

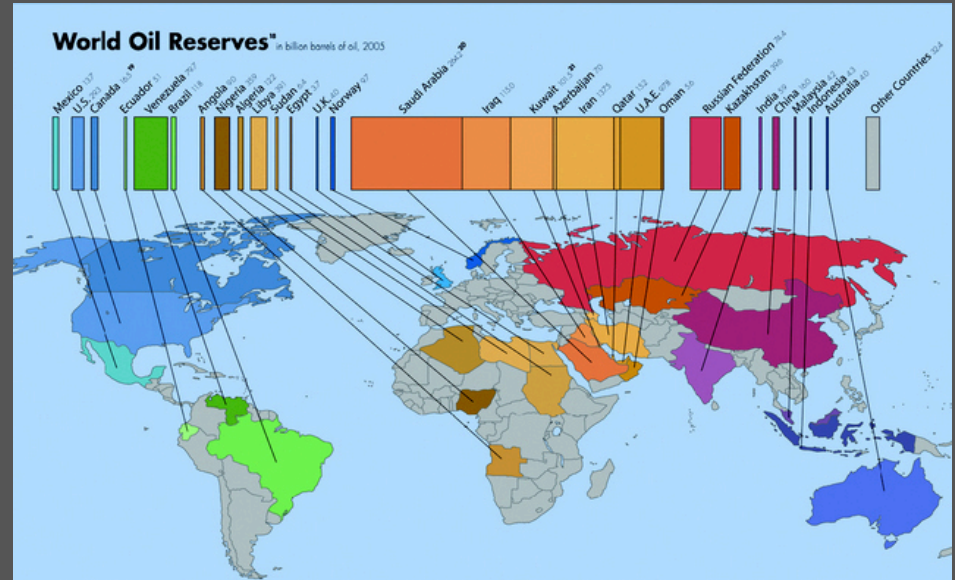
# *The Quest* - Part One: The New World of Oil

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EGEE 497

# Overview of Part One: The New World of Oil

1. Russia returns
2. The Caspian Derby
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# 1. Russia Returns

On December 25, 1991, President Mikhail Gorbachev stepped down as president of the Soviet Union

Six days later, the USSR formally ceased to exist.

Since the Soviet Union's economy was centralized and reliant upon oil and gas, the big question after its collapse was how it will now be run and who will be in control of the oil and gas fields?



# Things are bad with bread

The Soviet Union economy was dependent on how well oil and gas was selling

In 1973, the quadrupling of oil prices due to the Arab oil embargo and in the 1980s the price then doubled which gave the USSR a lot of money

The Soviets then needed this inflow to buy food for the country

This boom in the industry delayed badly needed economic reform





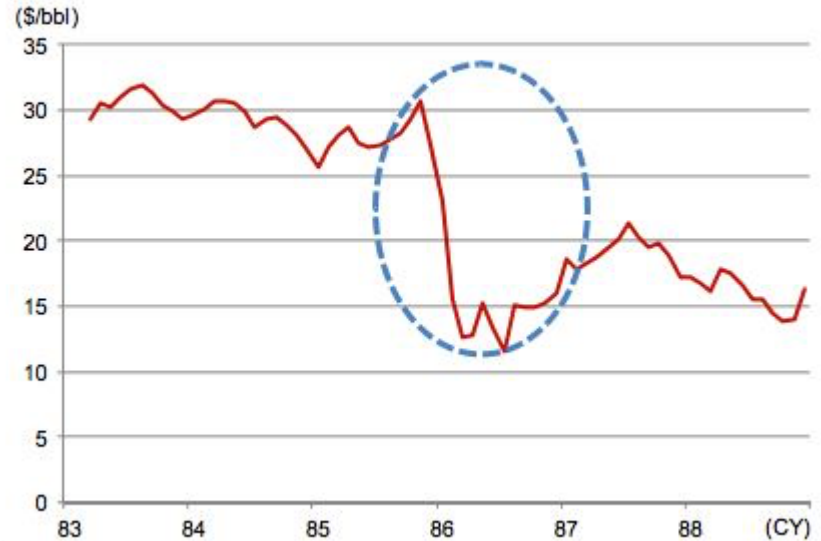
# Dear John - Help!

