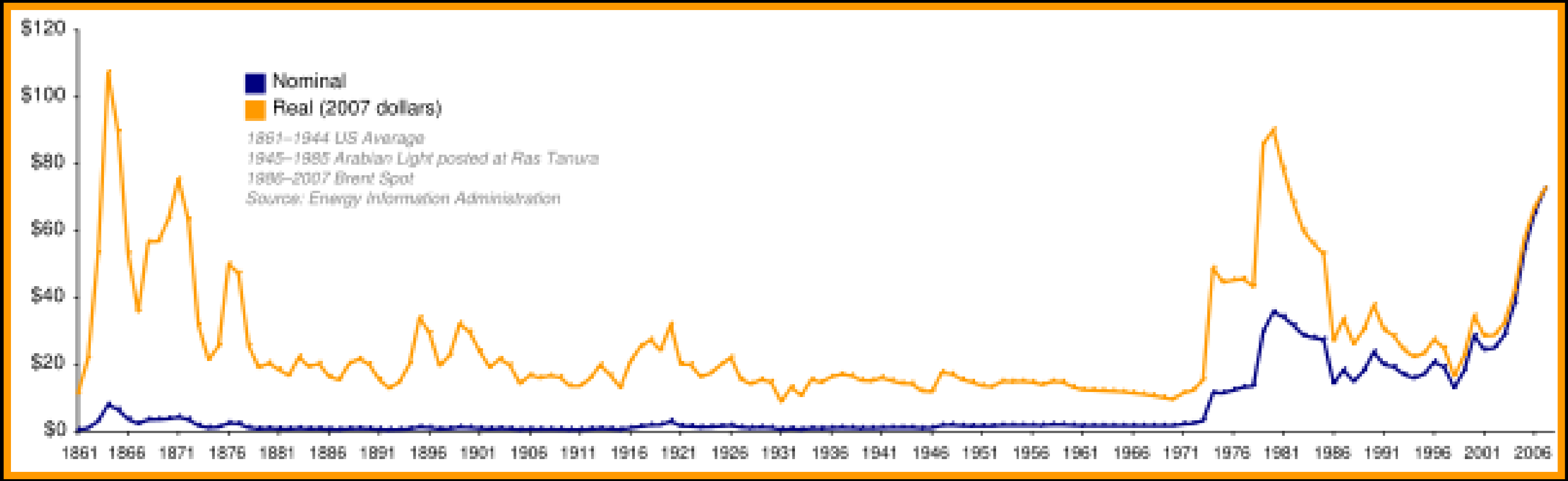
# Rise of OPEC

# History of Oil Prices




**Supply and demand.**

**Oil companies vs. producing nations.**

**Regional and international politics.**

**Arrogance.**

**Greed.**

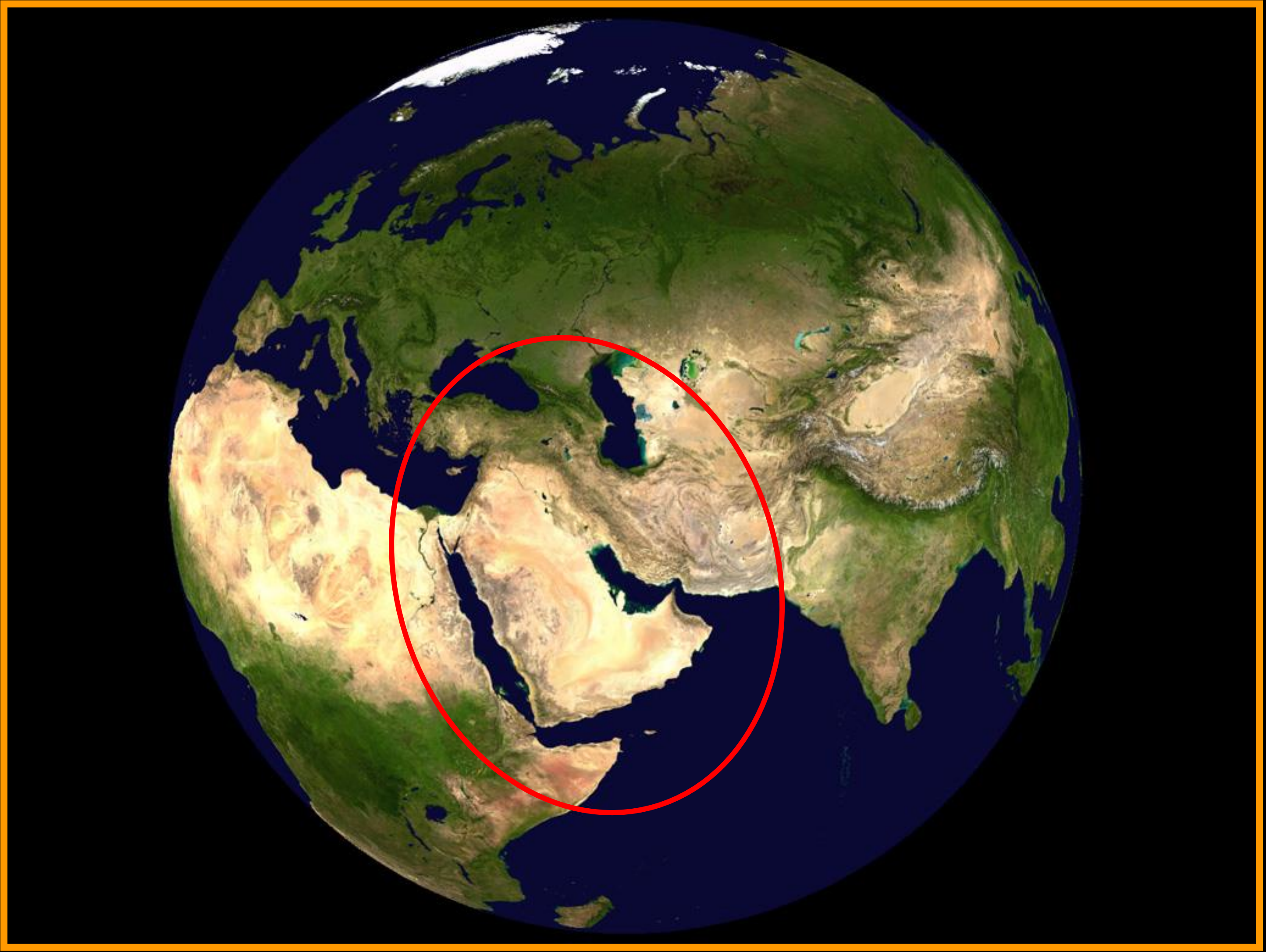
**Stupidity.**

# Oil Becomes a Strategic Concern

**"To commit the Navy irrevocably to oil was indeed to take arms against a sea of troubles."**

*Winston Churchill, 1911.*

# History of the Middle East



# Oil Discovered in the Middle East

After the discovery of oil in Iran in 1908, all political decisions in the Middle East were based on oil.

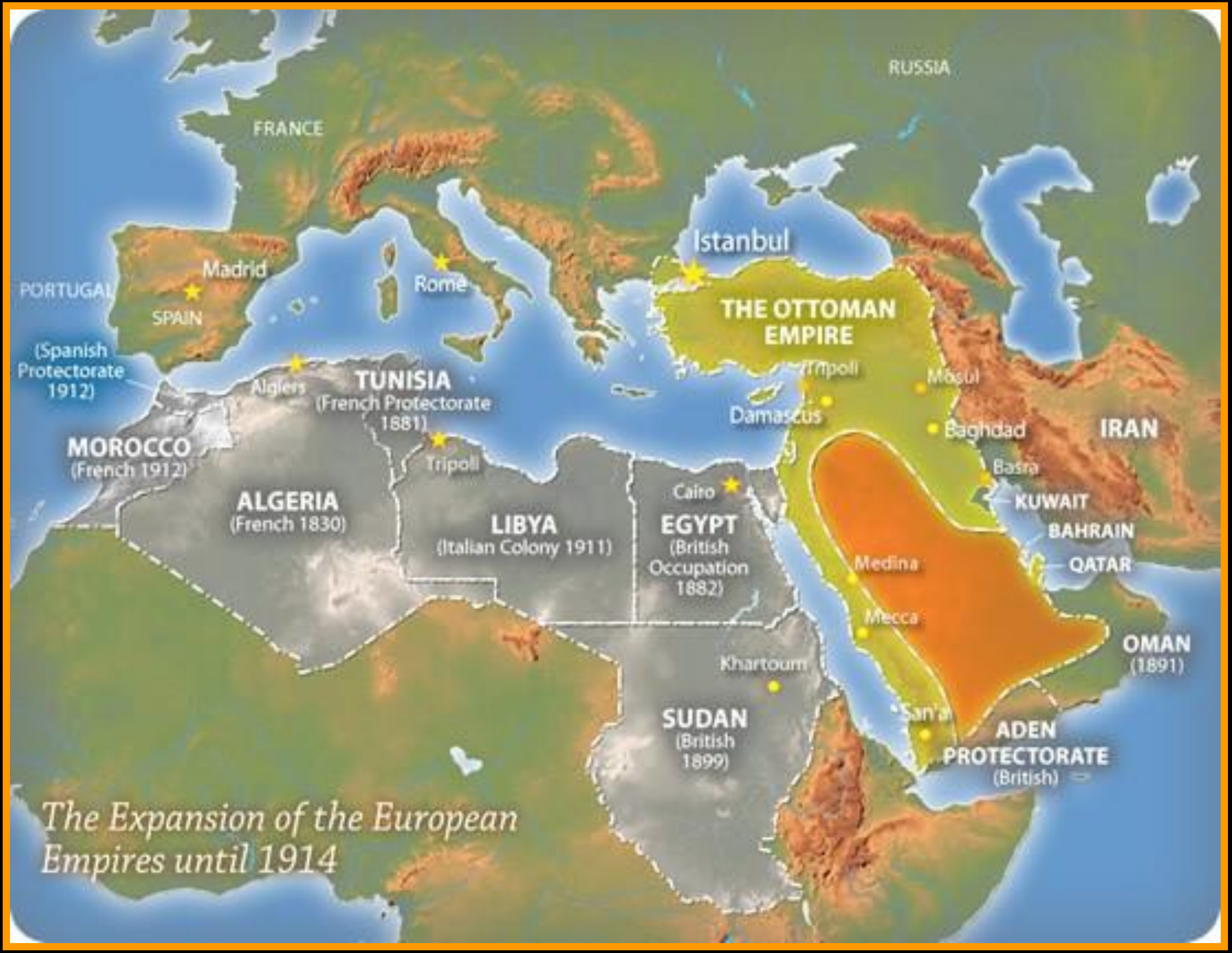
Prior to the end of WWI and immediately after, France, Russia, and Britain were the main players in the Middle East.

