

# Japan: Earthquake and Industries

Monday 4 April 2011, by [HAJIME Yamagishi](#), [HIDEKI Kishimoto](#), [Japan Times](#), [MAMORU Kurihara](#), [YOICHIRO Shikagawa](#), [Yomiuri Shimbun](#) (Date first published: 1 April 2011).

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## **Production bases destroyed by quake. Manufacturers' plants, distribution facilities in Tohoku, northern Kanto hit hard**

Friday's massive earthquake has dealt a crushing blow to factories run by automobile, electronic and other manufacturers in the Tohoku and northern Kanto regions, as well as to their distribution networks.

The catastrophic damage suffered by these manufacturers will greatly impair their procurement of parts and shipment of finished products.

These corporations are finding it difficult to precisely determine the extent to which the Tohoku Pacific Offshore Earthquake has damaged facilities and infrastructure they use to stay in business, including roads and sea ports.

The damage is not limited to the Tohoku and Kanto regions.

On Monday night, Mazda Motor Corp. suspended operations at plants in Hiroshima and Yamaguchi prefectures because it had been unable to receive parts from Tohoku-based makers.

Mazda employs a production system that does not stock surplus parts. "With our current limited inventory, we can't continue production even for a single day," an official of the automaker said.

All 12 major domestic automakers have now stopped production at some domestic plants.

Toyota Motor Corp., Daihatsu Motor Co., Suzuki Motor Corp. and Fuji Heavy Industries Ltd. will close some plants until Wednesday. Some plants of Nissan Motor Co. and Isuzu Motors Ltd. will be shut until Friday.

If disarray from the earthquake drags on, these closures might be extended.

Domestic manufacturers of semiconductors and home electrical appliances also have been left in the lurch and are unsure when they can resume production.

Just after Friday's magnitude-9.0 earthquake, Hitachi Ltd. stopped operation of six plants, including one in Hitachi, Ibaraki Prefecture. The plants' buildings and production facilities were damaged, and there was not a stable supply of electricity to keep operating.

The plant in Hitachi is a major production base of equipment for thermal and nuclear power plants. If the suspension of production stretches on for weeks or months, it could hurt the company's performance and hamper its construction and repair of power plants at home and abroad.

Renesas Electronics Corp., a major semiconductor manufacturer, stopped operations at its seven plants, including one in Hitachinaka, Ibaraki Prefecture. One-third of the company's domestic production bases have been closed.

NEC Corp.'s three plants in the Tohoku region were rendered inoperable due to power outages, cuts in water supplies and damage sustained in the quake.

Sony Corp.'s eight plants in Tohoku and Kanto also have shut down.

Fujitsu Ltd. suspended operation at six plants in Iwate, Miyagi and other prefectures in Tohoku, and is considering shifting production operations to other parts of the nation.

The company has started transferring production of desk-top personal computers from a plant in Date, Fukushima Prefecture, to one in Shimane Prefecture.

The total value of goods produced in four Tohoku prefectures—Aomori, Iwate, Miyagi and Fukushima—and three prefectures in the northern Kanto region—Tochigi, Gunma and Ibaraki—accounts for about 10 percent of the nation's nominal gross domestic product.

Plants in these prefectures have been crucial suppliers of products and parts for manufacturing bases elsewhere in Japan. Consequently, the raft of shutdowns will immeasurably damage the Japanese economy.

Key ports on Tohoku's Pacific coast, which handle a large volume of cargo, were seriously damaged by the earthquake and tsunami. There is no time frame yet for when these ports might be up and running again.

The Land, Infrastructure, Transport and Tourism Ministry is scrambling to find undamaged wharfs and piers where ships can unload desperately needed emergency supplies. So far, they have come up empty.

"We haven't been able to find any yet," a ministry official said.

Sendai-Shiogama Port in Miyagi Prefecture, which can accommodate container vessels, on Monday began using private firms' crane ships to remove earthquake debris floating on the sea.

In Kanto, Kashima Port in Ibaraki Prefecture and other large ports suffered damage such as cracked piers or cave-ins.

Sumitomo Metal Industries Ltd. has a steel plant near the port and its own port facility to import iron ore, coal and other materials, and export products. However, cranes and other equipment at the port have been damaged and there is no estimate yet of when they might be repaired.

(Mar. 16, 2011)

\* *The Yomiuri Shimbun*:

<http://www.yomiuri.co.jp/dy/business/T110315004746.htm>

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## **Parts shortage hurts makers. Business needs time for full recovery; impact also felt overseas**

Many iconic Japanese manufacturers have been forced to suspend production due to a shortage of parts caused by this month's devastating earthquake and tsunami, and there appears to be little sign that it will be "business as usual" anytime soon.

Effects of the parts shortage have even reached manufacturers overseas, putting a squeeze on production of vehicles and other products.

Domestic automakers have been among the companies hit hardest by the parts supply crunch.

Toyota Motor Corp. announced Tuesday that it would suspend domestic production until Saturday, mainly due to a lack of parts. This was the fourth time the nation's largest automaker had extended its suspension period.