In 1986, there was an oversupply of oil that led to a huge collapse of oil prices

Since the economy depended on these oil prices being high, the USSR was in major trouble since they avoided economic reform when they were doing well

Ended up begging British Prime Minister John Major for help

Fig. 1: Crude oil prices (WTI) in the 1980s



Source: Nomura, based on Bloomberg data

# A new Russia: “No one’s at the controls”

Transition from centralized socialist economy to no leaders established two urgent needs:

1. Need to stabilize the economy in the short-term to provide basic necessities such as food to the Russian people
2. Change all the government owned oil to privately owned businesses

## Reconstructing the oil industry

Oil in the mid 1990s accounted for two-thirds of the currency

USSR was horizontally integrated, needed to change to vertically integrated companies

# The Big 3: Lukoil, Surgut, and Yukos

Vagit Alekperov was the leader of Lukoil, went around to small businesses in oil and gas and convinced them to join him. International policy

Vladimir Bogdanov was the leader of Surgut, promoted Russia first

Mikhail Khodorkovsky was the head of Yukos, not an oil person but a business person.

“Loans for Shares” - sale of the century



# Opening Up

Some saw that Russia was falling behind and wanted to open up to the West

Others believed Russia did not need help from outsiders

# In the heartland

John Browne and BP were the only Western company to get into Russia into west Siberia with a partnership with Sidanco and TNK

Ended up being a 50/50 split

# A great Economic Power

Vladimir Putin, in his early years as a student, discovered the importance of oil to the Russian economy

Oil was the best way for Russia to become a global leader

Under Putin, he had Khodorkovsky, the head of Yukon, arrested and Yukon dismantled due to political reasons



# Oil and Russia's Future

Russia came back to glory as the largest producer and the second biggest exporter of oil

While the oil industry in Russia has been modernized and is a great source of wealth, the economy still needs to be developed to not be so depended on the sale of oil and gas

## 2. The Caspian Derby

1980s-1990s, Soviet Union is beginning to un hinge, oil men move South to the Caspian and Central Asia.

Oil men connected emerging nations to the world economy.

Resulted in the discovery of the 3rd largest producing oil field.

Caspian oil helped define how the world would operate after the Cold War.



# The New Great Game

Term given to the “fierce vortex of competing interests in the region”

This “round” included Russia and Britain as well as: U.S. Turkey, Iran, China, and newly independent countries.

Oil and gas companies fought to maintain their supply and add new reserves

\*\*Wheelers-dealers, operators, finders, and facilitators - Calouste Gulbenkian “Mr. Five Percent”



# The Players

Though the soviet Union was gone, the economies of Russia and the newly independent countries were closely tied together.

Russia wanted to restore their country as a great power by absorbing the smaller countries. Some felt the U.S. had orchestrated the collapse to gain Caspian oil.

U.S. and Britain feared the Russian influence on the nations would be dangerous and destabilizing, but the smaller countries had no other option.

China had a slowly growing interest in the oil industry, driven by the rapidly developing nation.

# “The Oil Kingdom”

The name Joseph Stalin gave the Bakur region, after discovering the wealth he could obtain from the oil supply.

Hitler claimed “unless we get Baku oil, the war is lost,” but suffered a costly loss.

## History on Display

Baku was the historic center of what was the Soviet oil industry, and the Western nations wanted a share.

The region had a number of offshore, onshore, and inland sites where they were pumping oil.

## “All Roads Are There”

Azerbaijan was considered the “key” to the Caspian because of geographic obstacles and the war in Armenia.



## “The Native Son”

In Soviet times, Heydar Aliyev was the KGB general, then secretary of the Azeri Communist Party in Azerbaijan before being exiled by Mikhail Gorbachev.

