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CRISIS IN CHINA AND THE DROP IN OIL PRICES: IMPACT AND EFFECTS

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I hereby declare that the work submitted is mine and that where I have made use of another's work, I have attributed the sources according to the Regulations set in the Student's Handbook.

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Abstract

This dissertation was written as part of the LLM in Transnational and European Commercial Law, Mediation, Arbitration and Energy Law at the International Hellenic University.

This paper reviews the changes that the Chinese oil market has suffered during the last decade as long as the economic challenges that has called to face during the same period and the impact of China's economic slowdown, the second biggest economy in the world, on the oil prices globally as well as the effects on the major economies and oil producers.

In the first part of the paper there is a general approach to the oil prices, from their definition and its levels through years along with its fluctuations to the factors that provoke the fluctuations to the oil prices and the challenges that oil prices face today. Moving forward to the paper, the economic transformation of China through years is mentioned and the challenges the Chinese oil sector is called to face as well as the impact of low levels of oil that occurred during the last three years globally in China and the need for transformation of the Chinese oil sector. Moreover, there is a brief analysis of the factors that affected the economic slowdown in China as well as an attempt for predicting the future of the Chinese economy and its oil sector in a world which is changing year after year with economic challenges across Europe, political instability and the fear of terrorism expanding rapidly.

Finally, this dissertation was supported by Dr Theodore Panagos, Professor of Energy Law in Faculty of International Hellenic University, who contributed with his extensive knowledge and experience during the whole process of writing this paper. With his guidance I managed to overcome any difficulties that arised and get extensive knowledge in the field of energy and how it affects the global economy.

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Preface

This Dissertation is submitted for the degree of Master in Law, L.L.M in Transnational and European Commercial Law, Mediation, Arbitration and Energy Law. The paper and the research conducted for this paper was contributed by the supervision of Professor Dr Theodore Panagos, in the field of energy law, in the faculty of International Hellenic University.

This work is to the best of my knowledge original, except where references are made to other publications and articles. Neither this nor any other substantially similar dissertation has been or being submitted for any other degree or other qualification at this University. This dissertation contains 12.064 words.

Mantzari Eleni
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Introduction

Oil is the world's most important source of energy, while its importance for the world economy is also crucial, as it is directly responsible for about 2.5% of world GDP. Its value is driven by demand for refined products, especially in the transportation sector.

Petroleum products power virtually all motor vehicles, aircraft, marine vessels and trains around the globe. In total, products derived from oil, such as motor gasoline, jet fuel, diesel fuel and heating oil, supply 33% of all the energy consumed by households, businesses and manufacturers around the globe. On the other hand, natural gas and coal supply 22% and 28%, respectively, of the world's energy needs (Steven Levine, 2014).

In June 2014, the remarkable fall from a peak of \$115 per barrel to under \$35 at the end of February 2016, has been one of the most important global macroeconomic developments of the past years. In January 2015, Brent crude oil dipped below \$50 per barrel for the first time since May 2009 and the West Texas Intermediate crude also fell to below \$50 per barrel at the same time (BBC, January 2015). The sharp fall has led to a significant revenue shortfall in many energy exporting countries, while consumers in importing countries are likely to have to pay less in order to make use of the oil imported.

Meanwhile, China has become the second biggest economy on the planet and has also been for several years the largest contributor to global economic growth. But China's period of increasing advancement seems to be over now, according to data originated by the sector of selling oil, copper or any other commodity. Not only the sharp drop in China's overall growth but also the composition of that growth led to the sharp drop of global commodity prices. In addition, the massive development of both infrastructure and residential real estate over the past decade is no longer the catalyst of the Chinese economy.

In addition, the impact of China's economic slowdown has especially been perceivable in the oil market for many months, as China is the world's biggest importer of crude oil. Therefore, the reason why slower economic growth in China has a significant impact on the oil price collapse, is because China's slowdown means less demand for oil, as China is considered not only an important buyer in the hugely oversupplied oil market, but one of the biggest oil – consumers in the world. The strong connection is also proven by the fact that when China's stock market falls sharply, oil prices slump.

This abovementioned relationship between oil price fluctuations and the economic progress in China in connection with the global oil supply and consumption is worth analyzed in order to realize the crucial effect of the development of the second biggest economy in the world on the progress of the global economy.

THE PRICE OF OIL: TRENDS AND IMPACT ON THE ECONOMY

Oil is a commodity that affects everyday lives in multiple ways, from technology to transportation while its price has major effect on global economies, as a commodity which depends upon the supply and demand factors.

Crude Oil Prices: Definition

Crude Oil, commonly known as petroleum and “black gold” is composed of hydrocarbons, organic compounds and small amounts of metal and it can be filtered to produce usable products such as gasoline, diesel and various types of petrochemicals. However, it is considered to be a non- renewable resource, which means it cannot be replaced naturally at the rate we consume it and it is therefore a limited source.

In order the crude oil to move from its source to the ultimate consumer it has to move through different stages, such as production, which involves finding and extracting crude oil, refining, the process by which crude oil is turned into products such as gasoline and distribution and marketing, which focus on moving those products to final consumers. All these activities take place within a global marketplace in which buyers and sellers are connected in a worldwide base and they help promote the movement of oil from where it is produced to where it is refined and from there to the final stage, the consumers (Oil-Price.com, 2009).

The largest sources of supply are in Saudi Arabia, Russia, the United States, China, Canada and Iran. At the current ratio of consumption, it is estimated that worldwide reserves will become extinguished by 2039.

Furthermore, crude oil is not a homogeneous commodity, but there are different types of internationally traded crude oil with different qualities and characteristics and as such there is a difference in prices among different crudes. Given the large variety of crude oils, the price of a particular type is usually set “at a discount” or at a premium to marker or reference prices, often referred to as “benchmarks”. Not only the differences in the quality of crudes but also the relative demand and supply of the various types of crudes in the concerning market affect the oil prices.

The Benchmark crudes are a central feature of the oil pricing system and are used either by oil companies or traders or banks and companies as a means to measure the spot price of various barrels of oil, most commonly the West Texas Intermediate, the Brent Blend or the OPEC Basket Price. West Texas Intermediate Crude Oil, is considered lighter and sweeter oil in comparison with the other “benchmarks” in the oil market, it is extracted from wells in the United States and it continues to be the main benchmark for oil consumed in the United States. Brent Blend, on the other hand, is “less light and sweet” than West Texas Intermediary, is refined in Northwest Europe and it is the primary benchmark for crude oils in Europe or Africa. The OPEC Basket Price is an average of the prices from Algeria, Indonesia, Nigeria, Saudi Arabia, Dubai, Venezuela and Mexico and it is implemented by OPEC in order to monitor the world oil market conditions (O'Sullivan, 2009).

