

Chapter 2

History of Energy Security in the Region

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Chapter 2

History of Energy Security in the Region

It is important to anticipate risks and prepare the responses to improve energy security. Some risks affect global energy supply chains while others affect domestic energy supply chains. In the past, risks were brought about by geopolitical events, such as wars. In recent years, however, they were caused in many cases by natural disasters, economic situations, and human errors.

Risks to energy security may substantially change the energy market. In order to improve energy security, therefore, it is necessary to anticipate how the energy market will change, as well as to assume only the events that may bring in these risks.

The Working Group intends to assess various future energy security risks and study measures to respond to them using the scenario planning approach. To do this, it is significant to analyse energy security risks that occurred in the past, analyse earlier events, the measures taken, and the energy market that underwent a change as a result. This is the objective of this chapter.

The two oil crises practically made the world understand the importance of energy security. This chapter discusses the following events that happened after these oil crises. To recognise that risks may abruptly occur and that events of different natures may take place at the same time, similar cases will be analysed in a time series without being grouped.

Oil crises (1973, 1979)	geopolitical risk
Persian Gulf War (1990)	geopolitical risk
California electricity crisis (2000)	regulatory failure
General strike in Venezuela (2002)	geopolitical risk
Iraq war (2003)	geopolitical risk
Hurricane Katrina/Rita (2005)	extreme climate
Heavy snow in China (2008)	extreme climate
Bankruptcy of the Lehman Brothers (2008)	economic crisis
Crude oil spills in the Gulf of Mexico (2010)	accident
Arab springs (Libya, 2011)	geopolitical risk
Flood in Australia (2011)	extreme climate

Earthquake and tsunami in Japan (2011)	extreme climate
Blackout in India (2012)	fragile infrastructure
Typhoon in the Philippines (2013)	extreme climate

2.1. Increasing Understanding of the Importance of Energy Security

The concept of energy security was spawned after the Industrial Revolution in the 18th century. The invention of the steam locomotive allowed coal to supersede wood and charcoal as energy sources, and energy was increasingly recognised as an element critical for people to live and for national defence. When battles expanded in scale in World War I and technology intensiveness rose, it was increasingly recognised that security and energy were inseparably connected, and the concept of energy security took on strategic importance.

When petroleum took over the leading role from coal, the strategic importance of oil increased in modern wars. Oil became an essential commodity to continue a war as tanks and aircraft were developed. In World War II, oil was used as a strategic commodity as demonstrated by the oil embargo imposed on Japan.

As demand for oil rose, the United States (US) became an oil importer in the 1960s. Around this period, it was acknowledged that, in order to ensure energy supply to its militaries deployed overseas, energy and security were inseparable.

Even in industrialised nations other than the US, awareness was heightened—that oil was a critical commodity for sustaining and developing the social economy, people’s way of living, and for national defence, and that a shortage of its supply would directly lead to serious outcomes.

2.2. Oil Crises (1973, 1979)

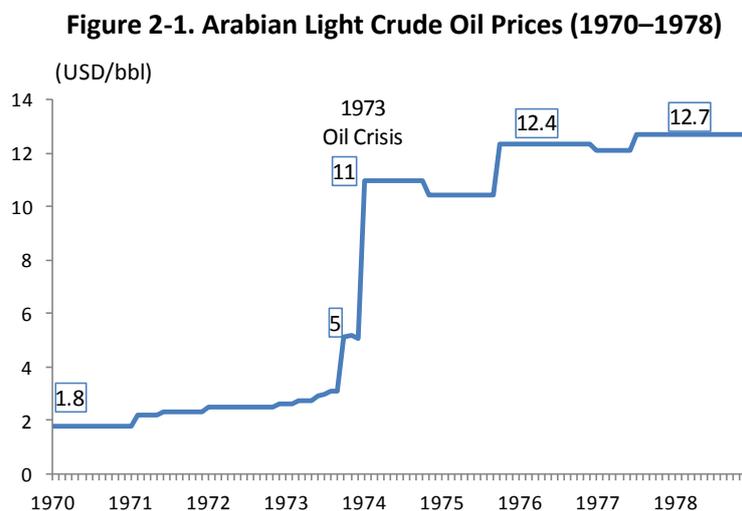
The oil crises of 1973 and 1979 against this background forced each nation to become aware of the importance of energy security. They were important events in that they substantially changed the oil market.

2.3. 1973 Oil Crisis

2.3.1. Steep increase in crude oil prices

In October 1973, the fourth Middle East war broke out. In response to this, six oil-producing countries in the Persian Gulf that were members of the Organization of the Petroleum Exporting Countries (OPEC) raised crude oil prices. The Organization of the Arab Petroleum Exporting Countries (OAPEC) decided to reduce oil production in stages and to impose an oil embargo on countries supporting Israel, including the US and the Netherlands.

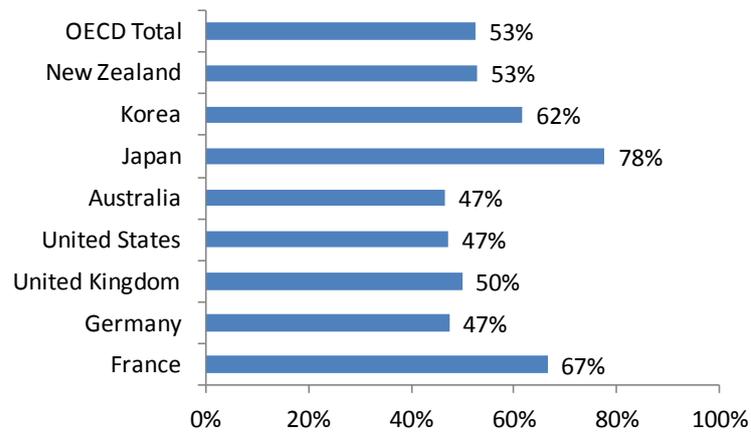
Before the first oil crisis in 1973, crude oil prices were decided by the Oil Majors, but the oil-producing countries took that role after the 1973 oil crisis. As a consequence, crude oil prices surged fourfold, dealing a heavy blow to the world economy.