He returned to power in 1993, at seventy years old, and brought stability to the nation.

# “The Deal of the Century”

Ten oil companies, representing six nations, would now belong to the Azerbaijan International Oil company.

These included BP, Amoco, Russian Lukoil and Japanese Itochu

## What Route for Early Oil?

In more shallow fields, early production was possible when platforms could be refurbished and upgraded, creating an early income stream.

Needed a pipeline to deliver the oil, and the options were the Russian pipelines or a costly route west to Georgia and the Black Sea..

# The Two-Track Strategy: “Offend No One”

As the discussion happened over which pipelines would be used, the idea was proposed to use both, starting with the existing Russian pipelines.

## What Route for the Main Pipeline?

The cheapest option was to go south to oil refineries in Iran to go to Tehran and the Persian Gulf, which would not require a pipeline through the city of Iran.

Another was to go west to Baku then Tbilisi and Ceyhan, the most logical route, however also the most expensive and most difficult to build..

## “Now is the Moment”

At the “Tale of Three Seas” conference, chief executive of BP, John Browne stressed the importance of a new pipeline and gained the support of the AIOC.

After addressing potential concerns the project was constructed.

## “Our Major Goal”: Petroleum and the Nation-State

Heydar Aliyev’s son, Ilham, was the president of the country when the project concluded, and he stated that the oil was required for their major goal: “to become a real country.”

Today, the nation’s offshore oil field is the third largest in the world, and still uses the BTC pipeline route.

### 3. Across the Caspian

In the Summer of 1985, there was a huge oil/gas blow out in the Kazakhstan region

It took 400 days to help get the flames under control and needed help from the West to put it out

This event, although tragic, the Caspian region



for oil in Kazakhstan and

# Tengiz: “A perfect oil field”

Due to the lack of technology, Kazakhstan needed to bring foreign investors into the land

Chevron, an American oil company, came into the oil rich lands of Tengiz

This area needed a huge investment of infrastructure and pipelines in order to make it work





# The Pipeline Battle

Contract of the century between Nazarbayev of Kazakhstan and Chevron on a 50/50 split of the ownership with 80% of the economics going to Kazakhstan

Turned to John Deuss from Oman to help get the pipeline built and operational

Needed to convince Russia to put a pipeline from Kazakhstan through their lands

Multiple people needed to step in including U.S. VP Al Gore and Vagit Alekperov, the CEO of Lukoil, and the deal eventually was completed and oil passed through in 2001

# Kashagan

Largest single oil field discovered since 1968

Even though it had great potential, there were many challenges that were present mainly related to new technology

China stepped into Kashagan and built a pipeline in 1997, came in under the radar



# Turkmenistan and the pipeline that never was

Turkmenistan was an isolated oil rich field in Central Asia

Proposed two pipelines from the area TAP which was for gas and COAP which was for oil in a partnership between Unocal and Turkmenistan

## The “Turkmenbashi”

Saparmurat Niyazov, the leader of all Turkmen wanted to reach out and sell oil and gas

He then reached a deal with Unacoal to help export resources

# “No Policy”

The proposed pipeline had to go through Afghanistan, Pakistan and through India to get to the ocean so that the oil could be exported

There was a lot of political turmoil in the area as the Taliban were taking control over these regions through violence under Islamic rule

Due to the chaos Unocal could not work with the Taliban in these regions



# The end of the road

Unocal had predicted two different scenarios for the region

1. The “most likely” was that the region would break off into independent states
2. The “least likely” which ended up happening was a Triumphant Taliban with the help of a bankroll from Osama Bin Laden

In September 27, 1996 the Taliban captured Kabul and Unocal met opposition of working with such an oppressive group

On August 7, 1998 Al Qaeda attack US embassies in Kenya and Tanzania and the pipelines TAP and COAP were finished before they were started

## 4. “Supermajors”

Asia would have benefitted from two of the pipeline projects that were never constructed, but still had a booming economy.

In 1997 Thailand was hit with a financial crisis that threatened all of the economic progress Asia had made.

