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## **Japan and Libya: Different Impacts on World Markets**

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*The human suffering and dislocation caused by the recent events in Libya and Japan, whether due to violent conflict or natural disaster, is both broad and widely felt. While our thoughts focus mainly on prospects for bringing resolution and relief to those affected, both Libya and Japan, each in its own way, are vital links in the global energy supply chain. The disruption to normal economic and productive activities in both countries carries worldwide consequences.*

**Keywords:** *oil prices, oil stock. crisis, energy markets, economy.*

### **Overview**

The case of Japan, a country hit by a natural disaster and Libya's current civil war must be distinguished entirely. At the same time, both series of events have a significant impact on global energy markets, and call for a proper response. Although the military operations in Libya have only damaged a few pipelines and storage facilities, the North African country's oil production has dropped to a third of its pre-war level. Oil export has stopped completely, which mostly affects Italy, France, Spain, and Germany. Still, this outage has not caused any major problem, as Saudi Arabia has increased its output, which will supply the missing oil. The situation is similar in natural gas import. Italy and Spain are the two biggest buyers of Libyan natural gas in Europe, but the two Member States can import the missing natural gas from othersuppliers.

Owing to the earthquake and tsunami in Japan, the capacity of oil refineries has decreased by one-third, and the country is unable to access some of its reserves. Yet, experts say the Far Eastern energy market is capable of making up for the missing sources. Even a combined effect of the two events, it wouldn't jeopardise the global balance of oil markets and oil supply to the European Union. In addition, the Union's reserves would be enough for over 120 days, in case of an emergency.

Overall, "The events in North Africa have not affected the energy supply of EU countries, and other sources of these states have been sufficiently supplied." However, oil prices have been badly affected. Since the beginning of 2011, the world market price of crude oil has increased by about 20 per cent, which has been noticed by European consumers.

### **The US, Europe, Asia, Libya and Oil**

While the events in both Libya and Japan represent a continuing thread of uncertainty, there is also a clear contrast stemming from the two countries' differing roles in the global energy system. Libya's importance to world oil markets derives primarily from its role as North Africa's second largest producer of crude oil and liquids (1.8 million barrels per day (bbl/d) in 2010), and as a net exporter of high quality crude oil, mostly -- though not exclusively -- to the European market. Japan looms large mostly as a consumer of crude oil and refined products and other energy inputs. Libya is a supply story, where as Japan is mainly about demand. The questions in Libya are how long the fighting will last, whether the production infrastructure will suffer any lasting damage, and what type of energy landscape will emerge from the confrontation. So far, buyers of Libyan oil - for the most part, European refiners - have been able to muddle through and do without. But it is becoming increasingly clear that this is more than a passing crisis, and the market will need to make adjustments for the longer

term. Japan is an industrial behemoth and the world's third largest oil consuming economy behind the United States and China, with 2010 estimated oil consumption averaging 4.4 million bbl/d. While the earthquakes and tsunami have spared its industrial heartland, the nation's entire economy has been affected - as have been, to an extent still unclear, the many economies that depend on it for inputs or as an outlet for their own production. Initial assessments suggest the market impact will likely be two-tiered. First, the disaster will cause a temporary reduction in Japanese oil demand, partly offsetting the Libyan supply shortfall. While market attention has been focused on the nuclear power generation infrastructure, the scope of the damage is broader and includes thermal power generation, refineries, factories, ports, roads, and other transport logistics that directly affect the use and movement of oil. In the longer term, however, market expectations are that the Japanese disaster will cause oil demand to rebound in order to support reconstruction efforts when they get underway and make up for some part of the loss in nuclear power generation. What is less clear is the timing of the transition from phase one to phase two of the quake's aftermath - i.e., the expected bottom in Japanese oil demand. The recent supply disruption in Libya and the subsequent near-term disruption of oil demand in Japan have sent crude oil prices on a roller coaster. On February 14, just before major demonstrations began in Libya, the spot price of Brent stood at \$103 per barrel. In the wake of the Libyan uprising, by March 2, Brent increased almost \$14 per barrel, before retreating almost \$6 per barrel on the back of the Japanese earthquake and tsunami, only to regain some of the lost ground more recently as the Libyan confrontation intensified. But the impact on U.S. retail product prices has been more subdued and nuanced. Gasoline prices generally reflect movements in crude oil prices, but over the last two weeks, national gasoline retail prices have remained relatively flat. This is because it takes some time for the full effect of crude oil price changes to be reflected in retail gasoline prices. Typically, a \$10 increase in the price of a barrel of crude oil translates into an increase of about 24 cents in the retail price of a gallon of gasoline over the course of about eight weeks. About half of that increase generally takes place within two weeks. Thus, a portion of the sharp crude oil price increase that happened weeks ago in the wake of the first Middle East headlines is still working its way through retail prices. Thanks to that lag, the remaining upward price effect of the Middle East news has been largely offset by the more recent downward impact of the Japanese disaster and expectations of reduced demand, resulting in flat retail prices. If there were no significant changes in current crude oil prices, our gasoline pricing pass-through analysis suggests that over the next several weeks, we would see no further pressure from crude oil prices. However, we would expect to see price increases due to seasonal changes such as the shift from winter to more expensive summer-grade gasoline.

