of China and Italy, traditionally importers of massive quantities of their oil. These two nations are unified by their non-self-sufficiency and by their common need to always search for a way to maintain a consistent flow of energy to keep the whole territory, its citizens, and its factories well taken care of and productive, but their agendas are substantially different. This work aims at exploring these agendas, with the enigmas China and Italy face to provide the resources needed to make up a possible lesser future dependence on the Gulf's oil.

Methodology

Before beginning to analyse this topic, considerations and explanations in regards to the the way the research problem will be addressed and to the reasons behind the choices that were taken, have to be made.

1) Approach to the research question

For the completion of my thesis, I decided to investigate the linkage between the present crisis in the Gulf area and the national responses of China and Italy, which serve as examples of what could be done by several other nations not included in this work. The input came from the massive consequences of other previous instances, such as the oil embargo of 1973, in which states had to react to international oil crises with massive changes to their strategy, to protect their energy security.

Energy security is indeed a concept that applies differently to each nation. Large oil producers, for example, see the fundamental factor for their energy security in the chance to always manage to export what they extract, whereas, for the consumers, the disruption of supply and the volatility of oil prices are at the forefront. Indeed, a general definition of energy security, or, in this case, lack thereof, is the one given by Bohi and Toman (1993), which states that "energy insecurity can be defined as the loss of welfare that may occur as the result of a change in price or availability of energy".

Price and availability represent two of the four elements typical of energy security. *Availability*, the physical existence of energy sources in the world, which currently does not represent a pressing issue, *accessibility*, related to the ability or inability of nations to acquire such resources (this is the element to which the "availability" mentioned in the definition above actually refers to), in spite of geopolitical or technological impediments, economic *affordability*, and environmental *acceptability* (Asia Pacific Research Centre, 2007) are the four indicators that nations need to comply with for their energy security. *Accessibility* and *affordability* are the ones more strictly related to the topic of this thesis, the ones nations must protect at all costs for the immediate prevention of upheavals in their welfare.

The energy strategy of nations is, therefore, represented by all those measures, policies, and reforms that they pursue to protect their four A's of energy security.

In the past, events such as the aforementioned oil embargo have threatened the energy security of nations, therefore forcing them to develop and introduce strategies to protect it. These events can, in the affected countries, trigger sudden boosts in the research and exploitation of new technologies, and make, or break, alliances between states in the sector of fossil fuels trade. In 2020 these issues may or may not be faced differently in comparison to the past, and the ambition to discover how the nations are coping with the current state of the Gulf's instability gave life to this specific research topic.

The research question will be addressed mainly through realist lenses: the case studies are most likely, in reaction to the pressure created by the instability in the Persian Gulf, to pursue first and foremost their own interest, in the energy security context: the promotion of their energy strategy is, therefore, considered to be more relevant than the one of potential partnerships, typical of liberalist positions, and the disruption of oil supply a physical and concrete threat rather than a product of the discourse of the leading political figures, as constructivists believe.

The interdependence theory though, which will be used in this thesis, partially brings the liberalist view into this project. The theory will be, although, applied mainly to investigate the changes the case studies can implement to lower their dependency on the Gulf's oil, again, in a self-centered, rather than purely liberalist, way.

In the eye of the realist interpretation of the problem, the research question will be investigated along three different lines: the security aspect of these nations' energy strategy, the element of dependency, and the geopolitical implications of such strategies. Being the main concern of all consumer nations the availability of energy to sustain their economy, security will represent the strongest, fundamental factor to analyse under the conditions of instability in the Gulf region.

The development of new dependencies and interdependencies between the case studies and new partners, as well as the elimination of other previous ones, and the geopolitical implications of their new energy strategies, will be the other consequences of their policies that will be investigated. These elements will provide a clearer picture of how instability in the Gulf area can and is reshaping the world when it comes to alliances, partnerships, and interactions.

In order to bring to the surface the information needed to provide an answer to the research question, a deductive approach will be implemented. The deductive approach of research follows

a top-down pattern, starting from an outside, general point of view, and from there moving to the exploration of the details of each case study. It contextualises rather than generalise.

Indeed, the starting point of the thesis will be represented by the conditions of the Persian Gulf region, and the two case studies will be investigated in order to apply the theories, and contextualise to draw conclusions in regards to the influence that the continuous geopolitical imbalance of their main oil suppliers has on their peculiar energy strategy. The security uncertainty in the Gulf region will provide the general background, and the specific consequences that it has on the national energy responses of the two nations will be investigated. This work will "zoom in" from the outer context into the particular situation of China and Italy.

The choice to apply a deductive approach allows for a more in-depth analysis of the countries' strategy. Unlike when beginning the research from the nations themselves, in an attempt to consequently draw generalised conclusions that can be applicable to other cases, typical of an inductive approach, the deductive one lets the author attempt at shedding more light on the direct consequences of the Gulf's instability over their unique context and decisions.

2) Choice of Theories

The Chinese and Italian nations lay in a situation that requires them to take effective measures to protect their energy security. What are the consequences of the OPEC nations' continuous instability on them? To try and draw some conclusions in relation to this question, two main theories will be applied to each case study, the asymmetrical interdependence theory and the geopolitical theory, this second one applied in the eye of the realist energy security approach.

2.1) Asymmetrical Interdependence theory

The choice to apply interdependence theory to the topic of this research was related to the large sheer quantity of oil that both China and Italy traditionally import from the Gulf nations, and even more closely to the great percentage of their energy needs that these imports cover. Much of their

economy and society is linked to the continuity in the supply of the oil imported from the OPEC powers.

In an interdependent perspective, given the premises explained in the introduction, one could argue that both their energy security plans are dependent on the oil extracted in the turbulent region, and therefore on the area's geopolitical security. The asymmetrical interdependence existing between these two nations and their oil suppliers is what this theory can extrapolate meaning from. In fact, these nations' energy security strategy is much more strongly dependent on the geopolitical security of the Persian Gulf than vice versa, and, in case of a disgregation of the precarious situation in the Middle East, China and Italy, would pay a massive price for it.

The interdependence theory will be used as a means to explain and explore this asymmetric relationship that exists between the case studies and their oil suppliers, more than in its purely liberalist fashion. Rather than as a mean to promote and demonstrate the effectiveness of cooperation between states through supranational institutions, it will be used to show how reliant on the Gulf nations China and Italy are, as well as to investigate their degree of eventual *sensitivity* or *vulnerability* to the oil imported from them, and therefore to their geopolitical condition.

By discovering whether the case studies are *sensitive* or *vulnerable* towards the OPEC oil, interdependence theory can be useful to further examine this unbalanced partnership, thus providing a clearer interpretation of the reasons behind the behaviour that China and Italy are forced to take to protect themselves.

For the purposes of this work, the application of asymmetrical interdependence is, therefore, more efficient than other theories because it acknowledges that the relationship existing between the importing nations on one side, and the Gulf's instability on the other, is strongly unbalanced, therefore putting China and Italy with their backs against the wall.

Another reason for the choice to implement this theory is represented by its international focus. It opens a different perspective over the reasons behind the energy policy of nations, and instead of solely considering the internal reasons and necessities of states, it includes external international elements (the attempts of nations to reduce their *sensibility* and *vulnerability* to foreign partners, in this case the Gulf nations) as well. The international context, continuously evolving, exerts ever-changing pressures on the states, with their energy policies being the product of the interaction between such external pressures, and their local peculiar condition. It, therefore, clearly matches this thesis' very international and interconnected context of analysis.

2.2) GEOPOLITICAL THEORY / REALIST ENERGY SECURITY

The second theoretical concept chosen for this work is, at its core, aimed towards the understanding of the forces behind the growth and demise of states. Geopolitical theory looks at what factors can determine one nation's fate from an international perspective, whereas its corollary of state breakdown theory has a similar role but in relation to the domestic context. The two theories analyse the elements leading to the same risks (the fall of the state) but in different contexts, therefore being capable of integrating each other. For this reason, they were chosen to be used together.

For the purpose of this thesis, what will from now for the sake of simplicity be called geopolitical theory provides a different view of what China and Italy may be trying to prevent, in the current situation of energy insecurity, by focusing on the aspect of resources. In fact, in its eye, the lack of resources (in this case of energy sources, such as oil) can become dangerous both in the international field, giving a relative advantage to geopolitical adversaries, and in the domestic sector, potentially generating economic crises which can destabilise the nations. Being the ultimate danger represented by the collapse of the state, the application of this theory will show whether this is the danger that the case studies are trying to prevent, or not.

This theoretical construction will be integrated with the realist energy security approach. This is not a theory in itself, but it applies the realist concepts to the protection of the four A's that, in the eye of energy security theory, is part of the strategy of all nations. The combination between the geopolitical theory and the realist energy security approach has been chosen because the two parts complete each other: geopolitical theory shows what can push a country towards its collapse, but to answer the research question, there is a need to investigate how the nations are trying to prevent their future energy uncertainty from pushing them on the brink of catastrophe, which can be shown by applying a realist background together with it.

It, therefore, allows to expand the viewpoint and provide with a more complete picture: the two case studies may be simply trying to reduce their asymmetric interdependence with the OPEC nations, or, if this conjunction of theories applies to the cases of China and Italy, they might be trying to protect their four A's of energy security in fear of a national crisis, which is something capable of driving the nations into a possible breakdown. It is also possible that they are implementing both of the above strategies simultaneously. Thus, geopolitical theory, intertwined

with a realist energy security approach, was chosen to be used in this thesis alongside asymmetrical interdependence.

