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## FINANCIAL MANAGEMENT AND ECONOMY OF OIL AND GAS INDUSTRY

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### Finančný manažment a ekonomika ropného a plynárenského priemyslu

**Abstract:** Štúdia analyzuje finančné toky a manažment v ekonomike ropného a plynárenského priemyslu s dôrazom na analýzy svetového trhu. Je spomenutá definícia ropného a plynárenského priemyslu s cieľom stručne poukázať na aktuálne štruktúry, úlohy a zákony manažmentu v ropnom a plynárenskom priemysle. Význam ropy a zemného plynu pre svetové hospodárstvo je častou, aktuálnou a dôležitou témou uplynulých a aj budúcich desaťročí s dôrazom na pokročilý výskum a inovácie. V uvedených častiach grafy uvádzajú súčasné výzvy s budúcnosťou ropy a zemného plynu vo svetovej ekonomike. Záver štúdie v príspevku poukazuje na celkový popis predstaveného obsahu spolu s jeho návrhmi a odporúčaniami.

**Kľúčové slová:** Finančný manažment, svetový trh, finančné toky, ropa, plynárenský priemysel

### Introduction

The paper intended to analyse the means of financial management in Oil and Gas industry. The functions and the roles of financial managements are discussed on the following chapters. The forms of managements and the financial decisions are given as a core part of the current discussion. On the following discussions, the paper shall explain the economy of oil and gas industries. In fact this analysis does not only refer to specific regions where there is an economic impact on oil and gas industries but also, the analysis also contains the global impact of oil and gas industries to the whole oil rich and non-oil countries. The paper shall emphasize the specific explanations of financial management and economy of oil and gas industries.

### Economy of Oil and Gas Industries

Prior to start the discussion of the economy of oil and gas and the financial management of oil and gas industries, the study gives the brief introductory of the petroleum industries.

The petroleum industry is divided into five distinct sectors:

- Exploration
- Production
- Transportation
- Refining
- Marketing.

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The National Emission Standard for Hazardous Air Pollutants (NESHAP) builds up controls for the items and procedures of the creation and transportation parts of the petroleum business. In particular, the oil and natural gas creation and natural gas transmission and capacity source classifications incorporate the partition, updating, stockpiling, and exchange of removed streams that are recuperated from generation wells. Consequently, it incorporates the creation and authority exchanges up to the refinery organize for unrefined petroleum and up to the city entryway for gaseous petrol. This report assesses the economic impacts of extra contamination control necessities for the oil and normal gas generation and common gas transmission and capacity source classes that are intended to control arrivals of hazardous air pollutants (HAPs) to the climate.

The study emphasizes that oil and gas have significantly remained the lifeblood of the world economy for over decades by taking into account of over half of mankind's primary energy supply. Although, the artificial science has significantly increased the development of alternatives of the oil and gas supplies, however, the role of the oil and gas supplies have been always significant. Certainly, it had massive impacts on the different economies especially in the oil rich countries where the national currencies faced with the devaluations in the previous years due to the sanctions, political actions as well the effect of the oil and gas products in the community was also one of the main reason which brought the economic analysis of the oil and gas industries to the society.

These high vitality thickness and effortlessly accessible petroleum derivatives have assumed essential jobs in a portion of the greatest ventures like synthetic compounds, transport, control, petrochemicals and so forth. The accessibility of shoddy, copious vitality lifts countries out of neediness and at such, vitality security has turned out to be national need for generally countries. Raw petroleum and flammable gas supply has turned out to be vital particularly despite rising interest for vitality for solace and innovative improvement. The aggregate proportion of monetary impacts of raw petroleum and gaseous petrol creation on the host country or network particularly to create nations could be best portrayed by the effects: immediate, backhanded and incited. The immediate effects are estimated as the employments, work salary and esteem added to the oil and gas industry while circuitous effects are estimated with a similar measuring stick yet happening over the inventory network because of unrefined petroleum and flammable gas generation exercises. Instigated impacts are estimated as employments work wage, and esteem expansion coming about because of family unit spending of work and proprietor's pay earned either straightforwardly or in a roundabout way from raw petroleum and gaseous petrol creation exercises. Raw petroleum and flammable gas generation exercises have been found to make tremendous monetary commitments that advantage both the host countries and the citizenry. A portion of the courses through which unrefined petroleum and flammable gas generation add to the economy incorporate.