Retail Prices		Change From Last	
03/28/11		Week	Year
<b>Gasoline</b>	3.596	↑0.034	↑0.798
<b>Diesel Fuel</b>	3.932	↑0.025	↑0.993

**Table 1.** Changes in retail prices

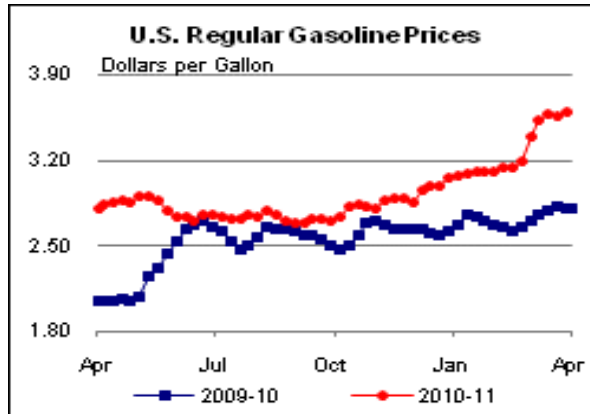


Fig. 1. Retail Prices(Dollars per gallon)

Futures Prices		Change From Last	
03/25/11		Week	Year
Crude Oil	105.40	↑4.33	↑25.40
Gasoline	3.045	↑0.096	↑0.838
Heating Oil	3.055	↑0.031	↑0.985

\*Note: Crude Oil Price in Dollars per Barrel.

Table 2. Changes in future prices

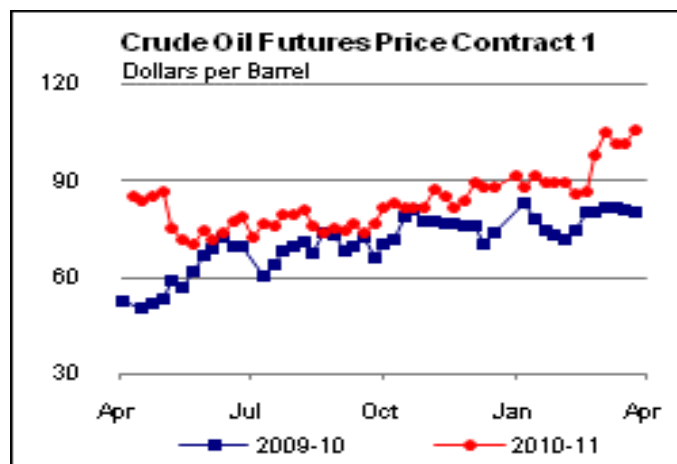
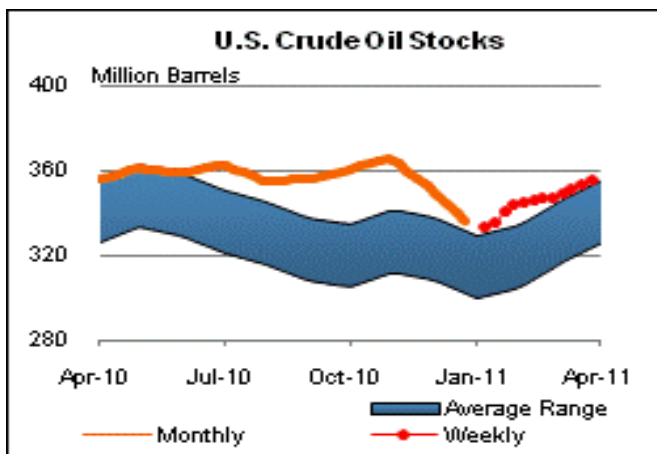


Fig. 2. Futures Prices(Dollars per Gallon)

Price pressures resulting from events in Libya and elsewhere are occurring in the context of a recent recovery in U.S. gasoline fundamentals. Monthly data show gasoline product supplied increased year-on-year in eight of the last nine months of 2010, averaging 93,600 barrels per day higher than 2009 over that period. While severe winter weather may have temporarily affected gasoline demand this winter (for additional discussion of this point, see the February 24 installment of Today in Energy), this may not signal a reversal of the recent trend.