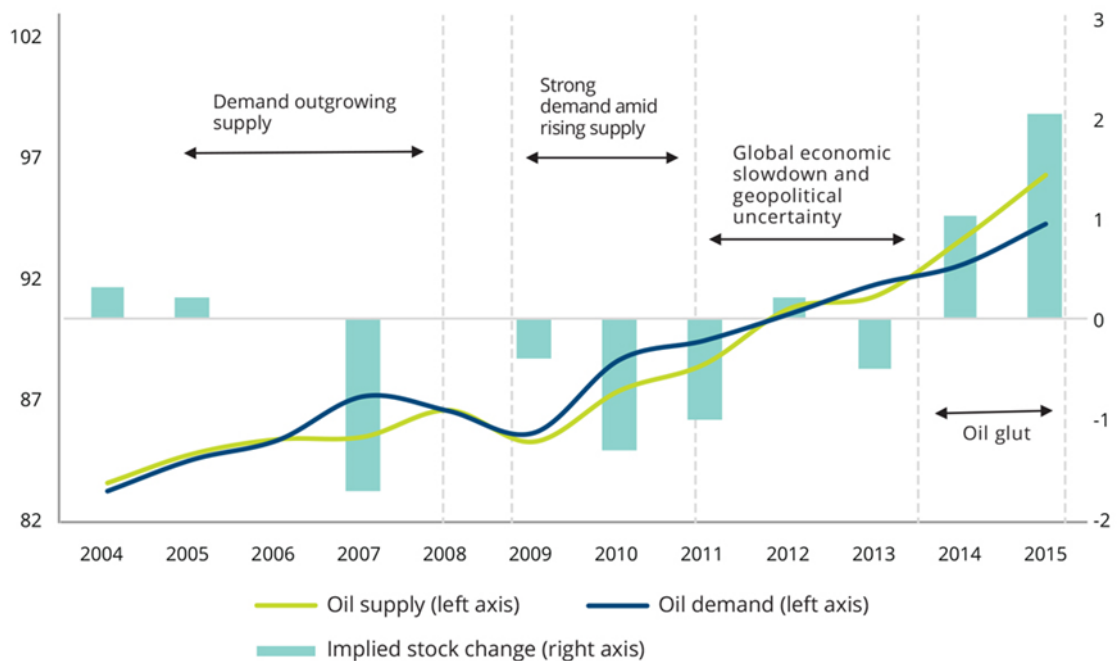
Oil Market Price Time-lapse

The most remarkable surge in the price of oil since 1979 occurred between mid- 2003 and mid-2008 with the West Texas Intermediary price climbing \$28 to \$134. There is a series of agreements that these oil price fluctuations, were not caused by oil supply disruptions but by demand shifts, which were associated with an unpredictable expansion of the global economy driven by strong additional demand for oil from emerging Asia particularly. This view is consistent with estimates from empirical models of the global oil market, which attribute the bulk of the cumulative increase in the price of oil to flow demand shocks (Kilian, 2016).

The financial crisis of 2008 is an evidence of the crucial effects of a sharp drop in the demand for industrial commodities on the price of these certain commodities. In addition, when demand for industrial commodities worldwide sharply dropped in the second half of 2008 in anticipation of a global recession, the demand for commodities such as crude oil, also plummeted, causing a fall in the price of oil from \$134 in June 2008 to \$39 in February 2009. Spare capacity dipped below a million barrels per day and speculation in the crude oil futures market was exceptionally strong. Trading on NYMEX closed at a record \$145,29 on July 3, 2008. In the face of the economic downturn and falling petroleum demand the price fell throughout the end of the year to the below \$40 in December (Amadeo, 2017).

Following a crucial gesture from OPEC, which proceeded to a cut of 4.2 million b/d in January 2009 prices rose steadily with the support of the rising demand in Asia. The political uprising and civil wars in a few Middle Eastern countries resulted in periodic oil supply disruptions. Oil prices reached \$100 per barrel in 2010 and remained steady at \$90 to \$120 per barrel from 2011 to 2014.

Figure 2. Oil demand-supply balance (million barrels per day)



Note: The oil in the figure comprises crude oil, condensates, NGLs, and oil from nonconventional and other sources of supply.
Source: Energy Information Administration, June 2016.

Graphic: Deloitte University Press | DUPress.com

Figure 1: Oil-Demand Supply balance (million barrels per day) (source: Global Economic Outlook, 3rd Quarter 2016, Deloitte University Press).

However, between June 2014 and January 2016 oil prices dropped over 70 percent, with several fluctuations, which caused by the fact that oil supply surpassed oil demand. Brent Crude, the global benchmark, declined to \$82.60 a barrel on October 2014, the lowest in four years, from \$115.71 in June 2014, while West Texas Intermediary recorded \$79.44 on October 2014, the lowest since June 2012 and just before the end of 2014, oil prices fell further to \$70. In addition, during the same period of 2014, the Internationally Monetary Fund cut its forecast for global growth in 2015 to 3.8 percent from 4 percent, while the International Energy Agency predicted world oil consumption would reach the slowest rate since 2009.

According to U.S Energy Information Administration’s estimations domestic crude oil production in the United States increased 1.2 million barrels per day in 2014, up 16% from 2013, while the Brent-West Texas Intermediary spread averaged less than \$6 per barrel lower than the 2011-2013 average of nearly \$15 per barrel. Also, according to the same organization global liquids production and global unplanned supply disruptions grew by 1.8 barrels per day and 3.1 million barrels per day respectively in 2014 in comparison with the previous year (Breul, 2015).

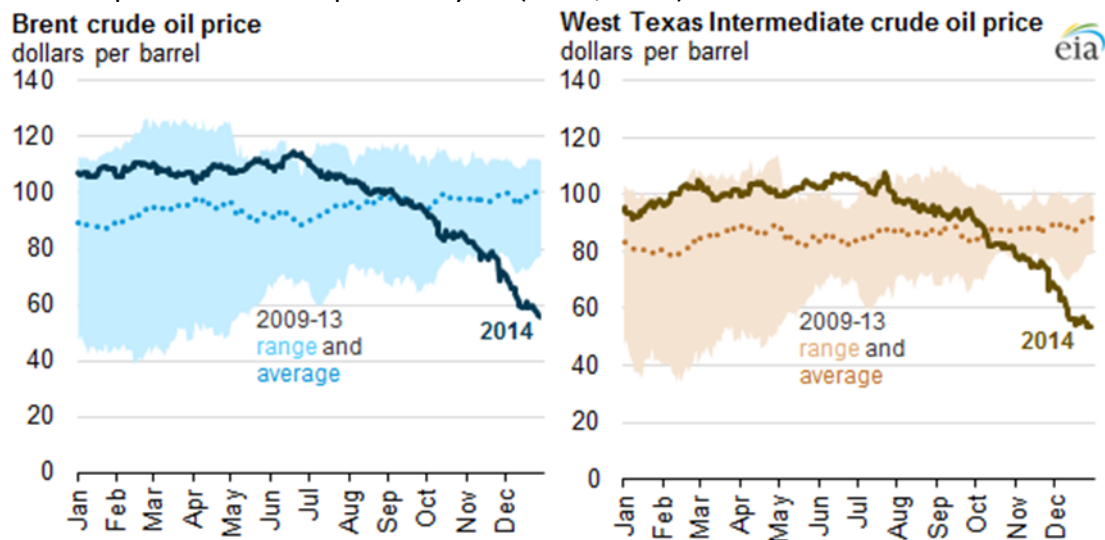


Figure 2: Brent Crude Oil price –West Texas Intermediate crude oil price (source: .S Energy Information Administration, based on Bloomberg)

Just after OPEC oil producers’ cartel decision during the meeting in November 2014 not to cut production but maintain its levels to 30 million barrels per day, crude oil prices crashed down to below \$70. In fact, West Texas Intermediary crude oil prices fell 7% to below \$69, a record not seen since May 2010, while in Europe Brent crude oil prices also fell 7% to \$73.