## The “Asian Economic Miracle”

Due to globalization, Asia was experiencing great economic success all over the continent from trading in the global economy.

Asia became the foundation for supply chains, extending from raw materials to final goods.

## Jakarta: “OPEC’s Economic Stars”

OPEC met and decided to raise the quota at Jakarta to level the playing field.

With the steadily increasing demand, they were confident that the increase in production would not lead to a surplus.

## “Essentially All Gone”: The Asian Financial Crisis

Asian companies and property developers taking on too much debt due to a flood of lending by the banks.

Overleverage in the condo & office building sectors led to the collapse of Thailand’s currency, and the fall of stock markets and currencies in other Asian countries.

# The Jakarta Syndrome

They were wrong. The timing of the Asian financial crisis and the Jakarta agreement led to an increase in output as demand began to drop.

Prices dropped as low as \$10 or even \$6 a barrel, similar to the collapse that occurred in 1986.

## The Shock

The price collapse led to a surplus and many oil companies laying off employees.

It provided a unique opportunity to get into the petroleum industry, targeting larger scale markets through mergers.



## “Were He Alive Today...”

John D. Rockefeller would recognize the names at the top of the publicly traded oil companies.

Companies began to look into mergers, or “supermajors”, to gain efficiency in the market and bring down costs.

## The Merger That Wasn't

BP and Mobile began discussing a merger in secret, since neither company felt they could thrive on their own.

Mobile had agreed to let BP take over, as long as there was not premium to the shareholders, which was something BP was not willing to promise.

# The breakout: BP and Amoco

After being turned down by Mobile, BP began talks with Amoco, whose CEO was pessimistic about the company's future.

On August 11, 1998, the largest industrial merger in history was announced, a \$48 billion merger.

## Too Good to Be True

U.S. oil company ARCO was requesting BP to buy them out.

April 1, 1999, BP Amoco purchased ARCO for \$26.8, just as oil prices began to rise again from the cut back in production by OPEC.



# “Easy Glum, Easy glow”: Exxon and Mobile

As soon as the CEO of Exxon heard about the BP-Amoco announcement he contacted Lou Noto, the CEO of Mobile.

They began negotiations once again and on December 1, 1998, they announced their intention to merge, being called the “New Oil Behemoth.”

## The Ghost of John D. Rockefeller

Since this deal was on such a larger scale than the BP-Amoco deal, the FTC launched a full scale investigation on the proposed merger.

The FTC ruled that in order for the deal to go through, they had to divest 2,431 gasoline stations out of the 16,000 and one oil refinery in California.

# The Alarms

“Antitrust alarms” had been going off due to the recent agreements, and now the discussion had to be made about BP’s deal with ARCO.

Fearing the influence of ARCO deal, the FTC decided that for this agreement to happen, BP had to give up their crown jewel, the North Slope Oil.

## The French Reconnection: Total and Elf

Total saw what was happening with BP and to grow through consolidation, and the other main oil company in France, Elf, was the target as well as Belgian Petrofina.

The battle for shareholder support began, but in the end, TotalFinaElf was called Total, and became one of the world’s supermajors.

## “We had to Consolidate”: Chevron and Texaco

Given the environment in the industry, Chevron felt they had no option and Texaco was the best company they could merge with.

In October of 2000, the Chevron-Texaco merger was signed.

## The Last Ones Standing: Conoco and Phillips

ConocoPhillips formed on Nov. 2001 and absorbed the Alaskan assets.

Shell, once the largest oil company in the world, was not struggling internally and, without an merger, fell from the top.

