

## 1: Oil plays a significant role - Free Economics Essay - Essay UK

*By oil production had spread to other American states. During the latter part of the 19th century oil was also produced in Canada and in European countries. The automobile boom of the early 20th century led to a higher demand of oil. It played an important role as the main fuel for tanks and planes in the two world wars.*

Plastic is used in just about everything that you can find in a store. Plastic is also used in the production of computer cases, shoes, car bumpers, kids toys, and thousands of other everyday items. In fact, many of the items on this list appear here simply because of their heavy reliance on plastics. Clothing Petroleum is used to help make clothing non-flammable and colorful. It is used in the production of rayon, nylon, polyester, and even artificial furs. Also, hangers are strengthened by petroleum-based resins. Furniture According to Conoco Phillips , couch cushions are often filled with durable, lightweight polyurethane foam. Also, if you have carpet or linoleum flooring, you probably have a petroleum based product in your home. Insulation The insulation that you find in your home “ which keeps unwanted heat from escaping or entering ” is a petroleum based product! This means that we depend on crude oil to regulate the temperature in our homes in more ways than we realize. Kitchen Items There are a number of items in your kitchen that rely on petroleum as a part of their production. For your refrigerator, the molded interior panels, door liners, and even the foam insulation are all manufactured using crude oil. Many stoves function by using natural gas. Most of us now use non-stick pots and pans. The coating that provides temperature resistance PTFE is created by using petroleum. Cars I already mentioned above that many car bumpers are made with plastics. In the same Conoco Phillips infographic, it tells us that: High-performance plastics have replaced heavier materials throughout the average vehicle “ from the interior to the engine block ” reducing weight and improving fuel economy, and enhancing safety. Food Yes, crude oil plays a part in the growth of your food. Fertilizer is something that relies on petroleum; thus, when the price of oil goes up, it gets more expensive to grow food. Many of our food items are stored and or packaged in plastics as well; meaning that crude oil plays a large part in the production of your food. This is one of the things that makes high oil prices so scary. If it costs more money to grow, store, package, transport, and regulate the temperature of our food, then that cost will be passed on to the consumers! What This Means For Us The price of crude oil means a lot more to us than just paying a few dollars more at the pump. As we can see, oil is important to the production and transportation of many of the items that we use on a regular basis. This means that many sectors of the economy will be adversely affected by increasing oil prices, or helped when they go down! I guess this will really crush the dreams of those who try to organize a gas boycott when prices are high!

## 2: UKOG - Why oil is important

*Got That Swing - U.S. Producers' New, Critically Important Role in Global Crude Oil Markets Tuesday, 07/24/ Published by: Housley Carr U.S. crude oil production has doubled in the past eight years, from MMb/d in to a record MMb/d this month – an astonishing 9% compound annual growth rate.*

Timeline of Texas History For Texans, the 20th century did not begin on January 1, , as it did for everyone else. It began nine days later, on Jan. The gusher spewed oil more than feet into the air until it was capped nine days later. Speculators created brand-new towns out of virgin prairie beside the gleaming rails. And existing communities that were bypassed by the tracks often curled up their municipal toes and died unless they were willing to pick up businesses, homes and churches and move to the rails. Cattle raisers were no longer forced to trail their herds long miles to railheads in the Midwest. The impact of oil on Texas and Texans is often analyzed in terms of corporate development, personal and corporate wealth, and the overall economy of the state and politics. Oil also dramatically affected the lives of those who owned the land from which oil was produced, or who were directly involved in oil exploration, extraction and processing. The discoveries of oil fields led to the founding and flourishing of numerous Texas towns, to the establishment of companies that have become multinational conglomerates, and to the amassing of vast personal fortunes. Conversely, the playing out of pumped-out oil fields led to the death of any number of those once-flourishing towns. Betting fortunes on what turned out to be dusters resulted in the bankruptcies of companies and individuals. However, Texas oil has affected the lives of millions of Texans not directly involved in the oil business – Texans who receive neither a paycheck nor a royalty check based on petroleum. Click for complete list. Early Oil Discoveries The presence of natural oil seeps in Texas had been known for hundreds of years before Europeans arrived in the area. Indians in Texas are said to have told European explorers that the substance had medicinal uses. Moscoso reported that the group found oil floating on the surface of the water and used it to caulk their boats. Edwards brought in a well at nearby Oil Springs. Several thousand barrels of oil were produced, but the price of oil was not high enough to justify further efforts at development. While drilling for water in , Bexar County rancher George Dullnig found a small quantity of oil, but he did not attempt commercial production. City crews in Corsicana were also drilling for water in , when they made the first economically significant oil discovery in Texas. That well was abandoned because the drillers needed to find water, not oil. But several producing oil wells were drilled in by Joseph S. Cullinan, who later helped found the Texas Company, which became Texaco. Exploration in the area of the upper Gulf Coast near Beaumont had begun in After drilling several dry holes, Louisiana mining engineer and oil prospector Capt. Lucas drilled the discovery well of the Spindletop field. Initially, the Lucas No. Peak annual production was Spindletop, which was also the first salt-dome oil discovery, triggered a flood of speculation in the area, resulting in several other significant discoveries. The boom included an influx of hundreds of eager wildcatters – including former Governor James Stephen Hogg – lusting after a piece of the action, as well as thousands of workers looking for jobs. Right behind them came a tidal wave of related service, supply and manufacturing firms, such as refineries, pipelines and oil-field equipment manufacturers and dealers. The boom turned into a feeding frenzy of human sharks: Within three years, several additional major fields were developed within a mile radius of Spindletop; Sour Lake, Batson and Humble were among them. Companies were soon established to develop the Gulf Coast oil fields. Many of them became the industry giants of today: Refineries, pipelines and export facilities became the nucleus of the major industrial region that began to form along the Texas coast around Port Arthur and Beaumont. The New Handbook of Texas summarizes the effect of Spindletop in this way: Eager to find similar deposits, investors spent billions of dollars throughout the Lone Star State in search of oil and natural gas. The cheap fuel they found helped to revolutionize American transportation and industry. As a result of the glut, oil prices dropped to an all-time low of 3 cents a barrel, while water in some boom towns sold for 5 cents a cup. Water-well drillers on the W. Waggoner Ranch in Wichita County in found oil instead, creating the Electra field. Ironically, the wealth of oil at Ranger, and elsewhere in the state, encouraged railroads to switch their locomotives from coal to oil and helped kill the