**Fig. 3.** U.S. Crude Oil Stocks

Stocks		Change From	
		Last	Week
<b>03/25/11</b>		<b>Week</b>	<b>Year</b>
<b>Crude Oil</b>	355.7	↑2.9	↑1.5
<b>Gasoline</b>	217.0	↓-2.7	↓-7.8
<b>Distillate</b>	153.3	↑0.7	↑8.7
<b>Propane</b>	26.895	↓-0.106	↑1.278

**Table 3.** Stocks Changes

The U.S. average retail price of regular gasoline decreased half of a cent versus last week, the first decline since January 31, 2011. At \$3.56 per gallon, gasoline is \$0.74 per gallon higher than last year at this time. The biggest decrease was on the Gulf Coast, where the gasoline price fell almost two cents. The gasoline average on the East Coast lost a penny on the week and the Midwest price was down just under a cent. Moving in the other direction, the West Coast average moved up about two cents. In the Rocky Mountains, the price was almost three cents higher than last week. Despite this increase, the gasoline price in the Rocky Mountains remained the lowest in the country at \$3.39 per gallon. The most expensive gasoline among the major regions is on the West Coast, where the average retail price is \$3.86 per gallon. Diesel prices fell for the first time in sixteen weeks, albeit a small decrease, with the national average down just a tenth of a cent from last week. At \$3.91 per gallon, the diesel price is \$0.96 per gallon higher than last year at this time. Diesel prices were mixed across the country, with prices falling less than a penny on the East Coast, Gulf Coast, and in the Midwest. Prices in the Rocky Mountains were up almost four cents. The average on the West Coast was also up on the week, adding over a penny to last week's price. By early afternoon in Europe, benchmark crude for April delivery was down 16 cents to \$102.17 a barrel in electronic trading on the New York Mercantile Exchange. The April contract, which expires Tuesday, rose \$1.26 to settle at \$102.33 on Monday.

In London, Brent crude for May delivery was down 25 cents at \$114.71 a barrel on the ICE futures exchange. Fierce fighting during the last month has halted most of Libya's 1.6 million barrels a day of crude production, and investors are concerned coalition military intervention on the side of rebels could prolong the shutdown of oil output from the OPEC nation. Goldman Sachs estimates that about \$10 has been added to the price of oil from speculation that political unrest in the Middle East could spread to other countries and disrupt oil supplies "These developments suggest that the \$10 a barrel risk premium may prove too modest," Goldman Sachs said in a report. Over the medium term, high oil prices could slow economic growth which in turn would reduce demand for oil, lowering the price, the bank said. Other analysts, however, said the loss of Libyan oil output was already included in the current price range and, coupled with expectations of softer demand from Japan, could see prices slip. "Short-term, we suspect that the crude oil market is somewhat overextended here, as the fighting in Libya will lose its ability to spark the market higher," said Edward Meir at MF Global in New York. "For all practical purposes, investors have reconciled themselves with the fact not much oil will be flowing out of Libya anytime soon. Oil markets will likely not be

that fazed by developments there, as Yemen is a relatively small producer, with production of about 300,000 barrels per day. Markets are also on the watch for fresh figures on U.S. oil stockpiles. Data for the week ending March 18 is expected to show a build of 2 million barrels in crude oil stocks and a draw of 2 million barrels in gasoline stocks. Data for the week ending March 18 is expected to show a build of 2 million barrels in crude oil stocks and a draw of 2 million barrels in gasoline stocks. Benchmark crude for April delivery was down 14 cents to \$102.19 a barrel at late afternoon Singapore time in electronic trading on the New York Mercantile Exchange. The April contract, which expires Tuesday, rose \$1.26 to settle at \$102.33 on Monday.