3) Country choice

As case studies, two of the world's largest energy importers were chosen. The relevant status of these nations lies fundamentally on the imports of fossil fuels, therefore making them interesting cases to study, since a geopolitical change in the Gulf could trigger massive consequences on them. China needs to fuel its impressive ongoing economic development, and is strongly reliant on imports of fossil fuels, with oil playing a particularly important role, considering the intention of the government to scale down the consumption of coal. China has become the largest energy consumer in the world, and the largest importer of oil (op. cit., Institute for Energy Research), therefore representing an interesting case to investigate for this thesis.

Italy, instead, is dependent on imports for around 75% of its needs, as shown above. The lack of consistent resources on the territory forces it to maintain solid partnerships with producer nations, and the Gulf's unpredictability puts this country's energy security also at risk. Given its necessity to, like China, maintain a constant flow of imports of energy sources, Italy represents another country whose case is worth investigating.

The high reliance on oil imports is clearly the main reason for the choice of these two nations as case studies. They also represent examples of what path other importing countries may decide to follow to diversify their sources of energy, especially in the context of Asia, where the Chinese model could be implemented in neighbouring countries, and in Europe, where most other nations suffer from the same lack of internal energy sources as Italy, putting them in a similar situation. At last, the predominant position of these states in the international context allows for more information to be easily accessible.

The case studies will be dealt with on the base of the trends, decisions, partnerships, and stats related to their energy security strategy of the last years, which will represent the base on which to apply the two theories, in order to try and discover the direction these nations are taking to protect their energy security and give an answer to the research question.

4) Choice of data

To support the application of these two theories over the topic of this analysis, different kinds of information are required. For an all-encompassing and more complete picture of the ongoing situation, both quantitative and qualitative data will be used in this thesis. The keyword "quantitative" implies the use of numbers, statistics, indicators, and trends tightly connected to phenomena that can be concretely verified and perceived numerically (Davidson, 2019). Quantitative data is an objective and detached analysis of the given topic, and it is implemented in order to draw generalized assumptions, relatable in the same way to several other cases, nations, and situations.

On the contrary, qualitative data consists of information unrelated to the concreteness of the facts that are being analysed, and it typically does not rely on numbers and statistics, but on the subjective opinion of the involved people. It depends on "descriptive words, images, and observations" (ibid.). It is often conducted by researchers who, more than on the use of sheer numbers, tend to look for answers in the contact with people that are directly involved with the topic of interest. In order to achieve this, interviews are often the path chosen by who conducts qualitative research, but other strategies such as discourse or content analysis are often chosen by researchers who are looking for qualitative data. It is not generalisable data, but situational, helpful in order to explore the selected topic in more depth. The qualitative data aimed at understanding the local peculiarities of the nations included in this work assures better insight over the chosen cases.

Therefore, numerical data and concretely verifiable analyses will be combined, to a certain extent, with insights, impressions and subjective research, with the aim of coordinating them together to try and eliminate the possible gray areas and give a complete explanation.

In order to apply the first theoretical concept, asymmetrical interdependence theory, the two nations' degrees of *sensitivity* and *vulnerability* will need to be addressed. In order to do so, the quantitative data in regards to the case studies' will consist of the statistical analysis of the pattern of their oil imports (both in regards to the amounts and to the various suppliers), internal energy production and consumption, and of the changes in their energy efficiency and renewables sectors. These, along with qualitative data in the form of reports, news articles, and governmental

documents, when available, will help paint the picture of their current and past energy situation in detail, allowing for a delineation of their *sensitivity* and *vulnerability*.

For the application of geopolitical theory and the investigation of what realist measures these two nations could be implementing to prevent the resource-induced collapse of the state, the same kinds of data will be used, along with a focus on the energy policy decisions of the case studies, to try to get a glimpse of whether they are protecting the *affordability* and *accessibility* of their energy sources in a realist and self-centered way, or not.

The quantitative data used in this project will be retrieved from multiple origins: various statistics related to energy trade, production, consumption, and to these nations' investments in the energy sector, will be collected from various databases and websites, such as the World Bank, the Observatory of Economic Complexity, the Institute for Energy Research, and the International Trade Center.

Similar material will be analysed for the nations in the Persian Gulf zone, especially in regards to their oil exports, and to their present and past energetic partnership with China and Italy. The quantitative data implemented in this work will not be restricted to a sterile description of the economic trends of the case studies, but it will be used to show the changes that took place over time and compare the present situation of energetic uncertainty with past episodes, in order to verify the theories and draw conclusions.

In regards to qualitative data, instead, news sources in the shape of newspaper articles and publications, both local and international, will be included, along with governmental documents, and historical background information.

All the aforementioned information will coexist and assist the application of the chosen theories on this research topic in the analysis section. These theories will be backed by academic papers, the last type of data source for this thesis.

5) Choice of method

To go with the chosen data, a quantitative method of research will be used. Much like with the different types of sources, quantitative method is definable as a generalizable work strategy based on solid verifiable sources, the quantitative ones, and it implements a measurement of empirical

data to draw generalizable conclusions. As Uwe Flick puts it, "the methodological ideal is the kind of scientific measurement achieved in the natural sciences. By standardization of the data collection and of the research situation, the criteria of reliability, validity and objectivity can be met" (Flick, 2011, p.10-11).

The analysis will, therefore, rely on a quantitative method, because of the similarity of the situation that China and Italy are facing, and the existing trade market between them and the Persian Gulf oil powers. In such a context, the analysis of empirical data becomes indeed very useful to try and provide an answer to the research question.

6) Limitations

This work will remain limited to the chosen topic, theories, and case studies, without expanding in other directions. China, Italy, along with the oil-producing countries in the Persian Gulf region will be analysed in their relationship through the two theories, with data in regards to their trading patterns and partnerships over the years, and with the inclusion of their political decisions and choices, as well as historical facts. No additional nations, theories and information will be integrated in this thesis, and the broader effects of the Gulf's instability over these nations' economies, political positions in the international field, with the relative consequences will not be analysed.

The domestic oil responses of nations depend on a variety of both internal and external factors, but this work will only focus on the external ones. It will, in fact, investigate the changes in the Chinese and Italian national energy strategies dictated by the international pressures deriving from the instability in the Middle East. The changes that were instead made due to internal factors, such as the ever-growing need for China to look for more energy due to the extensive urbanization process ongoing in the country (Wang, 2014, p. 338), will not be considered. They are, in fact, independent from what this thesis aims at exploring, which is the link between the unpredictable condition of the geopolitics in the Persian Gulf region, and the development of national energy strategies of nations.

At last, despite the presence of qualitative sources of information in this work, these will remain limited to written texts such as opinion pieces, news articles, and academic papers. Interviews will

be left out of this work, because of the vastity of this topic of investigation, and due to the lack of contacts between the author and people directly involved in the energy strategy making of the chosen nations.

Theories

The theories chosen for this project, asymmetrical interdependence and the combination between geopolitical and state breakdown theory, provide different angles from which to interpret the research problem: the first stresses the presence of bonds between nations which have an economic, political or military partnership, and the capability of them influencing one another due to the presence of such bonds, whereas geopolitical theory has one of its assumptions in the fundamental importance of resources for the survival of a nation.

1) Asymmetrical Interdependence theory

The first theory that this project will make use of belongs to the liberal school. This school, much like the realist one, believes in the search for absolute gains of the nations, and of the primacy of the states as actors in the international field. The philosophy through which the liberals see the international affairs is, though, open towards the cooperation between nations, often through trade. In fact, what one country does not have is often what another one has an excess of, and vice versa. Robert Keohane and Joseph Nye represent two of the core scholars of the interdependence theory. In their view, analysing national interest only in terms of power is a process limited in its scope, because of the ever-present invisible economic and institutional ties that (in the 1970s, but even more today) can bring countries together, adding a new layer of investigation to the international relations as a subject (Nye, 2004, p. 32).
Interdependence theory believes that the way states aim at achieving their prosperity is based on the cooperation between each other, through the presence of shared interests, and mostly through trade.

The presence of trading agreements, partnerships, and cooperation between nations ties them together, with each nation able to influence and to be itself influenced by the other partners. They are, therefore, interdependent. They help each other, but can now also influence each other. When the interdependence between two or more states is perfectly balanced, with the services that the nations offer to each other being of the same entity, the interdependence that exists between them is called symmetrical (Crescenzi, 2003, p. 17). In this idyllic situation, which rarely occurs in the real world, leverage from one country towards the other has the least chances of taking place, because the interdependent nations are on the same level.

On the other hand, games of power and influence can be played when there is an asymmetric interdependence between nations. In this circumstance, which is the one that is to be investigated in this thesis, the less dependent states can use their advantageous position as a leverage to obtain more influence over the ones that are more deeply dependent on them (Keohane & Nye, 2001, p. 9). Therefore, building connections, trade deals, and partnerships can be advantageous to provide for the interests of the nation, but it can also develop into strong dependence from another country that might be willing to expand its influence.

This picture, though, would not be complete without the explanation of the concepts of *sensitivity* and *vulnerability* of the states, because they entail different kinds of interdependence and power games between nations.

1.1) SENSITIVITY

Keohane and Nye explain that *sensitivity* is a dimension of interdependence aimed at showing the direct consequences that a change in the economic, social, or political relationship between the interdependent nations has on them, in a vacuum. It is used to analyse how large consequences an event, or a decision taken by one country can induce on its interdependent partners in case no changes to their policies and strategies can be quickly made, by only looking into the resources that these nations currently have for their reaction. A vastly *sensitive* state is likely to suffer massive consequences of either games of power played by its interdependent partners, or of unlucky circumstances, such as a disruption of oil supply due to a conflict in the Persian Gulf.