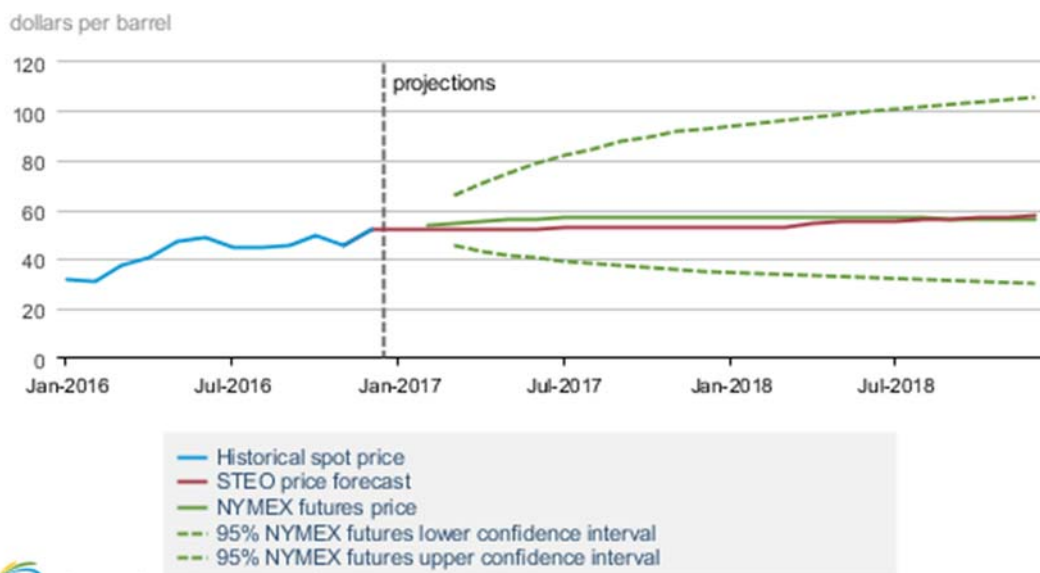
Moving forward crude oil prices entered the year of 2015 relatively low and ended the year on lower levels, as spot prices for Brent crude oil averaged \$52 per barrel, 53% below the level in 2014, while spot prices for West Texas Intermediary crude oil also recorded levels 53% down in 2015 compared with 2014, reaching \$49 per barrel. During this year, the excess of crude oil supply over global demand remained sustainable causing the increasing of global crude oil and other liquids, as the total crude oil production of the Organization of Petroleum Exporting Countries increased 3% to 37.4 million barrels per day in 2015, driven by production growth in Iraq, while OPEC members, led by Saudi Arabia, remained to their decision not to cut production

but continued to support their policy of increasing production and reserve their market share in a low oil price market (Breul, 2016).

Also, 2016 began with disappointing records of crude oil prices which were plummeting to close \$25 per barrel because of the consistent oversupply and some of the major oi companies were forced to cut their capital expenditures and limit their exploration activities, in order to overcome the poor economic results. Additionally, investors' concerns increased, depreciating the valuation of many oil and gas companies. Next, on June 2016 oil prices showed signs of recovery giving a boost to the oil companies which improved their performance during the same period. In addition, OPEC countries decision during the meeting in November 2016 regarding the reduction of their oil output by 1.2 barrels of oil per day, which boosted further the incomes of oil and gas companies. Also, non-OPEC countries like Russia, supported this decision and they offer to reduce their production by 600.000 barrels per day. As a result, crude oil prices recovered by almost 20% on December 2016, Brent crude oil price increased by \$9 per barrel to \$53 per barrel, and some oil and gas companies increased their capital spending for 2016 (Team, 2016).

According to the U.S Energy Information Administration forecasts for 2017, crude oil prices are expected to remain flat during the first months of 2017, as the excess global oil supply and the tight oil production that the United States implemented in late 2016 are expected to reduce significantly the pressure of the upward oil prices in 2017 and therefore Brent crude oil prices are expected to reach \$53 per barrel In the first half and \$54 per barrel during the second half. In addition, West Texas Intermediary crude oil prices are expected to be \$1 per barrel lower than Brent crude oil prices in 2017, because of the assumption of competition between these two benchmarks in the U.S Gulf Coast refinery market (Administration, 2017).

West Texas intermediate (WTI) crude oil price



Source: Short-Term Energy Outlook, January 2017

Note: Confidence interval derived from options market information for the 5 trading days ending Jan. 5 2017. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Figure 3: West Texas Intermediary (WTI) crude oil price (source: US Energy Information Administration, Short Term Energy Outlook Report, 2017)

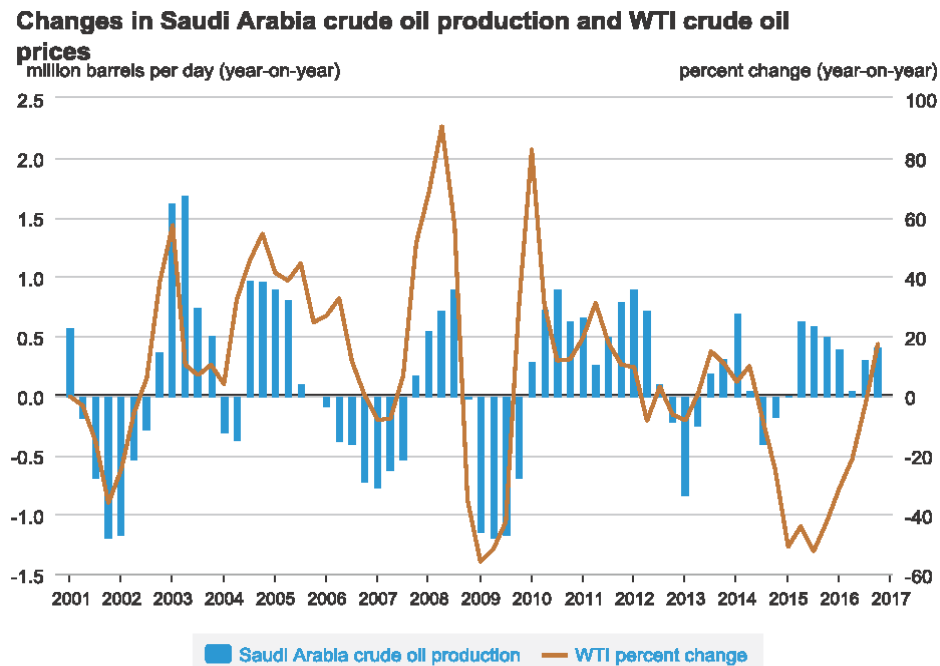
The causes of oil price fluctuations

Generally, given the fact that oil is not a homogeneous commodity, as it was mentioned above, prices of the many different crude oil types produced globally tend to appear differentials between light and heavier crudes that are lower in quality. Furthermore, oil is one of the most strategic commodities world-widely, a fact that is strongly proven by the fact that any imbalance or crisis in oil prices have brought huge distractions to the global economy, with important examples the oil crisis in 1970 and the serious fluctuations that occurred in oil prices in the 21st Century. Due to its strategic place in the commodity market, and its influence in the worldwide economy, the analysis of the factors that affect the balanced oil prices is of great importance.

Firstly, a leading and direct factor that affects the oil price level is the basic theory that affects the prices of commodities generally, the interaction between supply and demand in the concerning markets and therefore any imbalance of supply and demand in the oil market cause serious fluctuations in the international oil prices (Yan, 2012). Moving forward, from the standpoint of the oil supply, the fluctuations that may occur are detected mainly in the supply capacity of oil internationally, as according to the report “Forty Years of Oil Price Fluctuations: Why the Price of oil may still surprise us” published in January 2016 by the Centre for Financial Studies (CFS), “crude supply disruptions have affected a small part of global supply but created proportionally higher long-term effects due to changed consumer expectation as to future prices”.

Also, the Organization of Petroleum Exporting Countries (OPEC) has a leading role in the factors that affect the oil price fluctuations, as its members have 75% of the world’s proven oil reserves while OPEC – exported oil accounts for 60% of the global oil trade, facts that indicate OPEC’s dominant position in the global oil market. In fact, its members are nations with large amount of oil reserves and have been in the top listing of oil producers, like Saudi Arabia, Iran, Iraq, Venezuela, Qatar, Indonesia, Libya, the United Arab Emirates, Algeria, Nigeria, Ecuador, Gabon and Angola (opec.org, n.d.). Moreover, OPEC-exported oil accounts for around 60% of the global oi trade, while according to the International Energy Administration 81% of the world’s proven crude oil reserves lie within the boundaries of the OPEC nations, proving its dominant position in the global oil market. OPEC’s role is focused on the stabilization of oil prices in international markets by trying to eliminate harmful fluctuations, while the Organization manages an efficient, economic and regular supply of petroleum to consuming countries and a fair return on capital to those investing in the petroleum industry. Therefore, the policies and measures of oil production taken by the Organization, as well as the stability or instability of oil production of OPEC would lead to rapid rising or decrease of the oil prices internationally. In fact, it is upon OPEC’s members to decide whether they want to increase or decline oil prices and therefore they cut the production or increase it respectively (James M. Griffin, 2016). Moreover, during the crucial period, when oil prices plunged in June 2014 OPEC preserved its levels of production sending oil prices down again, as the supply remained to high levels exceeding the levels of demand. In addition, Saudi Arabia is the largest oil producer within OPEC and the world’s largest oil exporter, facts that stress the major importance of crude oil production within Saudi Arabia on the oil prices, as according to the Energy Information Administration, Saudi Arabia has the greatest spare

capacity, meaning its volume of production is recorded to more than 1.5 – 2 million barrels per day (EIA, 2017).



