

### CHAPTER 3

#### AN ECONOMIC & POLITICAL HISTORY OF OIL

Oil has not been unfamiliar to man. Bitumen was known to man since the Mesopotamian Civilisation. Hit, near Euphrates was the most famous source. Bitumen was a traded commodity in the ancient Middle East, and is said to have bound the walls of Jerusalem & Jericho. However, references to the traditional forms of oil, e.g. rock oil etc were far and between, although a lot of building work in medieval times is understood to have used some form of oil extracts & resins. The first petroleum in modern times, to impact our lives significantly, was kerosene. Galicia, a region presently along the borders of Poland & Ukraine and present day Romania, were two regions where commercial extraction of crude oil has been documented around 1850. Peasants dug shafts in the ground, using their bare hands and shovels, to extract crude, using buckets. This crude was then refined to obtain Kerosene. Kerosene was an established commodity for commerce & trading in Venice by 1854.

By 1859, total European crude oil production was estimated at about thirty-six thousand barrels. US, so far was suffering from lack of suitable lamps to use Kerosene for lighting purposes, as much as commercial source of crude. A number of scientists and entrepreneurs in the US were eager to discover sources of crude in the country as much as technological improvements to extract crude. So amongst the many methods examined, some Americans decided that they will 'drill' for oil and not dig. So the 'drilling' technique was invented, sometime in the 1850s.

Colonel Edwin Drake was considered the pioneer in this drilling adventure that commenced in 1858. In 1859, at a small American town called Titusville, in Pennsylvania, oil was finally discovered in US and commercial extraction commenced (Tarbel, 2009). It is interesting to note, that the sleepy town of Titusville was in no way prepared for the oil exploration efforts. Once oil was found, there was no way to store oil, no way to transport it and hardly refining capability in the vicinity. The significance of this event was such that within months, the impact on local economy was immense. Land and estate prices went up multi-fold. Since wooden barrels were the main form of storing & transporting this crude, an entire lumber based barrel industry came out of nowhere. Horse drawn carriage trains emerged and the town was soon a hub of economic activity. Hotels came up overnight, shops were set up, carpenters, lumberjacks and plumbers and their like soon descended upon the town, and firmly put it on the map of Pennsylvania.

The success of the first drilled oil well led to an exponential growth of drillers in and around Titusville and soon, Pennsylvania was flush with oil production. Oil production grew to about 450,000 barrels in 1860 to over 3 million barrels in 1862! Alongside came the capital market forces and the demand supply dynamics. The markets could not keep up with an ever expanding supply side. After initially rising in 1860, oil prices dropped to less than US \$ 1 a barrel. Then the market could develop the illuminating role for Kerosene and soon, prices rose to US \$ 10 a barrel. But oversupply as a result of overproduction tempered further price consolidation and prices levelled off to about US \$ 7 or so/ barrel (Yergin, 2008).

The American Civil War, in 1861 did nothing to the oil boom. But attention was diverted and the normal growth that should normally have followed did not. Production and oil activity continued, after all kerosene was required by all those who had changed over to kerosene lighting! End of the war released thousands of veterans who made their way, after 1865, into the oil producing Pennsylvania. Hundreds of oil companies were created and fuelled a banking & investor boom. US Congressmen joined the bandwagon. One of the earliest such persons known to be was Congressman James Garfield, who invested substantially in the oil business. He later became the US President.