The occasional infusion of obtaining power through its nearby consumption on merchandise and enterprises by the oil and gas generation industry is another method for adding to the economy of the host nation. Instalments to neighbourhood contractual workers for products and enterprises and for direct buys has the ability to animate the economy and furthermore apply optional impacts, through multiplier process on the level of yield and work in other related segments of the economy. Since unrefined oil and regular gas are sold in worldwide markets, creating nations can possibly win and spare remote trade available for later. This puts the nation's economy in sound position and enables her to fund the outside trade cost of any advancement program.

### **Financial Management in Oil and Gas Industries**

The paper concludes three main decision making areas within finance as well within firms regardless of their shape or size, they do face with these decisions. The paper discusses them briefly herein terms of the oil and gas industry:

#### **A The Investment Decisions**

The investment decision process refers to the certain inquires as how much cash should be invested and to what the investments should be made in. In order to generate the cash, it requires number of years to start as due to the fact that investments are typically capital intensive. In the upstream sectors, the investment decisions are contradictory where cash flows are subject to considerable risks. Hence, a great comprehension of affectability investigation, sound capital apportioning and utilization of the right venture evaluation method are for the most part basic for the supervisor in the oil and gas industry

#### **B The Financial Decision**

The Financial Decision process directs to the decisions where to source the cash for investments. The paper gives the methodological analysis for this decision by referring to the concept of the company's financial managements where the companies owe three main choices to make proper financial decisions in which they can use retained earnings, borrow on capital markets or sell equity. Various factors influence this decision; however oil and gas industry directors should be completely familiar with capital structure hypothesis and the favourable circumstances and weaknesses of each sort of financings. The greater part of the simple substantial oils and gas companies, for example, Exxon, Shell

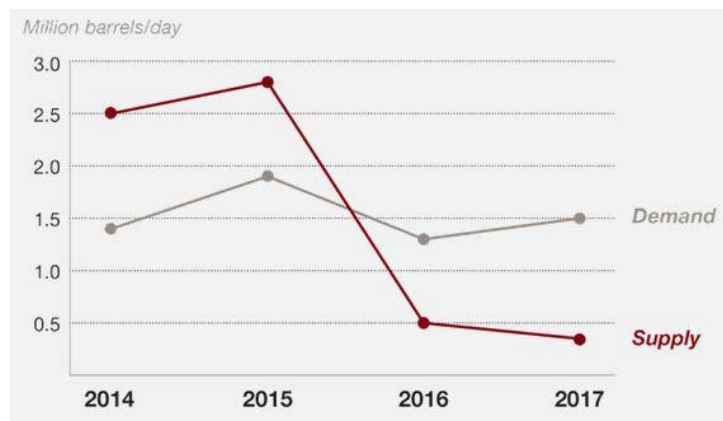
and BP, have a low level of obligation in their asset reports. Why have they made this decision, when they could easily raise debt at a favourable rate even when credit conditions are poor? Oil and gas managers who understand capital structure theory in relation to the industry can answer these questions.

1. The Pay-out Decision

In this decisions the return policy of the cash to the shareholders are taken main place and certain questions like how much to return to them are defined. The Pay-out Decisions are concerned to the investment decision and the financing decisions since an oil and gas companies determined to invest all its free cash flow and accept the funds for a large projects which shall have little remaining to return to shareholders. The shareholders, in any case, may incline toward this and be content with expansive capital gains because of the venture. The notable point here is that oil and gas industry administrators must know about the choices accessible to them in pay out approach and of how these choices influence shareholder riches. Amid the 2014 – 2016 oil value crash, the money streams of the oils and gas organizations have been put under outrageous strain as they battled to both put resources into new activities and pay the profits that shareholders expect, while their working money streams had crumpled. Obligation in these organizations, as estimated by capital adapting (net obligation isolated by obligation in addition to value), ascended from levels of 10 for every penny to 20 for each penny – now and again to even 30 for each penny – in the initial segment of the 2010s. A significant number of the vast oils organizations were viably acquiring to pay profits. Loan fees were low so this was moderate at the time. Money streams were likewise being finished up by auctioning off minority stakes in oil fields and non-centre resources. These choices must be made by all organizations in the oil and gas industry, regardless of which part of the chain they work in. A decent working information of the money related ideas engaged with the basic leadership process is along these lines fundamental for chiefs inside oil and gas organizations