 Source: U.S. Energy Information Administration, Thomson Reuters

Figure 4: Changes in Saudi Arabia crude oil production and WTI crude oil (source: US Energy Information Administration, 2017)

Moreover, demand fluctuations on international oil can affect directly the alteration of international oil price, meaning that an increase in oil demand would cause the increase of the oil price unavoidably. Strong examples of the great role of demand in oil price fluctuations are periods of global economic development, like 2002 and 2003, when because of the modification of the economic figures, the oil consumption in oil exporting countries had increased and the global oil demand and consumption had also showed an increased rate. In addition, during periods that global economy faced crisis, like 2009, and development in general suffered a lot, the global oil demand and consumption fell sharply, while the international oil prices plunged. In addition, during the last years that oil prices are fluctuating, the major reason is the excessive levels of oil supply in comparison with oil demand, which during the third quarter of 2016 dropped to a four-year low, while for 2017 is expected to expand by 1.2 million barrels per day (Dario Caldara, 2016).

Also, geopolitical factors may affect the oil market generally as well as the international oil prices, especially because of the instability that occurs in the oil-producing countries, closely linked to the political situation in the concerning areas and the tensions that exist in the relationships between these nations and the West. The instability includes events like war, violent changes in governments and terrorist activity that shake the stability in these areas and disrupt the supply sector in oil production causing drastically shifts in oil prices. Certain political events in the past, like the Iranian revolution, the 1980 war between Iran – Iraq and the 1973 Arab oil embargo caused serious disruptions in the supply sector and therefore crucial oil – price fluctuations.

The decline in oil prices today. Reasons.

As it was mentioned above, oil prices suffered many booms and busts through years, but the latest fluctuations have been the worst since the 1990's as at some point it fell more than 70 percent in comparison with the levels of June 2014. Over the last decade the normal price for oil per barrel had been considered the \$90 to \$100 per barrel, while the recent years it has fell to \$40 to \$50 per barrel with the stunning fall from the peak of \$115 per barrel in June 2014 to under \$35 at the end of February 2016.

The year 2016 started with not encouraging signs for the commodity market. The global benchmarks for crude oil, Brent and West Texas Intermediary, have fallen 20% since the beginning of the year, hitting their 13-year-lows of under \$30 per barrel, as the market reacted to the oversupply that occurred in the global oil markets and the lowest than expected levels of demand for oil. In the end of October 2016, oil prices scored the largest weekly drop in six weeks, while they have continued to crash during November 2016. This recent decline in oil prices is considered to have its reasons on fluctuations in both supply and demand sector of oil production.

To begin with the supply sector in oil production, there has been observed that as long as the oil prices have fallen, the amount of oil that has been pumped has been increasing. Global oil supply average has reached 96.9 million barrels a day in the fourth quarter of 2015, while in the same time demand reached almost 95.1 million barrels, 2 million barrels lower. US oil producers became enabled to increase production as new oil fields and advancing technologies in the United States gave them this ability. Also, after 2014, Libya and Iran recorded high production levels, the last, after the lifting of sanctions, with production growing by almost 200,000 barrels per day in just one month to 3.45 million barrels per day. Also, increased production by Canada, Russia led to a sustained increase of oil production, while therefore supply outstripped demand (Majumdar, July 2016). Meanwhile, global growth appeared to have been slowing down with the Chinese economy to show signs of recession and Europe to struggle to overcome the increasing uncertainty, while the United States also have been trying to keep a balance concerning their growth. All these facts led to a steady fall in oil consumption by the abovementioned important oil importers and affect oil prices, which by the end of January 2016 fell \$26 per barrel (Administration, 2016).

Moreover, the over-supply in the oil sector was burdened by the over-production by members of the Organization of Petroleum Exporting Countries (OPEC) beyond the production quotas. In the past, when similar crisis caused these kind of shocks on the global oil prices, OPEC immediately cut production as a way to reinforce oil prices. Nevertheless, on 27 November 2014, at OPEC's 166th meeting, its members concluded to a decision not to cut production, as a way to absorb oversupply in the oil market, but to maintain the production level of 30.0 mb/d, as was agreed in December 2011. At that time, Saudi Arabia, the biggest OPEC's oil producer, stressed the need to maintain the production levels in order to preserve OPEC's share in the oil market. In fact, Saudi Arabia is the one responsible for the conclusion of this decision, as it claimed that by leaving the oil market uncontrolled, prices could drop only because of the excessive production, while part of this production would be too costly to survive and therefore it would disappear (Opec, 2014). According to the country, "this would not take too much and the first nations that would feel its impact would be the United

States and Canada, which in recent years have recorded sharp increase of their production thanks to the high price of petroleum” (Maugeri, 2015). Also, by cutting production, the Saudi’s and the other OPEC members would give a major gift to other world producers, who because of a rise in oil prices, could continue to produce at full levels. The OPEC’s policy to support production and keep pumping, especially Saudi Arabia, have allowed crude oil inventory to grow with a parallel decline in prices proving the major importance of oil supply and its fluctuations to the oil prices

However, the abovementioned OPEC’ s policy to keep pumping, which intended to keep pressure on higher priced producers, like the United States and Canada seems to have been revised since September 2016, when OPEC’ s 14 oil producing countries agreed to begin to modestly cut their oil production as a part of their effort to boost oil prices. The deal was announced on November 30, 2016 and prices increased from \$43 to \$54 per barrel, benchmark oil prices gained 10 percent in New York and the share prices of energy companies around the world increased. The sustainability of this positive alteration of the situation, will depend on the attitude of members of the Organization of Petroleum Exporting Countries concerning the agreement and how strictly will implement it (Nayla Razzouk, 2016).

Nevertheless, thanks to investments already made in major oil production nations to develop new production capacity have crucial effects all over the world. In fact, United States domestic production has grown sharply during the last two years as well as Canadian and Iraqi oil production. Production has not stopped in any country but it has continued to increase even in countries with high costs. It is true that both the industry and the producing countries have made important efforts to cut production, by cutting costs and investments mainly regarding exploration and development projects, and not regarding projects that have already been approved and billions have been spent to support them. Additionally, during the first quarter of 2016 certain events like the sabotage in Nigeria, the fires in Canada and the political situation in Venezuela caused a reduction of oil supply and therefore an increase of the oil prices.

THE FORMATION OF CHINA'S OIL INDUSTRY: PART OF ITS LIBERALIZED ECONOMY

The rapid economic growth of China was a major development having been succeeded by the Chinese Government over the years, which had also important effects on its oil sector. Today China is called to face crucial economic challenges in order to transform its economy and be adjusted to the continuously changing world economic markets.

The economic development of China through years

In recent years, China has succeeded a major economic transformation and has been advanced to a major global economic power. Prior to this economic reformation, China maintained an economy, which can be characterized as centrally – controlled, inefficient and isolated from the global economy. In 1979, China emerged from the isolated policies and opened up to the foreign trade and investments according to the free market conditions, which gave to China the crucial boost to be one of the world's fastest – growing economies in recent years and especially China has reformed to a major world power in the sectors of manufacture and trade.

In 1979, the Chinese Government decided to overcome the Soviet- style economic policies of isolation and adopted free market principles, which helped China to enter into trade and investments with the West and become a liberalized economy. The economy was highly disintegrated thanks to years of central planning and the implementation of self-reliant policy. The reforms that took place focused on the several sectors, especially trade by attracting foreign investments, enhancing exports and importing high technologies while a boost was given to enterprises in order to overcome the guidance of the state and start operating in compliance with free trade principles.