Source: The Institute of Energy Economics, Japan (IEEJ).

Major industrial nations were heavily dependent on oil to supply their energy before the first oil crisis erupted in 1973. In particular, 78 percent of Japan's total primary energy supply was dependent on oil, most of which was imported.

Figure 2-2. Oil Dependence of Selected Countries (1973)



OECD = Organisation for Economic Co-operation and Development.

Source: *Energy Balance of OECD Countries 2014*, International Energy Agency (IEA).

2.3.2. Response of major industrial nations (such as Japan)

In November 1973, the Government of Japan announced the outline of emergency measures that included a 10 percent cut in oil and electricity consumption—to prevent a surge in commodity prices and shortage of goods. The specific measures included saving or less oil consumption at government agencies, setting room temperature to an appropriate level, voluntary restraint on illumination for advertisements and embellishments, reducing unnecessary and not-urgent business trips, and promotion of a movement to help a five-day workweek take root.

The government also issued an administrative guidance to encourage large-lot industrial oil consumers to curb consumption of oil and electricity, the general public to refrain from using private cars, for commercial transportation systems to save on oil consumption, restaurants and department stores to shorten business hours, and late-night TV broadcasting and advertisement towers to shorten their business hours.

In the second half of January 1974, the target of oil savings was raised from 10 percent to 15 percent. The government issued an administrative guidance to lower the retail price of residential use kerosene.

After that, the Japanese government enacted the following legislations:

Dec. 1973	'Petroleum Supply and Demand Optimization Law' and 'Emergency Measures concerning the Stabilization of National Life Law' were enacted.
Dec. 1975	Oil stockpiling law was promulgated and stocking of oil started.
June 1979	Energy Conservation Law was established.
May 1980	Law Concerning the Promotion of the Development and Introduction of Alternative Energy (other than oil) was established.

Major industrial nations other than Japan raised oil prices, hiked taxes, or controlled production with an eye to reducing oil consumption, thereby minimising the influence of the first oil crisis.

2.3.3. Establishment of the International Energy Agency

In 1974, the International Energy Agency (IEA) was established in response to the 1973/74 Oil Crisis to help countries coordinate a collective response to major disruptions in the oil supply through the release of emergency oil stocks to the markets.

In 1984, the IEA reached an agreement on Co-ordinated Emergency Response Measures (CERM), where member nations would cooperate and release their oil stockpiles in case of an emergency that would or might disrupt the oil supply. CERM aimed to prevent or quell a panic in markets that might take place at the initial stage of an emergency of oil supply disruption.

The IEA also recommended its member countries to stockpile oil equivalent to 90 days or more of their imports in preparation for an emergency.

2.4. 1979 Oil Crisis

2.4.1. Iranian Revolution

The 1979 oil crisis was triggered by the Iranian Revolution. In January 1978, demonstrations against the Shah by dissidents against the rapid modernisation of Iran spread nationwide, leading to strikes at major national and private businesses, and

movements by Muslim fundamentalists for the expulsion of non-Muslims and foreigners. At that time, Iran was the world's third-largest oil-producing country, exporting about 4.5 million barrels of crude oil a day. The revolution affected the oil production sites as well, temporarily stopping crude oil export. In response to the supply shortage of crude oil due to suspension of crude oil export from Iran, OPEC decided to raise crude oil prices by 10 percent on average per annum and in stages, starting from 1979. The decision was made at the general assembly in December 1979.

Right after that, crude oil export from Iran had been totally suspended until February 1980. In addition, a war broke out between Iran and Iraq in September 1980. From that point on, Iran hardly produced oil for about eight years until a ceasefire was reached in August 1988.

During this period, a situation of quantitative shortage of crude oil—like the 1973 oil crisis—was avoided because Saudi Arabia, Iraq, Kuwait, and the North Sea increased their oil production, making up for the decrease in crude oil export from Iran. However, oil prices rose again, seriously impacting the world economy, which was on the verge of recovery.

2.4.2. Responses of major countries

During the first oil crisis in 1973, major industrial nations adopted regulatory measures in various fields, as well as in the energy field, resulting in stagnation of the economy. Against this background, many countries refrained from taking a strong demand control policy at the time of the second oil crisis in 1979.

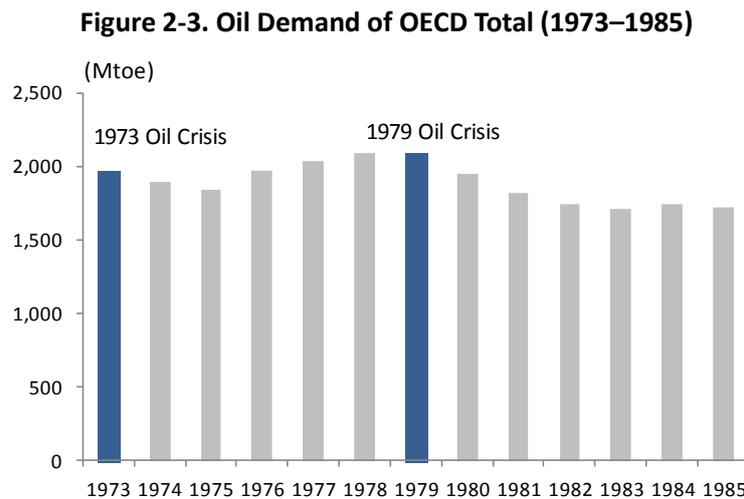
2.5. Changes in Oil Market Brought about by the Oil Crises

The two oil crises substantially changed the conventional oil market. The oil market underwent a significant change again in the 1990s as oil production by non-OPEC nations rose.