Standard Oil of California discovery of oil in 1938 in Saudi Arabia marked the beginning of the active involvement of U.S. in the Middle East

Following the end of WWII, the U.S. became a central player

# Ottoman Empire at the end of the 17th Century

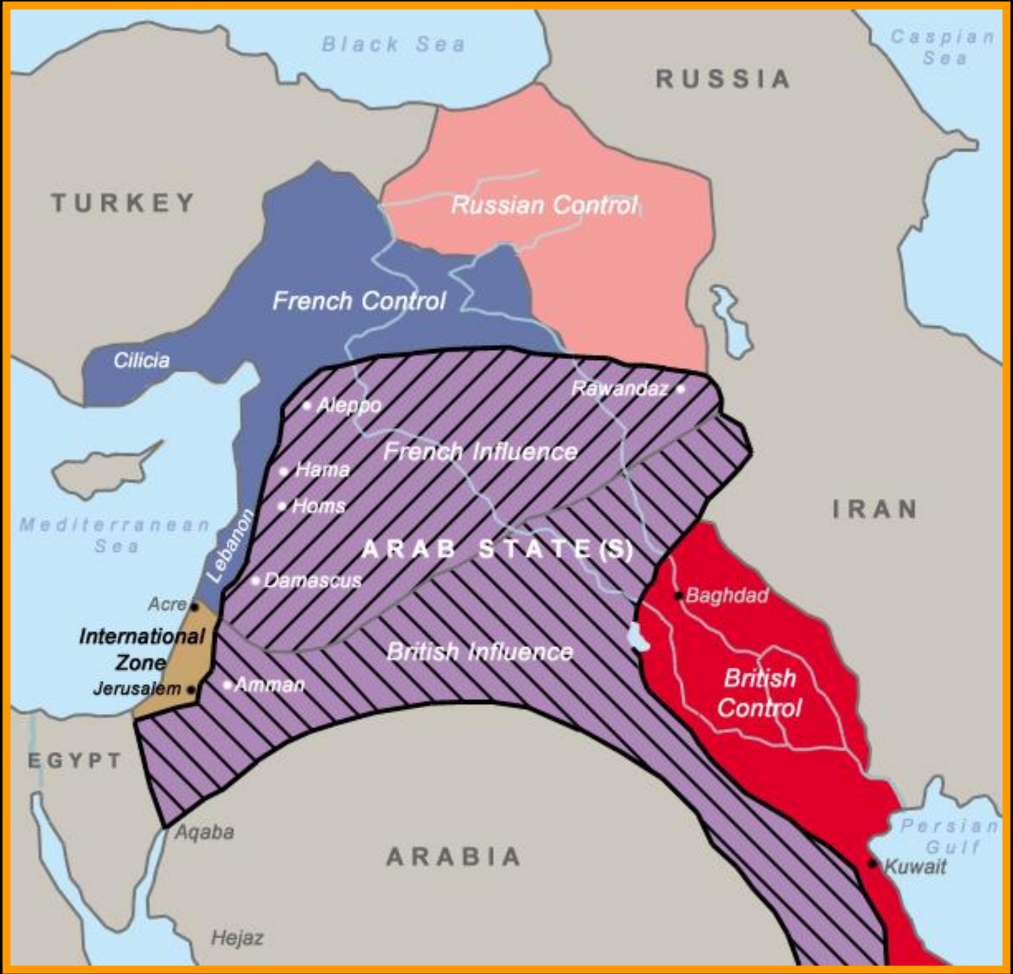
# Colonial Occupation of North Africa and the Middle East prior to World War I



# Creation of Kuwait, 1913


British concerns about southward German influence in Mesopotamia prior to World War I created Kuwait to prevent the Germans from building a railroad to the Persian Gulf

# Sykes-Picot Division of the Middle East, 1916




Division of the Middle East prior to the end of WWI

# Division of Middle East by the League of Nations Mandates, 1920


Neutral zones

# Red Line Agreement, 1928


Calouste Gulbenkian
Mr. 5 Percent

Divided the remains of the Ottoman Empire among the major oil companies that operated in the Middle East in 1928.

Could only operate within the region outline by Gulbenkian - “Red Line Agreement.

# Achnacarry Agreement,1928

Achnacarry Castle

Agreement between Royal Dutch Shell, Anglo-Persian (BP), Standard of New Jersey, (Exxon), Gulf, and Standard Indiana (Mobil).

Stabilized prices.

Agreement divided world into regions for the distribution oil in these regions (except in the United States).

Agreement determined production levels and standard price for each member.

Unfortunately for the cartel, oil was discovered in East Texas (Black Giant), 1931

By 1931 the agreement collapsed because they did not control enough of the world’s oil production.

# Oil Companies Had All the Cards

Oil companies could dictate to oil producing countries because oil companies possessed the skills and technology to find and produce oil.

Companies set crude prices at will.

Initially, oil producing countries were content with their new found wealth.

# Motive

Oil companies tended to limit oil producing country nationals from participating in exploration and production.

They didn’t want oil producing countries to become self-sufficient.

They didn’t want to loose control of the vast seas of oil that they had discovered.

Oil companies believed the oil belonged them and they could produce it as they saw fit.

# Mexico
## Example of What Could Happen

Mexico nationalized their oil fields in 1938.

Because of a lack of investment, exploration and production know-all, Mexico quickly became a minor player in oil production for the next 50 years.

# World War II

At the end of WWI it became apparent that oil was crucial to military success.

During WWII one had to acquire source of crude oil.

Germany initially captured the oil fields of Romania.

Campaigns in Russia were to capture the oil rich regions of Baku in southern Russia.

The goal of the North African campaign was secure the oil fields of the Middle East.

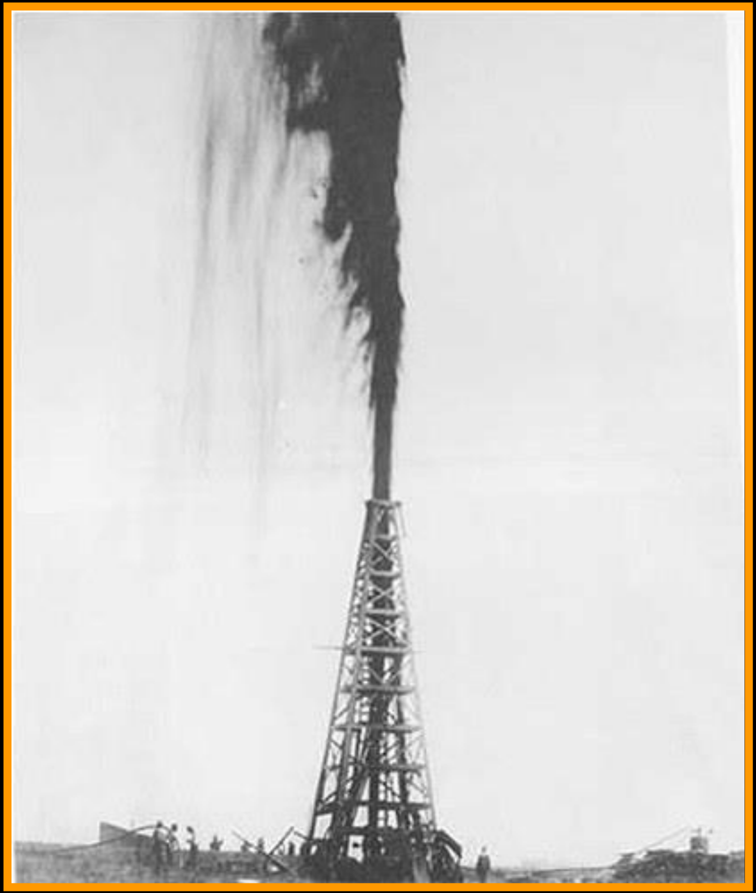
# Japan

Had no domestic source of oil.

Initial goal was to secure oil fields in Indonesia.

# Allies

Western European countries had no domestic source of oil and depended on the Middle East and the United States for oil supplies.



Spindletop

# Recognition of the Importance of Middle Eastern oil

Roosevelt and his advisors recognized the importance of oil in the war effort.

He recognized that domestic oil resources were limited = **better use theirs than ours.**

He recognized the importance of Middle Eastern oil, not only to the current war, but to our future in general.

# What to do about oil in the Middle East after WW II?

U.S. government could acquire direct ownership.

U.S. government could negotiate an agreement with the British for Middle Eastern oil.

Let the private companies carry out the oil business in the Middle East.

# Yalta = Dividing the Spoils of World War II

1st Option: Ruled out

2nd Option: Before going to Yalta, Roosevelt withdrew it from Senate

3rd Option: Won

# U.S./Saudi Arabia Deal, end of WW II

**U.S. would protect the House of Saud.**

**Saudis would insure oil supplies to the West.**

# Types of Oil Companies

Multinational oil companies:

- Fully integrated
- Have large oil reserves
- Have large production capabilities
- Make a lot of money

Independents domestic oil companies:

- May or may not be fully integrated
- Reserves limited
- Production limited
- Still make a lot money
- Money buys influence

While the "independents" were much smaller that the "majors", they still had considerable political influence in Washington.

# Seven Sisters

Anglo-Persian (BP)

Gulf Oil

Royal Dutch Shell (Shell)

Standard Oil of California (Chevron)

Standard Oil of New Jersey Exxon

Standard Oil of New York (Mobil)


Controlled the international oil market = set global price of oil.

# New Seven Sisters

Saudi Aramco (Saudi Arabia)

Nioc (Iran)

Pdvsa (Venezuela)

PetroChina (China)

Gazprom (Russia)

Petrobras (Brazil)

Petronas (Malaysia)

**Major oil producing countries control a third of the world's oil production.**

**The original Seven Sisters control on 10% of the world's oil production.**

# Let the Private Companies do Business in the Middle East

Oil companies viewed all oil discoveries as their own to do with as they saw fit.

By the 1940’s, some oil producing nations began to seek better terms.