Moreover, regional and local governments played an important role in China's development, as over the past three decades local governments with local businesses, all have been trying for higher economic growth by collecting more domestic and foreign investment. In fact this local competition has added a lot of dynamism to the Chinese economy (Swee-Hock Saw, 2009).

In addition, the pace of economic change in China has been extremely rapid since the start of economic reforms. According to official statistics economic growth has averaged 9.5% over the past Decades. The most remarkable aspect on the concerning transformation has been the role of private sector in the liberalizing of China's economy and the high rates of growth. Also, the government has also introduced reforms in the state owned Companies that was a dominant fact in the economy in the early 1990's, as they have been transformed into major corporations and have been listed on stock exchanges. Furthermore, the remaining state owned enterprises fell rapidly and more flexible employment contracts were launched, thanks to the introduction of unemployment programs (Dougherty, 2005).

From 1979 to 2014, China's real GDP averaged nearly 10% which means that eight years (Morrison, 2015). Generally analysts show two main factors, which led to the rapid growth of the Chinese economy, the large-scale capital investments and

the rapid productivity rate, which caused mainly by the shift of the Chinese economy to uses of its resources in more productive way, like agriculture, trade and services.

China's Oil Industry and Market

China's oil sector has been developed sharply in the last decade while now the country has a major clout in the global oil market. Nevertheless, China's oil industry still has little autonomy over production and pricing decisions. The main aspects of the oil industry reform are: a. establishing petroleum exchanges, b. forming joint stock sharing companies, c. eliminating guaranteed profits for refineries, d. industrial integration, e. trade liberalization and f. exchange rate deregulation (Wang, 1999). Also, China's oil sector has been ruled by three large state-owned oil companies, PetroChina, SinoPec Corp and CNOOC Ltd, which have played a crucial role in the development of the oil sector of China.

The China National Offshore Oil Corporation (CNOOC) was the first state corporation, which established in 1982 and it was given exclusive control over the negotiations and exploration, development and marketing of offshore oil recourses as originated by the Government. CNOOC was the legal entity with which foreign firms could sign contracts and through which China could assume equity positions if commercially viable quantities of oil were found. However, despite its strong bonds with the Government, it had little influence on major police matters, like allocation of offshore oil blocks, or the terms of participation and it had to seek the approval from the Ministry of Petroleum Industry (MPI) for the formulation of proposals (Kenneth Lieberthal, 1988).

Furthermore, in 1983 the China National Petrochemical Corporation (Sinopec) was established under the State Council by merging petrochemicals assets from the Ministry of Petroleum Industry and the Ministry of Chemical Industry. Sinopec, from its formation until the late 1990's played three roles, as a government organ for managing the development of China's petrochemical industry (Nolan, 2001). It also served as an industrial association that attempted to help the development of the whole industry, while finally it served as a holding company that controlled most of the China's petrochemicals companies.

In 1988, the National China Petroleum Corporation (CNPC) was created as an onshore oil company under the State Council and during 1990s it accounted for 90% of China's total oil output and 77% of its natural gas output, though its refining capacity remained limited. The oil company covered production and business units in exploration, development, refining, transportation, marketing and geological R&D (Meidan, 2016).

One of most important aspects of the transformation of the oil sector in China was trade liberalization, which has been focused on the elimination of strict constraints on imports regarding crude oil and petroleum products by China and secondly the free involvement of more organizations in the oil market. Therefore, Chinese merchandise exports rose from \$14 billion in 1979 to \$2.3 trillion in 2014, while merchandise imports grew from \$18 billion to nearly \$2.0 trillion (Morrison, 2015).

On 1995, the Chinese oil industry and market reformulated when significant reformation efforts took place based on specific steps, a fully organised and

deregulated market based on good distribution and a fair competition among national and international players. The major change among all which followed happened in 1998, when the entire industry was fully restructured under a territory-based split between three giant companies: CNPC in the north and west (12 provinces) with the majority of oil and gas reserves, Sinopec Group in the south and east (19 provinces) with the bulk of the refining and chemicals assets, and CNOOC keeping its almost monopolistic off-shore perimeter intact. After the above mentioned major structural changes all these three companies were formed into a separate body, with a similar goal: “to create three champions, firmly under their national shareholding control and comprising their best assets and management, in order to be listed to raise fresh capital under optimised circumstances and with the ambition to aggressively pursue their restructuring (both in selective development and cost-cutting measures) as well as to model their business profile and success to the best international peers” (Sepulchre, n.d.). Over the years, while China’s demand has exceeded production, they have also become major investors in the global oil system and they have established a presence in global refining and oil trading.

Also, Chinese oil demand has been growing too fast in the recent years mostly thanks to the rapid economic growth, which amounted to a large portion of growing global oil demand. However, China’s economic growth was the result of the increase of the productivity rate as China’s workforce was transferred from agricultural sector to industrial sector. In 2004 China shocked the world with an increase in oil consumption of just a million barrels a day, which in reality meant more oil usage for power usage while the next year, in 2005, a significant reverse occurred in growing demand.

Overall, China passed through three different stages, each of which contributed to the Chinese reformation, beginning from the early phase, when China’s oil industry relied mostly on the power of country’s resources and the industrial characteristics of the Soviet system, moving to the oil self-sufficiency in 1965 and in 1968, when it became an important oil exporter, and oil became one of its most profitable commodity. During the 21st Century, China transformed to the fastest-growing oil consumer and the most important investor in the world oil market. Today, China is facing the need of transformation in the energy sector in order to overcome the existing inefficiency of the oil industry.

The likely impact on China’s oil market from the ratification of COP21

In December 2015, 195 countries participated in the Paris Climate Conference, officially known as the 21st Conference of the Parties, or COP to the 21st Conference of the Parties (or “COP”) to the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations body which is responsible for climate and based in Bonn, Germany. At this Conference, the countries – members adopted the first universal, legal – binding, global climate deal, which sets out a global action plan, which aims to motivate the world regarding the global climate change by limiting the global warming. Governments agreed to certain aspects of climate change, like the reduce of emissions as well as matters regarding transparency, adaptation, support from the European Union and other countries and the role of local authorities (Paris 2015).

On Saturday 3rd September 2016, members of China's National People's Congress Standing Committee "adopted the proposal to review and ratify the Paris Agreement, just before the G20 Summit in Hangzhou. China together with the USA, responsible for 40% of the world's carbon emissions decided to ratify the Agreement together sending a very strong signal to the rest of the world and especially other big emitters to follow the ratification (SPEGELE, 2016). The importance of the concerning ratification is proven by the fact that in order for the agreement to enter into force, at least 55% of global emissions had to ratify it and therefore, China and the USA account for about 38% of emissions along with other 23 countries, which have approved the agreement. So the approval by China and the USA means that the Paris Convention could enter effect as soon as this year, much earlier than the initial target of 2020.

Moreover, China agreed to peak its emissions of carbon dioxide by around 2030, and raise its share of non-fossil energy to 20% of total consumption, up from about 12% last year. Factors like the need to deal with the over-capacity of steel and cement industries and the decline of its industrial sector along with the economic slowdown and an increased awareness of China's vulnerability to the future consequences of global warming have driven China's decision to shift its policy and move towards the ratification of Paris Agreement. In this spirit, China is positioning itself as a leader in the climate action in contrast to its attitude during the Climate change Conference in Copenhagen in 2009 (Wire, 2016).

Nevertheless, China's ratification of COP21 promotes its strong will to make a reallocation of its plans concerning its development, which for years has been based upon an aggressive industrial development, which led to soaring air, water and air pollution and focus on environmental-friendly policies and generally clean up the environment.