1870 is considered a watershed year in the history of oil. John D Rockefeller, set up Standard Oil, in partnership with four other men, in Cleveland (Ohio, US), which is the neighbouring state of Pennsylvania. The rest is considered history. This company was named so, to ensure 'standard' or 'standardised' products. The company owned oil producing well in the US, owned crude refineries and integral oil transportation systems. Railroad (as trains were then called) were integrated or often syndicated to transport Standard Oil and advantageous rates over others. Economies of scale were brought in and corporate control over production, selling, distribution etc was exercised. These activities, considered normal today, were path breaking innovations then and came from the oil industry. This laid the groundwork for the success of Standard Oil and the demise of many a small, stand alone refinery, or oil drilling companies, since overproduction led to ever plummeting price of oil, which soon hit sub US \$ 1 levels. But Standard Oil became the unstoppable oil juggernaut. It's truly integrated oil exploration; drilling, refining and transportation system was able to achieve economies of scale and survived the competition, very

successfully. So successfully, that oil firms in neighbouring Pennsylvania were up in arms against Standard Oil. The age of corporate rivalry too had begun! This competition eventually led to the world's first oil pipeline, constructed under complete secrecy, between Coryville & Williamsport, a distance of about 100 mile. This six inch pipeline was constructed in 1878 and was called the Tidewater Pipeline. (Yergin, 2008)

Across the Atlantic, in the Caspian region, crude oil production was on the increase. Baku, in present day Azerbaijan, and then in Czarist Russia, was one of the first and most significant field opened to oilfield development and extraction. In 1873 the Swedish immigrant & chemist, Robert Nobel, the real brother of Alfred Nobel (*this Nobel family became rich and famous*) reached Baku, with 25,000 Roubles that were given by his father to buy Walnut wood for rifle production. Instead, at Baku, while in search of walnut wood, Robert purchased a small refinery. The Nobel's got into in the Caspian oil business. Early! Thereafter, since oil production in this region too started growing rapidly, problems of its transportation, both to Russia, as well as to other countries was becoming a problem. So Nobles' pioneered in developing/inventing the world's first bulk oil tanker ship. It was called the 'Zoroaster'. This was the precursor to the transatlantic oil tanker. Alongside, Russian oil production grew substantially and annual production was over 10 million barrels. By 1880, about 200 refineries were at work in Baku.

Rothschilds, a wealthy Jewish family, settled in France also got into the oil business about this time. What was a loan to complete the cash-strapped Baku-Batum Railroad, for transporting and exporting oil to the West, had turned into a

complex ownership of refining, transportation and by 1885 were selling oil across countries and continents, notably in USA and all over Europe. Competition amongst corporate had emerged and prices were becoming major issues. So was political control, due to territorial control and state policies. Trade was always controlled, and politics began driving commercial interests of vested families and groups. In this backdrop, against adverse anti-monopolist pressure, John D Rockefeller formed the Standard Oil Trust, a holding company of all his oil companies (Tarbel, 2009). Yet another financial innovation, which is today seen commonplace and is known by so many names. e.g. 'special purpose vehicle', was probably invented by John D Rockefeller.

Around 1885, a Dutch company discovered oil in the 'Far East' i.e. in Sumatra (present day Indonesia). And oil production commenced in this part of the world too. But it too had to be transported. So Marcus Shell, an Englishman sent the first purpose built oil tanker 'Murex' through the Suez Canal, in 1892 from England, via Batum to Singapore (Franks & Nunnally, 2011). Economics of oil were becoming immense.

At the turn of the century, two major technological inventions took place; the automobile by the end of the nineteenth century and the airplane, in 1904. Henry Ford produced his first car in 1896 and the Wright Brothers flew successfully in 1904. Perhaps amongst the greatest inventions, and both were powered /'fuelled' by oil. But the turning point for oil came, when in 1911, Winston Churchill became the First Sea Lord of the Admiralty in the British Government and ordered the Royal Navy, to change from coal burning boilers, to oil fired boiler based ships. Such oil fired ships were faster, could be smaller, or for the

same size, could have longer ranges (Friedman, 2014). Obviously, The Royal Navy's arch foe was the German Navy, which was dependent on coal. However, in this shift, in one stroke, the Royal Navy became dependent on imported fuel for its Navy, since Britain did not produce any oil by itself. So in 1911, Oil effectively turned into a strategic commodity, not only an economic commodity as it so far was. However, to hedge its security concerns, British companies, through various intermediaries, acquired stakes in Persia, where oil was found. The famous oil company, Anglo Persian was created. Later, this would eventually become British Petroleum. To ensure strategic security, the British government acquired 51% stake in Anglo Persian, in 1914, as war clouds gathered around Europe (Yergin, 2008).