# Early Agreements with Oil Producing Countries

**Early concession agreements:**

- **Company receives large track of land for long periods of time.**
- **Exemption from taxes in exchange for a percentage of their profits = royalty based on the posted price (world price of oil).**
- **International oil companies set posted price.**

# Different Point of View

## International Oil Companies (IOC)

IOC believed the oil they discovered belonged to them.

IOC expected no interference from oil producing nations.

IOC would remain as long as there is oil and then leave.

Did not believe it was necessary to build up the country's infrastructure.

# Different Point of View

## Oil Producing Nations (OPN)

Inexpensive oil and employment.

Revenue.

IOC would respect the environment, people, and government.

IOC would honor profit sharing agreements and accurately report prices, production levels and profits.

# First Crack in Oil Companies Monopoly

In 1943, Venezuela was the first to cut a 50-50 deal with oil companies.

Deal consisted of a lump sum royalty plus a 50-50 split of profits (i.e. selling price minus production costs).

# Cracks Widen

In the late 1940's Venezuela revised its tax system in order to capture a greater share of the profits.

Oil companies retaliated by purchasing oil from countries with more favorable contracts.

# 1950's Lead to the Formation of OPEC

Arrogance of oil companies led to a series of unforeseen changes that are still with us today.

Refusal to view Middle Eastern countries as equals to oil companies had catastrophic results.

# Greater Involvement in Middle East

Because of a failure to make a new deal, the Iranian Prime Minister Mossadegh nationalized BP in 1951.

Led to a collapse of Iran's oil industry.

Fear of Soviet Union intervention.

Mossadegh overthrown by CIA and British MI6.

Installed the Shah as leader of Iran who became a pillar of American policy until the Iranian Revolution.

"Never has so few, lost so much, in such a short period of time"

# Suez Crisis,1956

Suez Canal - 2/3rds of Europe's oil pass through the Canal.

July, 1956 Colonel Gamal Abdel Nasser took control of Canal.

Oct, 1956 combined French, British & Israeli forces invade the area to seize the Canal.

Eisenhower & Soviets supported Nasser.

Another sign that international contracts would not be enforced.


# Middle East
# Cold War Battle Ground


1. How *Punch* saw Nasser's Soviet arms deal.

# 1950's Oil Demand Rose, but Production Rose Faster

Problem was exacerbated by the fact that the "50-50" deals were based on the "posted" price rather than the market price.

Producing countries were granted additional concessions to expand oil revenue.

Market price was divorced from the cost of production.

Big profits for oil companies came from retailing gasoline and other refined products.

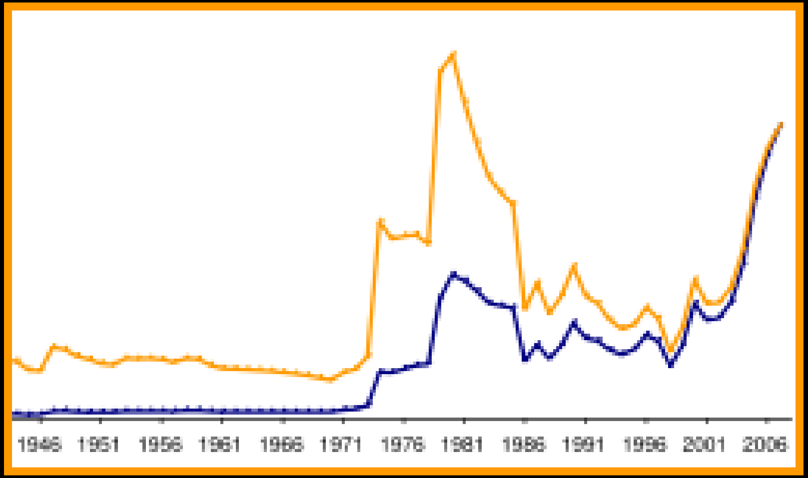
Production increases drove market prices down and eroded the profits of the oil producing countries.

# Effect of Oil Glut on U.S. Domestic Producers

Eisenhower Administration concluded that dependence on foreign oil jeopardized American security.

Imposed import quota on foreign oil.

Quotas kept domestic prices artificially high (helped domestic producers).



# Result of Quotas

Resulted in a net transfer of wealth from American oil consumers to American oil producers.

By the 1970's the world oil price was $1.30/b while domestic price for oil was $3.18/b.

# Consequence of Supply Glut

To regain profits multinational companies tried to cut "posted' prices from 1958 onward.

In 1959, BP unilaterally cut prices by 10% this was the "straw that broke the camels back."

# Pre-OPEC deals

Venezuela urged Arab producers to seek 50-50 contracts.

Understanding the power of acting collectively, Saudi Arabia quickly received similar contracts from Aramco.

# Origin of OPEC

In 1960, after a second cut of the posted prices, five major oil producing countries formed the Organization of Petroleum Exporting Countries (OPEC).

The OPEC cartel was formed to compete with the cartel of the Seven Sisters.

World has never been the same!

# OPEC Countries

**Original OPEC:**
- Iran
- Iraq
- Kuwait
- Saudi Arabia
- Venezuela

**By 1971:**
- Qatar
- Indonesia
- Libya
- United Arab Emirates
- Nigeria
- Algeria

**Temporary members:**
- Ecuador
- Gabon

# Requirements of a Cartel

Control supply.

No readily alternative substitute for the product.

Keep price low enough to discourage looking for a substitute.

Keep price low enough to discourage the development of new suppliers.

Control activities of the members of the cartel (member production).

# Oil is an Ideal Product for a Cartel

Inelasticity of oil = price can rise with little effect on “short term” demand.

No convenient substitute for oil as an energy product.

# OPEC Cartel

Because OPEC controls a significant percentage of the world's supply of oil, it should be able to control the price of oil.

During the first decade of OPEC, they halted the free fall of prices.

Could not raise the price as there was too much oil around.

# Cartels Suffer from “Collective Action Problems”

Every member has an incentive to cheat on the cartel by increasing its production.

A member can increase its revenues by expanding its production as long as all of the other members stick to their quotas.

All members have similar incentives to increase production.

Cheating traditionally leads to the collapse of the cartel.

No real control over members!

# During the First Decade OPEC's Effectiveness was Limited

In 1960, OPEC produced 28% of the world's production, by 1970, it had increased to 41%.

Multinationals owned the oil in the ground (except for Iran), this limited the power of the producing countries.

Oil countries were desperate for revenues to fuel their economic development.

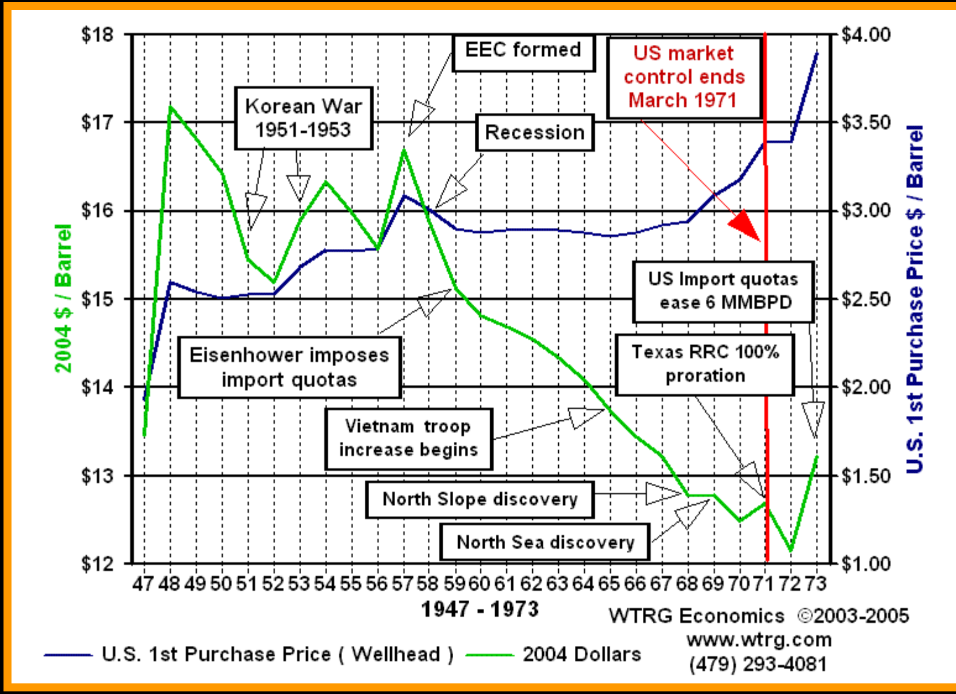
Important political divisions existed in the Arab world (they still do).

# Purchasing Power of Oil Producing Countries Decline, early 1970's

Demand for oil was increasing.

U.S. went off the gold standard and the value of the U.S. dollar declined.

Purchasing power of producing countries declined.



# Oil power and Influence Shifts to Middle East, 1971

1971 - Texas Railroad Commission set proation at 100 percent.

U.S. no longer had any excess capacity.

Middle East was now the leading producer of crude oil.

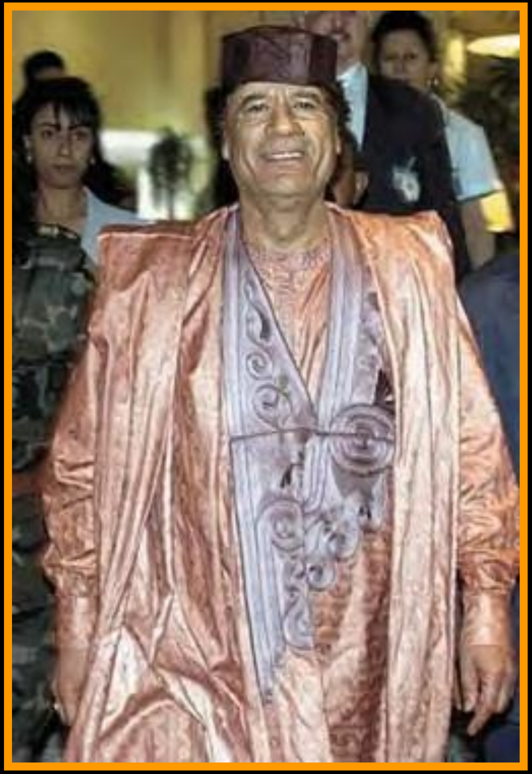
# The First Oil Shock

In the early 70's, demand outstripped production.

Producing countries began demanding further concessions.

Muammar al-Qaddafi seized power in Libya and demanded 20% increase in royalties and a 55-45 profit sharing agreement and tax concessions.