In addition, according to the 450 Scenario launched by International Energy Agency, consistent with the goal of limiting the global warming to 2 °C by reducing concentration of greenhouse gases in the atmosphere to around 450 parts per million of CO₂, oil demand will peak around 2020 before decreasing to 74mb/d in 2040. This lower-demand scenario will cause serious changes to China's oil and gas industry as China has been one of the biggest emitters in Asia as well as one of the greatest oil producers in the world. As a result, China will face possible consequences as a result from the low demand, like the elimination of the exploration and the development of new discoveries and therefore reduced investments in the oil and gas sector as there will be no need to explore new oil fields as the existing oil reserves will consider sufficient. Therefore, the elimination of investments and the reduced oil demand will have as a result the oil prices to increase further and reach new "high peaks".

The today's challenges for China's oil industry: a need for transformation

It has become clear that for most of the past decade, rising oil consumption in China has boosted oil prices and also expectations for stable long-term oil prices. Also, China has often represented almost 50% of growth in global oil demand and it has become the world's largest net importer of petroleum and other liquids and oil consumer surpassing lately the United States since 2013, because of its growing economy. In fact, according to the Oil & Gas (release in January 2015), China holds 24.6

billion barrels of proved oil reserves, which is the highest in the Asia-Pacific region (excluding Russia).

Now, China's energy industry is called to face new challenges, the oil sector, which for years has had an important political influence in China, is forced to face low efficiency, high cost and overcapacity. The country, over the last couple of years has purposely moved from a manufacturing-oriented economy to a service-driven economy, using a less intensive approach to growth. As a result the demand for crude oil in the world's largest oil consuming country has gone down drastically. During the first half of 2016, China's biggest producing-oil fields, Daqing, Shengli and Changqing recorded significant falls on their production between 7% to 9%, according to Energy Aspects, affecting China's overall production. While global crude oil prices are recorded under \$50 per barrel, it seems that investors in big oil fields in China lose many for every barrels it is produced, when cheaper oil can be purchased from overseas. Also, China is called to face a devaluation of its highly paid overseas assets, while its oil companies between 2009 and 2013 invested in foreign oil assets with total investments of \$100 billion. However, in contrast to foreign oil companies, which developed strategies in order to cope with falling oil prices, as they sold most of their oil assets, Chinese oil companies remained with these assets and their consequences (Weidong, 2016).

Furthermore, Chinese oil production is facing implications both onshore and offshore, while PetroChina, the major producer reported that crude output for the first nine months of 2016 fell about 5% in comparison with a year earlier, while China National Offshore Oil Corporation (CNOOC) «recorded a 7.7 percent decline in oil and gas production the third quarter». In addition, domestic crude oil supply also recorded signs of reduction as «it fell from 4.30 MMBOPD the first months in 2015 to 3.99 MMBOPD in the same period of 2016». As China's main oil producers are reporting weak earnings, the oil prices drop, while US benchmark oil prices have fallen below \$50 per barrel in the last quarter of 2016.

On the other hand, China faces another problem regarding its onshore fields, which represent 80% of China's current crude oil production capacity and it has observed that they are maturing year after year, while slowing economy does not enhance the chance of developing new fields to offset the drop in production (Daiss, 2016).

Furthermore, China will eventually discover that it needs to boost imports as its domestic production is slowing year after year, but China will be forced to develop ways in order to cover its domestic demand. Indeed, China's oil imports reach new high records, as they had increased by 16% in 2016 bringing China closer to the United States, as the world's largest crude oil importer and increasing China's foreign oil dependency rate, a country that for years now has seen its energy independency as an important part of its national security.

Nevertheless, one of the priorities of China's leaders on the back of slower economic growth in the world's second biggest economy, is the reform of the spreading state – owned enterprises (SOEs) in order to improve the efficiency of the country's economy. This goal was a part of the latest China's five – year plan, which agreed in 2015 and focused mainly on boosting economic development during a period of slower economic growth. Some important changes launched by Beijing were granting private refiners oil licenses, encouraging a first private refinery and improving

the management of state-run assets. Moreover, according to executives, China National Petroleum Corporation (CNPC) will spend the next two to three years restructuring its services division, while it is aiming to set up three or four companies covering oilfield drilling, refinery engineering and financial services. Also, the rise of independent refiners which were allowed to start importing crude in July 2015 is already disrupting the refining business of Sinopec and PetroChina, while their launching had a huge impact on global oil markets as their crude imports have had a supporting effect in the oversupplied market (Meng, 2016).

CHINA'S ECONOMIC SLOWDOWN: WHAT DOES IT MEAN FOR THE OIL MARKET?

During the last years the Chinese economy seems to have been slowing down causing several financial shocks to world stock markets, while the crude oil prices have recorded the lowest levels since the 1990's thanks to low consumption levels.

A LOOK AT CHINA'S ECONOMIC PROBLEMS: A FINANCIAL TURMOIL?

Nowadays, Chinese economy seems to have many weaknesses, which have damaged oil prices and especially in 2015, when it actually became clear that after years of warning, the slowdown has begun while in 2016 the country's economy grew 6.7%, the slowest rate in a quarter of a century, compared to 6.9% in 2015. In fact, Chinese economy grew at its slowest pace in seven years approaching levels last seen during the period of global financial crisis in early 2009, causing major concern.

The biggest threat of Chinese economy is the continuing and uncontrolled expansion of its debt, which includes issues like rising household debt, potential property bubbles and rising corporate debt. China's total debt is now about two and a half times the size of its economy, almost 250% of GDP, while corporations are by far the biggest debtors, especially state-owned corporations (France-Presse, 2016). In fact, reinvesting in large liabilities has created a constant demand for liquidity, while actual investment does not increase stressing the need of China's debt restructuring. The crucial fact in China's debt problem is that the largest share of debt in China is held by state-owned enterprises.

Just after the financial crisis in the global market China made a smart move and encouraged loans and credits creating a serious debt problem in the country. Problem loans have doubled in two years and during the first quarter of 2016 had reached 5.5% of bank's total lending, while it has observed that two fifths of new debt is caused by interest in existing loans. Probably, China's debt levels will continue rising for a few more years but when this cycle will come to an end, the shock that will occur in asset prices and the real economy will have serious consequences as China is the second-biggest economy in the world, with a huge banking sector and assets equivalent to 40% of global GDP (Leaders, 2016). Its stock markets along with its bond markets are also an important part of global economy, enhancing China's importance as a country in the world market.

Moreover, McKinsey & Company published in February 2015 a report named "Debt and (Not) Much Deleveraging", highlighting the rising debt levels in the global economies since the economic slowdown of 2008-2009. According to this report, "China's debt has increased rapidly since 2007 to \$28.2 trillion in 2014, while its Gross Domestic Product has tripled to \$10.4 trillion during the same period and therefore the country's total debt was 282% of its GDP in the same period". As having a lot of debt may not be a concern in itself as long as the economy is growing at a rate to sustain its debt, in case of China the debt has significantly outpaced its economic growth over the years.

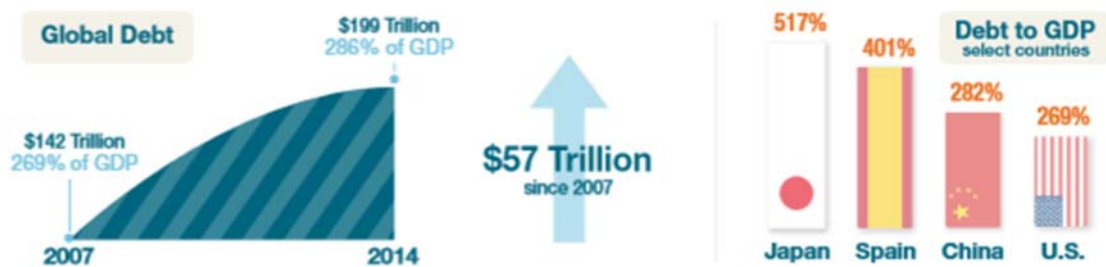


Figure 5: What happened to deleveraging? SOURCE: Debt and (Not) Much Deleveraging, McKinsey& Company, McKinsey Global Institute, February 2015