1914-1918 witnessed the mechanisation of war. The airplane, automobile, ship and tank, all used oil in various forms and changed the nature of war fighting forever. This was a war powered by machines, powered by oil. The Germans, in 1916 were obtaining a significant amount of their oil from the Romanian Oil Fields. The British Cabinet decided that this vulnerability of the Germans must be struck. The British destroyed the Romanian Oil field (Buzatu, 2004). Similarly, the Germans were trying to get to the Baku Oilfields (Darwin, 2012). A small British force was positioned along the way, and gave a good fight to the Germans. The Germans could not cross over to Baku. This was 1918. The German army was stuck. And soon the war was over.

Alongside, in 1916, the famous Sykes-Picot secret agreement took place between the English & the French, to carve up and divide the erstwhile Ottoman Empire amongst them, with a view to obtain any modicum of oil there, settle Jews

and ensure continuation of the colonial empire. Thereafter, in the aftermath of the First World War, Iraq, Syria and Jordan were created (Woodward, 2011). (Persia became Iran later.)

### **Political and Economic Implications of Oil**

The end of the First World War led to oversupply of oil in the international market, since production capacities had got built up but consumption fell drastically. The Great depression followed. In 1933, oil fell to 4 cents per US Gallon! Franklin D Roosevelt, then US President signed into law, the Oil Code, under the National Industrial Recovery Act, the 'quota' system of production of oil, by various US states (Yergin, 2008). It also controlled/ prohibited interstate movement of US oil due to price fluctuations. This would become a quota based regime. In effect, the government was fixing/stabilising oil prices – market intervention. In Europe too, the famous 'As Is' agreement between the major US, British, Dutch & Russian oil producers was reached, using the market share principle, to delineate production quotas, somewhat of a precursor to the cartel based system. This was to ensure floor price certainty.

More and more oil started to be found in the various countries in the Middle East and many agreements were made, between European oil companies and Middle Eastern countries/kingdoms.

The Second World War was the most mechanised war the world saw. The war effort was huge. And it required tremendous amounts of oil to power the Allies and the Axis forces. One of the prime objectives of Germany opening the Eastern Front was to gain the Romanian, Caucasus & Caspian Oil. Hence the Russian and North African Campaigns! Denial of oilfields was critical to the

German war machine and eventually Germany succumbed to the combined might of the Allies. In a large part due to availability of American Oil to the Allies and denial of any oil to the Germans, and eventually to the Japanese. The Japanese too had attacked US primarily to secure their flank and ensure secure supply of oil from the South East Asia (Sumatra etc), with the eventual aim of winning their war against China. To the Japanese too, oil was critical to their strategy. The Second World War clearly established the strategic importance of oil, its economic value and the international politics behind oil.

Post war reconstruction of Europe, 1946 onwards was predicated upon the success of the Marshall Plan, being bankrolled & funded by the US. At this time, about 75% of all oil to Western Europe came from the US. And was being paid for in US \$. With dwindling dependency on coal for electricity and heating, which turned Europe into dark smog every morning & evening, there was a greater yearning for shift to a cleaner, oil based heating. This then was going to further increase dependency of Europeans to American oil imports. Concurrently, the domestic oil consumption, post the war, in the US was rising rapidly, after years of fuel rationing. Resultantly, oil prices started rising, worldwide. Shortages were imminent. Against such a backdrop, where about 20% of all assistance under the Marshall Plan was going into paying for US oil, it was necessary to stabilise prices and look for new sources of oil reaching Europe, failing which, the success of the Marshall Plan & with it, the reconstruction & economic recovery of Western Europe was in severe jeopardy. The US then started what is called economic and oil diplomacy, this time with the Middle Eastern States of Saudi Arabia, Bahrain, Persia etc.