The following sections outline the oil demand from 1973 to 1985.

2.5.1. Decrease in oil demand

Figure 2.3 shows changes in oil demand of member nations of the Organisation for Economic Co-operation and Development (OECD) from 1973. Rise in crude oil prices due to the 1973 oil crisis had an influence on the economies of the major industrial countries where oil demand dropped. Oil demand in OECD countries showed a recovery after that, but started declining again when the 1979 oil crisis drove up crude oil prices.



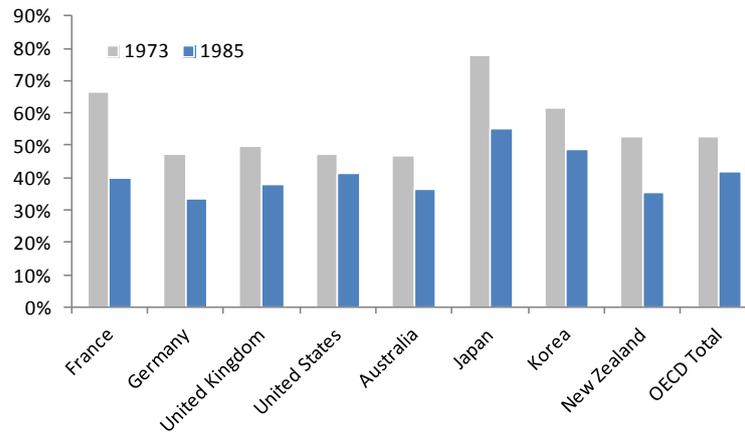
Mtoe = million tonnes of oil equivalent, OECD = Organisation for Economic Co-operation and Development.

Source: *Energy Balance of OECD Countries 2014*, International Energy Agency (IEA).

2.5.2. Decrease in oil dependence

After the first oil crisis in 1973, major industrial countries exerted efforts to decrease their dependence on oil by saving on oil consumption and using alternative energy. As a result, oil dependence of these countries fell.

Figure 2-4. Oil Dependence of Selected Countries (1973 vs. 1985)



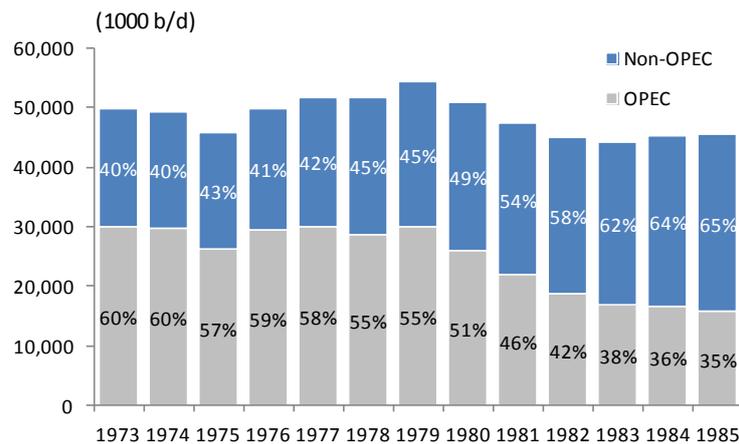
OECD = Organisation for Economic Co-operation and Development.

Source: *Energy Balance of OECD Countries 2014*, International Energy Agency (IEA).

2.5.3. Increase in oil production by non-OPEC countries

The hiking of crude oil prices by OPEC nations prompted non-OPEC countries to improve their oil development efforts. Non-OPEC nations made progress in their oil development, thus increasing their production and decreasing their demand from OPEC nations.

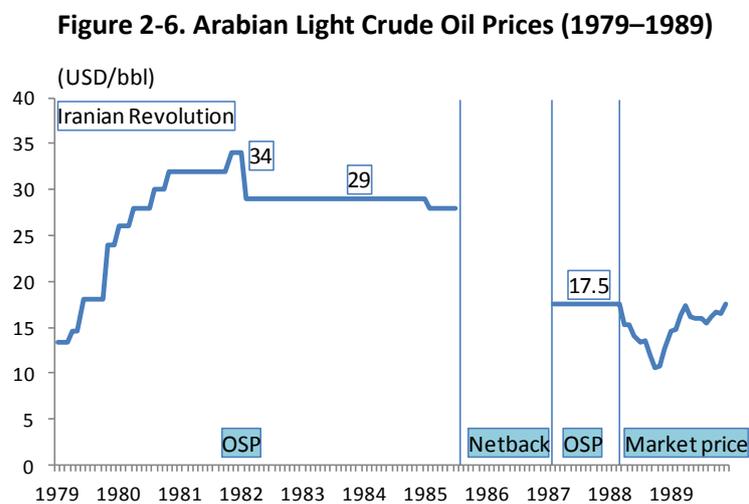
Figure 2-5. World Oil Production (1973–1985)



Source: BP Statistical Review of World Energy, June 2014.

2.5.4. Crude oil pricing from oil-producing countries

Around this period, Saudi Arabia acted as a so-called swing producer, adjusting its oil production for all OPEC member nations. However, because the cut in Saudi Arabia's production alone had a limit, Saudi Arabia announced in July 1985 that it would stop playing the role of swing producer. It also adopted a netback pricing system—starting from October 1985—that would set the price of oil by calculating back from the selling prices of oil products in consumption areas. This netback system, which had been employed when non-OPEC nations were increasing their production, brought a decline in oil demand and resulted in a steep fall of crude oil prices. Facing a sense of crisis due to the fall of oil prices, OPEC countries reinforced their policy of reducing production again from July 1986, and urged non-OPEC nations to follow suit. As countries other than OPEC members demanded stable crude oil prices, Saudi Arabia adopted a fixed-price system again in February 1987 by setting the official selling price (OSP). In 1988, Saudi Arabia relinquished its right of pricing and decided on floating prices for long-term contract prices.