Honda Motor Corp. also said all operations at its domestic factories would be halted until Sunday for the same reason, while Nissan Motor Corp. has suspended operations at five plants.

Automobile manufacturers operate under the "just-in-time" system. They purchase just enough materials or components to keep their inventory to a minimum. But the system is not without risk: Any glitch in the supply of components can bring the entire system screeching to a halt.

Manufacturers can get around this problem by buying parts from several suppliers. However, they have few alternatives for electronic components manufactured in the Tohoku and Kanto regions, which were pummeled in this month's magnitude-9.0 quake and tsunami.

Nissan Chief Operating Officer Toshiyuki Shiga and Toyota President Akio Toyoda held talks over the phone and agreed to work together to rebuild part supply systems.

However, "it may take several months" before some parts manufacturers are up and running again, a senior Toyota executive said.

Nikko Cordial Securities Inc. estimates the earthquake had cut domestic automobile production by about 260,000 units as of Tuesday. The quake's adverse impact on automakers' corporate performance will be "unavoidable," a Nikko Cordial spokesman said.

Electrical appliance manufacturers are also in a tight spot.

Sony Corp. announced Tuesday it would suspend operations at five factories until the end of this month, including the plant in Inazawa, Aichi Prefecture, that is its sole domestic production base for liquid crystal TVs.

Sony has halted operations of seven factories, including one in Tagajo, Miyagi Prefecture, that produces Blu-ray discs.

In total, half of Sony's 25 domestic production bases have been temporarily shut down.

Canon Inc. has suspended operations at factories in Nagasaki and Oita prefectures.

Materials manufacturers have not escaped unscathed either.

Manufacturing factories in coastal areas likely will struggle to resume operation in the near future. Among such plants are Mitsubishi Chemical Corp.'s Kashima plant in Kamisu, Ibaraki Prefecture, which is capable of producing the largest quantity of ethylene in this country, as well as those of Nippon Paper Industries Co. and Taiheiyo Cement Corp.

The parts shortage stinging Japanese business is also having ramifications for makers overseas.

General Motors Co. suspended production of midsize pickup trucks and another vehicle at factories in the United States from Monday due to a lack of parts coming from Japan. According to U.S. media reports, GM is considering downscaling production in Germany and Spain.

PSA Peugeot Citroen S.A. has announced that diesel engine production would be affected from Wednesday as supplies of electronic components dry up.

The repercussions are being felt in the IT industry, too.

Apple Inc. has said a lack of Japanese components could cause production cuts in the iPad2 tablet computer, which went on sale in the United States this month.

Finnish phone maker Nokia Inc. has announced that the parts shortage could affect production of its cell phones.

### **Glimmers of hope**

However, the news is not all doom and gloom. Some factories—including ones in areas battered by the quake—have resumed or will soon resume production as power is restored and roads are reopened.

Sumitomo Metal Industries Ltd. has resumed operation of one of the two furnaces at its Kashima Steelworks, and will turn the other one back on this week.

Kobe Steel Ltd.'s plant in Moka, Tochigi Prefecture, which produces materials for hard disks, and Furukawa Electric Co.'s plant in Nikko in the prefecture will restart operations soon.

Nikon Corp. announced Tuesday that all its factories will resume operations this month. This includes the Sendai Nikon Corp. plant in Natori, Miyagi Prefecture, that produces high-end single-lens reflex cameras, and seven other factories in Kanto and Tohoku.

Renesas Electronics Corp., a major semiconductor manufacturer, said five of its eight factories in Tohoku and Kanto that had suspended operations after the quake, including one in Tsuruoka, Yamagata Prefecture, were churning out parts again.

(Mar. 24, 2011)

\* *The Yomiuri Shimbun*:

<http://www.yomiuri.co.jp/dy/business/T110323005118.htm>

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## **Disaster likely to hit U.S. car sales / Carmakers hurt by parts crunch may cut exports**

Domestic automakers have begun reviewing their sales plans for North America following the impact of the March 11 earthquake and tsunami on their factories and parts suppliers.

Honda Motor Co. and Mazda Motor Co. plans to reduce exports to the United States, and Toyota Motor Co. is preparing for the possibility of suspending production in North America.

The automakers have already begun winding down domestic production due to the March 11 disaster. Moves to scale back sales in one of their major overseas markets are expected to deliver a blow to business. Observers have said the automakers will be forced to revise their global sales strategies if the current situation continues.

Honda has suspended its domestic production until April 3. The disaster badly damaged its assembly plant in Tochigi Prefecture and auto parts suppliers in the Tohoku region.

According to sources, Honda likely will reduce exports to the United States of certain models made in Japan, including the Honda Fit, a subcompact, and the Insight hybrid. Honda is expected to reduce deliveries of the two models to U.S. dealerships from May.

About 20 percent of Honda cars sold in the United States are imported from Japan. If there are further delays in the company's production plants returning to full capacity, Honda's market share in North America could drop. Its market share in the region was 10.6 percent in 2010, which was fourth among automakers.