A historical example within the energy sector is represented by the consequences on different states that were triggered by the increase in oil prices during the 1973 oil embargo: nations which were vast importers were strongly *sensitive*, with oil prices taking a serious toll on the economic well-being of their citizens because developing alternative policies ended up requiring a long time. The only possible card up the sleeve that the importing nations could count on, in the 1973 circumstance, was the one of either banking on their own energy sources, or on other available energy partners. The ones which had one of these opportunities turned out to be less *sensitive* than the ones which did not, which were hit more strongly.
In short, a nation that can already count, beforehand, on the means to cope with the consequences of events and actions being done by its interdependent partners, has a low *sensitivity* to them. To the contrary, one that does not have any countermeasures ready to be implemented is highly *sensitive*.

1.2) VULNERABILITY

On the flip side of the coin, *vulnerability* is a dimension which explores those same consequences that a change in one nation can determine over the other interdependent ones, but, as opposed to *sensitivity*, it keeps into consideration the reforms and changes that the affected nations may be able to implement to, over time, reduce their dependency from others.
A highly *sensitive* nation may, therefore, not be as highly *vulnerable*, because its degree of dependency in a vacuum may not be also mirrored by its degree of dependency when strategy modifications are implemented.
If a sudden change in the trading partnership between two asymmetrically interdependent nations has vast immediate consequences on the more dependent one, this state will be highly *sensitive*. But in case this country can, over time, reduce the gravity of the situation through reforms, changes, or new partnerships, this shows that its degree of *vulnerability* is lower than its *sensitivity*. For example,

> "Two countries, each importing 35 percent of their petroleum needs, may seem equally *sensitive* to price rises; but if one could shift to domestic sources at a moderate cost,

> and the other had no such alternative, the second state would be more *vulnerable* than the first. The vulnerability dimension of interdependence rests on the relative availability and costliness of the alternatives that the various actors face" (Keohane & Nye, 2001, p. 11).

Several different factors can determine how *sensitive*, *vulnerable*, or both a nation dependent on another can be: the content of their soil or climate, in the case of the possible domestic production of energy, the effectiveness of governmental institutions in making reforms, or the geographical and geopolitical position of a nation, in order to possibly diversify trading partners.
In the eye of the interdependence theory, the implementation of strategic measures to increase and exploit the *sensitivity* or *vulnerability* of an interdependent nation can be used to increase influence, making "asymmetrical interdependencies [...] sources of power among actors" (Keohane & Nye, 2001, p. 9) but these two dimensions are manifested even during accidents or unpredictable circumstances such as the one that this thesis revolves around.

2) Geopolitical theory / Realist energy security

Geopolitical theory represents a branch of study which aims at understanding the reasons behind the rise and fall of states. Its main scholars look at historical examples in order to find a pattern in all the phases that a state goes through, which has allowed some (Collins, 1986) to make successful predictions of the future fate of nations. They believe that the future existence of a state lies in three fundamental factors.
First comes the disponibility of resources: when a conflict between two or more contestants breaks out, "The state with the greater economic base and population size, other factors being equal, will dominate opponents with lesser resources. Richer and bigger states tend to defeat smaller and poorer states" (Collins, 2011, p. 582). Resources are what can win a war, but in the broader sense, they are what puts a nation on the map of world power and influence, by giving it more importance. It is therefore clear how, without the necessary energy sources to assist them, any other advantage risks becoming useless on the battlefield, as much as in a broader context of international competition.

The other two elements, which are not in use in this thesis, are represented by overextension and the "geopolitical strain" (ibid.) caused by fighting on multiple fronts. Overextension is often a peculiarity of quickly and strongly expanding states: nations with very vast territories need, in fact, larger resources to keep them all productive, under control, and protected. When the costs of maintenance of all the subdued lands spiral out of control, the state risks stumbling and falling over. At last, fighting on several different fronts can, metaphorically, have the same consequences as multitasking: it prevents everything that is being done from being executed properly, making it more risky for the nation.

All three aspects can single-handedly dictate both the flourishing of states and their growth in importance in the geopolitical sphere, as well as their struggles.

Geopolitical theory will be useful to explain the behaviour of the case studies through its first concept, the one of resources. As stated above, in fact, the importance of a country in the geopolitical sector is influenced by its available resources. Its enemies can take advantage of the situation when resources are limited, and internal political divisions and dissent can grow.

These are some of the concepts behind state breakdown theory as well, which is a corollary of geopolitical theory aimed at analysing the elements necessary for a revolution and a total disruption of the structures of the state to be possible. For a population uprising to trigger a successful destruction of the state, in the eye of this theory, two factors need to be present in the background: a crisis, usually economic, within the nation, and an internal division within the nation's elite. If these issues are already present, and if there are "social patterns that assist or predispose popular groups to action (e.g., large numbers of youth in the population, increasingly autonomous rural villages, growing concentrations of workers in weakly administered cities)" (Goldstone, 1991, pp. xxiii-xxiv), an uprising can be successful in mining the prerogatives of the state, leading to a revolution.

The three elements are clearly linked and one can influence the other: if a nation is stagnating economically, enemy nations can take advantage of the weakness to start a conflict, and internal political division can also be generated. In turn, crises and political stalemate have the potential to induce a rebellious population to choose the path of the revolution. Furthermore, the economic crisis of the nation can be the consequence of the first element of geopolitical theory, which is the lack of enough resources. This link is what allows geopolitical and state breakdown theory to work together, in the way that is implemented in this thesis.

Geopolitical theory aims at explaining the reasons behind state growth or decline in the international context, whereas state breakdown theory looks at what happens within the country, and how the internal events can potentially lead to its collapse. Internal crisis, as well as dissent within the elite that governs, are elements that can be triggered by larger events in the international field, allowing the two theories to be combined to make more precise investigations (Collins, 2011, p. 576).

To match more precisely the realist interpretation of this thesis, the geopolitical theory, with its corollary of state breakdown theory, will be applied on the case studies in synergy with the realist energy security approach. This approach consists in the realist understanding of the protection of the four A's of energy security, in particular, when it comes to the context of this thesis, of the elements of *affordability* and *accessibility*,. They are faced in a strongly nationalistic way, with the internal needs of energy sources at all times at the center of attention. The realist energy security approach is convinced of the need of the state to get directly involved in the trade of energy sources, in order to prevent their uneven distribution from generating a strong political leverage from the producer nations over the importing ones, but also possible supply disruptions (Proskuryakova, 2018).

The realist statesman aiming to prevent the potential resource-induced collapse of their nation is likely to be in favour of self-centered measures able to protect the *affordability* and *accessibility* of the necessary resources. Such measures would include focusing on the internal own capabilities of the nation (where possible) and bilateral agreements with solid partners, more than on the trust in supranational institutions, and in the self-regulating nature of the market.

It is a notion based on the fear of the worst-case scenario (in this case the possibility of a resource-triggered collapse of the nation), which the states need to prevent through self-centered and egoistic measures, instead of on the ambition to achieve the best-case scenario, which would be aimed at through cooperative and liberal policies instead.

Every geopolitical actor is subject to different pressures in the energy sector, deriving from their internal situation, and their realist strategy derives from it. Certain nations can rely on a stronger internal production of fossil fuels to propel their society, for example, whereas the ones that cannot count on internal extraction usually implement policies of diversification of sources, both physical, through the development of alternative green energies, or geographical, by developing importing

partnerships and bilateral agreements with several different producers, so to "soften the blow" in case of a disruption of supply from one or more partners.
Extreme nationalist positions of nations poor in energy sources include the direct investment in the fossil fuel extraction fields on the soil of other nations, a strategy already implemented by states such as India (Blair, Mukherjee, Verma, 2019). Their aim is always to achieve the maximum reduction of the nation's energy dependence from single actors, and to try to limit imports in general, in order to keep the fate of the nation in their own hands as much as possible.

3) Application of theories

In this final section of the chapter, the way the chosen theories will be applied on the problem formulation will be shown, to set the ground for the analysis.

3.1) Asymmetrical Interdependence theory

Given the research question of discovering how the nations, in this case China and Italy, react to the current instability in the Persian Gulf, the interdependence theory will be applied to the two case studies in various steps. First of all, the degree of *sensitivity* and *vulnerability* of China and Italy to their oil suppliers' geopolitical situation is to be investigated: the aim in this section will be to expand on the extent of the negative consequences that (at the present moment) the outbreak of a conflict in the Middle East would have on the energy resources of the two case studies, both in the immediate term, and over time.
It is clear that China and Italy are asymmetrically interdependent with the geopolitical instability of the Gulf, since the continuous flow of oil imported from these suppliers has much larger importance to them than vice versa, but, for the chosen case studies, how *sensitive* and *vulnerable* are they? To which extent do they currently already have the possibility to protect their energy needs from sudden rises in oil prices and from possible disruptions, limiting their *sensitivity*? And do they have the chance to, over time, introduce new energy strategies, develop partnerships with other oil suppliers, or develop new sources of energy, to lower their *vulnerability*?

Assuming the two countries' governments are aware of their degrees of *sensitivity* and *vulnerability* to the Gulf's geopolitical situation, the investigation of these elements will help shed light on the national energy policy adjustments that these two nations are pursuing, and the direction in which such measures are heading. Indeed, understanding the nature of the Chinese and Italian asymmetrical interdependence with the instability in the Middle Eastern region allows us to see the reasons and the reasoning behind their reaction to it.

The more the measures that can be implemented to reduce their *vulnerability*, the clearer the path to follow is for them: indeed, taking advantage of the elements which allow them to, over time, progressively limit the damage generated by the potential breakdown in the Gulf's geopolitical situation is the strategy that makes the most sense, in this theory's perspective.

Secondly, a rundown of the reactions taken by the two case studies during past energy crises has to be made. Today's world is clearly in a different geopolitical status from, for example, the one of the 1973 oil crisis, but their past countermeasures offer a picture of how these nations tend to address these issues and show what the outcomes these strategies generated in the past. The information drawn from the retrieval of their past behaviour will then be compared to the data in regards to the present choices that the case studies are making to protect themselves from the problematic events in the Gulf region, to analyse whether there is a pattern that is being repeated, and understand the direction in which they are headed.