In London, Brent crude for May delivery was down 55 cents at \$114.41 a barrel on the ICE futures exchange. Fierce fighting during the last month has halted most of Libya's 1.6 million barrels a day of crude production, and investors are concerned coalition military intervention on the side of rebels could prolong the shutdown of oil output from the OPEC nation. In other Nymex trading for April contracts, heating oil fell 0.8 cent to \$3.04 a gallon and gasoline slid 1.1 cents to \$2.99 a gallon. Natural gas gained 0.1 cent to \$4.17 per 1,000 cubic feet. Goldman Sachs estimates that about \$10 has been added to the price of oil from speculation that political unrest in the Middle East could spread to other countries and disrupt oil supplies. "These developments suggest that the \$10 a barrel risk premium may prove too modest," Goldman Sachs said in a report. Over the medium term, high oil prices could slow economic growth which in turn would reduce demand for oil, lowering the price, the bank said. European shares edged higher on Friday after the Group of Seven nations' intervention to weaken the yen and Libya's move to halt military action helped boost investor sentiment.

One factor capping gains was China's decision to raise banks' required reserves again, the latest instalment in its monetary tightening cycle that many had thought would be put on hold after Japan's devastating earthquake. The pan-European FTSEurofirst 300 index of top shares rose 0.2 percent to close at 1,088.82 points. Volume was high, at more than 165 percent of the 90-day average for the index, boosted by "quadruple witching". Over the week, the index fell 3 percent, a fourth week of declines, the longest losing streak in more than a year. On the civil unrest in North Africa, some analysts and politicians were sceptical about Libya's cease-fire lasting. But strategists remained upbeat about the prospects for equities. European equities are trading well below historic p/e averages. The pullback is a buying opportunity. The world continues to recover. The policy move that we saw by China today is part of a move to control inflation, which is healthy. The auto sector was among those helping the index to recover some losses from earlier in the week. Daimler, Peugeot and Renault gained between 1.5 and 3.1 percent. Vestas, the world's largest wind turbine maker, gained 4.3 percent. The company is to supply turbines to a Mexican wind energy development with total capacity of 396 megawatts, the customers said on Friday. In an effort to restore confidence to the markets, the G7 stepped in to weaken the Japanese yen, which had soared to a record. But some traders said the market could succumb to further weakness in the weeks ahead as Japan's nuclear crisis is far from over. Japan's nuclear crisis continued to have a specific impact on some European companies. French engineering company Schneider, for example, gained 3.2 percent, as traders said the company would benefit from a push towards greater energy efficiency after the Japanese disaster. Chemicals heavyweight BASF was also among the gainers, up 1.7 percent, after JP Morgan upgraded it to "overweight" from "neutral." On the downside, Germany's E.ON fell 1.6 percent after the company took its Unterweser reactor offline under Tuesday's government decree in the light of events in Japan. Equity valuations on Thomson Reuters Datastream showed the STOXX Europe 600 carrying a forward price-to-earnings ratio of 10.8, below a 10-year average of 13.6. Japan's nuclear threat and its massive

destruction of life and property will definitely slow down the country's economy. The Japan crisis has already impacted automobile and air plane industries around the globe and the electronics market is set to be hit long term as well, since as many as 40% of world's electronic components is produced in Japan. But in spite of such concerns, the hopes of growth are still bright. The recovery stage in Japan, a country boasting of superb technology and adversity to re-rise, will see a increase in demand and hence a positive rise in price. This stage would also create a lot of buying opportunities, especially given the fact that mergers and acquisitions are relatively high in numbers in the Japanese market. With Japan's economy contributing to 6% of the global economy, there lies ample opportunity for the investors and the market to grow. Libya, on the other hand, does pose a threat to an increase in oil prices although the country contribute to only a mere 2% of the global oil output. The risk lies in the fact that Libyan revolt can set the fuse of revolution in other oil producing countries of the Arab world and Africa. With the USA and the UK allying to provide military support to the rebels of Libya, the winds of revolution can very well lead to disruptions in oil rich Saudi Arabia, Ogaden of Ethiopia, Yemen, Bahrain, Tunisia, Iraq, etc. Especially an unrest in Saudi Arabia contributing to about 11% of global oil output and a major supplier to U.S can accelerate oil prices throughout the world. Even with this risk, there should not actually be any big concerns with the overall growth and the maximum damage probably would be investors keeping away from oil and focusing on other entities till the unrest are over. The US who has joined these revolts now with its military support to Libya, is a major market of arms and ammunition in the world. All the revolts in the Arab world and Africa will provide immense growth and opportunities to this arms market of US and provide an easy entrance to the oil fields of these regions too. The only thing US would need to understand is that by sending its troops to the Arab world to join the battles, it is taking a big risk on its military manpower. The human resource of a country after all, the US has to realize, should be treated as bigger assets than potential markets of arms and oil.