Triggered new demands in other oil producing nations.



Muammar al-Qaddafi

# 1973 October War

As world oil market tightened, the Arab world became vocal about using oil as a weapon to achieve political objectives.

Arab states formed a Organization of Arab Petroleum Exporting Countries (OAPEC).

OAPEC instituted an embargo against countries supporting Israel.

World oil prices jumped from $3.00 to $11.65/b.

Embargo led to global recession.

Gas lines and higher prices

# Japan saw the writing on the wall

Japan began to institute conservation measures.

Began producing more fuel efficient cars.

Finally pushed U.S. car makers to produce more fuel efficient car.

Prime Minister Ohira

# What Did We Do?

Had Congressional hearings and bashed the oil companies.

Instituted domestic price controls on gasoline and oil.

# Price Controls

The first rule for a politician is to keep the voters happy and voters do not like high gas prices.

Nixon imposed price controls on gas and domestically produced oil.

U.S. producers received less than world market price.

# Real Effect of Price Controls

Shortened the recession in U.S.

Domestic production and exploration decreased.

Increased our dependence on foreign oil imports.

Insolated domestic consumers from higher prices.

Little concern for conservation or seeking alternative energy sources.

Lack of recognition of our need to reduce consumption would come back to haunt us within 5 years.

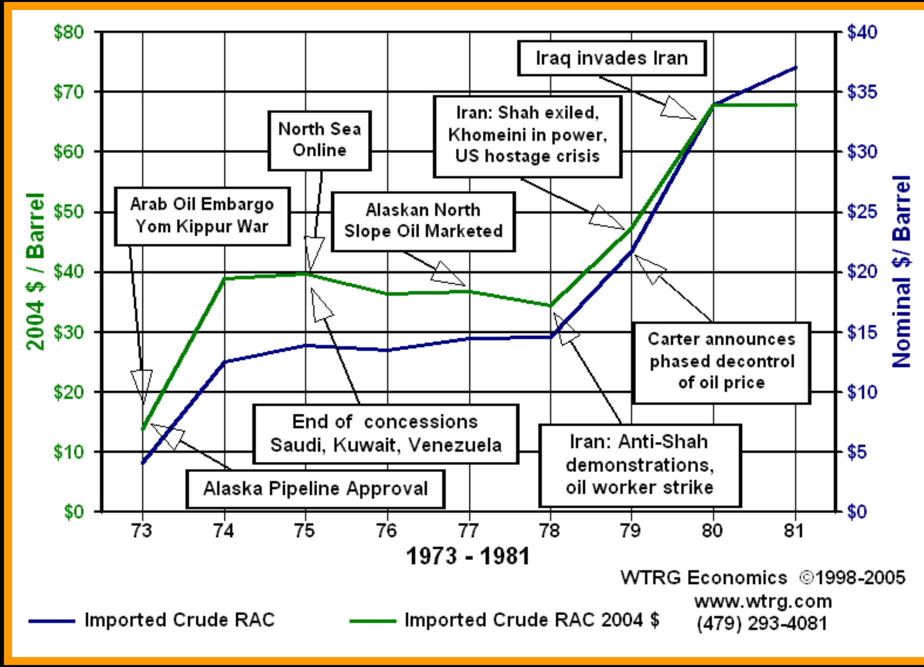
Green = good Gold = Bad

# New non-OPEC Sources of Oil were Coming Online

Production of North Slope and North Sea came on line.

Non-OPEC producers begin to cut into the OPEC sales.

Price of crude flattens and then declines.



# Second Oil Shock
## Crises in Iran and Iraq

1979 Iranian revolution.

Carter places embargo on Iranian assets.

Iran-Iraq war begins in 1980.

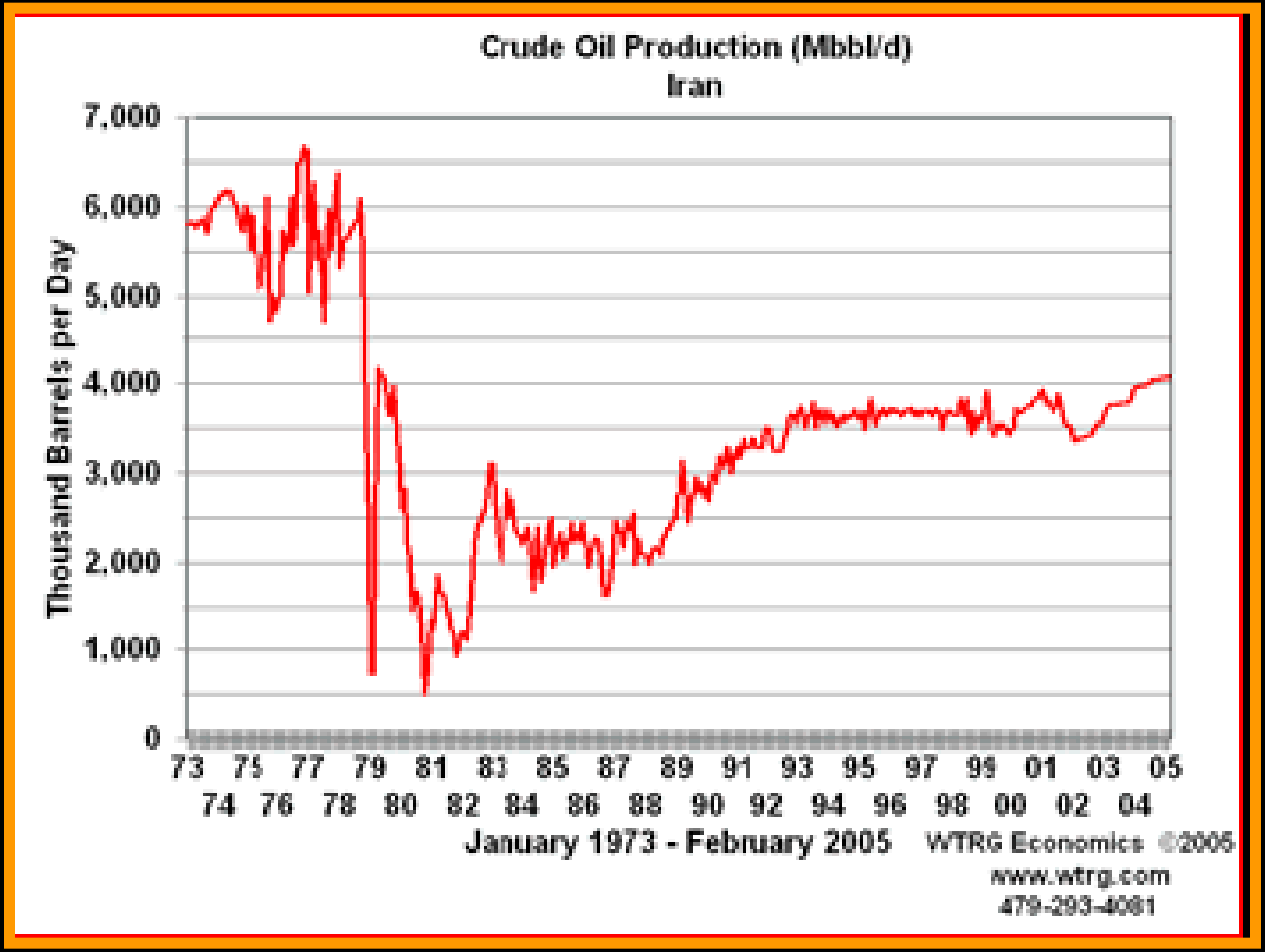
During the initial stages 4 million b/d were removed from the world market.

15% reduction of the total OPEC output and 8% of free world demand.

Embassy hostages

Ayatollah Khomeini

# Collapse of Iranian Oil Production



# Carter Imposes “Windfall Profits Tax on Domestic Production

Carter’s effort to recoup revenue earned by oil producers as a result of the sharp increase in oil prices.

Windfall profit tax is not a tax on profits, it was an excise tax on the difference between the market price of oil before and after price controls were removed in 1979.

Negative impact on domestic oil exploration and production.

# Continued Perceived Soviet Threat

"The region which is now threatened by Soviet troops in Afghanistan is of great strategic importance: It contains more than two-thirds of the world's exportable oil".

"Let our position be absolutely clear: An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and [that] such an assault will be repelled by any means necessary, including military force."

Jimmy Carter, President of the United States, State of the Union Address, January 23, 1980.

# OPEC's Reaction to Price Rise

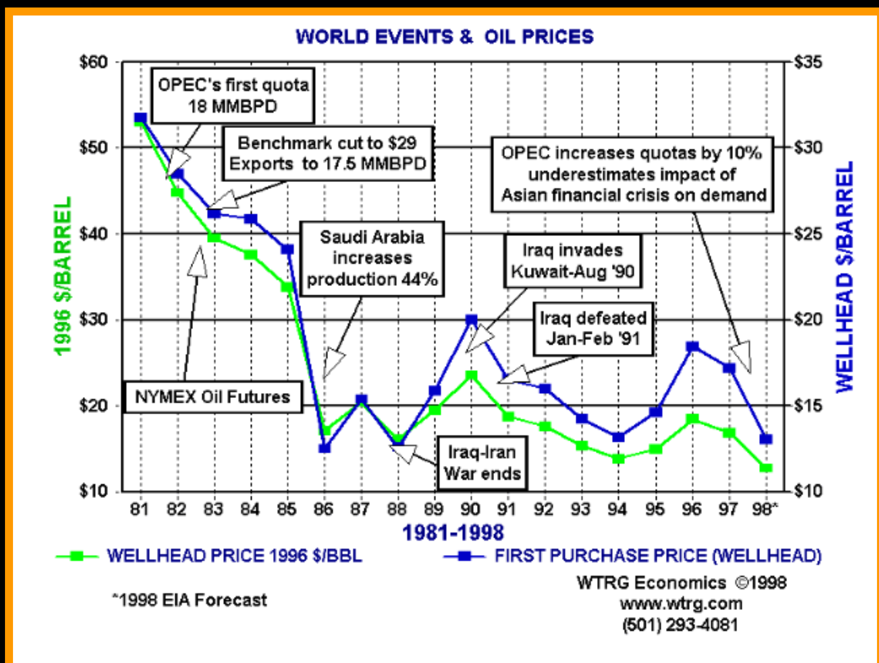
Saudi Arabia's oil minister, Ahmed Yamani warned other OPEC members that high prices would lead to a reduction in demand.