## 5. The Petro-State

The term “Petro-State” is a nation, regardless of their political system, culture, religion ect. all have one thing in common and is that they export oil

The Venezuelan economy since 1920 could be summed up in one word and that is “oil”



# The “Reversed Midas Touch”

In the 1980s and the 1990s, oil could generate more than 70% of Venezuela's central government revenues

There was great competition for these revenues and was the central dram of the nation's economy

The wealth of the country came from the resource of oil and not from the people, thus ensured the struggle to distribute wealth amongst its people

Venezuelan government was pressured to spending that money back into the country and was exposed to price volatility

# We couldn't lose time

Carlos Andres Perez, president of Venezuela, had his first term during oil boom in the 1970s and embraced the petro-state

In 1976, Perez engineered the government takeover of the oil industry

“It is a Trap”

By the end of the 1980s after the oil prices fell, Venezuela was in deep crisis with high inflation and unemployment





# The Coup

On February 4, 1992 a coup was in process, left many dead in the presidential palace in Caracas led by Hugo Chavez, eventually surrendered

Later that year, President Perez was eventually impeached for corruption and two years later Chavez was freed

Once freed, Chavez goal was to gain control of Venezuela and became allies with Fidel Castro in Cuba



# La Apertura

“Opening” of Venezuelan oil to foreign companies to bring in advanced technology, met with mixed reviews, but was eventually approved

# The Oil War

Venezuela sought to produce more oil than OPEC allowed them to

OPEC countries strongly opposed this movement

# Chavez in power

Hugo Chavez became president in December 1998, as Venezuela was in deep economic crisis

Venezuela became an ally with Cuba, providing them with oil

Chavez implemented big changes to Venezuelan oil with centralizing the money and obeyed OPEC's regulations

With the cut back on production, oil prices began to soar

## 6. Aggregate Distribution

The world was changing, and the developments in technology were bringing the world together.

It was a new self-confident era of globalization where people were freely communicating, trading, and traveling.

### The Day That Changed Everything

September 11, 2001, concerns had become real and the U.S. was attacked for the first time since Pearl Harbor.

This transformed international relations, security was now the main concern, and Americans wanted Energy independence”..

# “Alo Presidente” - Venezuela

Hugo Chavez was re-elected president in 2000, and absorbed Venezuelan oil companies to consolidate his power.

Used his talk show, Alo Presidente, to fire and ridicule 7 members of the PDVSA (Petroleos de Venezuela), causing an uproar.

## “Call Fidel!”

Chaves was asked to resign, but three days later was brought back into power.

The country remained deeply divided.

# The General Strike

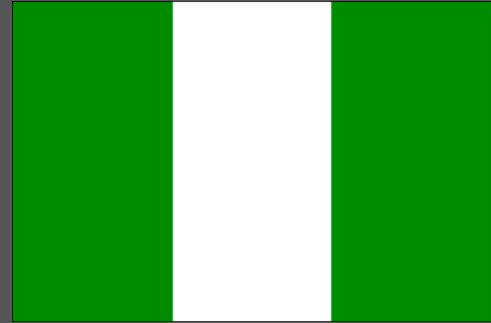
Businesses, unions, and communities joined together to strike and try to force Chavez out of power.

It was not until 2003 that Venezuela was able to once again begin exporting petroleum to customers.

## Nigeria: “You’re a Petro-State”

Oil and natural gas account for 40% of the GDP.

The finance minister wanted to lower oil prices, impose fiscal disciplines, and accumulate the government’s financial reserves, which was not a popular policy.



# Ethnic Conflict

Nigeria contains 250 ethnic groups, split between the Islamic north and Christian south.

Once oil was discovered, Nigeria became independent and the history thereafter has been defined by violent conflict over distribution of power and resources.

## Violence in the Delta

The Niger Delta was where most of their oil was produced, it brought a great deal of wealth to the those who governed the area, but also had violent outbreaks.

“Bunkering” became a popular source of income, gangs began to develop, and the violence grew more lethal..

# “The Boys”

The Movement for the Emancipation of the Niger Delta had kidnapped foreign oil workers, launched deadly attacks, and threatened to do worse.

President claimed they would be controlled but they were not, led to evacuations, closure of facilities, and a rise in the price of oil.

# Natural Disaster

Hurricane Katrina became more severe as it moved to the Gulf, where almost 30% of U.S. domestic oil and 20% of natural gas production came from.