coal-mining town of Thurber. Oil was found west of Burkburnett in Wichita County in 1896, followed by another oil field in the town itself in 1897. The boom-town phenomenon became common across the state: The infrastructures of small farming communities near oil discoveries were inadequate to the demands of the population explosions. Newcomers were forced to live in hastily erected shacks, tents or even their cars or trucks. Since some of those drawn to oil fields by dreams of riches brought their families, schools became overcrowded. There were lines at cafes, at post-office counters, everywhere. Unexpectedly heavy traffic on the often-unpaved streets created massive clouds of dust during dry weather — dust that invaded every corner and settled on every surface. In wet weather, the streets became vehicle-swallowing mudholes. Oil was discovered in the Panhandle starting in 1899, and major fields were developed all across the state during the next decade — East Texas, west-central Texas and additional fields in the Gulf Coast. The biggest leasing campaign in history ensued, and the activity spread to include Kilgore, Longview and many points north. Overproduction soon followed, as oil derricks sprouted thick as bamboo all over the field. With no well-spacing regulations and no limits on production, the price of oil nosedived again. Sterling ordered the National Guard into the East Texas field, which he placed under martial law. This drastic action was taken after the Texas Railroad Commission had been enjoined from enforcing production restrictions. After more than two years of legal battles, most East Texas operators accepted proration, the system of regulation still utilized. Soon after Spindletop, the availability of an ocean of cheap oil encouraged its use as fuel for transportation and manufacturing. After railroads converted from coal to oil, steamships followed, led by those operating in the Gulf of Mexico and the Caribbean. As automobiles became more common, roads began to be paved across the state. Mechanization of farm work increased quickly, enabling farmers to produce more food with fewer people. Manufacturing plants developed in the formerly agricultural state, using cheap oil as fuel. World War II tipped the scales, however, when wartime jobs at manufacturing plants in the cities lured large numbers of people from farms and small towns. This displacement of farming families was exacerbated by the absorption of many family farms into large corporate operations. Increasing numbers of migrants from other states and foreign countries also settled principally in urban centers. By 1920, the state was four-fifths urban. Harris 3,000,000, Dallas 2,000,000, and Bexar 1,000,000. State Government Tax on Oil Production Another change brought about by the discovery of oil was the enrichment of the state treasury after the legislature authorized an oil-production tax in 1901. Oil Benefits to Texas Higher Education Many thousands of students attending Texas universities have benefited from oil. The boon that they have enjoyed began with Mirabeau B. Lamar, known as the "Father of Texas Education. In 1821, the Congress set aside 50 leagues, 250,000 acres of land for the endowment of a university. Land was also set aside in a separate endowment for public elementary and secondary schools. In 1830, the university endowment was increased to 1 million acres, with the stipulation that the endowment be good agricultural land. However, the writers of the Constitution of 1845 evidently felt there was no need to appropriate arable land for an as-yet-nonexistent university. The first million acres in the endowment were located in Schleicher, Crockett, Terrell, Pecos, Upton, Reagan and Irion counties in arid far-west Texas. The fledgling university was backed by an endowment of a vast amount of land of extremely dubious value. Udden reported that oil could be found lying atop an underground fold of rock that was believed to run from the Marathon area through Pecos County and into Upton and Reagan counties. The Santa Rita No. Cromwell of Texon Oil and Land Company. Within a year, there were 17 producing wells in the Big Lake Field, and the University of Texas was on its way to becoming a very wealthy school. The Santa Rita continued to produce oil until it was finally plugged in 1901. The University of Texas had built few permanent, substantial buildings before the Santa Rita began producing. Most of the campus was covered by shacks, which housed classrooms, labs, gymnasiums and other campus facilities. When the oil money started flowing, however, it triggered a building boom that produced many of the structures that are still used by the University. The Permanent University Fund, which receives all revenue from oil, gas, sulfur and water royalties; increases in investments; rent payments on mineral leases; and sales of university lands, is one of the largest university endowments in the world. The net income from interest and dividends from those investments plus the revenue from grazing leases on University Lands comprise the Available University Fund. These distributions help pay for construction bonds and contribute to the education and general revenues. Oil Benefits to Public Schools Texas

public schools have benefited from oil, as well. In , the Congress of the Republic appropriated from the public domain three leagues of land one league is about 4, acres to each county for public schools. Public-school land grants from this source totaled more than 4 million acres. To encourage construction of railroads, the legislature in granted lands to railroad companies; the amount of land was based on the miles of track that each company laid. The legislature also required the railroads to allot alternate sections of their land grants to the public schools. Finally, in the Constitution of , the Texas legislature granted half the unappropriated public domain to the public schools, which amount included the alternate sections of the railroad grants. More than 42 million acres were earmarked for public schools by this provision. While most of the money in the Permanent School Fund has come from land sales, the fund retained mineral rights on more than 7 million acres of school lands. The land-sales moneys have been augmented by mineral royalties. Interest drawn from the Permanent School Fund is paid into the Available School Fund, from which it is paid to the public-school districts based on average daily attendance.

### 3: OPEC : Oil and gas: the engine of the world economy

*petroleum production (including crude oil, lease condensate and natural gas plant liquids) and petroleum imports (including crude oil and petroleum products) from through The decline of domestic production and increase of petroleum imports reminds us of our increasing dependence on foreign petroleum supplies.*

Gasoline is made from crude oil. Lubricating oil is also used to keep our automobile engines from getting too hot and to ensure that all moving parts of the machinery are kept in good working order. In fact, our world would almost grind to a halt without oil. Factories would stop running. Airplanes would be grounded. Tractors on the farm would sputter to a standstill and rust. Oil is used in many products. Here are just a few examples: Even waxes for chewing gum are made from oil. Because oil is so important, the whole world is affected by what happens to this vital commodity. This past week an important oil meeting took place in Geneva, Switzerland. The meeting brought together 13 countries that belong to an organization set up to control the price of oil and to determine how much oil they should export around the world. Could you pass a US citizenship test? A group of countries that band together to control the price of a product by limiting its supply is known as a cartel pronounced car-tell. It stands for Organization of Petroleum Exporting Countries. Four of the 13 countries come from the oil-rich Persian Gulf. Not all major oil-exporting countries belong to OPEC, however. Nor are Britain and Norway. This was certainly true 10 years ago, when OPEC increased oil prices four times. For many countries, especially the very poor countries that do not produce their own oil, this steep price increase caused great hardships. The same was true in , when OPEC doubled the price. Much of what many countries earn from selling their goods abroad is taken up in paying the cost of imported oil. Many of the oil producers that have been making millions or billions of dollars from the higher prices are now finding they are in trouble. Demand for oil has dropped. There has been less need for oil because the economies of the world are in a slump. The high price of oil is partly to blame. And because of the steep oil price, many countries have decided to save oil by using less of it. Another way countries avoid the high oil price is to turn to other sources of fuel. The result is that today the world is awash with oil simply because the demand for it has gone down. This glut has caused prices to fall. Gasoline prices in the United States went down about 10 percent last year. The drop in oil prices has naturally hurt the oil-producing countries. Thinking the price of oil would keep on going up, they set out on costly programs to expand their economies. The goal of some members was to firm prices by reducing the amount of oil being produced. Without any agreement at Geneva, the feeling is that oil prices may go even lower. It will certainly help all those poor countries trying to pay such enormous oil bills. But it will be tough for oil producers like Nigeria and Mexico. They will have less money coming in to pay off their debts.