By putting these three pieces of the puzzle together (the comparison between past energy security strategies and the current ones, in the light of their degree of *sensitivity* and *vulnerability* with the Gulf oil powers), asymmetrical interdependence theory will provide its answer to the research question, discussing the case studies' possible reaction to the instability in the Gulf, and determining what they are aiming at with it.

3.2) GEOPOLITICAL THEORY / REALIST ENERGY SECURITY

The verification of the second theoretical approach will be closely linked to the realist approach through which this work is developed. Geopolitical and state breakdown theory investigate the conditions that can bring a state to its collapse, and the lack of resources (including energy sources) is one of the factors that can trigger it. Therefore, the application of this theory aims at discovering

whether or not the Gulf's instability is inducing China and Italy to implement nationalist, realist energy measures to prevent a resource-induced breakdown. In case they did, the protection of the A's of their energy security would be brought to a level of maximum importance in the international decision making of the case studies, due to the severe repercussions that they would possibly face in case the *accessibility* and *affordability* of their oil was to be disrupted. Where *sensitivity* and *vulnerability* are the fundamental keywords this thesis aims at verifying in the field of asymmetrical interdependence, *accessibility* and *affordability* are the ones of primary importance when it comes to geopolitical theory.

In case this second concept correctly applies in a realist way to the path taken by the two nations, a clear direction in their national energy policy would be evident: strongly self-centered policies aimed at securing the *accessibility* and *affordability* of energy sources for the survival of the state would show their prevalence, in spite of alliances and the development of a positive image of the country abroad.

In order to verify whether this is indeed what is happening within China and Italy, all the current and past energy-related data will be used again in order to draw a portrait of their behaviour over time, and information in regards to the past events will be added to make a clear comparison with the present situation. The direction taken by their energy strategy will then be compared with the current condition in which these states find themselves, in order to find an answer to the research question.

Once the theory is applied to the present and past data, in the eye of the realist perspective, an answer to the conundrum of how China and Italy's energy strategies are being influenced by the Gulf's geopolitical instability could be obtainable.

Analysis

1) China

China's position as the largest energy consumer, and oil importer in the world (Barrera, 2020), puts it in a position of need of stable continuous partnerships with oil-producing nations. Despite the consistency of China's own oil fields, which make it the 5th largest producer in the world (ibid.), the internal production is, in fact, far from being able to keep up with the massive quantities that the nation needs.

1.1) SENSITIVITY AND VULNERABILITY

To sustain its gigantic economic development, China has, in the last decades, been forced to turn towards imports of oil from several other producing countries, in an ever-growing fashion. Indeed, at the present time, China has surpassed the 10 Million barrels imported daily (U.S. Energy Information Administration, 2020a). Of this impressive amount, 55% is acquired from OPEC nations (ibid.) determining the strongly asymmetrical interdependence between China and the geopolitical situation of the area around the Persian Gulf.

Indeed, China is much more seriously dependent on the maintenance of the *status quo* in the region, than the opposite. An outbreak of a conflict would very likely disrupt the oil supply directed to the Asian nation, whereas the geopolitical condition of the relationships between the Gulf countries is only marginally linked to the peace-promoting role that China can potentially play to preserve it.

How *sensitive*, under the present circumstances, partnerships, available resources, and strategies, would China be to the outbreak of a war in the Gulf region? And, given its current potential for a quick turnaround towards other sources in the moment a conflict was to break out, how *vulnerable* is it to this Middle Eastern instability?

1.1A) Current state of China's energy sources alternative to the Gulf's oil

First of all, the limited percentage that renewables still cover, in the Chinese energy production scheme, should be mentioned. When reasoning in absolute terms, China is at the forefront when it comes to such technologies: it has become the leading investor in renewable energy sources in the world, with more than 45% of the global total in 2017 (Global Commission on the Geopolitics of Energy Transformation, 2019), but the share of the country's total need of energy that renewable energies can currently cover is minor (Bin, Can, Dahai, Jiaqi, Jing, Yonggang, Yulin, Wei, 2017). The improvement and expansion of this energy production branch is still unable to substitute the use of fossil fuels, both due to the ever-growing Chinese energy consumption, with which renewables cannot keep up, and because of the still vast predominance of oil in the sector of transports. In the current state, therefore, relying on renewables to make up for the potential lack of oil would not be possible, but the progress that is being made in this sector might make a difference in the future.

A second, albeit more extreme, option available for Beijing to reduce the impact of a possible conflict in the Gulf region with the resources it already has, is to restart relying more strongly on the use of coal for its internal energy production. China is already the largest producer and consumer of coal in the world (op. cit., Elmer, Xie, 2019) and, despite its intention to progressively phase out the use of this extremely polluting fossil fuel in the future, the possibility to substitute the lack of oil with it would certainly be present. This controversial strategy, though, would not resolve the problem related to the transportation sector. Most of the vehicles in use in China, but in general all over the world, are still oil-propelled, and the Asian country would be hit particularly harshly by increased prices, or by a disruption of the oil supply to the nation.

Furthermore, the partnerships that China enjoys with non-OPEC oil-exporting states are, as of now, still not strong enough to substitute the amount that is imported from Saudi Arabia, Iraq, Kuwait, and the United Arab Emirates in particular. The energy alliance with Russia is solid, and is likely to become even more so in the future, as will be explained below, but as of now, it is the only strong one, and China can only count on it for 15% of its imports (op. cit., U.S. Energy Information Administration, 2020a).

In short, if a conflict were to break out over the control of the strait of Hormuz, or for any other reason in the region of the Persian Gulf, China would, as of today, still be unprepared for it, and therefore highly *sensitive*.

1.1B) Renewables and energy efficiency response policies

When it comes to *vulnerability* though, the picture becomes less critical. In fact, as previously stated, China has enhanced its involvement in the sector of the renewable energies in order to lower its asymmetrical interdependence with its unstable oil suppliers. Indeed, the external input propelling the record-breaking development of the Chinese clean energy sector has been linked to the instability of the traditional Chinese energy suppliers: "by increasing the proportion of renewable sources in its energy mix for electricity consumption, China can mitigate geopolitical tensions by making the country less reliant on unstable regions for energy security" (Chiu, 2017).
The most immediate example is provided by hydroelectric power: this is the sector that already covers the largest share of the clean energy that Beijing produces, but, despite being China the nation with the most theoretical hydro potential, only a fourth of the total is currently being exploited (Ball, 2015). This is a sector in which the ever-growing Chinese renewables investments can make a difference, and with such investments on the rise, the power of the Chinese rivers will surely be exploited more intensely in the future.
Similar is the situation in the sector of nuclear energy, with the Chinese government already attempting to renew and expand its nuclear power plants system. Several new stations are under construction, or planned to be built, in this rapidly growing sector (World Nuclear News, 2020).
Wind, solar and biomass energy are sectors that are also developing rapidly (op. cit., Bin, Can, Dahai, Jiaqi, Jing, Yonggang, Yulin, Wei) but, at the same time, the population and the economy keep growing too, determining a roughly equal rise in energy consumption.
What Beijing can and is doing, therefore, to assist the renewables and lower the Chinese *vulnerability* to OPEC-imported oil, is to modernise its industrial sector, currently the one in which the largest possible energy efficiency gains can be made. A recent report, in fact, has shown how massive improvements in this field have already been achieved, and how China could still largely

expand its energy efficiency (International Energy Agency, 2018), for the benefit of the environment, but also of its energy security.

1.1C) Efforts of geographical diversification of energy sources

All these aforementioned elements can help reduce the Chinese *vulnerability* to the oil coming from the Gulf, but are, for the most part, not applicable to the transportation sector. Renewables and an improvement in the energy efficiency of factories can do little to help when it comes to having to fuel cars. In this case, the only strategy that can produce helpful results is one of diversification of oil sources.

In this context, the efforts that are currently being made towards an expanding partnership with Russia could make a real difference for the future of Chinese oil imports. Despite their past differences, in fact, in the last years, China and Russia have found themselves becoming more closely linked due to a growing partnership in the energy sector. In 2011 the first oil pipeline connecting the two neighbours was opened (Lukin, 2019), giving life to a series of deals in the energy sector that are still expanding today. The quantity of oil imported by China from Russia has been steadily growing ever since the opening of the pipeline, and the partnership between the two nations keeps expanding, with natural gas now entering the picture too (Kantchev, 2019).

The "Power of Siberia" project, which facilitates the natural gas trade between the two Asian neighbours, was officially opened in late 2019, in a context in which the US-Iran misunderstandings were on a high, showing a Chinese renewed commitment to protect itself from possible negative side effects by diversifying its energy sources further (Albert, 2019).

More pipelines and connections between the two states are currently under development, with oil as an important element of the negotiations, and the energy bond between them is likely to strengthen even further in the future (Tata, 2017). Currently, 15% of Chinese total oil imports come from Russia, but this figure has the potential to grow larger. Despite reliance on the OPEC oil maintaining a vastly primary role, due to the lack of other large independent oil exporters, this new path of reconciliation with Russia that Beijing chose could, therefore play a stronger future role in protecting China from a war in the Persian Gulf.

The Chinese *vulnerability* to the Gulf's geopolitical situation is, in short, potentially lower than its *sensitivity*. The pieces of the puzzle necessary for a longer-term stronger protection of the nation's energy security through paths alternative to the imports of oil from the OPEC countries are already present, but they need to be developed further. If clean sources of energy keep growing, the energy efficiency of the nation's industries improves, and the effort towards the diversification of oil partners continues, China has the potential to reduce its future dependency on the OPEC oil, thus weakening the effect of any breakdown in the region of the Persian Gulf.