In addition, the almost 2% devaluation of the yuan, in summer 2015, caused a shock in the global markets, as it was considered the yuan's biggest one-day drop since China ended its dual currency system in 1994. This devaluation was the result of the effort made by the authorities to react to a significant weakening of China's exports and rising deflation risk, as well as "deter capital outflows, protect foreign currency borrowers and make a case for official reserve status at the International Monetary Fund" (Justina Lee, 2016). This move of its currency policy caused concerns over the Chinese economy and fears of a currency war, while stocks, currencies and commodities fell sharply across region. Currencies of South Korea, Australia and Singapore fell at least 1 percent while shares of Chinese airlines dropped on concern dollar debt costs will rise. Also, "The yuan's real effective exchange rate -- a measure that's adjusted for inflation and trade with other nations- climbed 13 percent over the last four quarters and was the highest among 32 major currencies tracked by Bank for International Settlements indexes" (Justina Lee, 2016). In addition, the central Bank on the day of the devaluation set the reference rate 1.9 percent below the Chinese equities, which had already dropped because of excessive margin buying, plummeted further and dragged most other risky assets along with them causing panic among the global stock markets and also among investors. Afterwards, the Public Bank of China (PBOC) stepped up intervention, ordering state banks to buy yuan at designated rates on behalf of monetary authorities, among other emergency measures (Coghill, 2015). However, despite China's effort on December 2015, when it introduced a new exchange rate index, capital outflows, which had picked up after the devaluation, continued and according to the Institution of International Finance, "China suffered almost \$700 billion worth of capital flight in 2015". However, despite Public Bank's of China efforts to fix currency higher, the yuan seemed to weaken during 2016, a really volatile trading year, while it recorded its biggest annual drop since 1994.

Also, investments both in fixed-assets and in real-estate have shown signs of reduction having serious macroeconomic consequences, In fact, «between 2002 to 2012, growth in private –sector investment averaged around 20% while by the end of 2015 it amounted just 10% and from January to August 2016 it reached just 2.1%» (JUN, 2016). Moreover, unemployment rate in China remains stable, reflecting the consequences of a weak productivity rate, which have dropped to less than 6%, according the National Bureau of Statistics in China.

What may be the key in the effort of restructuring the Chinese economy, upgrading the industrial sector and expand high productivity services, is the limitation

of the role of State –owned-enterprises in few sectors leaving the remaining space to private companies in order economic growth to be a fact for China

SLOWER ECONOMIC GROWTH IN CHINA AND THE STRUGGLING OIL

As it was mentioned above, China is considered the world's second-biggest economy in the global market and it had been growing at a rate for more than 10% over the last 6-7 years. However, for 2015, China's economic growth averaged close to 7% as opposed to the over 10% growth that the country had been predicting post the 2009 recession. Since China accounts for more than 50% of the economic growth globally, a slowdown in the fastest-growing economy would mean a gradual fall in the oil demand

The year of 2016 did not start for the best predictions, especially for the commodity market, as its economic growth reached 6.6% and is expected to slow further to 6.5% in 2017. It becomes clear that China faces descending pressure due to slow global demand that has hurt its exports, risks from strict reforms to cut industrial overcapacity, the depreciation of Chinese yuan and the rising debt levels causing insecurities and fear for a new financial crisis to the investors globally. Only the fear of economic slowdown in China is capable of causing shock in the global stock markets, like the one during the first month of 2016, which had as a result thousands of dollars in the international equity market to disappear. This was the second instance in the last six months, when the fear of slower economic growth in China has caused an investor sell-off globally and as a result in the commodity markets crude oil had been trading to below \$30 per barrel, a level not seen since 2003.

Furthermore, the country's global position in the global oil market is really strong, as it was mentioned above, and due to its rapid economic growth and its rising oil consumption, it has resulted to be the world's largest net importer of petroleum and other liquids in 2013. However, over the last years the demand for crude oil in China, the world's largest oil consuming country has fallen drastically causing shock in the global oil market. As a result, because China plays an important role as a buyer of oil and other commodities along with the abovementioned economic challenges, the commodity markets observed crude oil trading at below \$30 per barrel during the first quarter of 2016.

As China's domestic production has been falling during 2016 sharply, crude imports have hit records high averaging 28 million tones per month, in order to satisfy its needs. Moreover, China covered 64.4% of its crude oil demand with imports because of high domestic production costs and favorable international prices (Slav, 2017). High domestic production costs result from the maturity of China's big oilfields, which are over 50 years old and the solution in order the production to be sustained is the strong growth in capital expenditure, which makes things worse and more difficult for China's onshore oil production.

Also, the state-owned oil companies in China, like the rest of the global oil market have been called to face the need to cut spending along with the low investment rates have driven the major oil companies to announce the termination of the operation of oil fields that are not profitable. In fact, China Petroleum and Chemicals Corporation (Sinopec Corp.) announced on October 2016 that "net profit for the first three quarters of the year rose 11.2 percent versus a year earlier on the back

of a stronger performance from refining. The company announced net earnings of 30.11 billion yuan, during January –September 2016, while its oil and gas output fell 8 percent during the same period with crude oil down to 12.6 percent as it was forced to reduce output at insufficient fields in response to weaker oil prices” (Aizhu, 2017) .

In the third quarter of 2016 China’ s economic growth remained stable creating hopes to Chinese policy makers for overcoming excessive credit and further economic problems. Gross domestic product rose to 6.7% in the third quarter but the concerns remain due to the excessive levels of China’s debt and the levels despite the weak signs of stability are considered the slowest since 1990’s.

THE EFFECT OF FALLING OIL PRICES ON THE CHINESE ECONOMY

As the global oil prices have been plunging for almost three years now, China's crude oil imports reach high records, despite the economic slowdown. From late 2014 oil prices have started to fluctuate, as until then they were around \$80 to \$110 per barrel while during the next years they have recorded low records to around \$26 per barrel, with a period of \$50 per barrel, during June 2016, and then below \$50 creating more concerns about the recovery of oil prices.

However, China can benefit from low global oil prices, as it imported 186.5 million tons of crude oil in the first half of 2016, 23.15 million tons more than the same period last year. On the other hand, China's crude oil output has dropped lately to its lowest records since 2009, as "for the first eleven months of 2016, production was down 6.9 percent at 182.91 million tonnes, just under 4 million bpd" (Schmollinger, 2017). In fact, Chinese oil companies tend to reduce output when there are low crude oil prices and import more from abroad and therefore when China imports significant part of energy, as a percentage of its economy, the benefit from low oil prices is proportionately greater. Also, Chinese manufacturers would face by high energy costs, when with low oil prices costs for labour, land; electricity and water are really low. With high oil prices, the decline in China's growth rate would have been worse. Moreover, low oil prices support consumer spending power as they tend to buy more oil in order to satisfy their needs in their everyday lives, supporting the economy.

Nevertheless, lower oil prices may benefit the consumers but major oil enterprises in China and the oil sector; they have negative results concerning income losses. The impact is obvious on the operating performance of oil companies, which were forced to lower their upstream capital expenditures. In fact, PetroChina, the largest oil and gas producer reported in late 2016 that "its profits for the first half of 2016 dropped 98% compared to the same period last year on weaker revenue from falling crude prices, while its combined oil and gas output rose 1.7% to 748.2 million barrels of oil equivalent in the first half compared with the previous year and the domestic production dropped to 4.2%" (forbes, 2016). Also, China National Offshore Oil Corporation (CNOOC), China's largest offshore oil and gas exploration and Production Company, reported "a net loss of \$1.16 billion in the first six months of 2016, compared with a profit of 14.73 billion yuan in the same period last year".

In addition, low oil prices and oversupply gave to China the chance to change its yearly goals regarding oil market, as for many years increasing production was the most important priority regardless of the cost. Now, in this unstable environment oil companies decided to close down maturing fields, which they produce little but cost a lot to operate and reduce workforces.

OIL-CHINA AND PROSPECTS FOR THE ECONOMY: A GLIMPSE INTO THE FUTURE

After years of debt growing levels, which were used to fund investments on infrastructure and housing sector as well as excess capacity on the manufacturing sector, China's currency and stock market plunged creating concerns to all the investing-part of the world about the future of the Chinese economy and therefore the global economy. The concerns were realistic, as China is one of the biggest economies

in the world and in fact it contributed a third of GDP growth in 2015, according to reports and its slowing down affected commodity exporters from Venezuela and Brazil to Shanghai and other East Countries.