## 4: WoodMac: OPEC Will Continue to Play Important Role in Oil Market to | Rigzone

*OPEC will continue to play an important role in the oil market to , according to a new report by Wood Mackenzie.*

Indigenous usage[ edit ] The Indigenous peoples in Venezuela , like many ancient societies already utilized crude oils and asphalts from petroleum seeps , which ooze through the ground to the surface, in the years before the Spanish conquistadors. The thick black liquid, known to the locals as mene, was primarily used for medical purposes, as an illumination source, and for the caulking of canoes. The first documented shipment of petroleum from Venezuela was in when a single barrel of oil was sent to Spain to alleviate the gout of Emperor Charles V. Most of these oil concessions were granted to his closest friends, and they in turn passed them on to foreign oil companies that could actually develop them. From to , several more oil fields were discovered across the country including the emblematic Bolivar Coastal Field ; however World War I slowed significant development of the industry. Due to the difficulty in purchasing and transporting the necessary tools and machinery, some oil companies were forced to forego drilling until after the war. By the end of , the first refining operations began at the San Lorenzo refinery to process the Mene Grande field production, and the first significant exports of Venezuelan oil by Caribbean Petroleum left from the San Lorenzo terminal. By the end of , petroleum appeared for the first time on the Venezuelan export statistics at 21, metric tons. This discovery captured the attention of the nation and the world. Other fields are increasing in importance, mainly in eastern Venezuela. Exports of oil boomed between and This "disease" occurs when a commodity brings a substantial increase of income in one sector of the economy, causing a strengthening of currency which in turn harms exports of manufacturing and other sectors. The government had ignored serious social problems, including education, health, infrastructure, agriculture, and domestic industries, causing Venezuela to fall well behind other industrialized countries. Novelist Jose Rafael Pocaterra described the oilmen as "the new Spaniards". He wrote in One day some Spaniards mounted a dark apparatus on three legs, a grotesque stork with crystal eyes. They drew something on a piece of paper and opened their way through the forest. Other new Spaniards would open roadsâ€¦would drill the earth from the top of fantastic towers, producing the fetid fluidâ€¦the liquid gold converted into petroleum. Popular resentment of the foreign oil companies was also evident and expressed in several ways. Rufino Blanco Fombona , a Venezuelan writer and politician, accounts for the conflict between Venezuelan workers and their foreign bosses in his novel, La Bella y la Fiera: The workers asked for a miserable salary increase and those blond, blue-eyed men who own millions of dollars, pounds and gulden in European and U. This section does not cite any sources. Please help improve this section by adding citations to reliable sources. Unsourced material may be challenged and removed. September Learn how and when to remove this template message Venezuela production of crude oil in oil barrels , By Venezuela was the third largest producer of crude oil in the world with more than 27 million tonnes per year - just slightly less than the production in the USSR. One of his most important reforms during his tenure was the enactment of the new Hydrocarbons Law of This new law was the first major political step taken toward gaining more government control over its oil industry. Being an avid supplier of petroleum to the Allies of World War II , Venezuela had increased its production by 42 percent from alone. The world experienced an over-supply of oil, and prices plummeted. Please help improve this article by adding citations to reliable sources. October Main article: The main goal of the OPEC member countries was to work together in order to secure and stabilize international oil prices to ensure their interests as oil producing nations. This was managed largely via maintaining export quotas that helped prevent the overproduction of oil on an international scale. Oil embargo of [ edit ] Main article: In they rapidly obtained a 25 percent participation, and less than a year later they revised those agreements to obtain up to 60 percent participation in the ownership of the companies. This event became known as the oil crisis. Following a culmination of conflicts in the Middle East and the oil producing countries of the Persian Gulf no longer exporting to the United States and oil prices rising steeply, Venezuela experienced a significant increase in oil production profits. Between and , the Venezuelan government revenues had quadrupled. However, OPEC members had been violating production quotas, and oil prices fell drastically again in the s, pushing Venezuela deeper into debt.

Nationalization[ edit ] Petroleum map of Venezuela, Well before , Venezuela had taken several steps in the direction of nationalization of its oil industry. Also in the law of reversion was passed which stated that all the assets, plant, and equipment belonging to concessionaires within or outside the concession areas would revert to the nation without compensation upon the expiration of the concession. Decree stipulated that all exploration, production, refining, and sales programs of the oil companies had to be approved in advance by the Ministry of Mines and Hydrocarbons. All foreign oil companies that once did business in Venezuela were replaced by Venezuelan companies. OPEC member countries were not adhering strictly to their assigned quotas, and once again oil prices plummeted. Since then, PDVSA has not demonstrated any capability to bring new oil fields onstream since nationalizing heavy oil projects in the Orinoco Petroleum Belt formerly operated by international oil companies ExxonMobil , ConocoPhillips , Chevron and Total. His social policies resulted in overspending [26] [30] [31] that caused shortages in Venezuela and allowed the inflation rate to grow to one of the highest rates in the world. A combination of OPEC members, including Venezuela, regularly ignoring quotas and non-OPEC countries such as Mexico and Russia beginning to expand on their own petroleum industries resulted in record low oil prices to which hurt the Venezuelan economy. In addition to these events, the December oil strike in Venezuela, which resulted in a loss of almost 3mmbpd of crude oil production, brought a sharp increase in world prices of crude. A few months after the failure of the coup and the return of Chavez, a combination of labor unions and business groups called for an "indefinite national strike" which, in many places, turned out to be a forced "bosses lock out" where the employees were prevented from working. This increase brought the country to a national unemployment peak of over 20 percent in March He aimed at improving the efficiency of PDVSA in the context of distributing a greater amount of its revenues to his government and also by certain changes in taxation. In , the United States imported , barrels of oils from Venezuela, an amount consistent with imports in the five years prior. In July , this arrangement was extended from just the first half of to continue until March [55] [56]. This continued depression in income from oil has led Maduro to pressure the OPEC to raise the falling oil prices to help the Venezuelan economy. Into as a result of shortages in Venezuela , malnourished oil workers were too weak to perform their daily tasks, with many beginning to collapse on the job.