It must be kept in mind that this was the time that the Jewish state of Israel was about to be carved out of Palestine, which became a rallying point for Pan Arab nationalism. There was a lot of anti Jewish sentiment and ironically, the US had the biggest number of Jewish run oil companies, including of course, John D Rockefeller's erstwhile Standard Oil; now broken up by the US government into a number of smaller oil giants like Standard Oil of New Jersey (now ExxonMobil) , Standard Oil of California (now Chevron) , etc. A large number of US government functionaries were also Jewish, so too were the principal funding houses for the US Presidential elections. So politics hit the progression of oil extraction and export from the Middle East to Western Europe.

US put its economic & political might to break this impasse. The economic benefits , or otherwise, were sold to Middle Eastern Sheikhs, most notably to Saudi Arabia's first monarch, Ibn Saud, to allow exports of oil to Europe. The Americans also decided to build a pipeline, from the central oil fields in Saudi Arabia to the Mediterranean Sea, to ensure substantive oil flow and energy security. The pipeline, popularly called the Trans-Arabian Pipeline or Tapline, was an oil pipeline built by the American companies, from the Saudi Arabian oil fields in Qaisumah to Sidon, the oil terminal in Lebanon (Kandiyoti, 2012). Oil finally flowed through the pipeline in 1950, into the Mediterranean. From there, oil tankers started shipping to Europe, thus avoiding the narrow defile of the Suez Canal, and along with, its associated dynamics.

The new, over lapping focus of economics and politics had effectively created a new focus for both the US as well as the British. This was the Middle Eastern oil. Millions of barrels of oil started to flow westwards. This had the

desired economic impact of stabilising prices, meeting the industrial economies inputs and therefore guaranteeing a better quality of life, hence a political advantage. It also allowed the Middle Eastern states to improve their own lot, albeit somewhat slowly, at least initially. But it also came with its own set of strategic dynamics. The security of the Middle East had to be ensured, especially since Russia, now the USSR had started to knock on the doors of the Middle East and Southern Europe. Oil had not only driven economic & political considerations, it ensured strategic value for the region. And for its stake holders. Since Britain was slowly but steadily reducing its forces in the Middle East, in a gradual manner, and the threat of Russian influence loomed large, there was no one to turn to, but to the Americans. Resultantly, American leverage grew in the region.

American government's dominance in the region meant greater interest by US companies, which had grown to become international corporations by now. Increasing 'concessions' (licences in today's terminology) were granted by the Middle Eastern states to US and some Dutch & French companies. In 1951 Mohammad Mosaddegh, the Prime Minister of Iran, had nationalised British oil interests in Iran, calling these as unfavourable to Iranian interests. With political change in Iran and the return of the Shah of Iran, it was this time that the concessions in Iran were also obtained by the US companies, in new deals, with somewhat of a better economic deal for the Iranians. At the end of 1954, a number of Anglo-American, British as well as US companies followed a consortium and won a number of concessions in Iran and oil production in the Middle East increased further (Yergin, 2008).

1956 was the year that the Suez Crisis hit the world, notable due to passage of oil. The then President, Gamal Abdul Nasser was a nationalist and often considered a hero. Egypt was happy that the British were pulling out of the Middle East & Egypt in turn had turned to the Soviet Union, for some arm supplies. This was not to the liking of the US. At that time, Egypt was negotiating a loan from the US & the British, in conjunction with the World Bank, for construction of the Aswan Dam on the Nile. In retaliation for the Soviet leaning displayed by Nasser, the Americans, based on geopolitical considerations, cancelled the loan. This surprised even the World Bank, but more importantly, infuriated Nasser in particular and the sentiment in Egypt in general. Nasser hit back, where it hurt western interests the most. On 26 July 1956, he nationalised the Suez Canal and took over control. And Western oil tankers & ships were embargoed their crossing of the Suez Canal (Gorst & Kelly, 2000).