	<b>2010</b>
<b>World Total</b>	1354.182
Saudi Arabia	262.400
Canada	175.214
Iran	137.620
Iraq	115.000
Kuwait	104.000
Venezuela	99.377
United Arab Emirates	97.800
Russia	60.000
Libya	44.270
Nigeria	37.200
Kazakhstan	30.000
Qatar	25.410
China	20.350
United States	19.121

**Table 4.** World Proved Crude Oil Reserves

Considering that in 2009, the U.S. Energy Information Administration predicted that world oil reserves had "peaked" and that over the next several decades supplies would drop and prices would rise. There is some controversy over the study, but there is general agreement that easy-to-get petroleum sources are getting harder and harder to find. Approximately 65 percent of the world's remaining oil reserves are in the Middle East, as well as considerable amounts of natural gas. Iran has the second greatest reserves of gas outside of Russia. The U.S.—with

the largest economy in the world—uses around 21 million barrels of oil per day (bpd). Since it produces only 7.5 million bpd domestically, it imports two thirds of its oil. Its major sources are (in descending order) Canada, Mexico, Saudi Arabia, Nigeria, Venezuela, and Iraq. China—the world's number two economy—uses about 8 million bpd, a demand that is projected to rise to 11.3 million bpd by 2015. Since it only produces 3.7 million bpd domestically, it too relies on imported oil. Its main suppliers are (in descending order) Saudi Arabia, Iran, Angola, Russia, Oman and Sudan. It is estimated that, sometime between 2030 and 2050, China will surpass the U.S. and become the world's number one economy—provided that it can secure enough energy for its growing industrial needs. Insuring access to oil and gas is a major focus of Chinese foreign policy, particularly because Beijing is nervous about how it currently obtains its supplies. Some 80 percent are transported by sea, and all of those routes involve choke points currently controlled by the U.S. The U.S. Fifth Fleet based in Bahrain controls the Hormuz Straits, through which Saudi Arabian, Iranian, and Omani oil passes. The Fifth also dominates the straits of Bab el-Mandab that control access to the Red Sea and through which Sudan's oil is shipped into the Indian Ocean. In addition the Malacca Straits between Sumatra and the Malay Peninsula is the major transit point for oil going to China. The U.S. Seventh Fleet controls that choke point. China's nervousness over its sea-based oil supplies is one of the major reasons behind Beijing's crash naval program, its construction of ports in South and Southeast Asia, and its efforts to build land-based pipelines from Russia, Central Asia, and Pakistan.

The Chinese are also trying to cope with the fact that Iran, its second largest supplier of oil and gas, is currently under international sanctions that have reduced production and cut into China's supplies. Beijing has invested upwards of \$120 billion to upgrade Iran's energy industry, but recently has had to cutback investments because its banks could end up being sanctioned for helping out the Teheran regime. The Chinese are not the slightest bit cynical about why the U.S. is bombing Libya and not challenging Bahrain and Yemen: Bahrain hosts the U.S. Fifth Fleet, and Yemen's port of Aden dominates the Red Sea. China can play chess. As for Libya. The U.S. doesn't get oil from Libya, but its allies in Europe do. And the current crisis is African Command's (Africom) coming out party. Up to now the record of the spanking new military formation has been less than impressive. First, no one would host it, because the U.S. military in Africa makes the locals nervous. So it is still based in Germany. Then it coordinated the absolutely disastrous Ethiopian invasion of Somalia that ended up turning most of the country over to the extremist Shabab. But Libya is a fresh slate for Africom, and that is making the Chinese even more nervous (and explains why they have been so cranky about civilian casualties in Libya). When Africom was in its infancy it war-gamed a military intervention in the Gulf of Guinea in case "civil disturbances: caused any disruptions in oil supplies. Angola, China's other major African supplier, is in the Gulf of Guinea. It hardly seems like a coincidence that, at the very moment that African oil supplies become important, the U.S. creates a new military formation for the continent. Africom is currently advising and training the military forces of 53 countries in the region.