## 5: Oil and gas industry in the United Kingdom - Wikipedia

*In , Brent crude oil loadings averaged million barrels per day (bbl/d), representing about 1% of total world crude oil production of 76 million bbl/d. Brent is used to price light, sweet crude oil that is produced and traded not only in Europe, the Mediterranean, and Africa, but also in Australia and some countries in Asia.*

Electricity has the highest rate. For example, if the rate of inflation increases, oil price also moves in the same direction. This arises from the fact that oil is a key input in an economy. High oil prices culminate into an increment in the production cost for various goods and services. According to Hirsch, p. This represents a significant shift within a period of 8 years. Prior to this increment, it had taken 24 years for the index to double. However, the CPI increased with a relatively small margin from 1973 to 1980. In addition, the CPI also increased from 1980 to 1990. Over the past few years, the price of crude oil has undergone a significant increment. Some of the major factors which have been cited relate to demand and supply. The highest rate of increment in demand occurred during the 1970s. During this period, demand for oil increased with a margin of 3. According to Fulton, p. This results from the fact that the transport sector mainly depends on oil. In the transport sector, the developing economies such as China and India are amongst the countries experiencing an increment in demand for oil. For example, during the period ranging from 1970 to 1980, daily oil consumption in the US increased from 15 million barrels to 20 million barrels. When countries experience a high rate of development through industrialization and urbanization, the demand for energy is increased. This has made economies such as China and India to become large consumers of oil. Oil price is also influenced by its supply. This has culminated into a decline in oil supply. The peak of oil discovery was reached in 1965 where annual oil production averaged 55 billion barrels. During the period ranging from 1965 to 1980, annual oil discovered was less than 10 billion barrels. This indicates a significant Hubbert Peak 20 reduction in the supply of oil. Movement in oil price is also affected by other factors such as security. Some of the security factors which affect oil price include missile launches and war. For example, occurrence of war such as the war on terror has often contributed to an increase in oil prices. Oil price is also influenced by the cost involved in its extraction. Over the past decades, the cost of crude oil extraction has been on an upward trend Hirsch, p. As a result, the historical EROI ratio has undergone significant reduction. One of these models is the logistic growth model. The model is sigmoid shaped and is used to explain growth. Upon discovery of oilfields, growth in oil production occurs at a gradual rate. As more investment in oil production is incorporated such as development in technology, oil production increases at a high rate. This usually occurs for a given duration. During this period, the rate of growth in oil production is exponential. The exponential growth in oil production results from an increase in demand for oil compared to supply. This occurred during the period ranging from 1970 to 1980 within an increase in demand for energy in the agricultural sector. The high rate of growth usually levels off upon reaching the peak. As an economic growth model, Hubbert asserts that the peak is determined by the rate of growth in oil consumption and post-peak societies. This was evident during the projection of US oil production. For example, the projections mainly relied on past engineering and ecological data. In his projection of US oil production in 1962, Hubbert utilized the logistic curve. This made it possible for both low and high estimates to be determined. However, a difference was incorporated in terms of the ultimate resource. The low logistic growth rate was characterized by an ultimate resource of 100 Giga barrels with its peak estimated to occur in 1990. On the other hand, the high logistic growth rate was set at 10 Giga barrels with its peak projected to occur in 1970. Reliability of these predictions has been proved with a high degree of accuracy. For instance, results of the high estimate have been asserted by considering the production level. In 1990, US oil production was 1. The predictions of the lower and upper bound estimates which were made using the Hubbert model were 1. The actual outcome was within the projected range which represents a high degree of reliability. Due to the high reliability of the Hubbert theory, a large number of economies have utilized the model in projecting oil production. In addition, post-hoc analysis conducted on peaked oilfields, wells, nations and regions show that the Hubbert model is of great importance in making projections on oil production. Hubbert Peak 22 2. For instance, in his criticism, Michael Lynch argued that the Hubbert curve is simplistic. This arises from the fact that there are contradictions that exist between the available evidence and the specific predictions provided by the theory.

Laherrere, , p. In addition, the theory is highly biased by considering underestimates. Michael Lynch cites the fact that the theory does not provide an accurate prediction of the actual peak date. In predicting the peak date using the theory, Collin Campbell constantly shifted the projected peak date. For example, his prediction of the peak was pushed to In his later prediction using the same theory, the peak date was adjusted to However, in , the peak was pushed to In addition, the theory is also criticized for utilizing historical data without considering non-conventional oil. Despite the fact that cost of oil extraction is high, improvement in technology is increasing the probability of utilizing non-conventional oil. This trend is projected to continue considering the high rate of technological innovation. In addition, projection of oil reserves have been underestimated due to high rate of political unrests in various countries such as Russia, Iraq and Iran. The theory is also criticized since it does not take into account the probability of resource growth, commercial factors and effect of new technology on oil production. This reduces the Hubbert Peak 23 reliability of the model in predicting global oil production Laherrere, , p. There are 3 types of fossil fuels which include natural gas, oil and coal. Coal forms the largest proportion of reserves compared to other forms of energy. This makes the future of utilizing fossil fuel to be bright. However, there is a high probability of gas and oil being depleted in the future. This poses a threat to the rate of economic growth globally. This arises from the fact that most of the economies utilize oil and gas fuel as their major source of energy. This arises from the fact that it will be possible to transport coal using pipeline by mixing it with special chemicals and water. However, for consumption of coal to be increased, more effective methods of utilization have to be devised. This is due to the fact that the fuel is a major source of environmental pollution. To secure the future of fossil fuels Trengrove, , p. As an alternative energy source, hydrogen consumption is likely to increase in the future due to its cleanliness. Due to increased oil shortage, more emphasis is being paid on how to improve energy sources by considering other sources of energy. Some of the alternative sources being considered include solar, wind, hydro-electric and ethanol. Solar and wind energy are readily available. Wind energy is harnessed by use of turbines thus converting it into electrical power. In addition, wind power is advantageous since it does not contribute towards environmental pollution. On the other hand, solar energy is harnessed through use of solar thermal panels. Both solar and wind energy are less expensive compared to fossil fuels. In addition, solar and wind energy sources are available in large amounts compared to other sources such as ethanol. However, these sources have not been fully tapped due to lack of necessary technology. Considering the high rate of technological innovation, the probability of growth in the rate of utilization of alternative energy is relatively high. On the other hand, there has been increased utilization of hydroelectric energy. Utilization of hydroelectric power is limited by the high cost involved in construction of hydro-electric power plants. In addition, other hindrances to construction of these plants relate to poor addressing of the associated social issues such as resettlement of the displaced individuals in the process of implementing the project. Different sources of energy were predicted to have different peaks by utilizing the Hubbert peak theory. The table below gives an illustration of the Hubbert peak for various alternative sources of energy. Source of energy Estimated peak. Hubbert Peak 26 Source: Essay UK - [http:](http://)