Katrina devastated the area, 20,000 evacuated, over 1,800 dead, 115 platforms destroyed, 52 damaged, 535 pipeline segments damaged, but no leak.



## 7. War in Iraq

Iraq was an oil country and was a nation defined by oil

The reason the war in Iraq started was not about oil but the attack on the U.S. during 9/11, links to al Qaeda and the belief that Saddam had weapons of mass destruction

France, Germany, and Russia opposed the war

Israel feared Iraq would distract the US from Iran, which they thought was the bigger threat

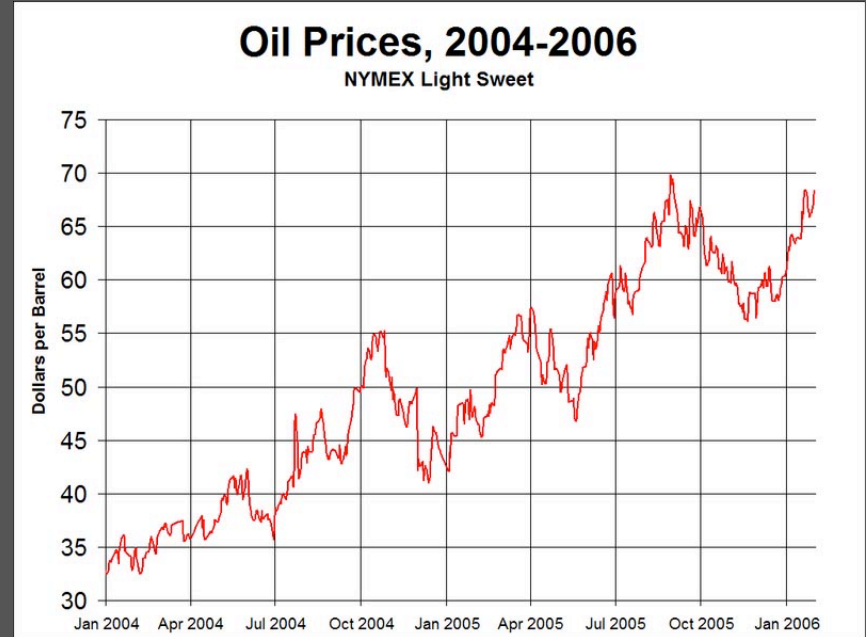


# “Oil”

US policy since Truman to prevent Persian Gulf oil from falling into the wrong hands

US preferred to have a liberated Iraq with the government making the decisions on oil, but issues were much more complex

The war began on March 20, 2003 and ended April,9 with the US capturing Baghdad.



# The oil industry: “Dilapidated and Deplorable”

After the war, the country was in chaos with nobody in control

Oil fields in the region, which brought the country its wealth, were in terrible condition

# “De-baathification” and the army’s dissolution

First order was to De-Baath Iraq society, the party of Saddam

Second order was the Coalition Provisional Authority which was to dismantle the army

# Insurgency and Civil War

Widespread looting became a serious problem in Iraq

Turmoil led to a civil war between the Shia and the Sunnis, eventually led to a war against the occupation

The Baath party put a high priority on sabotaging the oil industry

Oil industry did not recover until 2009, only operating at two-thirds capacity

## 8. The Demand Shock

Light, sweet crude oil known as West Texas Instrument began to accumulate in Cushing, Oklahoma.

After their boom had passed, they transitioned to use their pipelines for petroleum, WTI remained as a benchmark for other oil prices.

### The Surge

The ascent of oil prices began in 2004 and was a result of supply and demand and magnified by expectations and financial markets.

Global oil demand almost quadrupled, increasing by 4.9 million barrels, between 2003 and 2006.

# The Tightest Market

Demand was surging and disruptive nations were taking supplies off the market, which resulted in a “historically tight market.”

Companies went from having about 4 million spare barrels per day to no more than 1 million.