Oil brought war to the Middle East once again. At the behest of the British & the French, whose interests were considered most threatened by the Egyptian capture of the Suez Canal, Israel launched an attack into the Sinai Peninsula, on the 29<sup>th</sup> of October 1956. London & Paris both issued political statements and warnings, of their intention to once again occupy the Suez Canal zone. Britain, on 30 Oct 1956, bombed Egyptian air fields and the Egyptian army began its retreat from the Sinai Desert. Nasser quickly blocked the canal, sinking whatever he could get his hands on. That effectively closed off the Suez Canal. The US government was unaware of these plans, and since became terribly upset with the British & French over this flare up. Resultantly, Americans did not release American oil to tide over the shortages caused by the blocking of the Suez Canal. Petroleum provided the classic tool for US Eisenhower to punish its allies in

Western Europe, for adventurism in the Middle East. He has been quoted as saying "*I'm inclined to think that those who began this operation should be left to work out their own oil problems – to boil in their own oil, so to speak*" (Yergin, 2008). This led to another oil crisis, often called the Suez oil crisis of 1956. And prices surged.

The US felt that the 'Arabs' could place an oil embargo on shipments to the entire West. Under tremendous pressure from the US, on the 6<sup>th</sup> of November, Britain & France, stopped further attacks against the Egyptians in the Sinai and agreed to a ceasefire. After all, without American Oil, all of Western Europe would be short of oil and with winter approaching fast and three fourths of all oil to Europe coming from the Middle Eastern pipelines & the Suez Canal, a crisis was underway. Saudi Arabia instituted an embargo against Britain & France. Kuwaiti oil production was shut down due to sabotage. The news of American oil sanctions against Britain & France was debilitating. The British Government, on 07 November 1956, after a cabinet decision, announced restrictions on consumption of oil, nationally. France & Belgium to imposed substantial restrictions on fuel sales & consumption.

Britain was vulnerable economically, in other ways. Its finances internationally weren't steady. With the assault across the Sinai, the British Pound started to fall in the foreign currency market. The IMF, (probably under US influence) refused British pleas for emergent financial assistance (Yergin, 2008). The Americans were dead sure this time that Britain and France had to be taught a lesson. The instrument was Oil. Only once did the British & French agree to US conditions that the Americans agree to help out. In December 1956, about a

month after the Suez Canal blockade, and facing an energy crisis in the winter, the 'Oil Lift' of 1956-57 was agreed to and activated by the US, in concert with other European stake holders (Bamberg, 2000).

US & European government & Oil company resources were put together, to lift oil from the Middle East, via the Cape of Good Hope, a longer route, to Europe. In effect, a extensive deployment of oil tankers to ferry oil from the Gulf states to Europe. The Oil Lift worked well, and by spring of 1957, over 90% of the pre crisis levels had been compensated by this oil lift (Bamberg, 2000). The Suez Canal cleared and by April 1957, tankers had resumed passage. Nasser too had won, politically. With this, the Suez Crisis was over.

Increasing production, in the Middle East meant lowering of oil prices. Towards 1958-59, there was a sort of glut and increasing discounts were being passed on by oil producers in the region. The Soviets added to the discount melee and further muddled the pot. This had started to hurt some oil producing states. It was in this economic backdrop that the idea of an oil cartel, the predecessor to the OPEC came about. On 14 September 1960, Saudi Arabia, Venezuela, Iran, Iraq and Kuwait got together to form the Organisation of Petroleum Exporting Countries (OPEC), with the objective of defending the price of oil. This was the Middle East's answer to the American Texas Rail Road Commission, which controlled oil movements & hence prices in the continental US. The OPEC would effectively control over three fourths of the world's crude oil exports, then.