## 6: History of the Venezuelan oil industry - Wikipedia

*Why oil is important Oil: lifeblood of the industrialised nations Oil has become the world's most important source of energy since the mids. Its products underpin modern society, mainly supplying energy to power industry, heat homes and provide fuel for vehicles and aeroplanes to carry goods and people all over the world.*

Three Important Issues for the Oil and Gas Industry and Our Impact on Them February 11, Kenneth Hill Victory Energy Corporation As executives in the oil and gas business, we work very hard to keep an eye on the fundamentals of our business when evaluating risk and opportunity. We build strategies that are catered to our available capital, our expertise and the playing field that we see in front of us. With that in mind, here is my list of the top three important issues in our industry and how we need to take action to impact these issues. We need to ensure that the general public and our employees understand the economic and quality of life benefits created by the oil and gas industry is critical to our future. Twenty percent, or one out of every five new private jobs created in the U. At least five new U. The natural gas boom in America will also lead to a significant reduction in greenhouse gases. Natural gas-fired power plants produce around half as much carbon emissions as coal-fired plants and just 1 percent as much sulfur oxide. When comparing energy from oil to other energy sources, there is no equal. Today, oil meets 36 percent of the U. When discussing solar, nuclear and wind alternatives, remember, few of these investments address transportation on the highways, in the air or by sea. Approximately 11 percent of U. When oil prices go up, so does the prices of these common products. New technologies are driving this move toward energy self-sufficiency, but like many new technologies, the companies deploying the technologies have to control the risk and maximize the benefit of innovation. Energy Information Administration has forecast that the nation could become a net exporter of liquefied natural gas as early as Much of the recent growth in our industry has come from the deployment of new technologies to recover hydrocarbons from rocks that most people 20 years ago would have thought impossible. This includes people in our own industry. As usual, this sudden growth scares some people, so they begin looking for reasons to slow it down. We all know that most of these new technologies are really just modifications of older methods of recovery that continually improve through quality engineering, innovative deployment and industry experts thinking differently than we once did. Our biggest opportunity is in front of us and we will be allowed to conquer it if we manage our people and our processes well. Importance of independents Independent oil and gas companies will transform the U. The general public is familiar with fully integrated companies, many of which are household names. When they read about politicians or media targeting the oil and gas industry, they think of big companies, with record profits, being subsidized by tax payers. This is a mischaracterization of the industry and we need to take a stronger stand on the reality and the importance of the various sectors of our industry. As a comparative, the Exxon Mobil annual report shows that only Furthermore, according to the IPAA, independent producers reinvest percent of their cash flow back into new American production. How many other industries or alternative energy companies can say that? In addition to their current production, independent oil companies are positioned for growth in While increased jobs are a major driver for economic growth, the lack of skilled workers is a deterrent for big oil companies. A lack of skilled workers is an issue causing one of the major obstacles to growth according to research by the Economist Intelligence Unit. Due to the lack of skilled labor, wages and the cost of contractors are expected to increase in , driving up the operating costs and driving down profit. If large companies are forced to reduce spending, business could suffer. Many independent oil and gas companies are privately held small organizations with less than 20 employees and therefore immune to the obstacles of big companies. Because of their high operating efficiencies, independent oil and gas companies are poised for profits. And unlike major oil and gas companies who fund a significant portion of their drilling activities with the sale of stock, most independent operators rely on direct investment. In return, these independents provide investors with cash flow and tax advantages through direct participation in oil and gas programs. The next year will provide a window of opportunity for small energy investors and provide key opportunities for investment. In Conclusion How can it be that even with all of these jobs, products, benefits

and quality of life improvements that our industry has helped to create, that so many people still think of what we do as nothing more than creating a propellant for their vehicle? We cannot allow our industry to be victimized or vilified by false representations driven by political agendas. If you are involved with oil and gas exploration, finance and investing, compliance and regulation or you are a family member of someone who is, then start telling someone you know about all of the great things our industry does for them. Illumination leads to enlightenment which quells fears, inspires advocacy and fosters greater innovation.

## 7: Three Important Issues for the Oil and Gas Industry and Our Impact on Them - Oil + Gas Monitor

*The Importance of Crude Oil Essay Words 6 Pages From the middle of twentieth century, due to exceptional importance of the crude oil in the supply of the world's energy demands, it has become one of the major indicators of economic activities of the world.*