1.2) CHINA'S SELF-ORIENTED RESPONSES: THE PROTECTION OF THE ACCESSIBILITY AND AFFORDABILITY OF ITS ENERGY SOURCES

The section above demonstrates that China's ongoing energy strategy has, within its characteristics, the aim of reducing its dependency on the geopolitical instability in the Middle East, in order to diminish the potential losses in oil imports (or to at least partially prevent the skyrocketing of oil prices, in a less apocalyptic viewpoint) that an outbreak of a conflict in this area would have on the nation and its economy.

Geopolitical theory, intertwined with a realist interpretation of energy security theory, will now be applied in order to verify whether Beijing's energy strategy is also implementing nationalistic and protective strategies in order to prevent the state from being in conditions that would favour its breakdown, in a strongly self-centered and realist point of view. Are the measures that China is currently implementing for its energy security a means to promote the *accessibility* and *affordability* of its imported oil, in order to protect the country from a possible collapse, or not?

The most strongly realist energy strategy that one nation can pursue consists of relying on one's own energy sources. China is already implementing this strategy to the maximum degree possible, by only exporting a very small quantity of the oil extracted on its territory (International Trade Center, n.d. a), thus excluding this from being a feasible solution. Oil imports, in fact, keep gaining importance in the Chinese energy strategy.

1.2A) Bilateral energy agreements

To make sure to keep its imports somewhat under control and keep the entire state running properly, then, China needs solid partnerships with stable supplier nations. The Middle Eastern oil powers are, therefore, in the current scenario, the exact contrary of the ideal partner for China, from a self-centered point of view. This can represent the reason behind the beginning of the oil relationship with Russia. The two nations are neighbours, making the transportation of oil from one side of the border to the other achievable by land, and therefore safe and easier, and the past political differences between the two seem to have vanished in favour of an alliance that is advantageous for both states.

Russia, in fact, sees in China a valuable partner, and one that would not compromise the relationship between the two due to the judgement of Moscow's political choices, as opposed to its Western customers (op. cit., Lukin). Economic sanctions due to the events of the Ukrainian conflict are a representation of the mistrust the EU nations have of Russia, and risk putting the economic and energy partnership between the two areas at future risk. China, instead, prides itself on its non-judgemental approach to economic alliances (Raine, 2013, p. 32). Drawing benefits from them is all that matters, therefore making it a safer partner for Putin.

In order to find more trustworthy oil partners, the relationship between Beijing and Moscow has improved vastly, guaranteeing China a solid and growing energy partnership with one of the largest non-OPEC oil powers. Russia is physically close to China, and needs Beijing to access new markets for its most valuable asset. Both parts can achieve their national interest with this alliance, be it by unlocking new strong markets to the East for Russia, or by exploiting a strong, close and reliable oil (but also natural gas) supplier for China.

Another example, albeit of a lesser entity, is provided by Brazil, with which a similar alliance is being constructed. Brazil is also an independent oil producer, with which Beijing is enjoying a rapidly evolving economic relationship, the only difference from Russia being the more distant geographical position, that forces the oil to be imported by sea.

The relationship between the two nations has been, though, to be on a roller-coaster ride, since the election of Brazilian President Jair Bolsonaro, and its future is unclear (Santoro, 2020). Still, in the last four years the percentage of Chinese oil imports covered by Brazil has grown from 5.1%

to 7.8%, showing that, at least when it comes to the numbers, the partnership is on an upward trend (International Trade Center, n.d. b) (Observatory of Economic Complexity, n.d. f).

1.2B) Oil stockpiling and the past expansion of the NOCs

Parallel to this strategy devoted to the promotion of bilateral energy agreements with independent oil producers, China has recently boosted the stockpiling of oil within its territory. Beijing is, in fact, building up emergency reserves to soften the blow of a future possible oil crisis (He, 2020) and the current low oil prices generated by the Covid-19 pandemic have allowed the collection of large quantities to save for future use. China's stockpiled oil reserves are now almost comparable to the ones of the USA, the largest in the world (ibid.), and the Asian nation seems not to want to stop enlarging them.

Having vast oil reserves does not represent, on its own, a feasible solution to the Middle East's unpredictable behaviour, but it is a strategy capable of helping the nation rely less on external producers and more on itself in the moment a drastic change in the international system were to happen. China has, therefore, taken advantage of the lowered prices to enlarge its stocks, to have a momentary protection of its energy needs in case of a disruption of the inflow of crude petroleum from the Persian Gulf (Associated Press, 2020).

Another element historically typical of the Chinese energy strategy used to lie in the direct acquisition, by its National Oil Companies (NOCs), of shares of external companies. This allowed them to control the extraction of petroleum directly on other nations' soil, and have a say in its production, thus having a small influence on the world oil market prices.

The aim of such strategy was, in short, to allow the NOCs (and therefore the Chinese government, that backs them) to have a way to intervene directly in the world oil market, and make sure that the Chinese energy security needs are protected. The three main NOCs, China National Petroleum Corporation (CNPC), China Petroleum & Chemical Corporation (Sinopec) and China National Offshore Oil Corporation (CNOOC), originally began their expansion abroad since the Chinese oil consumption grew higher than its production, and their governmental nature made them "unhampered by risk adverse investors and often willing to go where others won't" (Vella, 2019). As a result, the Chinese investments abroad underwent a quick growth between the beginning of the century and 2014 (Sharma, Zhu, 2019).

Then, an oil price crash made such endeavours no more advantageous, and this process slowed down without recuperating. As of today, the Chinese NOCs are still present abroad, mainly in Canada, Angola, and the Philippines (Vella, 2019), but they have stopped expanding to new oil fields in other nations.
Therefore, despite the past relevance of the NOCs' expansion abroad within the Chinese energy strategy, in the present time this road seems to have been excluded from the list of realist energy strategic measures implemented by Beijing. What used to be a card up the government's sleeve, has now been discarded.

1.2C) The Chinese expansion in the South China Sea

The Philippines are an important nation not only when it comes to the investments of the NOCs. They are, in fact, one of the nations against which the Chinese government has an ongoing dispute for the possession of the various islands and territories in the South China Sea. The motives behind the long-lasting standoff are various, with fossil fuels being one of them.
Indeed, experts estimate the presence in this contested sea of the equivalent of "11 billion barrels of untapped oil" (Council on Foreign Relations, 2020), a quantity which, in the context of the current Chinese oil consumption, would have the potential to keep the nation's needs covered for more than two years.
In addition to the presence of unextracted resources, the South China Sea is also of particular strategic importance due to its geographical position: it represents a crossroads for many of the fossil fuel imports incoming from the Middle East and Africa towards the countries in this region (Kuo, 2018).
The prospect of huge untapped reserves and of the control of all the transits of oil and gas, in addition to different interpretations of international law, has always driven the regional powers against each other, with China *in primis* extending its influence and controversially taking control of several different islands. This risky brinkmanship process has been continuing for years, and intensified recently (Cronin, Manning, 2020) during the ongoing pandemic.

This shows how China is, much like with its oil stockpiling policy, trying to take advantage of the unexpected situation to introduce measures aimed at securing the protection of the *affordability* and *accessibility* of its energy sources.

If this aggressive policy in the South China Sea continues successfully, it will pay dividends for Beijing, by allowing an expansion of its Exclusive Economic Zone (EEZ)[1] significantly over much of the contested sea. With the monopoly over the energy sources located inside of its EEZ, China could enhance its own fossil fuel production, reduce its reliance on other suppliers, and, therefore, reduce the risks of a shortage of oil triggering the breakdown of the entire state.

1.3) PAST VS PRESENT CHINESE RESPONSE TO ENERGY CRISES

In the past, before its economic development requested the current massive quantities of energy, China used to be an exporter of oil, supplying it mainly to Japan. Although, starting from 1993, its own consumption overcame the production, forcing it to turn towards imports from abroad (King, 2005).

This determines that the only consistent oil crisis China has ever had to deal with is the one that took place in 2007-2008. Since 1993, the Chinese acquisition of petroleum from abroad had been continuously on the rise, and it kept growing even during the period of this recession. In fact, whereas in the West the consumption fell, China did the opposite (Hamilton, 2009, p. 228) and kept investing in oil, to prevent its economic boom from slowing down.

The rise in oil prices during the 2007-2008 period had been determined by a combination of stagnating supply, growing demand, and the high prices generated by the speculative behaviour of investors (ibid., pp. 224-235). As a consequence, the prices reached new heights, and, due to the concomitance with the economic crisis, the western importers embraced a policy of austerity, reducing their imports.

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[1] The United Nations Law of the Sea states that:

> "In the exclusive economic zone, the coastal State has: (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;" (United Nations, n.d.)"

China, instead, kept buying, with the data showing that the imports of oil kept growing sensibly in that period (op. cit., Observatory of Economic Complexity, n.d. f), reaching the at the time record of $117B in imports in 2008. The chosen approach was, therefore, devoted to the protection of the country's development at all costs, despite the high prices, and the imports did not diminish.

This all-out philosophy would not be applicable in the current scenario: if the geopolitical instability in the Gulf area spirals out of control, not only prices but the supply itself would be endangered. The ongoing crisis in the Persian Gulf, in fact, being a geopolitical crisis, entails different risks for the importing nations than the oil crisis of 2007-2008. China would not be able to go about its business and keep importing in the same way, and from the same partners driven simply by its economic growth, like in 2007-2008, because there would be a risk not to have as much crude oil as usual produced in the OPEC nations.

