



University of Thi -Qar  
College of Engineering – Petroleum and Gas Engineering Department

# PETROLEUM ENGINEERING ECONOMICS (I) *(Lecture 3)*

Lecturer  
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## **Petroleum supply**

Generally the global supplies of crude oil to a number of factors which it can be seen briefly below:

1- Oil demand locally and globally, as well as on oil derivatives required in the Future.

- Determined display possibilities available production at a certain time because the presence of significant oil reserves does not mean that it is easy to increase production immediately after high demand, because it depends on the level of investment and exploration and development.

3- With the state's policy of oil-producing country and the oil needed to fill the need locally or to export, this will be determined by the organization policy which the country belong to it.

Strategic and trade storage of the State and its company so that they have the flexibility to cope with seasonal fluctuations.

5- Production costs and production capacity of the oil fields.

6- Prevailing and projected prices in the future and taking into account the number of producers in the market.

7- Available technology in the various stages of oil production.

## **Surplus and deficit in the global oil supply**

The different stage of the oil industry characterized maybe by norm or the shortage of crude oil production, where each stage suffer certain times of shortage or excessive production capacity.

The oil projects in all stages often take a long period of time starting from the planning process and until the start of the first stage of the production process which is known as (the period of pregnancy) as meaning that when he turns the decision to invest into energy productivity actual perhaps the world and prices will be changed.

For example: The period (1974-1975) there appeared an oil surplus as a result of oversupply and lack of demand and the time period (1975-1980) was characterized by a lack of supply and increased demand, which led to higher spot price, compared with the official price.

Where it was a public official price for the year 1980 is \$ 29 a barrel / day while the spot price of \$ 36 a barrel / day.

The time period (1982-1988) increased crude oil production and increase supply, bringing the spot price for the year 1986 was (13 \$) barrels / day, while the official price ( 25 \$) barrels / day, during the same year.

1998, there were overkill in the supply of oil and this led to a collapse in prices, reaching \$ 10 a barrel / day.

The table below shows the total world oil (supply and demand) and the excess oil as well as the ratio of the Organization of Petroleum Exporting global supply.

سنة اولية مثال معروف العالمي	عرض أولية	المقاييس النفطية	اجمالي لنفط الخام العالمي		سنة
			العرض	الطلب	
٢٦,١	٢٠,٥	١,٠	٨٤,٦	٧٦,٦	١-١
٢٤,٦	٢٩,١	٧,٢	٨٤,١	٧٦,٨	١-٢
٢٥,٥	٢٨,٢	٤,٠	٧٩,٧	٧٩,٢	١-٣
٢٦,٨	٢٠,٦	٨,٠	٨٢,١	٨٥,٢	١-٤
٢٧,٤	٢١,٦	٥,٠	٨٤,٢	٨٢,٧	١-٥
٢٧,٢	٣١,٤	٢,٠	٨٤,٤	٨٤,٦	١-٦
٢٦,٥	٢١,٠	٦,٠	٨٤,٨	٨٥,٨	١-٧
٢٥,٥	٢,٦	٩,٠	٨٦,١	٨٧,٠	١-٨

**Oil supply between the succulent pessimistic and optimistic**

There is controversy revolves around the world about the reach of the global supply of (global oil production) peaked, and then in which case the producers are forced to reduce daily production. And this is because there are two succulent, as shown below:

**1- Succulent pessimistic:**

Which confirms the presence of fixed amounts of crude oil and gas underground, and the process of conducting its drain quickly and this will lead

to the need for new discoveries in the areas of the most remote and dangerous and a higher cost. For example, the quantities were discovered in 2005 are only 9 billion and the quantities consumed were more than that.

## **2- Succulent optimistic:**

Where there is nobody know when we get to the top of Hubert because the discovered new reserves are still continuing and it also depends on the technology as well as oil and gas prices.

The development of techniques for searching for oil and gas extraction- and founding also the price and contribution of investment spending, which makes the new fields more attractive, Among the optimists American Ministry of Energy.

\*Hubert: is (Marion King Hubert), a geologist working in Shell gave accounts in the seventies of the last century, and he confirmed that in certain share will be reduced discoveries in the world, plus its annual production of oil, compared with the volume of consumption in that year.

He predicted that the United States of peak oil production in 1975 and the expectation 2was true, as well as Russian output reaches a peak in 1987.