### JAPAN UPDATE 2012 By Larry Ingraham Senior Fellow, Sagamore Institute President, Ingraham & Associates, Inc.

A significant 7.0 earthquake along the eastern sea side area of Honshu south of Tokyo on New Years Day 2012 is a grim reminder to all Japanese that not everything went out with the old year. And 2011 was a never to be forgotten year of tragedies on an unsurpassed scale.

In fact, the after effects of the triple disasters of March 11, 2011 (a huge 9.0 earthquake, devastating tsunamis and radiation contamination from the damaged Fukushima nuclear reactors) will continue to be felt in Japan for many years to come.

The 9.0 earthquake occurred in the mid-afternoon of Friday, March 11, 2011 about 45 miles off Japan's eastern coast. It was so powerful that it lifted and then dropped a slab of seafloor 50 miles wide and 180 miles long. The force moved the seafloor about 80 feet westward above the quake center. Tsunamis arrived on Japan's east coast about 30 minutes later and surged up to 6 miles inland. The surge was 124 feet high between the inlet hills at the fishing port of Koborinai. North of Sendai the surge exceeded 40 foot depths a quarter mile inland, and still reached 26 feet high about a half mile inland. All told, the earthquake and tsunamis killed 14,300 people with 12,000 more missing, and left in their wake some 23 million tons of debris.

On the heels of these two major disasters a third quickly followed. Three of the nuclear reactors at the Fukushima Number 1 nuclear plant operated by Tokyo Electric Power (TEPCO) along the eastern sea coast were severely damaged by the tsunamis, and suffered nuclear meltdowns when their water cooling systems became inoperable. This caused major power disruptions that are still ongoing months later, and has forced more than 100,000 people to be evacuated from the areas around the Fukushima plant that have high radiation fallout from the explosions and meltdowns of the reactors. The most recent projections are that it will take 40 years to clean up the melted down reactors. There are no estimates that I have come across yet about how many years it may take before people can move back into those areas around the plant that are off limits today due to the high radiation levels.

Aftershocks, as experienced on New Year's Day, have been numerous since last March. More than 1200 have occurred, and half of these have registered 5.0 or higher! This is evidence that there is still a lot of pressure built up yet in that same fault line, and predictions are that there will continue to be earthquakes along it for the next few years. In fact, a new forecast I just have heard says that there is a 70% chance that Tokyo will be hit by a 7.0 earthquake within the next four years.

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All told, I believe the results of these tragedies will cause more Japanese companies to invest in factories overseas, and I am very optimistic that Indiana will continue to see a major move here by Japanese industries in general, but in particular from ones in automotive manufacturing.

(Today Indiana is home to some 250 Japanese firms that operate manufacturing plants here that collectively employ 45,000 Hoosiers. The total dollar investment from all of these plants is over \$10 billion. The majority of these firms are in the auto industry, and Indiana is the only state to have three separate Japanese auto manufacturers locate within its borders - Toyota operates a plant in Princeton, Indiana, Honda has a factory in Greensburg, Indiana and Subaru builds cars in Lafayette, Indiana. All of these companies have been very successful here, and this performance is perhaps the best advertisement and enticement that Indiana offers to future Japanese investment.)

Japan's auto industry was hit very hard by the March 11 disasters. There are over 520 auto parts companies that are located in those devastated regions. In particular, this area in northeastern Japan is a major center for the auto electronics industry. (For example, Alps Electric, the parent company of Alpine Electronics that operated a car stereo manufacturing plant in Greenwood, Indiana for over 20 years, has their headquarters in the city of Iwaki in this region. Keihin Corporation, the parent company of Keihin IPT in Greenfield, Indiana and Keihin Aircon in Muncie, Indiana has its headquarters and main plants in the Sendai area.)

So many companies were partially, severely or totally damaged that Japan's auto manufacturing in Japan, the U.S. and other parts of the world came to a halt because of a lack of parts. For instance, there is one major semiconductor manufacturing plant there that supplies over 40% of the world's demand for chips. That plant was severely damaged and knocked out of production, hampering not only Japanese auto customers, but many international ones as well. It is a testimony to Japan's cohesiveness and work ethic that 2,500 engineers were brought in from all over Japan and within 2.5 weeks had completely rebuilt the clean room and got the plant back into production. (The original projection was that it would take 250 engineers two and a half months to bring it back on line.)

Last November I traveled to Novi, Michigan to attend a "Monozukuri" seminar put on by the Japan External Trade Organization (JETRO). (Loosely translated "monozukuri" means "the way to make or fix something".) This event featured the case study presentations on four different Japanese firms and how they each responded to the damage their companies incurred as a result of the "3/11" disasters. Please go to the JETRO website for this conference to read about it and be sure to look at the power point presentations that were made then. They are all very interesting! The website is:

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#### www.jetro.org/content/1025

(The Japanese auto industry received a second "calamity" last fall when Thailand experienced severe flooding putting Honda and Toyota factories out of commission. The same "teams" of engineers who banded together to work restoring damaged factories in the Tohoku region of Japan earlier in the year went to Thailand to help restore production there as well, utilizing their new found skills.)

From experiences like this, in the future car manufacturers will require two new conditions from their suppliers. First, the automakers will seek multiple sources for key parts. Secondly, those suppliers located a long way away from their end user clients will be asked to move closer, and not rely on international shipments to supply them.