Note: Crude oil prices during the netback period are unknown.

Source: The Institute of Energy Economics, Japan (IEEJ).

2.5.5. Commodification of oil

Oil production by non-OPEC nations increased as crude oil prices were set by the market, new oil development technologies were developed, and the price competitiveness of non-OPEC nations was strengthened. This eroded the power of OPEC nations to set oil prices.

Oil was commodified when crude oil was listed on the New York Mercantile Exchange (NYMEX) in May 1983. Soon, a crude oil futures market was formed and oil became an object to invest in.

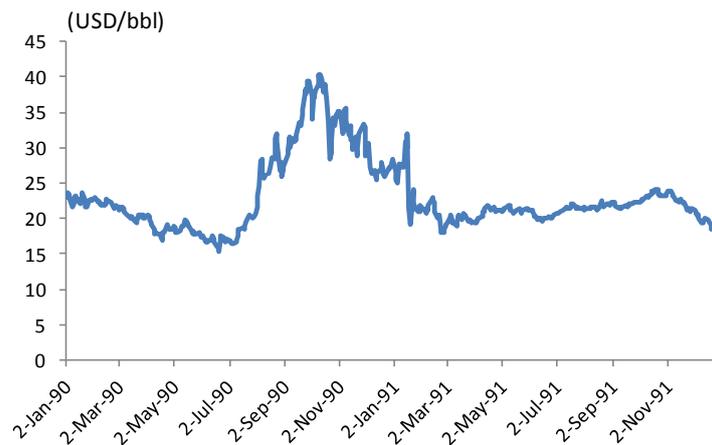
Around 2001, the US adopted a low-interest rate policy and a measure to weaken the dollar. Consequently, the dollar with a low-interest rate flooded the market, causing hedge fund and pension function, which increased the total amount of funds, to flow into the crude oil futures market in large quantity. In the past, crude oil prices had been determined mainly by a fundamental element of correlation between demand and supply, but they have increasingly been affected by speculative funds since the middle of 2004.

2.6. Persian Gulf War (1990)

On 2 August 1990, Iraq invaded its neighbour Kuwait, triggering the breakout of the Persian Gulf War. Iraqi troops flew out to crude oilfields in the Persian Gulf and destroyed oilfields in Kuwait. This drove up crude oil prices, which had been around US\$15–US\$17 per barrel, to as high as US\$40 per barrel at its peak.

The IEA decided to implement CERM—to supply about 2.5 million barrels of stockpiled oil to the market per day. As a result of the CERM, which lasted for about one month, crude oil prices that had risen steeply settled down, resulting in a limited impact to oil-consuming economies.

Figure 2-7. West Texas Intermediate Crude Oil Prices (1990–1991)



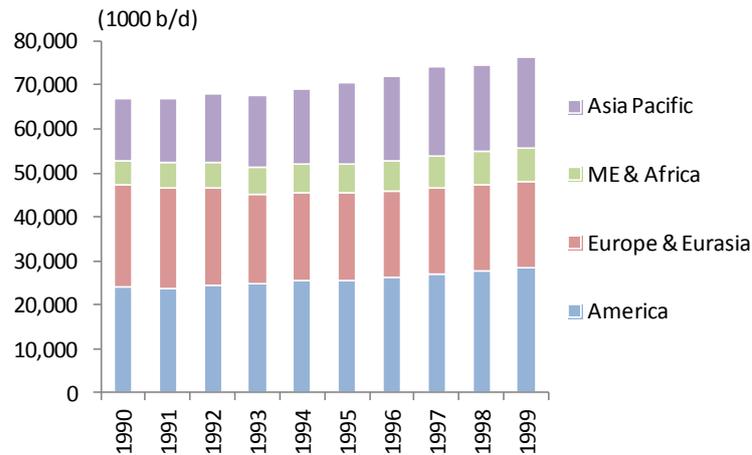
Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).

2.7. Energy Security in the 1990s

In the 1990s, crude oil prices were stable, at around US\$20 per barrel, except during the period of the Persian Gulf War. A feature of the 1990s was that the society, which had been oriented towards energy conservation, transformed itself into a society that consumed a lot of oil since oil was now a 'cheap energy source'. In the 1990s, after the Persian Gulf War, no risks that would threaten energy security occurred and people's awareness of the importance of energy security started waning.

During this period, oil development companies improved their production efficiency and went ahead to develop innovative technologies. New technologies, such as horizontal drilling, were developed. On the other hand, the development of new oilfields did not make much progress as the investment did not pay off, which was partially responsible for the subsequent tight supply–demand balance and a spike in oil prices.

Figure 2-8. World Oil Demand (1990–1999)



b/d = barrels per day, ME = Middle East.

Source: BP Statistical Review of World Energy, June 2014.

2.8. California Electricity Crisis (2000)

The commodification of oil was promoted and the energy market was liberalised in the 1990s. In 2000, however, an electricity crisis erupted in California, stemming from liberalisation of the electricity market.

Such liberalisation started in California in 1996. Retailing electricity was also liberalised in 1998, but the retail prices of electricity-selling companies were fixed. In addition, the large-scale, electricity-selling companies were obliged to procure electricity from the wholesale market. They were also obliged by the environmental regulations of California to purchase electric power that had little impact on the environment in fixed quantity and at a high price. For these reasons, generation companies were reluctant to construct new generation plants because it would be costly to meet the strict environment regulations of California.