Okay, so here you are in Beijing. Your industries are clamoring for power. Media in the United States reflect a growing hostility toward you, with headlines in newspapers reading, "The Chinese Tiger Shows Its Claws," and U.S. politicians routinely blame you for America's economic problems. And the U.S. has basically put its thumb on each one of your oil and gas sources. Nobody is cutting off any supplies at this point, but the implied threat is always there.



In end, it is not so much about oil and gas itself, as the control of energy. Any country that corners energy supplies in the coming decades will be in a powerful position to dictate a whole lot of things to the rest of the world. That's not cynicism, its cold-blooded calculation. And right now a lot of people in the Middle East are paying the price of the ticket. After the Arab World with winds of revolution and Japan with destruction of tsunami and earthquake, it is now turn for Europe to face the risk of economic turmoil. With the fall of the Portugal Government two days back amidst growing financial debt of the country, the adverse effect is already visible with the value of the Euro falling. There are already anticipations that with its political uncertainty, Portugal might seek a financial rescue, something like a heavy bailout like Greece and Ireland did last year. In fact the Portuguese borrowing costs has hit new highs on Friday, 25th March after its sovereign ratings were cut following the government collapse. The rates are seen rising further with the European Summit held in Brussels on Thursday and Friday not showing much keen interest in helping their fellow member country.

To make matters worse for Portugal and Europe, legal experts of the country are debating and opining that a caretaker government (after the resignation of Portugal's Government) does not have the power to request an international bailout if its economic woes deepens. After this statement rocked the European Union, Portugal is trying to showcase that they might not need a Economic Rescue. With Portuguese Prime Minister Jose Socrates having resigned on Wednesday after parliament rejected his government's latest plan to help Portugal avoid having to seek an international bailout, the conflicting news that a care taker Government can not seek international bailout has raised huge concerns in the European economy. Interestingly Socrates was suggesting that Portugal does not need any rescue fund from the world and can survive with proper financing of the market. However, the country's parliament especially Pedro Passos Coelho, the leader of Portugal's opposition Social Democrats party had rejected the idea altogether. With the Yen already falling and Arab world continuing to get worse, the US dollar value is found rising higher and higher. Although the Stock experts around the world are having a hard time figuring out the severity of the Portuguese unrest to global economy, the news is found to be booster for merchants around the world, who deals with the US or in dollars. It can well be expected that the value of dollar will increase further with Yen and Euro not looking in good shape at all.

### **Tensions in Libya Create Positive Push in Precious Metals Market**

While the relationship between the uprising in Libya and the precious metals market may not be obvious, the correlation is simple: Libya is one of the world's largest suppliers of oil, an incredibly lucrative and turbulent commodity for investors. Due to the civilian rebellion against Libya's tyrannical leader Muammar Gaddafi, fear over an interruption in Libyan oil flows has caused the price of crude oil to spike. On the morning of March 17, 2011, oil futures sold at nearly \$100. With increased prices in crude oil, investors are looking for safe havens that present greater stability. As a result, the Libyan crisis is driving the gold and silver markets to record high prices. The London Fix for gold and silver on March 16, 2011 closed at \$1,402 and \$34.73 per ounce, respectively. Since February, the market has spiked as high as \$1,437.50 per ounce for gold, while silver hit a record 31-year high at \$36.60 per ounce.

While Libya poses a threat to negatively impact the supply of oil, Japan can be viewed as a negative shock to demand. This has caused a reverse effect in market prices.

## Conclusions

The extended paralysis with regard to the nuclear issue and the colossal damage sustained in the Japan, suggests that Japan will be partially absent from the oil markets for some time to come. The market continued to fall from the changes in global dynamics due to Japan's earthquake and tsunami. Bahrain and Saudi Arabia worked together as the Middle East – North Africa crisis worsened. Libya gained more attention as the United Nations declared a resolution against it imposing a no fly zone as well as sanctions. The Libyan crisis stepped up in focus as the U.S. and coalition forces intervened in the conflict there. Markets may continue to react to new global events over domestic issues for a few more weeks. We have been watching some global currencies and early market openings overseas for insights.

The entire economic world, of late, has been concerned about the magnitude of impact the current crisis situation in Libya and Japan would have in global business and growth. Economist and experts across different boundaries are engaged in debates of severity of risks, solutions and feasibility of various assets for investment. However, even in this crucial time, it can well be assumed and predicted that there would actually be little impact to long term global investments and growth as a whole, in spite of the many risks posed by the global situation.

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