Early history[ edit ] After the Scottish shale oil industry reached its peak in the 19th century, the British government became increasingly concerned to find secure sources of fuel oil for the Royal Navy. This led to a nationwide search for onshore oil during the First World War and a modest discovery of oil at Hardstoft in Derbyshire. The outbreak of World War II accelerated this search and led to a number of wells being drilled, primarily around Eakring in the East Midlands. In the s, the focus turned to southern England where oil was discovered in the Triassic Sherwood Sands formation at feet, followed by the development of the Wych Farm oilfield. The link between onshore and offshore oil in the North Sea was made after the discovery of the Groningen gas field in The Netherlands in In , new wells and 54 sidetracks were drilled. The average size of the oil and gas fields discovered between and was 26 million boe, [9] compared with an average of million boe in the ten years from Oil and gas production from the UK sector of the North Sea peaked in , but the UK remains a substantial producer today. Over the last four decades, 39 billion boe have been extracted on the UKCS. In addition, a thriving exports business is estimated to support a further , jobs. The organisation operates as a neutral, industry-steered organisation, improving efficiency in the oil and gas supply chain. FPAL currently matches the needs of over 70 purchasing organisations with the capabilities of over 2, suppliers. Tax contribution[ edit ] Jobs in the UK oil and gas industry are highly skilled and well rewarded. The organisation allows the industry to consolidate and improve its work in generating and developing the talent needed to sustain the long-term future of the UKCS and export learning internationally. The Academy works with schools, colleges and universities on a shared agenda of encouraging greater uptake of mathematics, science and engineering subjects. The organisation also supports the development of safety, technical and leadership skills within the industry in response to identified need. Training standards and quality assurance on training delivery both here and around the world are also being advanced through the Academy. Technology and Innovation[ edit ] The operating environment in the waters around the UK is harsh and demanding. To overcome the challenges of recovering oil and gas from increasingly difficult reservoirs and deeper waters, the North Sea has developed a position at the forefront of offshore engineering, particularly in subsea technology. Many new oil and gas fields in the UK are small, technically complex and economically marginal. Often recovery from these fields is achieved by subsea developments tied back to existing installations and infrastructure, over varying distances measured in tens of kilometres. Innovative technology is also a critical component in the recovery of reserves from high pressure, high temperature HPHT , heavy crude oil and deep water fields. Exports[ edit ] UK exports of oil-related goods and services have been estimated at more than 0 billion a year in value. The competence of its people and the quality of its technology, particularly subset, are very much in demand in oil and gas provinces around the world. Since its creation ten years ago, ITF has helped oil and gas producers, service companies and technology developers to work collaboratively, developing technology projects. Health and safety[ edit ] Safety vision[ edit ] Set up , Step Change in Safety [17] is the UK based cross-industry partnership with the remit to make the UK the safest oil and gas exploration and production province in the world. Communication between Step Change in Safety and the industry is through elected safety representatives, offshore installation managers and supervisors, safety professionals and company focal points. These individuals are consulted on what needs to be done and are charged with ensuring that the Step Change programme is implemented. A dedicated Offshore Division within HID is responsible for the enforcement of regulations in the offshore oil and gas industry. Asset integrity[ edit ] Asset integrity is the ability of an oil and gas asset to perform its required function effectively and efficiently whilst protecting health, safety and the environment. Asset integrity management is the means of ensuring that the people, systems, processes and resources that deliver integrity are in place, in use and will perform when required over the whole lifecycle of the asset. Specific initiatives now encourage

industry wide engagement and continued investment in asset integrity. During this time, seven fatal helicopter accidents claimed the lives of 94 offshore workers and flight crew. It does this by building a trust fund based on payments from oil and gas producers which can be used to maintain comprehensive, up-to-date information on all seabed hazards related to oil and gas activities for as long as they remain, and to make this data available for use by fishing vessel plotters found on board in wheelhouses all around the UK coastline. Carbon dioxide is released into the atmosphere in three ways during production operations: Flaring[ edit ] Enclosed high efficiency shale gas methane burner Open flares for well tests are not permitted in the UK. Radon gas exists in very low concentrations in shale gas and in North Sea gas, but the levels predicted fall below any level of concern. In exploration wells, where flow rates are expected to be 10 tonnes of gas per day, testing is licensed by the Environment Agency to 30 days, extendable to 90 days. In testing a production well, the test can be made by flowing into the production pipeline. This means that no gases would be lost, and flaring would not be necessary. Marine discharges[ edit ] Discharges into the sea can occur either through accidental release e. In , 59 tonnes of oil in total [23] was accidentally released into the marine environment, which, in open sea, will have a negligible environmental impact. Waste[ edit ] Types of waste generated offshore vary and include drill cuttings and powder, recovered oil, crude contaminated material, chemicals, drums, containers, sludges, tank washings, scrap metal and segregated recyclables. The majority of wastes produced offshore are transferred onshore where the main routes of disposal are landfill, incineration, recycling and reuse. Drill cuttings are also re-injected into wells offshore. All other installations must be totally removed from the seabed. During the next two decades, the industry will begin to decommission many of the installations that have been producing oil and gas for the past forty years. There are approximately installations to be decommissioned, including very large ones with concrete sub-structures, small, large and very large steel platforms, and subsea and floating equipment, the vast majority of which will have to be totally removed to the shore for dismantling and disposal. Some 10, kilometres of pipelines, 15 onshore terminals and around 5, wells are also part of the infrastructure planned to be gradually phased out, although some, or parts, of the onshore terminals will remain because they are import points for gas pipelines from Norway and the Netherlands. Decommissioning is a complex process, representing a considerable challenge on many fronts and encompassing technical, economic, environmental, health and safety issues. As energy demand around the world grows, so too will the need for technology and expertise required to satisfy it. Transfer to other industries Marine technology, skills and expertise pioneered in oil and gas are important in the design, installation and maintenance of offshore wind turbines and hence have found roles in the continuing evolution of renewable energy. The industry has led the way in the development of drilling, remotely operated vehicles ROVs and geophysical technology. All three areas of expertise are used by scientists and engineers elsewhere, whether examining Antarctic ice core samples, raising sunken ship wrecks or studying the plate tectonics of the ocean floor. Carbon Capture and Storage CCS To prevent carbon dioxide building up in the atmosphere it has been theorised that it can be captured and stored, however no working model actually exists. It is proposed to do CCS by combining three distinct processes: Some of the best natural repositories are depleted oil and gas fields, such as those in the North Sea.

## 8: 7 Important Uses For Crude Oil And Why It Matters

*On the subject of oil and gas for the troops during World War II, I would like to mention the important role of the army's Fuels and Lubricants Division.*