The wholesale power price started rising in the summer of 2000 due partly to an increase in natural gas prices and partly to a long heat wave. Unable to put an increase in wholesale prices on consumers, electricity-selling companies suffered a loss. Generation companies, which felt that it is difficult to collect payment from selling companies, hesitated to sell electricity to them. No longer being able to procure sufficient electricity from the generation companies, the selling companies started large-scale rolling blackouts.

This is an example of an energy security risk that was brought about by an imperfect

system of liberalisation.

Although it is important for oil to have stability and to be safely imported to enhance energy security, this example of the electricity crisis in California can be classified as a case where domestic factors brought risks to energy security.

2.9. General Strike in Venezuela (2002)

Advocating socialism and backed by the low-income bracket of the population, Hugo Chavez was elected president of Venezuela in 1999. People opposing the socialistic policy promoted by then President Chavez went on general strike that lasted for as long as two months, starting in December 2002. Oil production in Venezuela came to a halt because workers of the Petróleos de Venezuela, S.A. (PDVSA), a Venezuelan state-run oil company, participated in the strike.

In response, OPEC increased oil production, avoiding a situation of a tight balance of supply and demand.

2.10. Iraq War (2003)

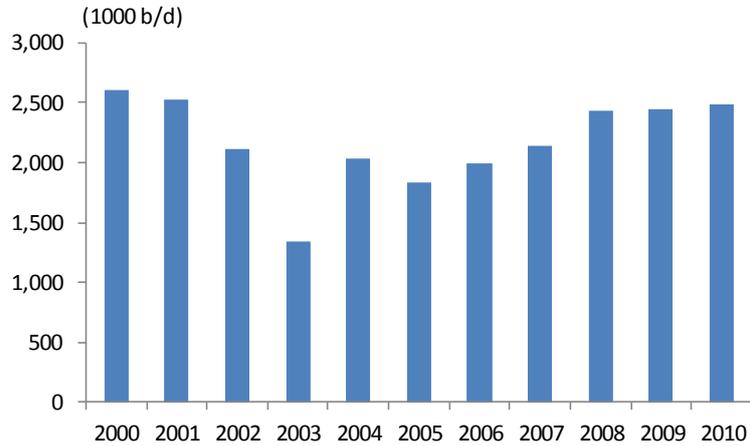
A ceasefire resolution that Iraq accepted in the wake of the Persian Gulf War in 1991 obliged Iraq not to possess weapons of mass destruction. After receiving simultaneous terrorist attacks in September 2001, the US determined to stand up to terrorism, regarded Iraq as a nation supporting terrorism, and strongly demanded the then Saddam Hussein administration of Iraq for inspection and abandonment of weapons of mass destruction.

Iraq disregarded this demand and the US, along with multinational forces that included the United Kingdom, launched military attacks on Iraq, driving Hussein out of power in March 2003.

OPEC's oil production had already been at a high level because of the general strike in Venezuela, but oil-producing nations, in collaboration with IEA, got ready to release their oil stockpiles at any time in case of a disruption of the oil supply from Iraq. Eventually, however, oil stockpiles were not released during the Iraq war, but the collaboration between IEA and oil-producing countries had an effect of giving some sense of security to the oil market.

Although the war in Iraq ended shortly, the political situation got chaotic, and the country took a long time to restore its oil production to pre-war level (about 2.5 million barrels a day).

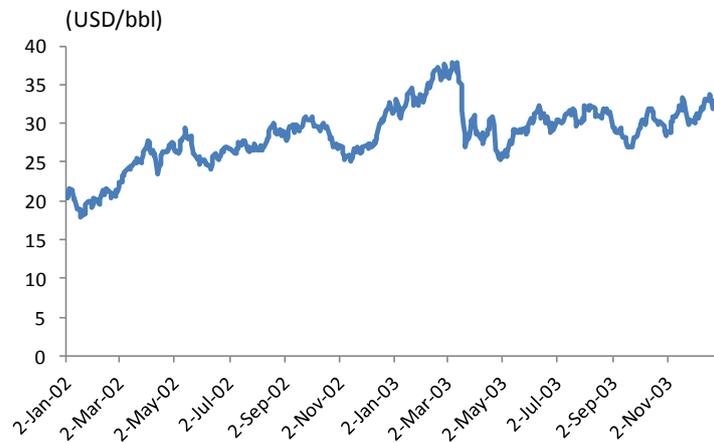
Figure 2-9. Iraq Oil Production



b/d = barrels per day.

Source: BP Statistical Review of World Energy, June 2014.

Figure 2-10. West Texas Intermediate Crude Oil Futures Price (2000–2003)



Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).