## Where Are the Petroleum Engineers?

In the late 1990's enrollment in petroleum engineering plummeted at universities and people were leaving the industry, fearing the worst.

After the turnaround in 2004, there was a shortage of petroleum professionals.

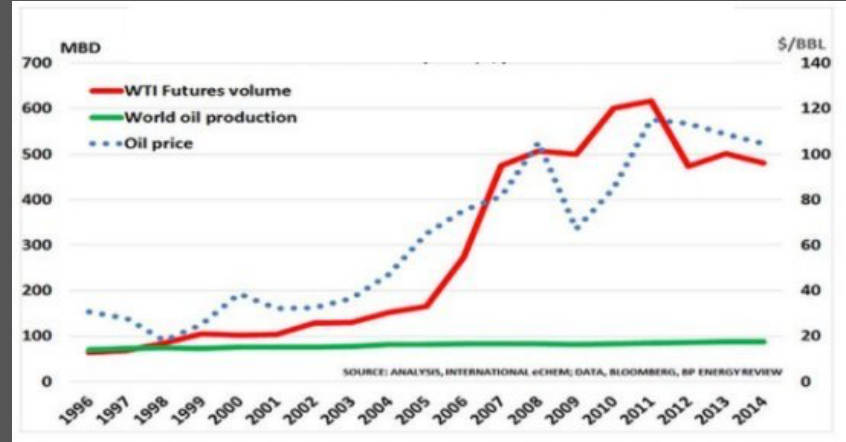
# “Financialization”

Price of petroleum was inversely related to the value of the dollar.

Oil was becoming a financial asset as well as a physic commodity.

## The Rise of Oil Trading

As global oil trading continued to rise, the U.S. decided that the federal government should have control over the price of oil, and Britain adopted a similar policy.



# The “BRICs”: Investment Opportunity of a Generation

Brazil, Russia, India, and China had large population economies that were destined to grow faster than the main industrial economies.

This became a widely used framework for looking at the world economy.

## The Belief System

“New Era Thinking” the mindset that something new and different has arrived that justifies the rapid rise in asset pricing.

This is a consistent feature for “bubbles”.



# Does Price Actually Matter?

Some felt it did not - assumed prices would continue to go up with little impact on consumers and producers.

Others felt it did - thought the price would encourage more supply, investments, alternatives, and dampen demand.

## “Going to Explode”

The oil industry was in a bubble as gasoline prices rose above \$3 per gallon in 2008.

Airline industry felt strong effects from the rising prices, and felt the market was looking for any opportunity to raise the prices more.

## “You Need Buyers”

George W. Bush went to Saudi Arabia to discuss them increasing output to alleviate some of the rising costs, the response was a suggestion: to find more buyers.

Prices continued to rise and hit a new high in May, causing new cars sales in the U.S. to plummet.

## “It Needs to Stop”

The American people felt it was time for Congress to “show solidarity with angry motorists” and work to lower the price of gasoline.

Oil company executives were proud that they were investing their earning in the future supplies of the world.

# Break Point

People were realizing that the price mattered after all, both economically and politically.

Companies began to be more energy efficient, and demand was slowing down.

## Changing the Car Fleet

The United States had the world's largest auto fleet, and the nation was “addicted to oil”

This drove the growth of more fuel efficient vehicles in America.



# The Great Recession

Occurred in the U.S. from too much debt, leverage, too many derivatives, cheap money, and overconfidence, but mainly the surge in oil prices.

The prices rose to dramatically, car companies did not have a plan for such an extreme price change and were put in extremely difficult scenarios.

## Sovereign Wealth

These high prices caused transferred a great deal of income from consuming nations to producing nations, and OPEC oil revenue grew from \$243 billion in 2004 to \$693 billion in 2007.

# The Peak

July 11, 2008 - oil had reached its historic high of \$147.27 per barrel, from around \$25 just four years prior.

On July 16, the oil price suddenly plunged and the fever of rising prices broke.

## “A Cold Wind From Nowhere”

After the collapse of the Lehman Brothers, the world's financial system stopped flowing.