**The Financial System**

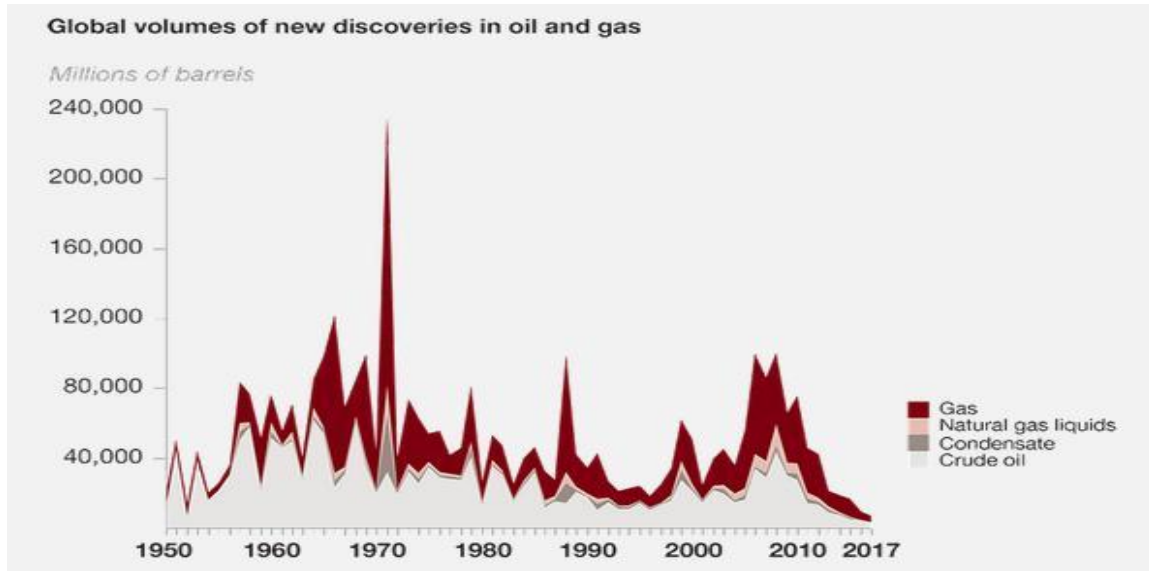
The second part of the discussion will be based on the structure of the Financial Systems in the oil and gas industries. If we take a look at the financial system, it can be noticed that the whole generated systems are made up of the financial markets and as well with the investing financial institutions. Simultaneously the investment banks and commercial banks, the other financial intermediaries, the companies and individuals that use the system to borrow and lend, the government, and the financial exchanges (the stock exchanges and derivatives exchanges). Be that as it may, the financial framework does not generally work through these financial trades: most exchanges in the remote trade advertise are 'off-trade', or 'over the counter'. The financial framework in activity today is worldwide in nature. This is the perfection of a procedure that has been occurring in the course of recent years. The UK financial markets deregulated in 1986, and this encouraged the development of London as one of the two worldwide financial centre points, alongside New York. Around 50 for each penny of all forex exchanges are exchanged out of London, and the worldwide idea of the financial framework implies that the business sectors are currently intently interlinked. The forex advertise is the biggest financial showcase with around \$5.3 trillion exchanged each day. The US dollar makes up 85 for each penny of this market. As per the Bank of International Settlements, the worldwide subsidiaries advertise, which incorporates oil and gas fates, had \$483 trillion worth of notional contracts extraordinary toward the finish of 2016.



**Fig. 1.** Growth in world oil supply and demand.

Source: IEA Oil Market Report, December 2017: Strategy & Research

Looking all the more carefully at the ongoing here and now recuperation, it appears to speak to an ongoing rebalancing of market basics, in a way that will make supply all the more difficult throughout the following couple of years. Oil supply development has dialled down, request is hearty, and stock levels are at last dissolving. On the supply side, OPEC has been basic to this modification (Fig. 1). Its November 2017 choice, made alongside non-OPEC individuals, to cut supply by 1.8 million barrels/day (bbls/d) through 2018 quickened this rebalancing.