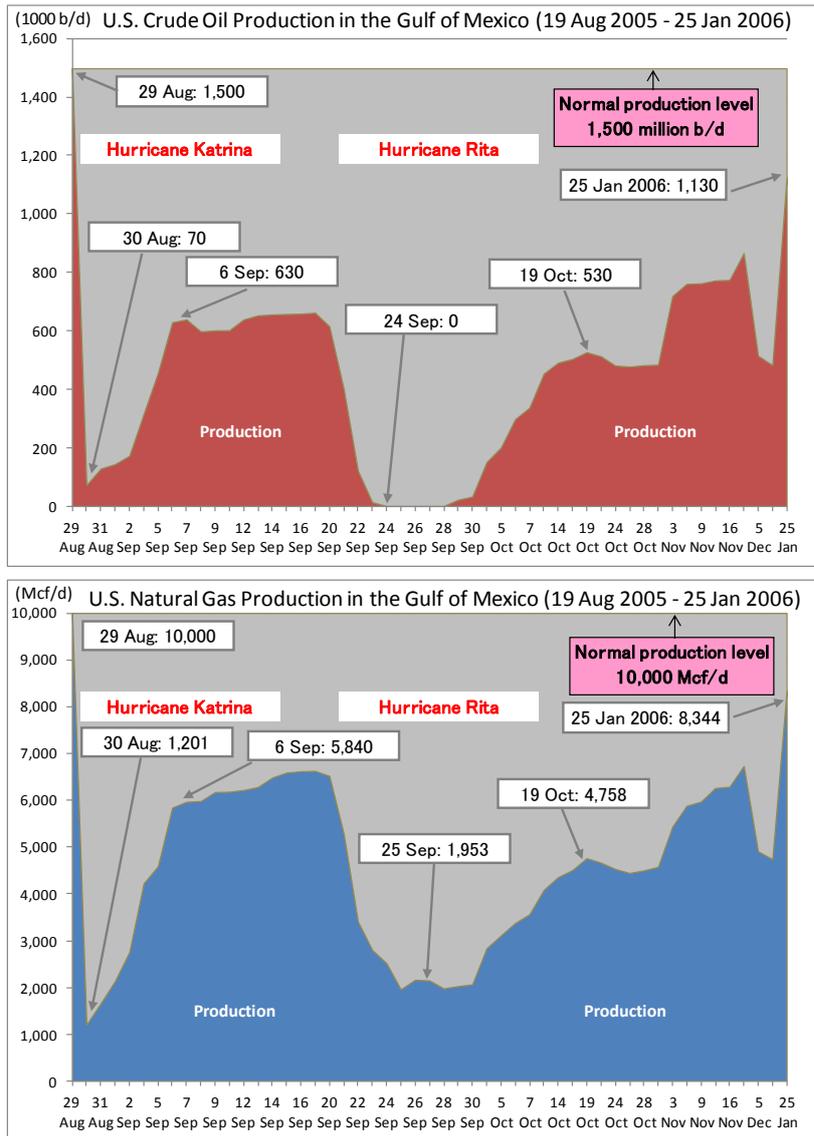
2.11. Hurricane Katrina/Rita (2005)

Super hurricane Katrina, which occurred in August 2005, flooded 80 percent of New Orleans, US, and left almost 2,000 persons killed or missing and severely damaged a wide area along the coast of the Gulf of Mexico. This area accounts for about 30 percent of crude oil production, 20 percent of natural gas production, and 50 percent of oil refineries of the US; it is also an import base of crude oil. In the past, large-scale hurricanes did have an influence on the production of oil and natural gas. But Katrina destroyed many oil refineries and natural gas production facilities in this area, forcing about 90 percent of oil production (1.4 million barrels per day), 80 percent of natural gas production (8,000 cubic feet [Mcf] per day), and eight oil refineries (1.8 million barrels per day) to stop. This gave rise to concerns over the stable energy supply in the US and led to a surge in crude oil prices. The West Texas Intermediate (WTI) crude oil futures price at the New York Mercantile Exchange (NYMEX) recorded US\$69.8 per barrel in 30 August 2005—a record high for 2005.

In response to this situation, IEA decided on 2 September 2015 to release oil stockpiles as an emergency measure for the first time in 14 years since the Persian Gulf War. Specifically, it decided to release oil reserves of 2 million barrels a day over 30 days, and requested 26 member nations, including Japan, for cooperation. In response to IEA's decision, Japan released private stockpiles of about 7.3 million barrels to the market. For oil-producing countries, OPEC took actions to stabilise the supply by releasing the necessary amount of oil from its reserves for three months starting in October 2005.

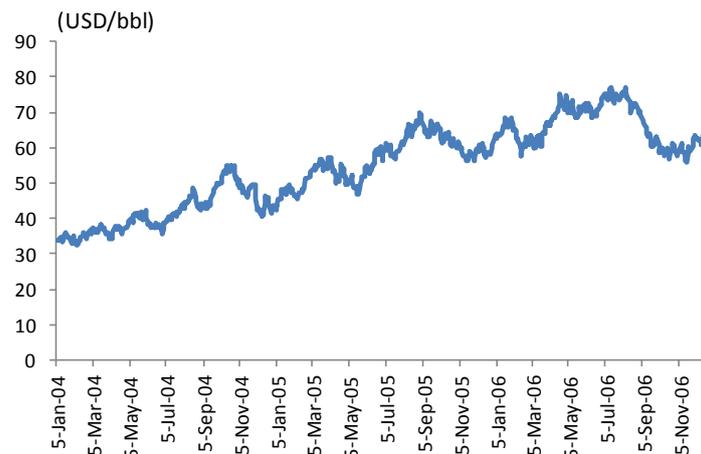
At the end of September 2005, Rita, a hurricane as big as Katrina, hit the Gulf of Mexico area again. These two hurricanes devastated the area, damaging submarine pipelines, and recovery took a long time. This is an example of risk to energy security caused by natural disasters.

Figure 2-11. Affected Crude Oil and Natural Gas Production by Hurricanes



Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).

Figure 2-12. West Texas Intermediate Crude Oil Futures Price (2004–2006)



Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).

2.12. Heavy Snow in China (2008)

From the end of January to the beginning of February 2008, transport systems were paralysed in a wide area of southern and central China by heavy snow, ice, and low temperature. This meant that the transport of coal, fuel for electric power generation, was disrupted, forcing China to suffer from an electricity shortage. It should be noted that the electricity shortage was caused not by insufficiency in power generation capacity but by the disruption of the supply chain of coal. This is another example of risk to energy security due to a natural calamity

2.13. Bankruptcy of the Lehman Brothers (2008)

In 2007, a subprime mortgage problem occurred in the US and asset prices took a nosedive in various fields. The Lehman Brothers incurred heavy loss and filed for Chapter 11 bankruptcy protection on 15 September 2008. This caused a ripple effect with grave impact to companies holding bonds and investment trusts issued by Lehman Brothers and to their partners. In addition, because of the slow response by the US Congress and the government, concerns over the US economy arose and the bankruptcy of the Lehman Brothers developed into a global financial crisis.