Nigeria, like other developing countries of the world is paying more attention on how to accelerate the rate of her development through the various sectors of the economy. Petroleum or crude oil is an oily, bituminous liquid, consisting of a mixture of many substances mainly the elements of carbon and hydrogen, and thus known as hydrocarbon. It also contains a very small amount of non-hydrocarbon elements, chief amongst which are sulphur, nitrogen and oxygen. The petroleum industry covers the exploration and production of crude oil as well as petroleum refining, marketing and servicing. Specific policy objective with respect to petroleum and mining can be summed up as follows: Active government participation in mining operations, diversifications of mineral products, the organization and regulation of the development of mineral reserves so as to optimize their contributions to the overall national development effort; the conservation of the countries mineral resources, research into efficient extraction methods and wider application and use of mineral manpower development and accelerated transfer of technology, achievement of internal self sufficiency in the supply and effective distribution of petrol-industry products, commercialization of gas, and the control of the environmental problems of oil production. Petroleum either as petrol , diesel, fuel oil , lubricant or petrochemical makes Nigeria economic wheel go round. Petroleum has transformed poor nations into rich ones, deserts into watersheds and bankrupts nations into creditors. Specifically, with regards to Nigeria, there is no gain saying that oil sector has undergone tremendous transformation over the years. No other resource in Nigeria has played such a towering role over the national economy as crude oil. The government of Nigeria has used the revenue derived from oil through tax and royalties to carry out development projects in the country. This study, therefore, aims to illustrate clearly the impact of the oil industry on economic growth performance in Nigeria. Since its discovery, petroleum has impacted so much on Nigeria economy, these impacts are both positive and negative. Some scholars have advocated for the shifting of emphasis from oil industry to other sectors owing to their belief in the negative fallouts of the oil industry. Some others opined that the sector should be promoted and developed for its benefits. These opposing views have created the problem of acceptance or otherwise of the oil industry in Nigeria. All these and many more questions pose contradiction, hence; the need to investigate on this all-important topic. You have to show enough cause why you have decided to go into this research work. In view of the controversy with respect to the relative contribution of the oil sector of the Nigeria sector as compared with the other sectors, it is imperative to establish empirically the relative impact of the oil industry in the Nigeria economy. By the end of the research the study aims at achieving the following objectives: Based on the objectives of the study, the researcher has formulated the following hypothesis to guide this study: SCOPE This research work is an investigation into the impact of the oil industry on economic growth performance in Nigeria for the period of , specifically, a period of thirty-one years. In carrying out this research work, the researcher encountered some difficulties. The first of such constraints or difficulties concerns data. There was the problem of data inconsistency as data collected from different sources on one variable showed some discrepancy. Also was the reluctance of some librarians to make data available. Apart from the above-mentioned constraints, which are capable of adversely affecting the accuracy of the results of this research work, all other errors and omissions are entirely those of the researcher. He opined that oils in Nigeria, generally occurs at depths below 1, meters. According to him, it is the raw material around which a chain of commercial activities known as the petroleum industry revolves. Obadan further stressed that petroleum is the raw materials for a wide range of chemicals for the production of pharmaceuticals, fertilizers, fibers, for the manufacture of textiles and numerous other products essential for human existence. More so, he added that petroleum jelly for the body, candles for lightning and bitumen for tarring roads are some of the many by-products of petroleum. Oil is usually found associated with gas and water in the pore spaces between the grains of sand and make up the oil bearing rock body reservoir , it is usually found in areas where thick columns of sedimentary rocks about meters minimum thickness of sands,

sand stones, limestone, evaporates and shales of mostly marine origin occur like in the Niger Delta, Anambra and Chad basins. However, the Bemue trough and Sokoto Basin are also being investigated for oil: S, Dual purpose kerosene D. K, Automatic Gas Oil A. O, and Aviation Turbine kerosene A. K for the bulk of the petroleum products. The major types of products concerned at depot, according to him are the first three mentioned above. K is being transported through pipeline from the misimi depot to Murtala Mohamed airport Lagos. Other products include the following: G- Liquefied petroleum gas L. O "Low pour fuel oil H. O "High pour fuel oil He further suggested that there are others referred to as special product which are not being loaded at the depot, but are still petroleum products; such include Boseoil, Bitumen and wax etc. With respect to the uses of the products he outlined that: S- Is used as fuel for car. O-Is used for fuelling compression, ignition engines, boats, heavy road transport vehicles and small generating plants. K " Is used for domestic purposes and aviation uses aviation fuel. G- Is used for cooking and lightning, bitumen for road surfacing. O " are both used for boilers, heaters and sailing of ships. Wax " are used for making candles, polishes for wood, leather, linoleum and automobiles. The development of oil industry in Nigeria began in the first decade of this century. According to Anyanwu, it started with exploration activities by the German bitumen corporation. Anyanwu added that this company carried out some geological work, drilled three deep wells in the former western region and abandoned concession in However, Anyanwu noted that the first commercial discovery of crude oil in Nigeria was in by shell. He also added that the company started production in And that in, the federal government of Nigeria issued ten oil prospecting licenses on the continental shelf to five companies, each license covered an area of 2, squares kilometers and was subject to the payment of N1 million with these generous concession, according to him, full scale One-shore and off-shore oil exploration began. Oil was found in commercial quantities at Oloibiri in the Niger Delta ukwu I. Further discoveries at Afam and Boma established the country as an oil producing Nation. By April, Oil from Nigeria had reached 2 million Barrels per day. Anyanwu Etal p. Ukwu p It is also important to note that because of the need to conserve foreign exchange, create job opportunities to some extent, in addition to other multiplier effects locally, the federal government in awarded a contract for the construction of a refinery at Alesa-Elеме, Portharcourt; Rivers State. The refinery was commissioned in with an initial designed production capacity of 35, barrels per day. This volume was considered sufficient to meet domestics consumption of products for many years to come. However, between and, the nation experienced an upsurge in demand for petroleum products averaging a yearly increase of Thus, in, the warri refinery was officially opened with a total capacity standing at, barrels per day. Continual demand pressure led to the building of a third refinery at Kaduna in with limited capacity of, bd with a potential capacity of, bd. A fourth refinery has been constructed near Port Harcourt. The federal governments intends to use some of the end products from the refineries as feedstock in its petro chemical projects which are being implemented in 3 phases at Ekpan, Warri, and Kaduna. He stressed that the organization has 13 member countries and its geared towards the development of the economies of its members through effective utilization and control of the petroleum resources of the nations. As a member of Opec, Nigeria. The price oil is sold for is largely determined by the organization of petroleum exporting countries OPEC. On the birth of NNPC, Anyanwu noted that the presence and activities of the oil companies in Nigeria had led to government involvement in the oil industry as well as the birth of NNPC. He explained that the role of government in the oil industry as gradually progressed from regulatory to direct involvement in oil exploration. Initially, government interest was only limited to the collection of royalties and other dues offered it from the oil companies and making rudimentary laws to regulate the activities of the oil industry. Anyanwu etal pg By, a year after the Nigerian civil war, oil had started becoming more important to the economy. To strengthen and establish government control in the industry, therefore, the Nigeria national oil corporation NNPC was established by a decree in, as an integrated oil company. It was also in that year that Nigeria joined the organization of petroleum exporting countries OPEC as the 11th member country. The NNPC had responsibility for both upstream and downstream activities in the industry. It was believed that if government had more say in the running of the oil industry, it could achieve its goals of rapid industrialization and commercial development. Nigeria Brief-community issues Meanwhile, the then ministry of petroleum resources whose functions were mainly regulatory was also running concurrently with NNOC, It was not until