That is why China is, this time, implementing a different strategy, which includes two objectives: a weakening of its dependency from its traditional oil partners through a diversification of sources, and a strong self-oriented effort to protect the *accessibility* and *affordability* of its energy resources. Indeed, the reduction of the Chinese dependency from the Gulf's situation aims at lowering the nation's *sensitivity* and *vulnerability* to it, lessening the damage in case a conflict were to break out. At the same time, the protection of the *accessibility* and *affordability* of the Chinese energy sources through realist measures is what would enable to maintain a solid supply of oil, as well as other means of energy production, to the country even in the worst-case scenario, thus guaranteeing the survival of the nation.

The alliance China is building with Russia plays in the hands of both branches of the Chinese strategy: Moscow already represents the main Chinese source of crude petroleum alternative to the nations of the Persian Gulf, and the flourishment and future expansion of this alliance would represent the largest strategic tool for China to reduce its degree of *vulnerability* to the geopolitical issues affecting its traditional suppliers. At the same time, Russia would be a solid partner able to help secure the *accessibility* and *affordability* of the Chinese oil under all circumstances.

The recent strengthening of the Sino-Russian partnership took place during the period immediately following the United States' demise from the nuclear deal with Iran, which had sparked the tensions between the two nations once again and brought a tense atmosphere over the Persian Gulf: between November 2018 and June 2019, in fact, China and Russia signed 33 different energy deals

(Zhu, 2019), highlighting the linkage existing between these agreements and the renewed instability in the Middle East.

The prospects of this alliance bearing the desired fruits are solid: Russia, in fact, sees China as a new trustworthy customer, and one that can potentially substitute its traditional partners in the EU, which are becoming more skeptic towards Moscow's behaviour after the Ukrainian crisis (op. cit., Lukin). Both nations have strong reasons behind this alliance, which is starting to grow and is setting a solid ground for its future success.

Apart from Russia, China has enhanced its oil imports from other continents as well, two examples being the ones of Angola and Brazil. Angola is a member of OPEC, but its geographical location makes it a much less risky option for Beijing than its Arab colleagues. In the ten years between 2009 and 2019 the value of Chinese oil imports from it has almost doubled, growing from $12B to $22B, highlighting the tightening of the trading relationship between the two nations.

Similar is the case of Brazil, which is, instead, an independent oil producer. Their partnership has grown even more significantly than the one with Angola, with a more than tenfold growth in the value of Chinese oil imports from Brazil between 2009 and 2019: from being equal to less than $1.5B in 2009, in 2019 the total Chinese inflow of Brazilian crude oil was worth more than $18B, clearly showing the evolution of their trading relationship (op. cit., International Trade Center, n.d. b) (op. cit., Observatory of Economic Complexity, n.d. f).

Along with the expansion of the partnerships with other oil-producing nations, it has been mentioned how China is investing strongly within the country to update and enhance its renewables and energy efficiency sectors. These also represent measures which aim to reduce the Chinese asymmetrical dependence to the Gulf's geopolitical situation, and to exploit more intensely the internal possibilities, instead of relying on the international energy market.

Along a more realist line of thought, instead, stands China's recent boost in its oil stockpiling, the expansion of its NOCs, and its renewed determined behaviour in the South China Sea region. They all represent attempts to have larger control over the *accessibility* and *affordability* of the available energy sources.

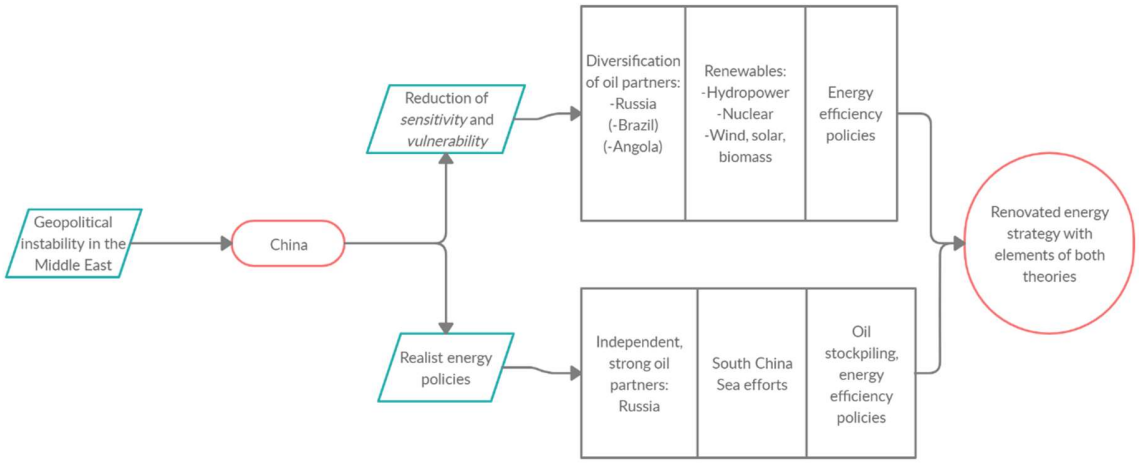
These might all be measures of a smaller entity when compared to the huge potential implications of the Sino-Russian agreements, but all of them show Beijing's attempt to start protecting itself more intensely. Although, this process will have to be intensified and enlarged to other partners, because, as of today, the Gulf nations still clearly represent the core of the Chinese oil suppliers.

As the partnerships with Russia, Brazil and Angola have grown, in fact, so have the total oil imports of the nation. In this moment of instability, the Chinese *vulnerability* to the geopolitical struggles of the Gulf will have to be reduced through the ongoing diversification of sources, and this process needs to be further intensified.

Similar is the situation facing the *accessibility* and *affordability* of the Chinese energy sources. Beijing is unlikely to ever have complete control over them, but, from the recent shift in the Chinese energy policy, it appears that the nation is strongly committed to making an effort to protect them. The recent realist energy measures demonstrate that China is becoming more directly involved in the energy sector to secure its own survival, which depends, among other elements, on the availability of energy sources.

Thus, it is demonstrated that Beijing is responding to the recurrent instability in the Persian Gulf by attempting to both lower the asymmetric dependency it has with it, and implementing measures for the protection of the A's of its energy security, on which the survival of the country is based. The two theories, therefore, both apply to the first case study correctly.

Figure 2: Outlook of the renovated Chinese energy strategy



(Author)

2) Italy

Italy's energy needs are not comparable to the ones of China, but they still force it to rely on external imports. Indeed, this European nation, despite its smaller population and economy, suffers due to the lack of consistent energy sources in its territory. Whereas China can count on vast coal and decent oil reserves, Italy only has minor fields to exploit, and still relies on imports for 93% of its oil and natural gas needs (U.S. Energy Information Administration, 2017).

2.1) SENSITIVITY AND VULNERABILITY

Its partnership with oil-rich countries, therefore, has traditionally always been close. The main supplier for the Italian oil needs used to once be Libya, because of the close geographical proximity and of the historical ties between the two nations. Libya was, in fact, an Italian colony until 1951, and, since its independence, the Ente Nazionale Idrocarburi (the Italian national fossil fuels company, owned by the state until 1995[2]), in cooperation with its Libyan counterpart National Oil Corporation, had heavily invested in the nation's discovered and undiscovered resources.
This strategy was, clearly, aimed at providing Italy with an easily accessible and cheap source of oil (Ente Nazionale Idrocarburi, 2015, p. 3). Since the outbreak of the 2011 Arab Spring, which brought an end to the dictatorship of Muammar Gaddafi, Libya has fallen into a state of civil war, and the continuous fighting, along with the lack of a stable government has sensibly hampered the partnership between the two nations. As of 2017, Libyan oil accounted for only less than 8% of the Italian imports (Observatory of Economic Complexity, n.d. g).
With its traditional oil supplier relegated to a minor role, Italy's dependency on the Persian Gulf's oil has grown. In 2017, the core of the Arab OPEC nations, Iraq, Iran, Saudi Arabia and Kuwait supplied more than 37% of all Italian oil imports (ibid.). How *sensitive* and *vulnerable* is, therefore, this European nation to the Middle Eastern instability?

[2] The company was then privatized, but Italian government is still the largest shareholder, either directly or through other governmental-owned institutions, and owns more than 30% (Ente Nazionale Idrocarburi, 2020)

2.1A) Current state of Italy's energy sources alternative to the Gulf's oil

Much like China, the Italian government can count on an advanced renewables sector. The presence of the Alps has always given an important role to hydropower, but solar and wind energy are also strongly growing, making Italy the second largest producer of renewable energy in Europe (International Atomic Energy Agency, 2018). This indeed represents good news for a nation almost completely empty of fossil fuels, but, although reduced, some dependency on imports is likely to still be present in the future.

One of the elements on which China is building its attempt to diversify its sources of energy, nuclear power, is no more present in Italy, as mentioned above. This gives Rome one less crucial card to play in order to lower its immediate *sensitivity* to the instability of the Gulf states.

The major Italian oil suppliers outside of the Gulf nations are represented by Azerbaijan, a country which is the single largest Italian partner, Russia, the alliance with which seems, though, not to be expanding due to political differences, Libya, whose oil output has greatly shrunk since the beginning of a civil war in 2011, and Kazakhstan. These alternatives are currently not enough to cover for the Gulf's oil share.

In short, it seems that the current status of the Italian alternative sources is still too weak to prevent grave consequences were a war to break out in the Middle East. This leaves the current Italian degree of *sensitivity* at high levels.

2.1B) Renewables and energy efficiency response policies

Some measures are, although, being introduced, both domestically and in the international context, to reduce the dependency. The Italian *vulnerability* to the Gulf's condition is, therefore, lower than its *sensitivity*, and, if implemented successfully, these measures will allow the country to be less *sensitive* as well.