**Fig. 2. The long Decline in New Oil and Gas Discoveries.**  
*Source: Rystad Energy, Strategy & Research*

From a financial viewpoint, U.S. tight oil administrators are under mounting weight from financial specialists to move from a "hard and fast creation development" model to more gainful tasks. From a tasks viewpoint, it is significant that the new-well oil discoveries per fix estimation in the productive Permian bowl has started to decrease, as indicated by the EIA's Drilling Productivity Report, in the wake of having risen forcefully in mid-2017 (Fig. 2)

### The functions of Financial Systems in Oil and Gas Industries

This study indicated six main functions of the financial systems in the oil and gas industries. Those functions are followed as below:

- Resource transfer across time and space  
The financial system permits resources to be sent over various eras, over various zones of the world and crosswise over various industries. Purchasing a house and putting something aside for retirement are precedents of exchanging assets crosswise over various eras.
- Risk Management  
The financial related framework is additionally proficient at exchanging hazard, or, in other words pro budgetary establishments, for example, insurance agencies. People or organizations can purchase assurance from drawback hazard as protection. The strategy they purchase is a put choice a premium is paid to the backup plan and if the pertinent negative occasion happens the insurance agency pays out. A put alternative is a subordinate instrument that an increment in incentive as the basic resource falls in esteem. At the point when the insurable occasion happens, the estimation of the protected thing falls and the safeguarded party gets the estimation of the protection cover. Insurance agencies package the dangers together so the expense of protection is as low as could reasonably be expected. It would be excessively costly, making it impossible to attempt to offer protection outside the money related framework. With these economies of scale, the safety net providers can offer productive methods for balancing hazard. The insurance agency is the gathering that goes out on a limb: it needs to pay out if the insurable occasion happens.
- Payment clearing and settlement  
The financial system needs a productive route for people and organizations to settle up their financial transactions. Oil companies working abroad need to organize vast quantities of transactions to pay for

crude materials and wages, to settle contracts and to pay governments. The money related framework does this flawlessly.

- 1 Pooling of resources and creating shares  
In the beginning of the oil and gas industry it was feasible for people and private companies to run an oil business. As the industry and the world economy developed, the assets expected to set up oil companies or comparative organizations developed past the methods for people and families. The financial framework gives finances important to develop. People may never again have the money related capacity to subsidize these endeavours; however they can pool together with others (in a securities exchange) and purchase an offer in a business
4. Proving Information  
Financial resources will be precisely estimated if all the information about the benefit is known and unreservedly accessible. The amount and nature of information given by the financial markets have enhanced drastically in the initial too many years of this century. The change in the quantity of information accessible for the sum total of what financial specialists has been the aftereffect of the advancement of the web. All financial specialists presently approach far reaching information on companies and financial resources.
5. Dealing with the Conflict of Interests  
Dealing with conflicts of interest, an efficient financial system can ease the incentive problems that exist in the markets.

### **Conclusion**

The study has shown us that the financial system facilitates a flow fund from the savers to the borrowers. From this perspective, the study analyses that the collection of pools of cash from savers as well the markets or through financial intermediaries where the cash is made available to companies to borrow. Therefore, the savers might be individuals who are building up a retirement funds. As well the investors who need to find place where their surplus funds will earn a reasonable but safe return.

Companies need to raise fund to grow their businesses. They can offer financial securities straightforwardly to investors (an essential issue) as securities or stocks, or the investor can purchase financial securitises on the stock trade (auxiliary market) through financial intermediaries. Frequently the assets coursing through the financial framework don't experience the business sectors. Business banks customarily raise a large portion of their assets from a contributor base (amid the development to the worldwide monetary emergency a considerable lot of these banks swung to the interbank showcase for additional assets). Those assets are then made accessible to companies as advances (instead of securities, which are advertise instruments). The banks are going about as intermediaries, passing the assets on to the end-client. The banks themselves may raise additionally assets from the financial markets for loaning purposes. The interbank market will loan assets to banks, yet the getting bank should reimburse this for the time being.

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