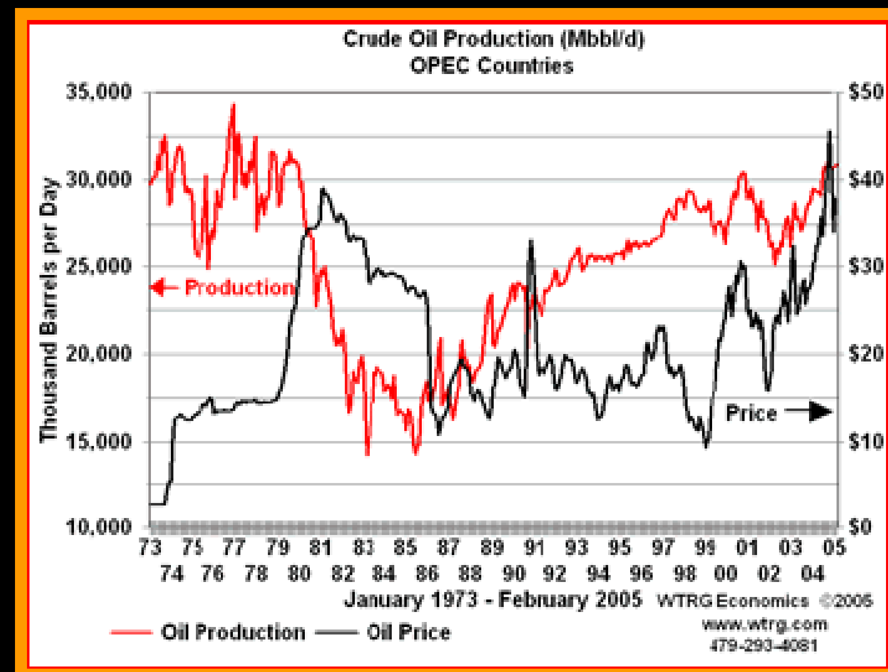
Saudis wanted to lower pricing for larger market share for long-term gains.

Warning fell on deaf ears.

King Fasil Ahmed Yamani

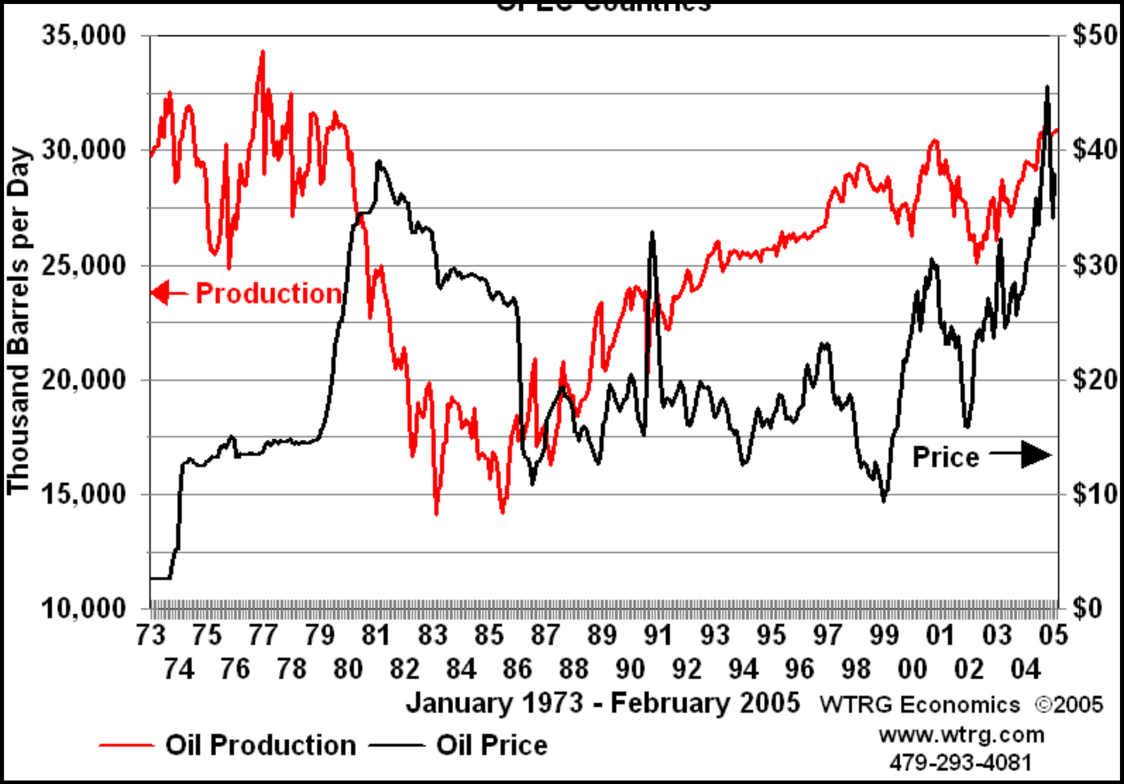
# Yamani was Right!




Collapse of price
Drop in demand for OPEC oil
Higher non-OPEC supply

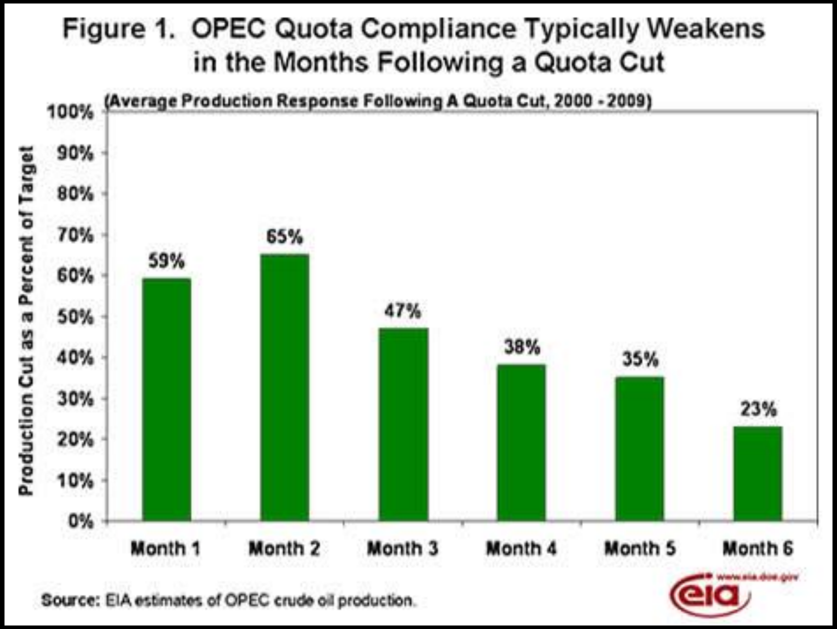
# 1982-1987 OPEC Attempts to Set Production Quotas