The growth in the field of the Italian renewables is one of the paths that is being taken. This is demonstrated by the strong growth that this energy sector went through in 2018, which showed the Italian intention to lower its asymmetrical interdependence to the Persian Gulf's situation after the aforementioned US – Iran tensions spiked. The Italian national energy report shows, in fact, a

strong improvement in the production of clean energy during this period, with the total output growing by almost 10% (Ministero dello Sviluppo Economico, 2019).
The development of this sector has reduced the Italian dependency on energy imports from more than 80% of its consumption in the year 2000, to around 75% currently (Eurostat, 2020, p. 10), and the forecasts state that by the year 2030 its dependency will amount to 64% (op. cit., International Atomic Energy Agency). These forecasts are impressive and, if realized successfully, will definitely play a role in the future, enabling a reduction of both *sensitivity* and *vulnerability*.
In addition to the improving sector of the renewables, Italy is also aiming to lower its energy consumption: several energy efficiency plans were issued in the past decade, with the latest expansion in late 2019 stating the objective of reducing the total consumption of energy within the nation by 39,7% within the year 2030 (Ministry of Economic Development, 2019, p. 80). This is an ambitious goal which, if effectively achieved, would allow Italy to give the energy imports a less predominant role and, overall, reduce them.

2.1C) Efforts of geographical diversification of energy sources

In the same fashion as for the Chinese case though, Italy will maintain, in the foreseeable future, the problem of its transportation sector. In this area not much can be done to implement any renewable energy strategy, as oil is still the largely predominant fuel for vehicles. Therefore, imports will remain necessary, and Italy is pursuing a diversification strategy which, though, has less potential for growth when compared to the China-Russia partnership.
Italy has in the last years, in fact, developed a tight oil-trading relationship with Azerbaijan, a nation that has become its primary supplier of this energy source. In opposition to the almost non-existing partnership that was between them in 1998 (op. cit., Observatory of Economic Complexity, n.d. g), in 2019 Azerbaijan was the nation from which Italy acquired the most crude petroleum, for more than 18% of its total imports (International Trade Center, n.d. c). A recent visit of the Azerbaijani President to Rome seems to signify the strengthening and expansion of this relationship to the sector of natural gas too (Huseynov, 2020).
The data shows that the Italian oil imports from Azerbaijan spiked in 2018, growing from the equivalent of $5.1B of the previous year to $6.5B (op. cit., International Trade Center, n.d. c).

This, again, seems to coincide with the reescalation of the Gulf's unstable situation, showing the attempt at a diversification of oil partners behind this alliance.

The relationship with this Caucasian nation is crucial for Italy to access a market independent from the dynamics of OPEC and the geopolitical issues of the Middle East. Although, for Italy to successfully reduce its future *sensitivity* to the instability of the Persian Gulf, and to reduce its current *vulnerability* to it, other roads towards other independent partners must be taken too.

Azerbaijan is indeed not Russia, but a smaller nation with lesser oil resources, which would not be able to sustain the Italian needs on its own. The potential of growth of this oil partnership seems, therefore to be limited: in 2017, in fact, Italy already accounted for 40% of all Azerbaijani oil exports, making it by far its primary partner (op. cit., Observatory of Economic Complexity, n.d. g). The future chances for this partnership to develop further enough to cover for the Gulf oil imports seem, therefore, limited, unless Italy somehow obtains a sort of monopoly over the oil exports of this Caucasian nation.

The process of diversification must be, thus, directed to other fronts too. Russia covers a relevant slice of the Italian needs, but the amount of oil incoming to Italy from the Asian power has sensibly decreased recently from the equivalent of $6.8B to $4.3B, showing a reluctance of Rome to rely too strongly on Moscow's oil.

Kazakhstan represents another option, and, despite its still relatively low oil exports directed to Italy, their relationship seems destined to grow: the amount of oil that is imported from the Asian nation is still limited to 7% of the total Italian imports, but deals are being made, tightening the bond between the two countries (Sertin, 2019). The Kazakh oil reserves are more consistent than the ones in Azerbaijan, amounting to 3% of the total world reserves (Overland, Vakulchuk, 2018, p. 143), but, it is, again, unclear to which extent this country could expand its oil supply to Italy. Rome, in fact, already acquires more than 24% of the Kazakh oil on the market.

Still, it is possible to state that efforts to respond to this instability by diversifying oil suppliers are indeed being made, with the growing relationship with Kazakhstan being one of them.

The trend of Italian oil imports from this nation in the recent past follows the same pattern as in the case of Azerbaijan, with the inflow almost doubling between 2017 and 2019 from the equivalent of $1.1M to $2M, but the still limited scope of this oil alliance does not allow to draw absolute conclusions in regards to the causes of this upward trend. It seems that the tensions

between Washington and Teheran may have played a role in the sharp rise of Italian imports of Kazakh oil, although this cannot be said with absolute certainty.

2.2) ITALY'S SELF-ORIENTED RESPONSES: PREVENTED BY POLITICAL IDEALS

Italy, as opposed to China, appears not to be twisting its energy strategy to include realist measures to protect the *accessibility* and *affordability* of its energy sources. Its most evident opportunities, which would have been represented by a more active participation in the efforts to resolve the Libyan conflict, and an expansion of the energy relationship with Russia, are, in fact, not being pursued.

If the Italian statesmen believed in the necessity of the country to implement self-centered energy policies to guarantee the survival of the nation even in the case of a war in the Persian Gulf, the recurrent instability in this region would have directed them towards Russia and Libya, which could potentially secure the Italian energy needs.

Instead, the strong oil alliance which once linked Rome with Tripoli has, since the beginning of the Libyan civil war, strongly suffered, with the percentage of Italian oil being imported from the North African nation having halved between 2010 and today. The once strongest Italian partner, despite being a member of OPEC itself, is not directly involved in the ongoing struggles that the countries around the Gulf are going through, and would represent the strongest, and most immediate solution to substitute a solid share of the oil incoming from Saudi Arabia and Iraq. The current struggles in what was once the third-largest oil producer in Africa (Ghaddar, Lewis, 2019) make the inflow of Libyan oil limited, unpredictable and unreliable, and therefore unavailable to protect the Italian needs from disruption, at the present time.

The geopolitical stand that Italy has maintained in regards to this civil war has been indecisive: despite peace in Libya being close to the Italian petroleum interests, in fact, Rome keeps not siding with any of the two contestant leaders, the official Prime Minister Fayez al-Sarraj and the commander of the Libyan National Army Khalifa Haftar, and has been unable to promote the recent peace talks between them efficiently. Without peace, the chances to solidly rebuild this historically significant partnership seem to be no more.

Furthermore, it has also been shown above how, at least in the oil sector, the bilateral partnership with Russia seems to be prevented from expanding by political reasons: in fact, since the Crimean crisis of 2014, the quantity of crude petroleum being imported from Russia by Italy not only has not grown, but it has shrunk. Political differences have not given way, on Italy's side at least, to a partnership based on the realist understanding of the fundamental role that the *affordability* and *accessibility* of oil play for the survival of nations.

Italy, mainly through ENI is, instead, attempting to cover for the lack of Libyan oil by expanding other partnerships with nations with which it already has an alliance. Azerbaijan and Kazakhstan are already strong suppliers for the Italian oil needs, and the investments in these nations have recently been on the rise (op. cit., Sertin). Much like China, by financing operations on these nations' territories, Italy can influence the oil market to a small extent, and aim at striking more favourable deals with them. For both Azerbaijan and Kazakhstan, though, Italy already represents a large oil partner, and, in case there was a disruption in the oil supply incoming from the Persian Gulf states, it is unclear to what extent they could improve their output and be able to substitute them.

From a realist perspective, the partnership with these two smaller nations would have been discarded in favour of stronger efforts directed towards the more secure Libya and Russia, but political and ideological barriers are preventing Italy from actually doing this. This highlights the fact that the Italian strategy does not follow this line of thought.

2.3) PAST VS PRESENT ITALIAN RESPONSE TO ENERGY CRISES

Rome has, in the past oil crises, had a behaviour more in line with the one of the western nations than Beijing. In contrast to China, which, during the only oil price spike that took place since the beginning of its oil imports, maintained the same energy importing strategy, Italy, when hit by the various oil crises of the present and past century, had to slow down and pursue a more austere energy path.

After the first real oil crisis of 1973, for instance, Italy, which had not been embargoed by OPEC but had seen its oil prices skyrocket, was forced to introduce new emergency measures to limit oil imports as much as possible. These policies were aimed at all the possible fronts: the consumption

of the private citizens was forcefully reduced, by forbidding the circulation of cars on certain days and closing gas stations on the weekends (Tonon, 2013-2014, p. 165), but a new national energy plan was also needed.

The plan, officially released in 1975, was aimed strongly towards a diversification of both geographical and physical energy sources: new partners abroad were to be chosen to reduce the dependency on any of them, and a stronger reliance on the locally available energy alternatives was expected. The (few) Italian energy sources alternative to oil were to be expanded and much more thoroughly exploited, with the hydroelectric, geothermal, coal but especially nuclear sector representing the core of the new energy plan.

The outcomes of this plan ended up being modest, but still managed to reduce the Italian dependency on oil imports, which were now needed more for the transportation sector than for the production of energy. With the ending of the Italian nuclear energy production during the following decade, though, petroleum resumed a more crucial role in the Italian energy mix (Ceicdata, n.d.).

The aforementioned National Energy Plan shows the strategy undertaken by Italy to respond to the 1973 oil crisis, which was one of physical and geographical diversification in order to reduce *vulnerability* to the OPEC oil. It was a strategy in line with the ideas of the interdependence theory. How do the Italian currently energy measures look, then, when compared to 1975?

The two strategies seem to lay on similar diversification foundations, but not completely. While the country has the second most advanced clean energy sector in Europe, and keeps expanding it (albeit not enough to significantly lower its oil needs, as shown above), it has missed an opportunity to boost its internal production of energy, when the population opted not to reopen its nuclear power plants in 2011.