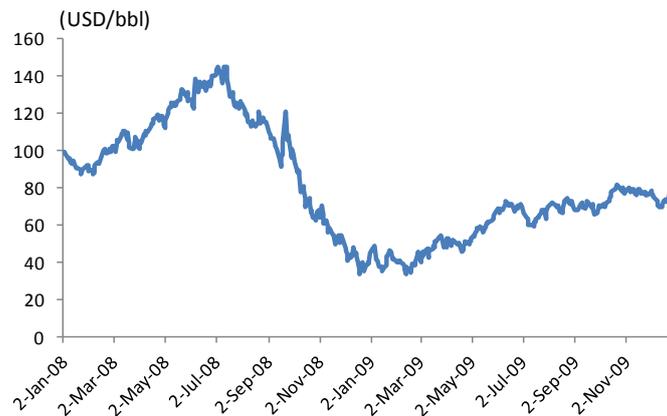
Crude oil prices, which remained sluggish in the 1990s, started rising in the 2000s and WTI crude oil future prices recorded an all-time high of US\$140 per barrel in July 2008.

Although oil prices later fell, they remained at around US\$100 per barrel. However, with the bankruptcy of the Lehman Brothers, oil prices fell sharply and WTI crude oil future prices dropped to as low as US\$30 per barrel from December 2008 to February 2009.

The global financial crisis seriously affected the world economy and oil demand. Consequently, oil demand, which had been on the rise since the end of the Persian Gulf War, declined in 2008 and 2009. By region, America, Europe, and Eurasia have not yet recovered to the level of oil demand in 2007 as of 2013. In Europe and Eurasia, the economy is sluggish and demand for both oil and natural gas is on the decline partly because of the debt problem of Greece.

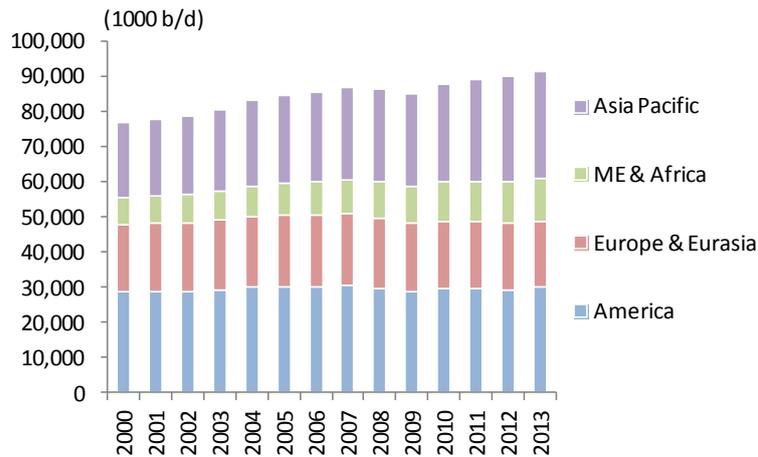
This is an example of risk to energy security due to economic activities and indicates that economic situations have significant and lasting influence on energy demand.

Figure 2-13. West Texas Intermediate Crude Oil Futures Price (2008–2009)



Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).

Figure 2-14. World Oil Demand (2000–2013)



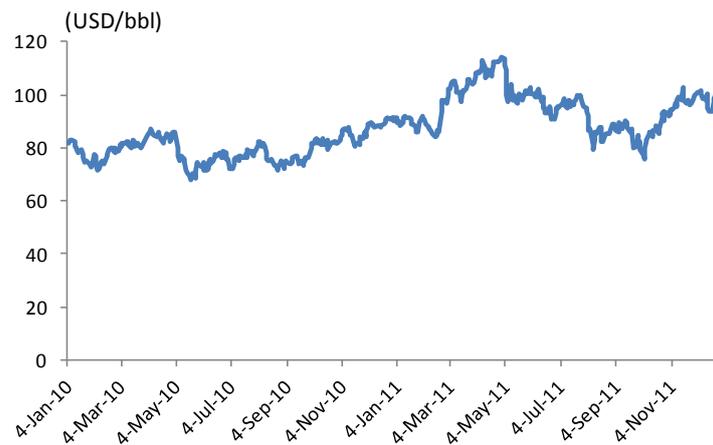
Source: BP Statistical Review of World Energy, June 2014.

2.14. Crude Oil Spills in the Gulf of Mexico (2010)

The Gulf of Mexico is a major oil-producing area that produces nearly 30 percent of oil in the US. In April 2010, a rig that was drilling at Macondo Prospect in the deep water of the Gulf of Mexico, which was operated by BP, exploded and fell, spilling the largest amount of oil in history. Because the drilling point was at a depth of about 1,500 metres and the crack of the oil rig from which crude oil spilled was close to the bottom of the sea, stopping the oil spill was extremely difficult; it took almost three months to completely stop it.

This accident raised concerns over the crude oil supply from the Gulf of Mexico but crude oil prices in the end were hardly affected because the US had a large stockpile of oil due to the sluggish demand for oil brought on by an economic recession. Nevertheless, crude oil drilling in deep waters bore the brunt of public criticism in the US; even now, the deep water of the Gulf of Mexico is not thriving as it was before the accident.

Figure 2-15. West Texas Intermediate Crude Oil Futures Price (2010–2011)



Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).