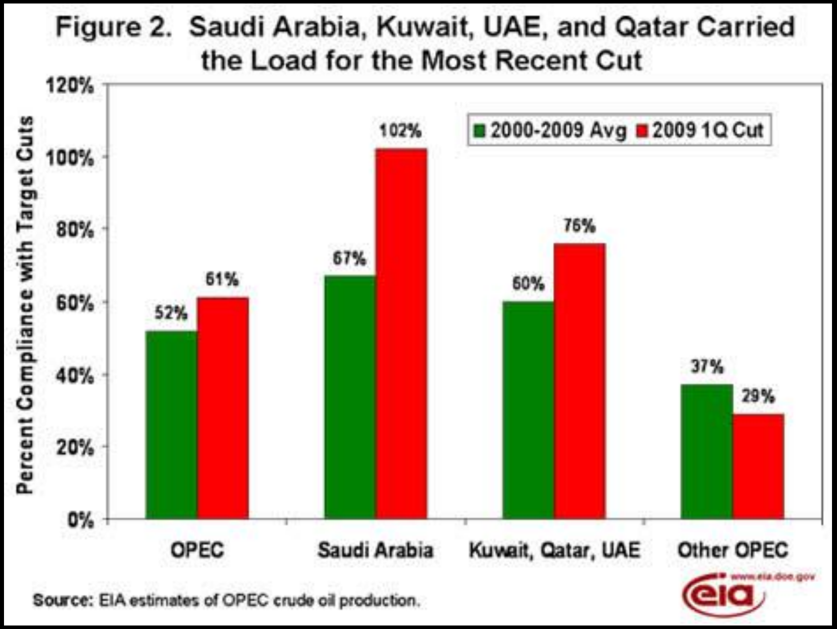

**Rampant cheating on quotas by members of OPEC**

**Inflation of reserves so they could produce more.**

# OPEC Production Quota



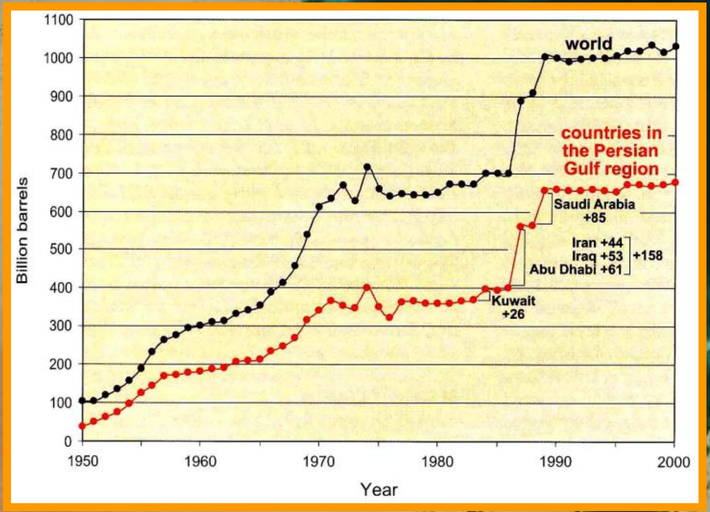

Quota compliance with time




Major quota compliant members

Neutral zone

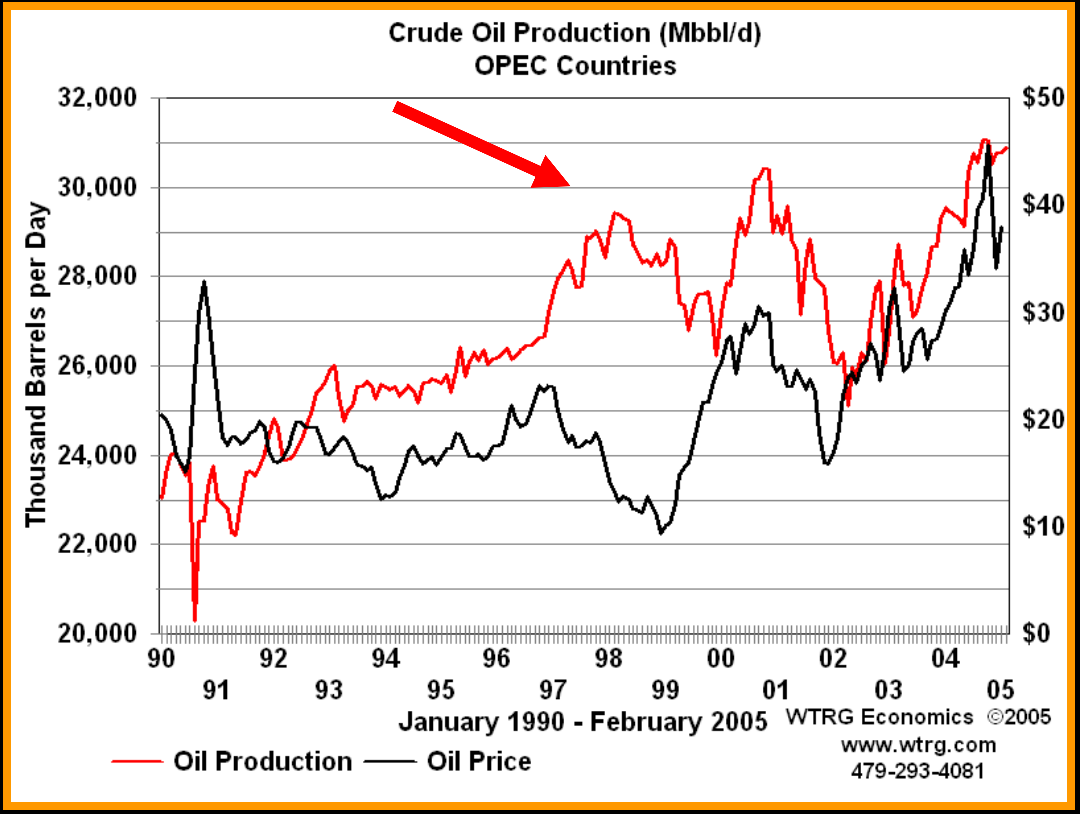
# OPEC's response to collapse of oil prices – cheat!




| YEAR | Abu Dhabi | Dubai | Iran | Iraq | Kuwait | Neutral zone | Saudi Arabia | Venez-uela |
|---|---|---|---|---|---|---|---|---|
| 1982 | 31 | 1 | 57 | 30 | 65 | 6 | 165 | 20 |
| 1983 | 31 | 1 | 55 | 41 | 64 | 6 | 162 | 21 |
| 1984 | 30 | 1 | 51 | 43 | 64 | 6 | 166 | 25 |
| 1985 | 31 | 1 | 48 | 44 | 90 | 5 | 169 | 26 |
| 1986 | 30 | 1 | 48 | 44 | 90 | 5 | 169 | 26 |
| 1987 | 31 | 1 | 49 | 47 | 92 | 5 | 167 | 25 |
| 1988 | 92 | 4 | 93 | 100 | 92 | 5 | 167 | 56 |
| 1989 | 92 | 4 | 93 | 100 | 92 | 5 | 170 | 58 |
| 1990 | 92 | 4 | 93 | 100 | 92 | 5 | 257 | 59 |
| 1991 | 92 | 4 | 93 | 100 | 94 | 5 | 257 | 59 |
| 1992 | 92 | 4 | 93 | 100 | 94 | 5 | 258 | 63 |
| 1993 | 92 | 4 | 93 | 100 | 94 | 5 | 258 | 64 |
| 1994 | 92 | 4 | 89 | 100 | 94 | 5 | 259 | 64 |
| 1995 | 92 | 4 | 88 | 100 | 94 | 5 | 259 | 65 |
| 1996 | 92 | 4 | 93 | 112 | 94 | 5 | 259 | 65 |
| 1997 | 92 | 4 | 93 | 112 | 94 | 5 | 259 | 72 |

A country's quota based on reserves = more reserves the greater the quota.

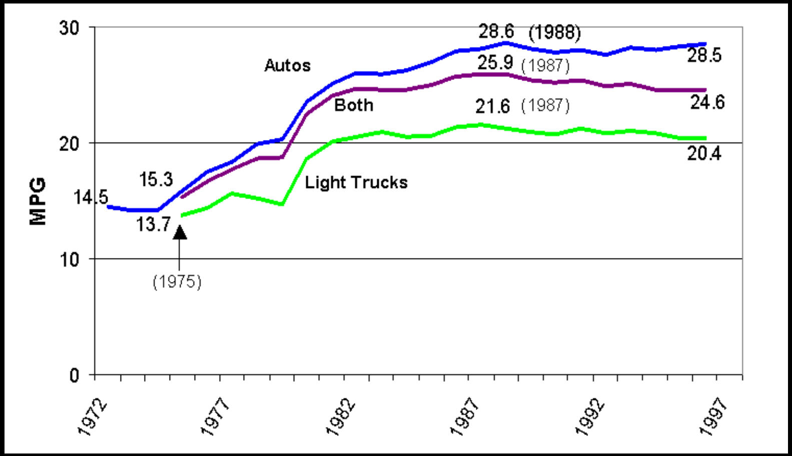
# Late 1990's: OPEC Problems with Quotas and Discipline of Members



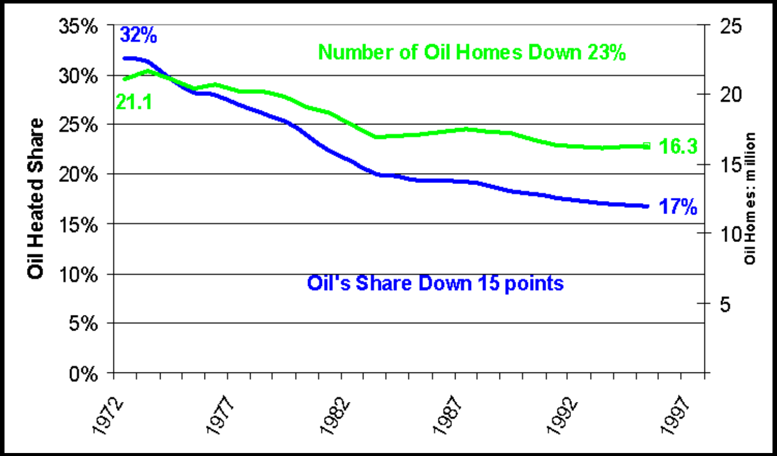

Economic prosperity in U.S. and Asia, late 90's.

OPEC underestimated or ignored the economic crisis in Asia which began in the late 90's and increased oil production.

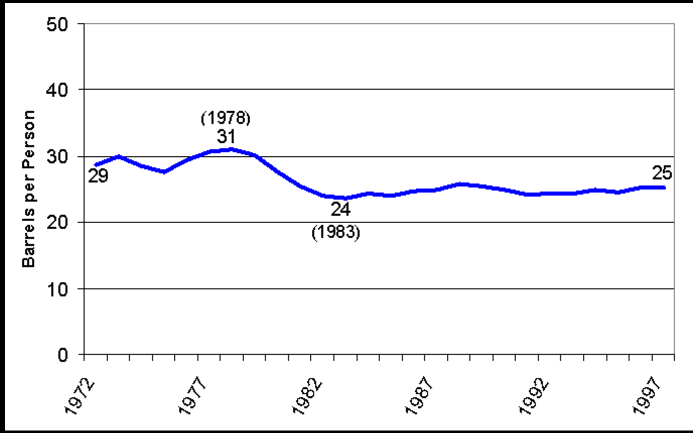
# United States Decided it was Finally Time to Act!