Despite concerns about the slowdown in the growth rate of the Chinese economy, China's crude oil imports rose to a record level in February 2016. According to the China Beige Book (CBB), fourth quarter edition, in the second half of 2016, oil prices have increased as a result of an agreement among important producers to cut production, while infrastructure and real estate investments got stronger. Also, China's economy is expected to have reached Government's target of at least 6.5 growth gross Domestic Product for 2016, while commodities prices increased after four years of deflation. China's stock market has also stabilized to up 19 percent since its low point in January 2016 and its currency declines but in a more stable way. During September and October 2016 China's industrial profits rose to 9.8% and 7.7% respectively while profit margins increased too.

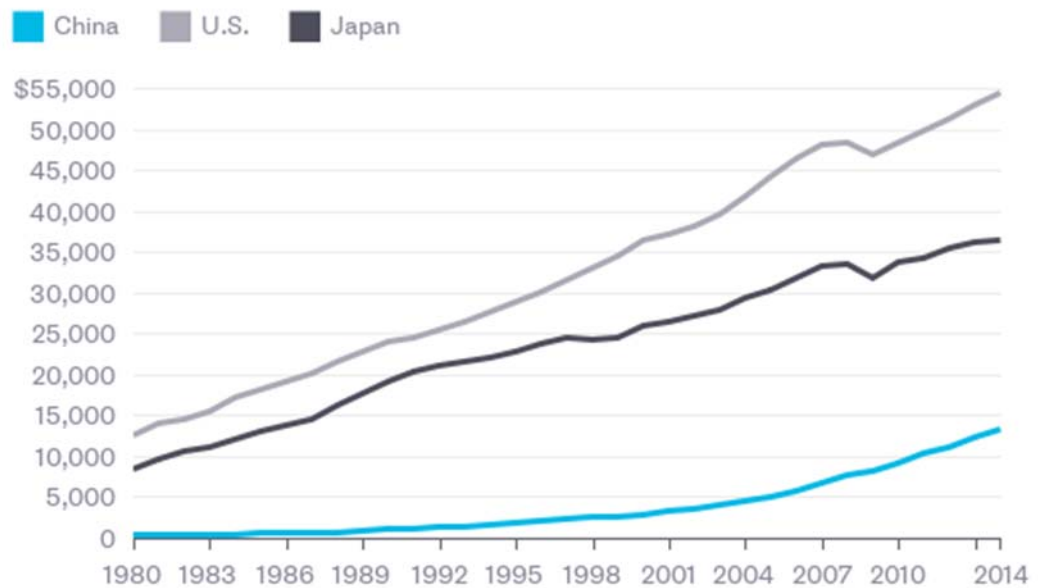
According to the same Book, the development was obvious across all industries as companies recorded higher revenue, higher capital investment and a steady growth and less companies recorded losses compared to the last quarter creating hopes for a healthier development of Chinese corporations.

Also, according to the World Economic Outlook for 2017 released by the International Monetary F, "inflation ticked up in China as capacity cuts and higher commodity prices have pushed producer price inflation to positive territory after more than four years of deflation". As for the growth forecast for 2017 was revised for China, according to the same Report, to 6.5 percent and 0.3 percent above the October forecast, as the policy support is continued. China's policy stimulus measures, which rely on rapid expansion of credit and slow progress in addressing corporate debt, raise the risk of a sharper slowdown or a disruptive adjustment.

In addition, Chinese leaders have been committed to make hard reforms to limit local government debt, reform state companies, open more markets to private market competition and liberalize the financial sector. The reforms were focused on controlling credit risk, improving the opening of the capital market, increasing trading volume in money markets as they have issued by the Financial Stability Report launched by the People Bank of China in 2016 regarding reforms taken in 2015. As a result of the reforms according to the same report, the interest rates are gradually better reflecting the strengthening of the market, while innovations take place in stock and equity markets were crucial steps towards the modernization of these markets. Regarding the facts of the Chinese economy, there is a relatively low per capita income according to reports from the World Bank meaning that there are encouraging signs of continuing growth as its workforce continues to move from "subsistence farming" to more productive modern economy (Kroeber, 2016).

Plenty of Room to Grow

GDP Per Capita, PPP



Source: World Bank

BloombergView

Figure 6: Plenty of room to grow, (source: www.bloombergview.com, 2016),

Nevertheless, China's major problem is focused on the state control and the difficulty to open up its financial sector and permit more foreign investments. One crucial transformation would be the privatization or closing of the least productive state-owned enterprises and therefore liberalize its financial system, by letting foreign investments on productive companies and create the base for the entrance of its companies to the foreign competition.

Another factor that may affect China's economy is the uncertainty that Donald Trump's presidency is bringing to the relationships between China and the United States. According to President Trump's announcements, the measures he is going to implement regarding its country's relationships with China range from heavy tariffs in imports to end Chinese diplomatic foundations, like the "One Policy" and therefore trying to keep China off balance, moves that make Donald Trump the first President in years trying to antagonize China and exacerbate tensions with Beijing. In fact, during his first days as a President of the United States, Donald Trump formally withdrew its country from the Trans-Pacific Partnership trade deal, growing the distance of its country from the Asian countries.

However, concerning the prospects of Chinese economy and whether it will be able to overcome the economic slowdown, there are different opinions, either confident ones or pessimistic ones. In any case, China will spend the next decade struggling to cope with ups and downs in its economy, trying to restrain fast-growing housing prices and the fast-growing corporate debt, coping with keeping yuan stable, reforming its economy toward a service and consumption based system and trying to preserve stability in its financial system due to the shocks in the stock markets. Also, a decline in global economy uncertainty especially in the Eurozone and the stabilization

in commodity prices can reduce pressure in China and boost the efforts of the Chinese government to implement its reform measures. In any case, the Chinese government will face risks and challenges in the near future in order to carry out all its plans and succeed in the difficult project of overcoming the slowing down in China's economy and avoid a new and more intense financial crisis.

Conclusions

According to the abovementioned, crude oil is one of the most important commodities affecting in multiple ways global economies and people's everyday lives. Crude oil prices have suffered many fluctuations, while the fluctuations are capable of affecting big oil importers and exporters through the world.

China, the second biggest importer of oil in the world, and the fourth biggest consumer is considered to have been slowing down. China's output slumped in 2016 as state-owned firms shut wells at mature fields that have become too costly to operate after the crash. Crude oil production fell 6.9 percent during the first quarters of 2016 to about 4 million barrels per day, which was considered the first decline since 2009 and the biggest in data since the 1990's.

Also, China consumes more oil than any other country with fields stretching from offshore its southern coast to the far north east. The collapse in prices that begun in 2014 affected the nation's output which recorded the slowest levels.

The International Energy Agency records that output fell 335.000 barrels per day in 2016 as the country's biggest producers cut spending and it is estimated that it will cut further 240.000 barrels a day in 2017. Brent crude oil averaged about \$45 a barrel last year, more than 50 percent below levels 2014.

Nevertheless, there are several encouraging signs at the beginning of 2017 which boosted the faith of investors. National Energy Administration, the country's energy regulator, forecasts that output will remain stable at about 4 million barrels per day, while lower domestic production will help support the nation's imports increasing the country's reliance on overseas supply which is forecast to rise above 65 percent of its total crude. Also, China's oil imports in 2016 grew at the fastest pace in six years and during December 2016 China was the world's largest producer.

Finally, China's oil market and economy future is uncertain as the global economies are changing year after year, while the factor of supply and demand is unpredictable. However, the Chinese government has started strategic reforms in order to get adapted in the changing economic environment and transform its economic system, by liberalizing further its economy. What is for sure is that China has a future full of challenges to cope with, and the results have major impact all over the world, thanks to the crucial position of China in the world.

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