Never again will the Japanese and international automotive supply chains allow there to be a one source supplier making products for multiple car companies. In a famous case from last year's disasters in Japan, one of the Japanese automotive suppliers in the devastated areas was a specialty manufacturer of unique auto paint pigments that give a car's paint covering a metallic shine. When that company went down as a result of the disasters, GM and Toyota and others were not able to produce cars in red or black colors for a while.

Other factors that will stimulate further Japanese investment in Indiana and the U.S. are the on-going electrical challenges that Japanese firms are facing in the Tokyo and Tohoko areas impacted by the damage to TEPCO's Fukushima nuclear plant. In a poll taken of the CEOs of Japan's major firms last summer, almost half of them said they would move production out of Japan within three years if these electrical supply challenges are not met. In the hot summer months of 2011 in Japan, all car companies revised their weekday work week to Saturday-Sunday-Monday-Tuesday and Wednesday. All operations were shut down on Thursdays and Fridays because those two days of the week are the peak days for electrical demands. This special schedule ran through the end of September 2011, and then plants went back to the normal Monday-Friday work week. However, Japanese companies have been asked to lower their consumption of electricity or risk stiff fines.

Now TEPCO is pushing the Japanese corporate world to receive a 17% business rate rise in electricity rates from April 1 this year so that TEPCO can finance the growing fuel costs stemming from increasing thermal power generation in light of the meltdown crisis at the Fukushima Number One nuclear plant. (TEPCO also hopes to raise household electrical rates by 10% but, in that case, they need Japanese government approval to do so.)

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My Japanese business friend told me that with this rise in TEPCO's rates he doesn't believe Japanese companies will be able to operate profitably. He worries that this will lead to a new, major movement of Japanese companies outside of Japan, contributing to a "hollowing" out of Japan's industrial base.

Putting further pressure on Japanese companies is the powerful strength position of the Japanese Yen to the U.S. dollar. That exchange rate is currently around 77 yen to the U.S. dollar, an all-time high. A few years ago the yen was 108 yen to one U.S. dollar. This makes it much more difficult to export items out of Japan as it costs more to buy Japanese goods. However, it does make it much more advantageous now for the Japanese to invest in the U.S.. Their investments go a longer way than they ever have before because the yen is so strong against the dollar.

This strong yen dilemma for all Japanese companies has directly resulted in a new windfall for Indiana. On February 8, 2012 Toyota announced that it will stop making Highlander SUVs in Japan, and will move that production to its Princeton, Indiana plant. Toyota will invest \$400 million and hire an additional 400 associates in Princeton to do this. Toyota currently has 4,800 associates in the Princeton plant, and that plant produces Highlander SUVs, Sienna minivans and Sequoia SUVs. This new investment will allow Toyota to make 50,000 more Highlander SUVs in Princeton than the 101,000 that were made there last year.

Toyota will be suspending Highlander production at its plant in Kyushu, Japan in order to consolidate its Highlander production in Indiana. In the future, part of the Highlander vehicles will be exported from Toyota's Princeton plant to Russia and Australia because it is more affordable to do so than to continuing exporting from Japan to these countries. As additional examples of this, Toyota will be making Corolla vehicles for export at its new Mississippi factory, and from this year Toyota will begin exports of Camry vehicles to Korea from its U.S. plants and not from those in Japan.

Toyota is aiming to keep its automobile production in Japan at around 3 million vehicles a year, but they plan to reduce their exports abroad from 60% of this total to 50% over the next five years. Toyota intends to try to increase its domestic sales to offset this reduction in export numbers while striving to keep total auto manufacturing in Japan at a steady level. It remains to be seen if they will be able to do this or not. Again, the high cost of the yen is the main motivational factor for these decisions.

Another contributing factor to motivate Japanese investment abroad this year and beyond is the declining birth rate in Japan, and the dwindling labor force at home that results from that. The birthrate in Japan now is 1.37 children per woman, well below the replacement level for a population of 2.07 children per woman. In January 2012 Japan's Health & Welfare Ministry claimed that at this birthrate the Japanese population will

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decrease by one million people per year in the coming decades with 2060 seeing a Japanese population dwindled down to 87 million persons! And by that time, more than 40% of this population will be over 65 years of age. (Note: The life expectancy of Japanese is the highest in the world! As of 2008 the life expectancy for women is 86.05 years, and 79.29 years for men.)

Adding to that dilemma of a smaller labor pool is the growing preference of young Japanese people to live and work in large cities like Tokyo, Nagoya, Osaka, etc. as opposed to the "countryside". They want to wear nice suits and dresses and work at nice offices, and they do not want to work in jobs they consider "demanding", "dirty" and "dangerous", such as factory jobs.

All of the factors above I believe will contribute to Japanese firms moving more production lines to the U.S. from this year. They will do expansions to existing factories in Indiana (such as Toyota will do in Princeton) when they have space to do so. For those firms that have maxed out their original sites and do not have the space to utilize, companies will be looking for new sites to build factories on. So Indiana city, county and regional economic development organizations will do well to remain vigilant in monitoring these future Japanese investment trends.

Looking ahead, I would highly recommend that Mayors, economic development directors and corporate executives mark their calendars to attend the 44<sup>th</sup> annual Midwest U.S.-Japan Association conference that will be held in Minneapolis, Minnesota at the downtown Hilton Hotel this September 16-18, 2012. This three day event offers an unparalleled opportunity to network over a three day period with some of Japan's top business executives in one place at one time. I have attended the past 26 annual conferences since Indiana first became a member state in 1986. Please let me know if you have any questions about it.

I welcome the opportunity to work with cities and companies that have interests in doing business with Japan.

Thank you very much!

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