1st April that a merger between the NNOC and the ministry of petroleum resources created the Nigeria national petroleum corporation NNPC combined the commercial functions of the former NNOC namely: These regulatory functions were then vested in an independent arm of the NNPC, the petroleum inspectorate; which is today a department in the present ministry of petroleum resources and still performing the same role. Anyanwu et al p. It showed that oil revenue rose from N Thus in , oil revenue as a percentage of total government revenue was All government share of crude oil produced apart from what is processed for domestic consumption is sold by the NNPC and proceeds from it are paid into the federal account. The NNPC sells to its customers directly as well as to some of its joint venture partners at the official selling price. Government revenue from oil also includes other sources besides direct crude oil sales. In many ways, oil has been the engine of economic growth in Nigeria. In , it had further fallen to Crude petroleum has remained the main engine of economic growth in Nigeria inspite of the volatility of the world oil market and its declining share in GDP Agbejule p 29 Commenting on the opportunities available for Nigerian entrepreneurs in the petroleum industry, Iyoha noted that oil industries in Nigeria have created opportunities for Nigeria entrepreneurs. He draw attention to the fact that the Nigeria National petroleum corporation represents all aspects of the industry. According to him, the corporation is an integrated international oil company involved in both upstream and downstream operations. This means that virtually all business men can find something of interest in the Nigeria national petroleum corporation group, either in the upstream or in the downstream sector of the industry. Investment opportunities exist in areas of survey and mapping. These surveys are necessary before meaningful exploration work can take place. Iyoha p 99 There are also opportunities in civil engineering works, particularly in the area of preparation of drilling location, construction of ud pits and slabbling or concretes gabs at regsites. Business men can also supply such items as cement, and pipelines. These are areas where Nigerians can harvest alone or in partnership with foreigners.

## 9: Oil and world power - Oil

*Because oil is so important, the whole world is affected by what happens to this vital commodity. This past week an important oil meeting took place in Geneva, Switzerland.*

It is made up of organic material, formed millions of years ago from dead plants and animals. Deep in the ground pressure and heat transformed them into oil. Crude oil is oil in its natural state. Many other products are made out of petroleum. Every day our planet consumes about 90 million barrels of oil. Because oil needs millions of years to develop we will run out of the energy, which we so much depend on. History of oil Oil has been used in one form or another over thousands of years but it has become really important to our economy in the last 2 centuries. It has been the most important source of energy since the end of World War II. The first oil well was created in the middle of the 19th century in Pennsylvania. By oil production had spread to other American states. During the latter part of the 19th century oil was also produced in Canada and in European countries. The automobile boom of the early 20th century led to a higher demand of oil. It played an important role as the main fuel for tanks and planes in the two world wars. Today more than 90 percent of all vehicles are powered by oil products. It is the most important source of energy in our world. Other notable producers are Venezuela, Great Britain and Indonesia. Each deposit of petroleum has a different combination of hydrocarbons, thus making it a thicker or thinner liquid. It also has sulphur, nitrogen and other elements in it. How oil is produced Before oil can be extracted from the earth geologists first must examine the land and the rock layers that lie underneath the surface. Up to about 30 years ago drilling for oil was a great risk. Geologists could not guarantee that oil would be found where they presumed. Crude oil is found together with gas, which floats above the oil layer. Sometimes gas is extracted together with oil during the drilling process, at other times it is simply burned off when it comes to the surface. Oil pumping station in Texas - Flocloguy Before oil can be brought to the surface a drilling rig is set up. Oil is often buried deep down in rock layers, so that drills must go down to a depth of meters and more. Offshore rigs operate on platforms in the ocean. They drill for oil underneath the ocean floor. After it is brought up to the surface crude oil is brought to refineries, where it is made into petrol or gas, heating oil, kerosene, fuel for airplanes and plastic products. Other chemicals and fertilizers are also made out of crude oil. Not all oil is found in rock below the surface. Some lies trapped in oil sands, but production is still expensive. Petroleum industry The oil industry combines many different tasks. In addition to exploring new reserves, drilling and refining oil, the industry must also bring oil products to the consumer. Giant supertankers transport crude oil across the oceans all over the world. Pipelines bring oil over land from one part of a continent to another. Price of oil The price of oil changes constantly, depending on how much is produced and consumed. Many factors can influence the price of oil. Especially wars and conflicts in oil-producing countries can lead to a rise in oil prices. It uses up about a fifth of the daily oil production. Japan, the European Union and China are other major consumers of oil.

A very adaptable dame. Cambridge ielts 1 Structure-function Relationship Of Gonadotropins (Serono Symposia) Kinematics of machine lab manual Human nature in American historical thought Before Adam (Large Print) Elementary statistics a step by step approach 10th edition Haynes Ford Mustang (1979-1993 Mercury Capri (1979-1986 Automotive Repair Manual Threats of secession The weary blues langston hughes Joint energy planning jurisdiction plans Appendix, 1841-1848. Electronic noses sensors for the detection of explosives Louis Bromfield at Malabar Business negotiation in america Insurance institutes in Australia, 1884-1984 Manual of hypodermatic medication. Teetotalers and saloon smashers List of architects in lucknow Measurement abbreviations San Francisco Committee of Vigilance of 1851 papers When nickels were Indians Contemporary profiles of tribes and groups Disneys Mickey Mouse Clubhouse Storybook and Viewer Types of models in geography World Historical Fiction 91. Catechetical Instruction in the Doctrinal Form of the Catechism. Selection of the Catechism, 217 Real estate investment (Books for professionals) Bodies of evidence. The body as abject and object in CSI Basil Glynn and Jeongmee Kim The Biblical Masorah and the Temple Scroll Economic and Monetary Union in Europe Evolutionary approach to Jesus of Nazareth 15-minute Latin American Spanish (Eyewitness Travel Guides) Modern business process automation yawl and its support environment The road to making billions with bt guide Regulatory and legal background The Canadian Encyclopedia of Dietary Supplements Emerging role of finance manager David, Donny, and Darren Cabinets built-ins