Began to build more fuel efficient cars

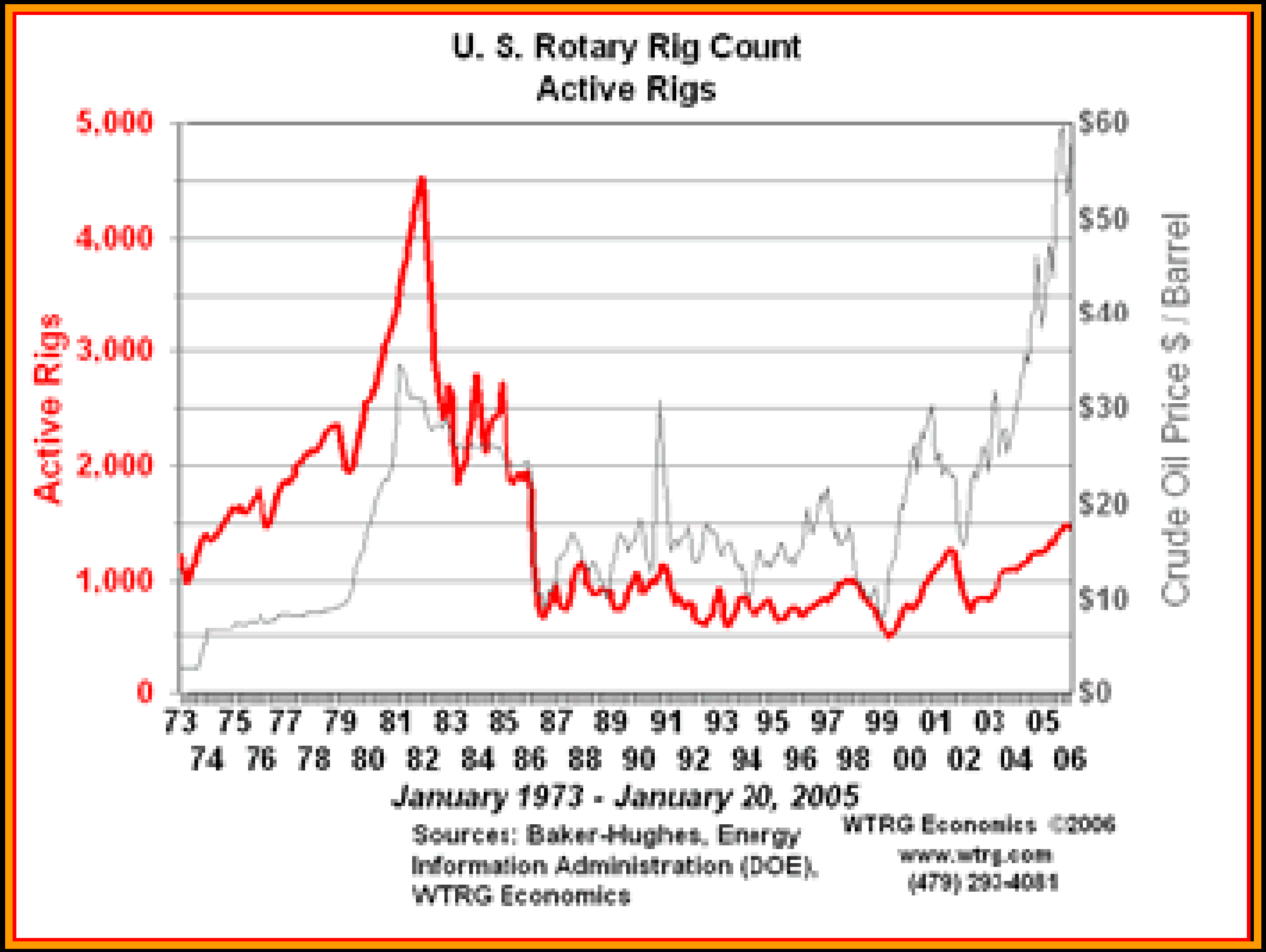



Began to insolate housing



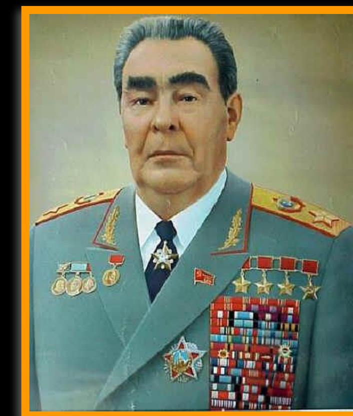

Made significant reduction in the consumption of oil

# Boom Times for Exploration




For geologists, if your were breathing you could get good paying job in the oil industry.

# Affect of Oil Price Collapse on the Soviet Union



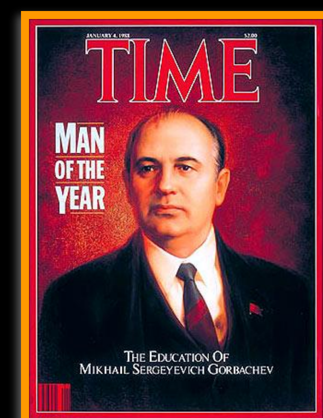
**Late 1980: USSR had trade surplus:**

**Oil at $50/barrel.**

**$8.5 billion foreign-exchange deposits.**

**Late 1981:**

**Oil at $30/barrel, plus delayed Soviet pipeline construction.**




**In addition the soviets were unable to import oil-gas equipment.**

**Turned into $3 billion deficit.**

**Was there something else at play?**

# Oil Collapse had a Global Impact

During the 1970's the oil producers made more money than they could spend

They put significant amounts of money into commercial banks, which in turn made loans to developing countries.

Developing countries hoped to repay the loans with revenue from their rapidly growing economies.

# Collapse of Oil Prices led to the "Lost Decade" in Developing Countries

Loans were frequently poorly spent due to corruption, purchase of military weapons, etc

Price collapse led to:

1. Fall in exports
2. Rise of oil import costs
3. Sky rocking interest payments on loans

Many developing country economies collapsed.

# The Persian Gulf War

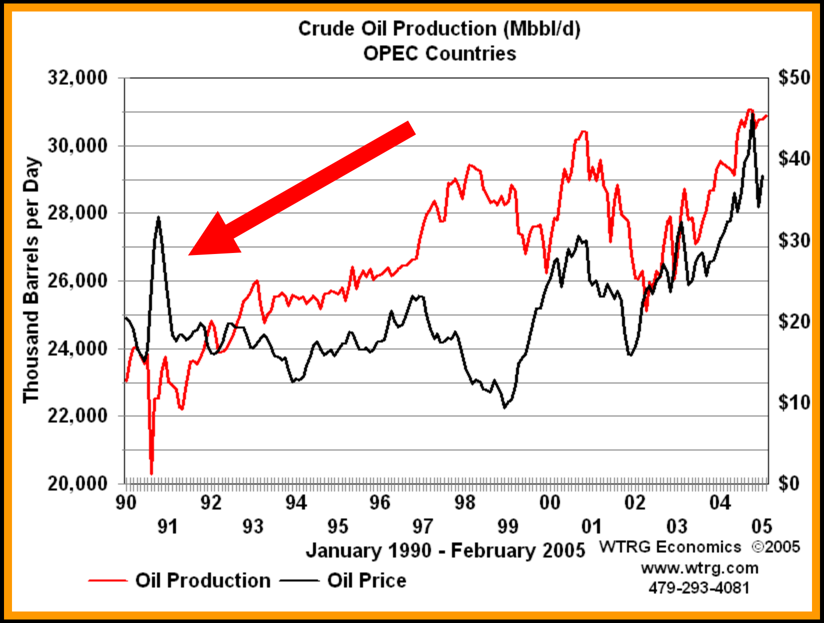
Iraq invades Kuwait in 1990.

Kuwait pumping oil from field located between Kuwait and Iraq.

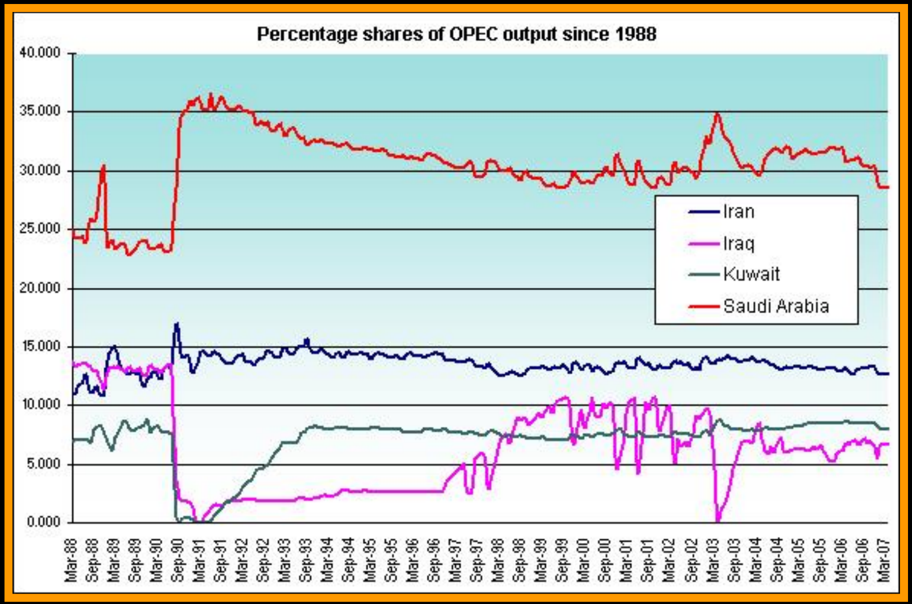
Iraq oil revenues were low, which made paying off its Iran war debts to Kuwait difficult.

Successful invasion would expand Iraq's power in OPEC, raise oil prices, and annul war debts to Kuwait.