2.15. Arab Springs (Libya, 2011)

The Tunisian Revolution that erupted in December 2010 led to large-scale anti-government demonstrations in the Arab world through 2012. In February 2011, a demonstration in Libya demanded the resignation of the dictator Muammar Gaddafi. A civil war followed. At that time, Libya produced crude oil of about 1.6 million barrels a day and natural gas of about 1.6 million cubic metres (Bcm), exporting them mainly to Europe. The civil war in Libya stopped its oil production and export, raising a concern that the global oil supply would be seriously affected. IEA, with agreements from member nations, decided to take a cooperative action to release 60 million barrels of oil stockpiles from all the member countries combined. This was considered a stop-gap measure until increased production by the oil-producing countries reached the market.

After the oil crises, developed countries established the IEA to compete with OPEC. It should be noted, however, that after about 40 years, both organisations have come to act jointly to stabilise the oil market.

2.16. Flood in Australia (2011)

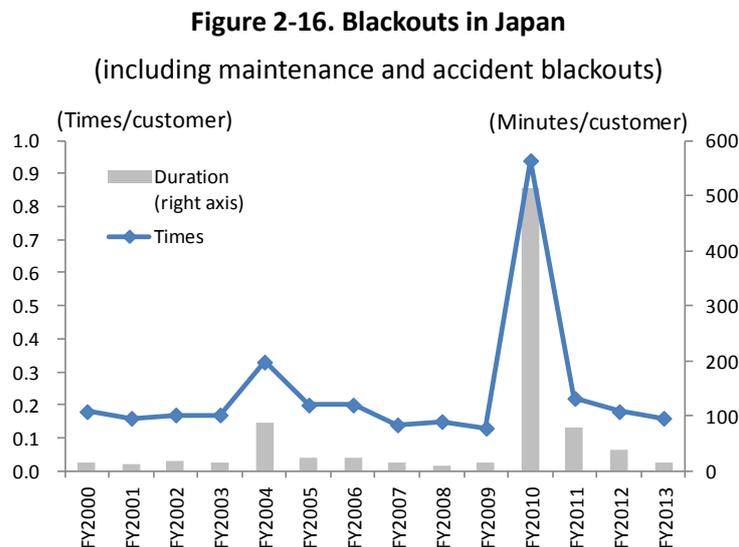
From December 2010 to January 2011, Queensland, a major coal production region of Australia, suffered from heavy rains. More than 80 percent of the coal mines in Queensland were flooded and many of them declared force majeure. During the same

period, railroads that transported coal stopped their service and did not recover until March. In 2011, many coal mines in Queensland could not go into full-swing operation. This is an example of risk to energy security due to a natural calamity.

2.17. Earthquake and Tsunami in Japan (2011)

A gigantic earthquake occurred in the Pacific Ocean, off the northeast coast of Japan on 11 March 2011, triggering tsunami as tall as 10–40 metres, depending on the location. The Pacific coast of East Japan was devastated. In addition to the huge tsunami, the tremors of earthquake, liquefaction, land subsidence, and collapse of dams damaged a wide area from the south coast of Hokkaido to the Bay of Tokyo, and their infrastructure. Power plants and transmission and distribution lines were also heavily damaged. On top of that, a hydrogen explosion occurred at the Fukushima Daiichi Nuclear Power Plant. This is an example of risk to energy security due to a natural disaster.

Figure 2-16 shows the number of times and duration of blackouts throughout Japan in each year. In this figure, the earthquake and tsunami are indicated by the curve of FY 2010 (from April 2010 to March 2011).



Note: Total of 10 utilities (All Japan).

Source: Federation of Electric Power Companies of Japan.

2.18. Blackouts in India (2012)

India went through large-scale blackouts for two days on 30–31 July 2012. The 30 July blackout occurred during commuting hours, stopping traffic signals and trains and creating a chaotic situation. The blackout on the next day occurred at daytime, resulting in trains to stop. In addition, an elevator at a coal mine was also stopped, trapping mine workers underground. These blackouts occurred because the distribution companies did not cut demand even though the demand for power exceeded the amount of power generated and because some transmission lines failed.

This is an example of risk to energy security caused by vulnerable power infrastructure and their inappropriate operation.

2.19. Typhoon in the Philippines (2013)

Strong typhoons Haiyan and Yolanda hit the Philippines in November 2013. Many buildings in the Visayan Islands were destroyed and many people were killed, injured, or went missing. The Philippines has not yet recovered from the damage. This is an example of risk to energy security due to a natural disaster.

2.20. Risk to Energy Security that Are Under Way

From the geopolitical viewpoint, Islamic States in Syria and the Ukrainian situation can be cited as cases that pose risks to energy security.

In 2013, the political situation in Syria became unstable and the Syrian government's military force began oppressing the civilians with military power. In the meantime, of the anti-government forces generated in Syria, Islamic States, an Islamic extremist organisation derived from Al-Qaida, invaded Iraq, capturing a large swath of Iraq in June. The problem of the Islamic States is still going on.

In March 2014, Russia advanced to and then annexed the Crimean Peninsula, a Ukrainian territory. European Union nations and the US strongly opposed this move and slapped sanctions on Russia. Even today, the east part of Ukraine is occupied by pro-Russian

groups. Although a ceasefire agreement has been reached, sporadic battles are continuing.

Against this background of heightening geopolitical risks, crude oil prices started rising in 2014. After that, however, prices gradually fell since the end of July when demand declined due to concerns over the deceleration of the world economy and the third monetary easing measure of the US that came to an end in stages because speculative funds decreased.

Figure 2-17. West Texas Intermediate Crude Oil Futures Price (2012–2015)



Sources: United States Department of Energy (DOE) and US Energy Information Administration (EIA).