One of the fallouts of the 'Suez Oil crisis', was the emergence of Japanese 'super tankers'. Post the Suez blockade and the Oil Lift, Japanese ship builders

started building state of the art super oil tankers, of up to 300,000 Dead Weight Ton class. Massive ships, these sailed around the Cape of Good Hope, and did not cross canals. These would eventually become the mainstay and evolved as the present day oil super tankers (Atlantic, 1999).

The second Suez Crisis occurred in 1967, when the Nasser and Egyptian led pan Arab nationalism emerged to the fore. Jordan joined in with its armed forces. Egypt re-entered Sinai with its military and also constituted a naval blockade in the Gulf of Aquaba, cutting off the Israeli port, Eilat. Israel, alarmed at the threat of encirclement, went on the pre-emptive and on 05 June 1967, launched an offensive. The Six-Day Arab Israeli War had begun. This six day war was to come to an end in just three days, with Egyptian Army and Air Forces in decimation. Israel obtained dominating positions over the Sinai, Golan Heights and the west bank (Oren, 2002). And the 'oil weapon' had failed to make a major impact this time. Shortages of oil, that could have been affected due to the closure of the Suez Canal were offset / mitigated due to the super-tanker runs to and fro from Iraq to Europe and back.

1968 as a year is significant in the economic history of oil, as it was discovered in Alaska (Yergin, 2012). The next year, oil was also discovered in the North Sea. So, two major discoveries were made after major investments by oil corporations. The problems of extraction & transportation would have to be solved. In Alaska, American politics came in and in the North Sea, international politics started. It would be long before the US government would allow construction of the Alaskan oil pipeline. Similarly, ownership rights and exploratory rights in the North Sea would take time to resolve. In the meantime,

the era of deepwater, offshore oil drilling rigs, which were multimillion dollar platforms, had begun.

1973 will be remembered by the world as the most serious oil crisis. Humiliated by the Israelis during the Six Day War, Egypt in particular and the Arabs in general were looking to avenge their defeat. ON 6<sup>th</sup> October, Egypt & Syria launched a coordinated assault on Israel. Thus began the Yom Kippur War. Armaments on both sides were sourced from the two super powers but the principle weapon in this war was Oil. By 1973, oil was the lifeline of world industrial economies. And since production was matching consumption, very little spare capacity was extant. OPEC too was controlling output. Any pressure on oil supplies could alter the demand supply equation and cause economic chaos and price swings. Oil as a weapon, in Henry Kissinger's words "altered irrevocably the world as it had grown up in post-war period" (Salameh, 2009). In the following days of this war, Russian resupplied the Syrians & the Egyptians. The US, under tremendous pressure and frantic requests from Israel, agreed to resupply and bail out Israel. But the Arabs came to know of it and placed an embargo of Arab oil on US and Netherland, amongst others. Later, in an OPEC meeting on 16 Oct 1973, OPEC decided to cut back production, and issued directions for successive monthly cuts by its members. They result was twofold-a sharp spike in oil prices and a reduction in the global supply of oil. The most significant decision that the OPEC had taken to date, politically & economic consequences were immense. Global pump prices of fuels had quadrupled, overnight. This came to be called the '*First Oil Shock*'. The geostrategic significance was that the Arab unity & OPEC were a force to reckon with, and had gained tremendous economic clout and strategic value. Oil had risen to over US \$ 22 per barrel!

The then US President was on the verge of issuing 'oil stamps' to manage the oil crisis. Unlike previous post-war oil crises where transportation was a major issue, this time oil supply was unavailable. American was in turmoil. And this 'first oil shock' affected President Nixon, politically. Later, he would resign, after being named in the Watergate Scandal. But his 'nemesis' started with the oil shock. The US Government finally approved the Alaskan pipeline.

In December 1973, the political leadership of the OPEC met once again, to decide a political price, 'based on kindness and generosity'. They agreed to fix the price at US \$ 11.65 per barrel. President Nixon wrote back to The Shah of Iran, over the destabilising impact that such a high price would have over the world's economy. OPEC would have their way and get away with it. The Shah of Iran saw himself, along with other political heads of Arab state, as the new determinant for world oil prices. With this, the Middle East states also started looking at Oil as a gateway to their own wealth & development.