Furthermore, Italy has lost its once close oil partnership with Libya, since the Arab Spring has drawn the North African state into a civil war, and does not seem to be effectively aiding a resolution of the conflict.

Libya's oil reserves have fuelled the Italian nation for decades, and would potentially be of massive help to solve the current oil troubles, if only a truce was reached within the North African state. If a reprise of its oil imports from Libya was at the forefront of the Italian interests, their political stand when it comes to the ongoing conflict would be more clear.

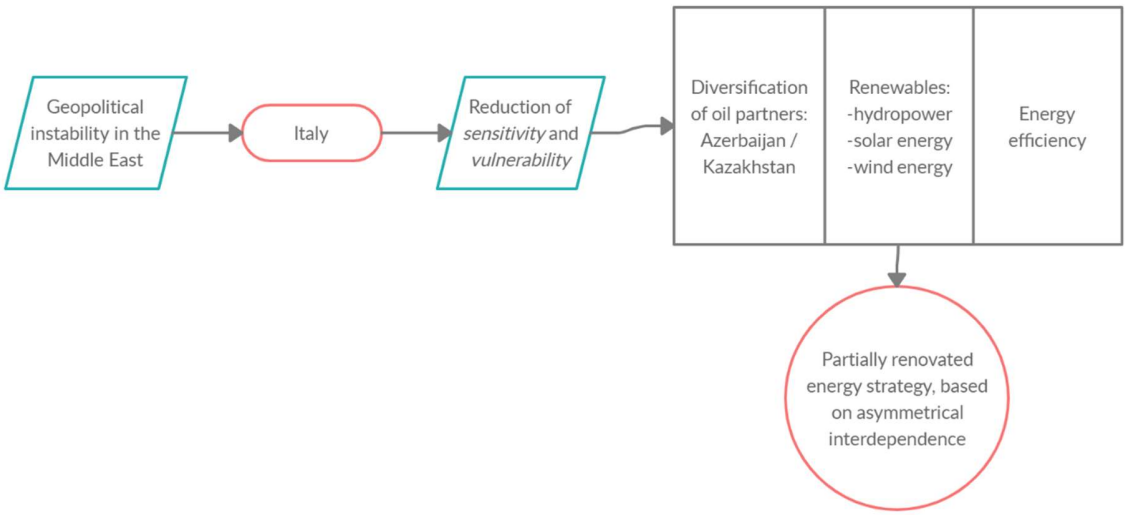
Similarly, the oil imports from Russia are stagnating. The potential energy advantages of an alliance with Moscow would be, for Italy, massive, but political reasons are keeping Russia's role as an oil supplier limited in its possibilities.

On the other hand, the partnership with Azerbaijan is flourishing, with the Caucasian nation maintaining its role of primary oil supplier. Its potential growth is, as mentioned above, limited, and, therefore, Italy is enhancing its investments in the neighbouring Kazakhstan as well (Zoppo, 2019).

Along with a planned improvement of the energy efficiency of the Italian factories, these diversification attempts show Rome's growing intention to lower its *sensitivity* and *vulnerability* to the geopolitical instability of the Persian Gulf. The persistence of its non-nuclear policy, though, and especially the lukewarm commitment to the resolution of the Libyan conflict, limit the potential scope of the Italian diversification of sources, thus showing how the nation's current strategy has only partially embraced the principles of the interdependence theory.

On the flip side of the coin, the decision to restrict the scope of the bilateral oil agreement with Russia, alongside, again, the lack of decisiveness when it came to firmly taking sides to resolve the Libyan conflict, show how political ideals and values have prevented Italy from implementing the most advantageous self-oriented measures. Had the Italian priority been represented by the protection of the *affordability* and *accessibility* of its energy sources, Russia and Libya should have moved to the top of Rome's "to do" list. Although, they do not seem to have, demonstrating that the principles of geopolitical theory do not apply to Italy's case.

Figure 3: Outlook of the renovated Italian energy strategy



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Conclusion

With this thesis, the author aimed at investigating which changes the recurring geopolitical instability that reigns over some of the largest oil-producing nations in the world is triggering in the energy security strategy of China and Italy. These two countries are, historically, very tightly linked to the unstable nations when it comes to the trade of crude petroleum. States such as Iran, Iraq, and Saudi Arabia, which have ongoing disputes either with each other or with other players like the United States and Israel, have, in fact, traditionally supplied a high percentage of the Chinese and Italian oil needs.

These two large fossil fuel importers would suffer harsh consequences if a conflict were to break out in the Middle East. Oil prices would likely rise, and the supply from some of their partners would diminish or, worse, be interrupted. The two chosen theories, asymmetrical interdependence, and geopolitical theory through the eyes of realist energy security, were thus applied over the

current and past energy policies of the two case studies, to discover in which direction, if any, China and Italy are currently twisting their energy strategy to cope with the potentially harmful situation.

1) Summarization of findings

The first theory, asymmetrical interdependence, was applied to the case studies by verifying whether their energy strategy shows recent changes aimed at diminishing their degree of *sensibility* and *vulnerability* to the unstable geopolitical condition of the Middle Eastern OPEC nations.

In the Chinese case, a policy of diversification of both physical energy sources and geopolitical origin of crude petroleum has the potential to reduce Beijing's *vulnerability* to the geopolitical struggles of the Middle East. This is already being pursued, by expanding the oil trading partnerships it has with other nations such as Russia, Brazil, and Angola, and through strong investments in the development of the renewables in the country, proving that the theory does indeed apply to China.

It was then shown how Italy is also aiming to take the route of diversification, but some elements are slowing this process down. In fact, despite being at the forefront of the growth of the sector of the renewables, and notwithstanding its efforts to invest in stronger partnerships with the oil-exporting Azerbaijan and Kazakhstan, its Libyan policy, and the absolute lack of nuclear energy in the country, symbolize an only partial connection with the principles of this theory. The Italian strategy, therefore, seems to have only to a limited degree embraced the diversification process.

Second was geopolitical theory, in a realist energy security point of view. This theory, which stresses the importance of resources for the states to survive, was applied to the case studies by testing whether their energy strategy has recently shifted towards more realist measures, for the protection of the *affordability* and *accessibility* of their oil.

China was, again, found to be making a consistent effort to protect these two A's of its energy security. In the recent past, in fact, it has started building a seemingly ever-growing partnership with Russia which could help secure the *affordability* and *accessibility* of the Chinese oil even in the case war was to break out in the Persian Gulf. Furthermore, the growth of the renewables sector mentioned above can be seen as another realist and self-centered measure, as is Beijing's

expansion in the oil-rich South China Sea, progressing now more than ever. These policies demonstrate how the Chinese energy strategy has been, as of late, prioritizing the protection of its energy sources' *affordability* and *accessibility* in a more self-centered way than before.
Moving to Italy, it instead appeared that its recent energy strategy has not become as self-oriented as the Chinese one has. In fact, the two most immediate realist choices that Rome could have taken, an expansion of its oil trade relationship with Russia, and a stronger political stand for the resolution of the conflict in Libya, have so far not been followed through. This might be because of the necessity for the country to follow a similar path to the one chosen by its EU colleagues, or due to the Italian internal political division and confusion, although this is not the place to discuss such matters. What remains is that geopolitical theory does not apply to the Italian circumstance.

2) Resolution of the research question

To sum up, the application of the two chosen theories on the case studies has highlighted the two different paths the two nations are following to change their energy strategies.
China, on which both theories apply (without excluding each other, it must be stated) appears to be rushing to expand and improve its energy strategy strongly, by focusing on what can be achieved both internally (an improvement of the renewables and energy efficiency sector), and in the international context (a construction of solid partnerships with strong independent oil producers, and the expansion in the South China Sea).
The Chinese strategy has developed in a direction that aims to include both some attempts at a diversification of sources, in order to reduce its *sensitivity* and *vulnerability* to the geopolitical instability in the Middle East, and self-centered policies to maintain the *affordability* and *accessibility* of its energy sources.
It can, therefore, be stated that the recurrent instability in the Persian Gulf region has influenced the Chinese energy strategy by making it expand in two directions: indeed, the attempt to reduce the asymmetrical interdependence between the nation and the geopolitical unpredictability of its traditional oil suppliers currently goes in hand with a purely realist effort to prevent a possible future energy sources-induced breakdown of the state.

Italy has, instead, limited the changes to its energy strategy to an extension of its diversification plan. In the international context, it has started growing its relationship with independent oil producing nations outside of the geopolitical struggles of the Gulf region, such as Kazakhstan and Azerbaijan.

In the meantime, it has been improving the energy efficiency of its industrial sector, and developing its own production of clean energy further, with the exclusion of nuclear power.

Still, the Italian diversification effort remains incomplete, due to the lack of a strong effort to reintroduce nuclear energy, and due to the non-decisive stand taken by this country for the resolution of the conflict in Libya, its primary oil partner in the past.

Italy has not embraced sufficient realist measures to protect the energy subsistence of the state, which highlights that its reaction to the Middle Eastern instability has remained limited to an effort to lower its asymmetrical interdependence to it.

To conclude, it is now possible to provide an answer to the research question and state that the instability in the Middle East has influenced the Chinese and Italian energy strategy in different ways: China has made considerable changes to its policies, both through a stronger effort of diversification of sources, and thanks to more strictly realist measures to protect the inflow of its energy sources. Italy has, instead, only been able to partially do the former, and shows more continuity between its current energy strategy and the past one.

The difference in the approach that these two nations are maintaining in regards to the weakness of their energy security to the geopolitical instability of the Persian Gulf nations, might end up having large implications in the future.

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