People scoured to find information on how to fix a failing bank system, while oil prices began to return to what they were in the years before.

## 9. China's Rise

The end of the 1990s marked the transition of China from becoming irrelevant to the global oil economy to becoming one of the top players with dreams of becoming an IPO for PetroChina on the NYSE

Many risks were involved such as the uncertainty of political stability and economic growth

However, China prevailed and by 2010 became the second largest economy in the world



**PetroChina**

# “The build-out of China”

China’s economy was growing around 10% each year and became the second biggest consumer of oil behind the U.S.

## Growth and Anxiety

Due to the growth of China, much anxiety came about due to being able to keep up with the energy demands of the Chinese economy

The fears of a oil shortage around the world led to the 2004 demand shock where oil consumption grew in a single year at the same rate of two and a half years

Countries around the world started to feel the influence that China had on the oil market

# Daqing: The “Great Celebration”

After believing there was no oil in China, it was unexpectedly discovered in northeast Manchuria

Once the Soviets pulled out of Manchuria, the Chinese struggled

Iron Man of Daqing oilfield Wang Jinxi, helped save the Daqing oil fields by driving production





# “Export as much oil as we can”

China needed to get out of economic depression and the Bamboo Curtain was opened with the United States during the time of the Vietnam War

By 1978 China began exporting oil and opened its doors to the outside world

## The End of Self-Sufficiency

By 1993, petroleum production could no longer keep up with the rising demand so China switched from an exporter to an importer

# The “Go Out” Strategy: Using two legs to walk

This strategy in terms of energy involved going out to invest or control foreign sources of oil and natural gas

China made partnerships throughout the entire world including one with Russia in 2010

In 2005, Chevron and Chinese National Offshore Oil Corporation were locked in a battle to acquire Unocal, which was in Thailand and Indonesia

Chevron ended up getting the bid and led to heating rhetoric between the two countries, but five years later ended up being partners

# “INOCs”

Chinese oil companies became International National Oil Companies which was a hybrid of the two types of oil companies

They are majority owned by the government but not government run

These companies will likely become bigger and share the stage with the entire world

China has now found a balance between the “go out” strategy and producing oil domestically, however they will still remain as an important consumer of oil

## 10. China in the Fast Lane

China had become increasingly dependant on the global market for oil, and their energy security was becoming purely an issue of oil security.

### Petro-Rivalry?

Tension was growing between the U.S. and China as China explored new energy-security strategies.

China feared the U.S. would cut off the overseas oil “lifelines” to their country.



# “Responsible Stakeholders”

Global energy security was proposed as a way to tie together the energy securities for the U.S. and China.

Responsible Stakeholders was a term given to the shared international responsibility to shape and benefit the international trade system

## The Fast Lane

China was transitioning into a mass automobile culture, and was doing so more quickly than any nation had previously.

China began purchasing huge number of automobiles, and business was booming in China for American dealers.

# The Price of Success

Never before had the world experienced such a rapid transition from poverty to a world of economic growth and opportunity.

There was an environmental price to this growth fueled by energy consumption.

There was an issue with the water supply, not only due to populations but also due to contamination from untreated wastewater.

The air was also being negatively impacted by this increase in energy consumption, drawing attention to global climate change and preservation of the environment.

# Power Surge

In the 2010s, China's greatest challenge is to ensure that it has enough electricity to meet the demands of its growing economy and work with environmental restrictions

China now exceeds the US on generating capacity as coal is roughly 65% of generated electricity

China is also making a push towards cleaner energy such as the implementation of the Three Gorges Dam

# Energy and Foreign Policy

Relations with US oil will not be strained by competition, but rather from geopolitical, foreign policy, and human rights issues

Iran, however, still poses the highest risk of foreign conflict with energy

## The Overlap of Interests

Room for cooperation between the United States and China can happen in the future as they can work together to meet the energy demands of today as well as the environmental constraints of the time as the two biggest consumers and producers of energy