1974 was a kinder year to the Americans. OPEC embargo on the US was lifted. It was even kinder to OPEC. It made them richer by over four times and changed the relative economic balance. Suddenly there was far more money with Arab states and hence the purchasing power of the western World dipped somewhat. The GNP of the US plunged by about 6 % between 1973 and 1975. And unemployment rose. And the combined annual earnings of oil exporters rose to US \$ 140 Billion by 1977! (Yergin, 2008)

1974 was also the year the western world decided and set up the International Energy Agency (IEA) at Paris. In effect, this was the counter

grouping of the OECD countries, to formally get together on oil and energy, with a view to collectively counter OPEC as and when required.

1975 holds significance in the Economic & Political History of oil, since it was the very first time that the US President, then Gerald Ford, who proposed an ambitious and grand ten year energy related programme, one that included building of 200 nuclear power plants, 250 major coal mines, 150 major coal fired electric plants 30 major oil refineries and 20 synthetic fuel plants (Dadwal, 2013). USA also set up the very first fuel efficiency standard in the world. It stipulated that over ten years, fuel efficiency of all vehicles had to double. This political legislation would ensure that over the decades, it would have a major impact on the American economy. Globally, Japanese car manufacturers started innovating, much ahead of others, to produce an ever increasing range of increasingly fuel efficient vehicles. Geopolitically, the US followed the 'two pillar' strategy, i.e. of supporting Iran & Saudi Arabia in the Middle East as its strongest allies, as bulwarks against any future oil shocks.

Anti Shah of Iran demonstrations gathered in Iran in 1978, and eventually, he had to go into exile. Anti US sentiment in Iran became conspicuous, and with the return of Ayatollah Khomeini, relations between the US and Iran were at its nadir. Iran subsequently took Americans at the US Embassy in Tehran as hostages. (The US later had launched a rescue operation, which unfortunately could not succeed) (Houghton, 2001). Crude oil prices started rising once again and a sense of turmoil once again gripped oil and energy markets worldwide.

Another, significant but rather under reported event occurred in 1978. Henry Kissinger, then on a state visit to Pakistan, quietly flew to Beijing and met

Vice Premier Deng Xiaoping. Both sides were looking for openings. Chinese knew that they needed international technology to drive their growth. And the US was looking for a way out of the stalemate in Vietnam, and to check the further rise of the Soviets, who had just sometime back, invaded Afghanistan. Both leaders sensed an opening. Deng Xiaoping explicitly mentioned, "*to import we need to export and the first to my mind is oil*" (Yergin, 2012). Oil exports from China commenced in 1978 and continued (all the way through up to 1993, when the indigenous oil production could no longer keep pace with its own growth and consumption). The linkage of oil, with the enormous growth of the Chinese economy is interesting.

In 1980, alarmed at the situation in the Middle East, then US president Jimmy Carter issued what is now known as the 'Carter Doctrine (Carter, 1980)'. While the Carter Doctrine enunciated the intents & purposes of the US to secure the Middle East as its strategic interest and in order to do so, it also deployed a military force. But Carter went further than that. He along with his Energy Secretary had commenced a series of domestic energy security initiatives, since 1977, also called the Carter Program. He called it the '*moral equivalent of war*'. Notable amongst these were reshaping of America's energy position, rationalising pricing based on economic considerations, and reducing the need for imported oil (Yergin, 2012).

Middle East has its own dynamics. The Shia-Sunni divide is sometimes unbridgeable. And the Baath Party in Power in Iraq had, too many issue with the Shah of Iran initially and then with the Ayatollah. Iraq attacked Iran on 22 September 1980. And thus began the eight year long war. The resultant flux, from

1979 to 1981 had a cascading impact on global oil production and market sentiment. Oil prices climbed from US \$ 11.65 to over \$ 34 per barrel. This was the '*Second Oil Shock*'.