# Marked Drop in OPEC Oil and Sudden Spike in Oil Prices

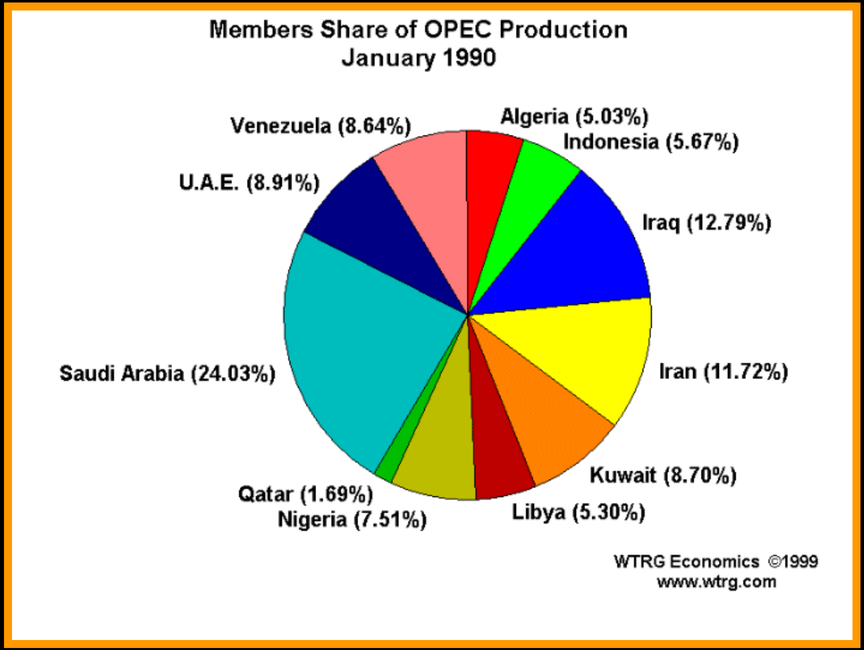


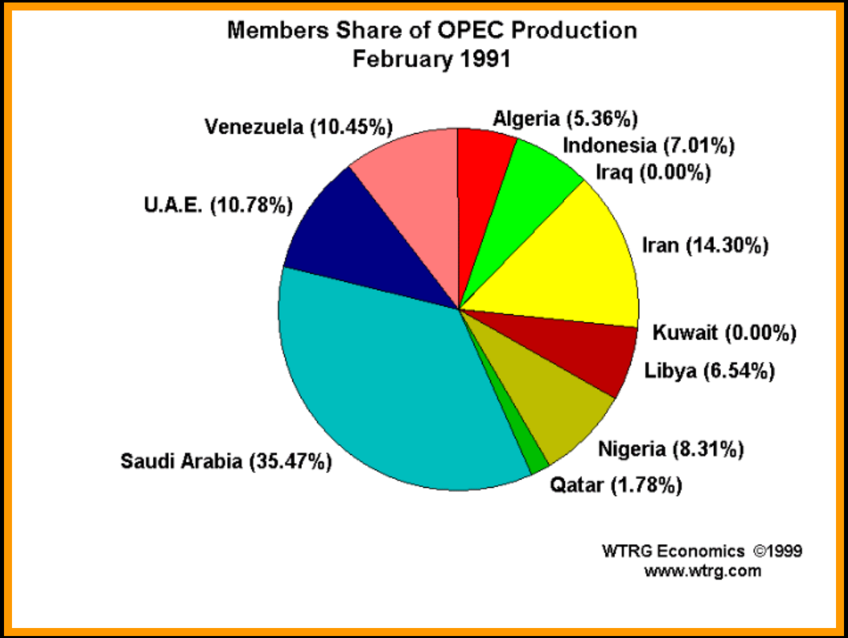

Production dropped and prices rose




Saudi Arabia to the rescue

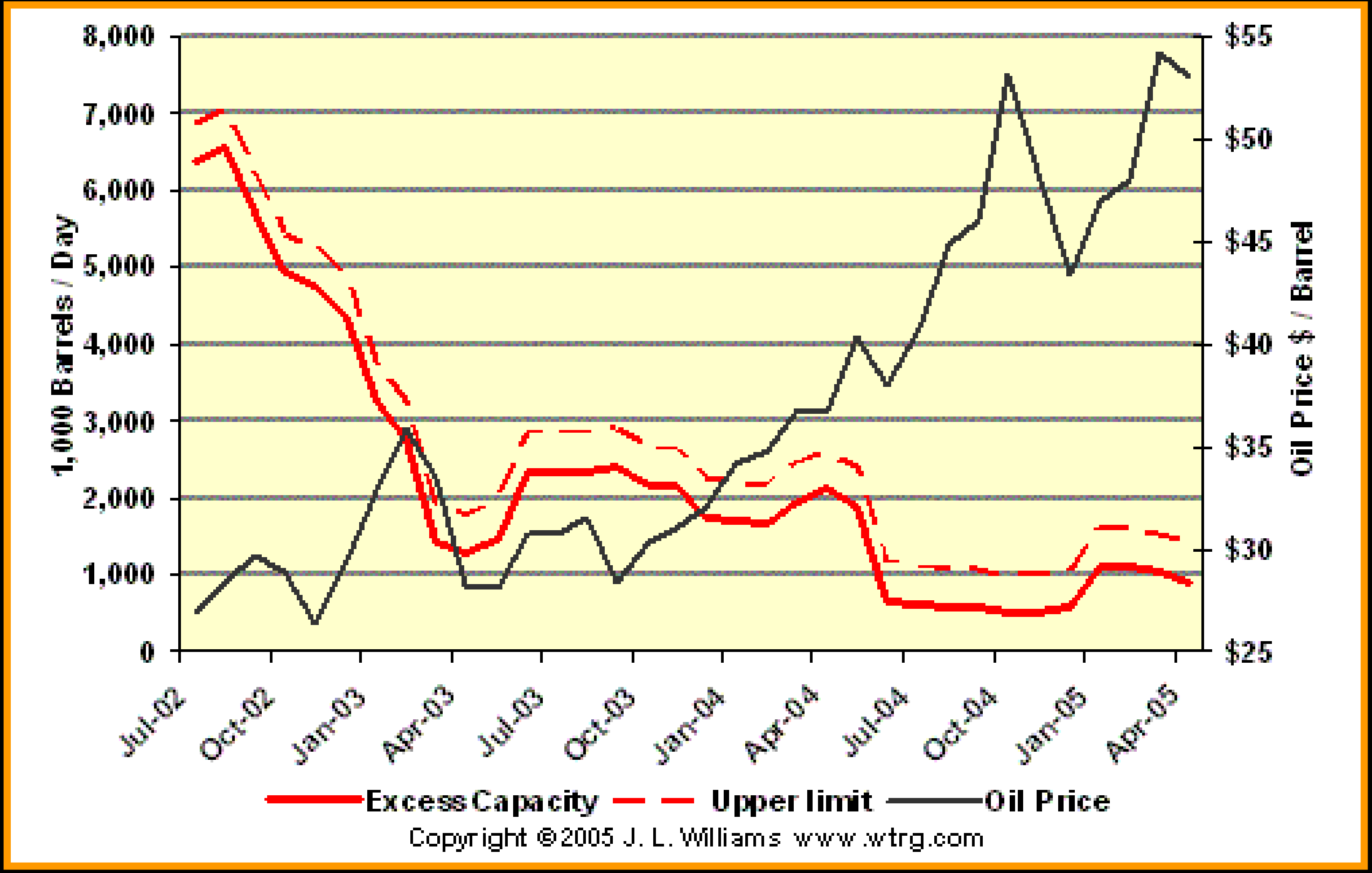
# Role of Saudi Arabia in Stabilizing Global Market



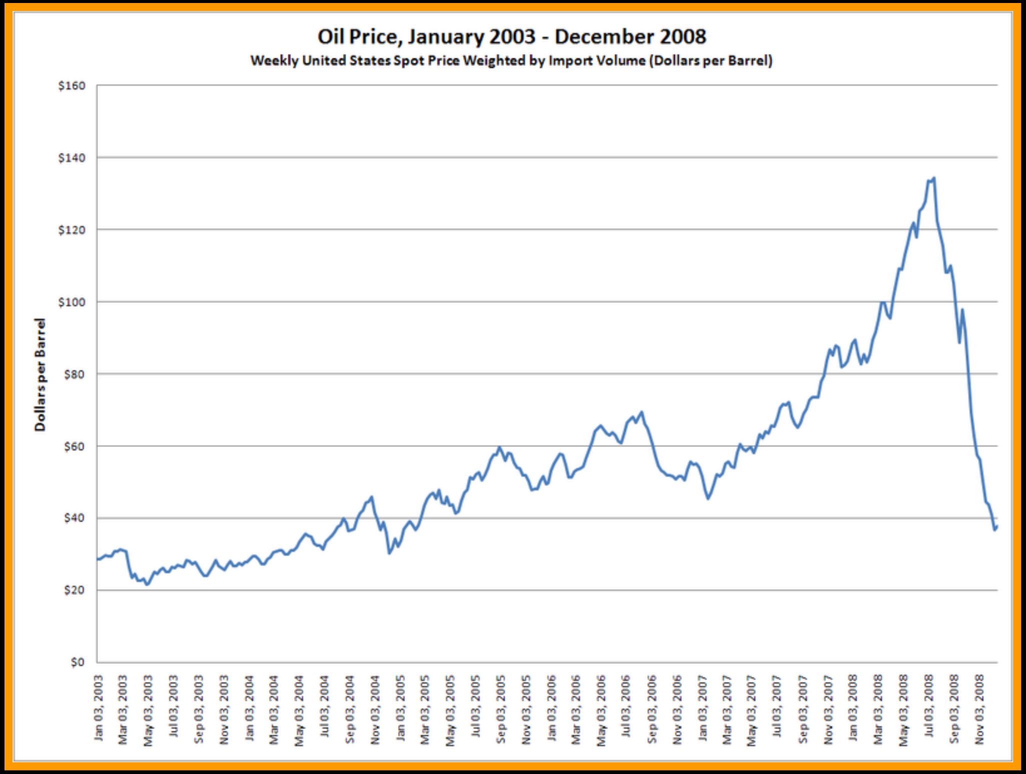




**Increased production to compensate for the loss of Iraq and Kuwait production**

# Excess Capacity of OPEC Countries Created Great Concern



# Crude Prices last 5 years




**<u>Possible causes:</u>**

Demand = role of fuel subsidies.

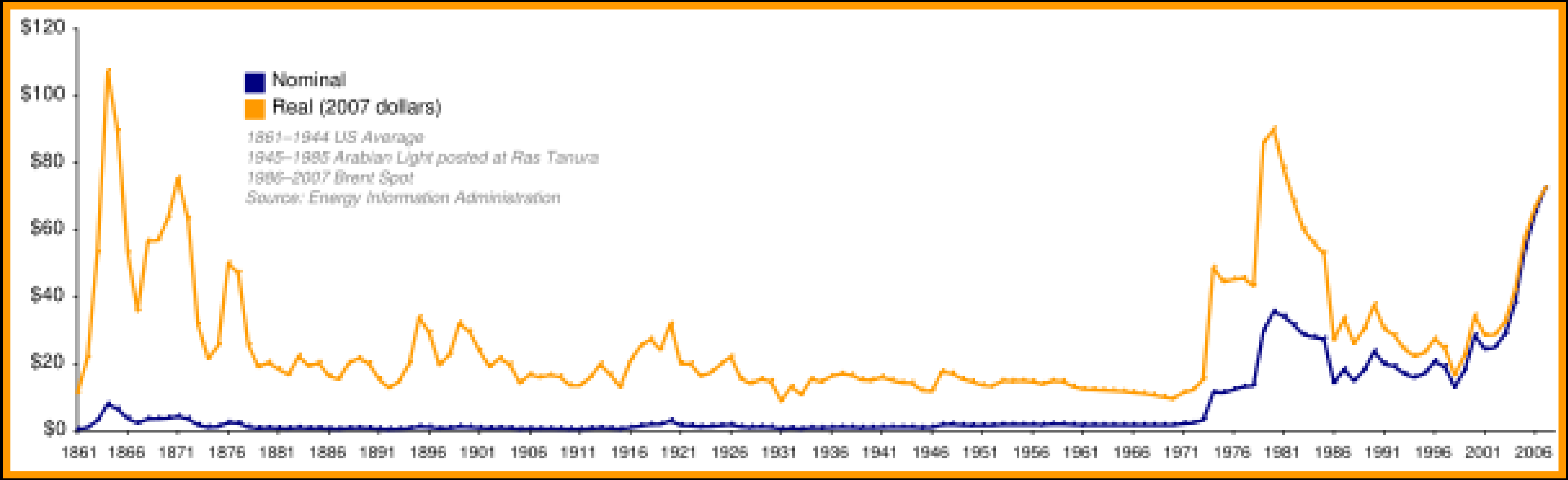
Supplies = fear of insufficient supplies of sweet low sulfur crude.

Decline in U.S dollar.

Speculation.

Limited excess world capacity.

# Impact of Prices on Drilling & Exploration "Boom or Bust"



# Major Drawback to the Boom & Bust Cycle

During bad times:

Valuable employees are let go.

Drilling rigs sold for scrap.

Important components of the companies are terminated
(i.e. research labs, exploration expertise.

Retiring employees are not replaced.

Enrollments in universities in petroleum related disciplines decline.