Gradually alternate production increases from the North Sea, Alaska and Mexico, where oil production had just witnessed considerable increases, was able to bridge the shortfall. Oil stabilised. Apropos, OPEC, for the first time enunciated formal quota for production to all its member states. In such a backdrop, Saudi Arabia, which had always backed moderate oil prices, prevailed upon OPEC to reduce oil prices to about US \$ 29, in 1983. OPEC members initially confirmed to their quotas, but others, outside the OPEC, e.g. Mexico, Soviets, oil from the North Sea, etc increased overall production. As a result, in 1986, the oil price collapsed, once again (Yergin, 2008).

A modicum of price and supply-demand stability in the global market was observed over the next few years. But in 1990, Iraq invaded Kuwait. Once again, the political excuse was control and exploitation of oilfields. The First Gulf War had its own impact on the region, a war that was witnessed from the living rooms all over the world. It drove oil prices higher, strained revenues of countries worldwide and destroyed a considerable portion of the Kuwaiti & Iraqi oilfields, for a substantial period of time. It would take tremendous effort, by many, to get these oilfields back into production.

World oil demand would remain strong for the next few years, and so would production. However, in 1998, post the Asian Financial Crisis and meltdown of the South East Asian Tiger Economies, a recession in the global economy occurred. Resultantly, oil prices once again crashed to US \$ 10 per

barrel (Mabro, 1998). But this crash was short-lived. All oil producers made temporary adjustments as well as had by now built sufficient storage for oil reserves. Oil prices started to climb.

2000, termed the new millennium, heralded a new beginning for the Chinese state owned oil companies. China's 'going out' strategy had been enunciated earlier, but was now put into practice. The IPO of PetroChina, one of the subsidiaries of China National Petroleum Corporation (CNPC) went forward in April 2000. It was a slow start, but the company went public. This was followed by the IPOs of Sinopec & China National Offshore Oil Corporation (CNOOC) which also went through successfully (Yergin, 2012). The rest is history.

The Global War on Terror commenced in October 2001. And the Second Gulf War or invasion of Iraq took place in 2003. These high tempo operations by the world's superpower, in the Middle East impact production, sentiment an oil prices, which gradually started to inch upwards. 2004 witnessed a strong demand jump, buoyed by strong economic growth, especially from China. Between 2004 and 2008, oil prices spiked, to reach a staggering US \$ 148 per barrel. This oil price boom was ascribed to financial trading strategies, e.g., futures markets etc; speculation became a major political issue worldwide and was economically unsustainable. The subprime asset bubble burst. A major financial crisis hit the world's economy. The global economy headed into recession and as a result, oil prices tanked, once again.

Alongside, hydraulic fracturing, coupled with advanced horizontal drilling techniques and advanced seismic technologies employed by American entrepreneurs in the wake of growing oil prices & the threat of diminishing oil,

resulted in growing Shale Gas & Oil Output in the Eagle Ford and Bakken around 2004. Steadily, production levels of Shale Gas and then Shale Oil, or Tight Oil in the US started to increase and have since contributed significantly to American oil & gas production (EIA, 2014a).

In January 2015, the US President, Barak Obama during his State of The Union Address, in Washington, announced that US had become number one, globally, in production of oil as well as natural gas (Obama, 2015).

### **Conclusion**

Oil has changed the world since its discovery, in the middle of the nineteenth century. Today oil is a strategic commodity. It is a weapon, a weapon for economic development; or for economic estrangement & when required, for geostrategic leverage or denial. Many a wars in the twentieth century have been fought to control the world's oil. It has made poor nations rich and rich nations sometimes, poorer! Geographies have been settled due to the oil below. In today's energy centric ways of the world, energy resources will continue to be the centrepiece of international interest. Geopolitical & geostrategic dynamics will continue to flow out of oil & gas