Mazda has temporarily halted orders from U.S. dealerships and may drastically review its business there if it is forced to extend the suspension of its operations.

The earthquake and tsunami did not directly affect Mazda's head office in Fuchucho, Hiroshima Prefecture, nor its assembly plants. However, as many auto parts suppliers in the Tohoku region were hard hit by the disaster, it has become difficult for Mazda to maintain its current export volume.

Mazda sold about 230,000 vehicles in the United States in 2010, about 17.8 percent of the automaker's total sales. Its compact car Axela, known as Mazda 3 in the United States, and sport-utility vehicle CX-7 are especially popular in the country, but both models are imported from Japan.

Mazda has the highest proportion of cars produced in Japan among Japanese major automakers—about 70 percent.

Toyota has told employees in North America that the company may from April temporarily halt regional production there as it is predicting it will soon run out of electronic parts.

Toyota and Fuji Heavy Industries Ltd., the maker of Subaru brand vehicles, have stopped overtime and Saturday operations at factories in North America to avoid running out of parts too quickly.

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\* <http://www.yomiuri.co.jp/dy/business/T110327002510.htm>

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## **Auto parts makers struggle to recover**

Auto-related manufacturers in the Tohoku region are struggling to resume operations after their production bases were ravaged by the massive earthquake and tsunami earlier this month.

While restoration work is rapidly moving forward at manufacturers' plants, many small and midsize auto parts makers remain unsure about when they will be able to resume full-scale operations.

Operations at Nissan Motor Co.'s Iwaki plant in Iwaki, Fukushima Prefecture, were suspended after the earthquake.

On Tuesday, Nissan Chief Executive Officer Carlos Ghosn visited the plant, where he told reporters he wanted production to partially resume in mid-April and on a full scale in early June.

The plant, the company's only base for the production of V6 engines for the Fuga, Skyline and other high-end models, was built in 1994 on a 200,000-square-meter tract of land. The annual production is about 560,000 engines.

Inside the plant, there were cracks in the floor, pieces of ceiling and walls laid scattered around, a duct had been displaced and a processing machine for engine parts was tilted to one side. Aluminum that was being molded remained in the same position as when the quake struck.

Nissan has dispatched employees from other factories, and about 300 workers are carrying out inspections and restoration work on the Iwaki plant's buildings and equipment.

Ghosn, who looked around the plant with a serious expression on his face, encouraged workers to deal with the difficult situation in a united manner. He said the entire world was closely following events in the disaster-hit areas.

Iwaki dealerships also have high hopes that the plant will be up and running again.

Toshio Matsumoto, the manager of Nissan's Taira dealership, said: "Not a single car passed in front of our shop [immediately after the quake]. But residents who had been evacuated started returning a couple of days ago. Demand [for automobiles] as an essential means of transportation in daily life is recovering gradually."

Suspension of the plant's operations has affected the supply of new cars, however.

"If the current situation continues for another month or two, a serious situation will develop. I hope the Iwaki plant will resume operations as soon as possible," Matsumoto said.

Parts covered in mud

"This is a part for a compressor," an employee of Iwaki Diecast Co. in Yamamotocho, Miyagi Prefecture, said as he picked up a mud-covered item.

Although the town faces the Pacific Ocean, the headquarters of the midsize auto parts maker was not affected by the tsunami as it is located at an elevated position.

But the building of a subsidiary company and houses of employees were swept away. The company makes engines, transmissions, air conditioners and other parts for vehicles produced by Toyota Motor Corp., Honda Motor Co. and Nissan Motor Co.

Equipment and parts are now unusable as they are covered in mud.

Meanwhile, the company's subcontractor in Narahamachi, Fukushima Prefecture, has been abandoned as it is in the 20-kilometer evacuation zone set up in the wake of the Fukushima No. 1 nuclear power plant accident.

"As the trouble [at the Narahamachi plant] probably will last a very long time, I might as well say the plant has ceased to exist," Iwaki Diecast President Yoshio Saito said with a sigh.

As Iwaki Diecast cannot procure parts from the subsidiary and subcontractor, it will produce them elsewhere.

Repairs to equipment at the company's main plant have been completed. But as the amount of electricity has been reduced by Tohoku Electric Power Co., it probably will take a couple of weeks for the plant to start full-scale operations. Damage caused by the disaster may total between 200 million yen and 300 million yen, the company said.

Although a major automaker offered to help in the reconstruction, Saito refused, saying the company wanted to rebuild on its own.

"We don't know what will happen next under the current circumstances. But we must try to keep going forward," Saito said, as he issued a stream of instructions to his employees.

(Mar. 31, 2011)

**Mamoru Kurihara and Hajime Yamagishi**

Yomiuri Shimbun Staff Writers

\* <http://www.yomiuri.co.jp/dy/business/T110330005492.htm>

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## **Global supply chain unease rises**

BEIJING (AP) A shortage of auto parts and other components after disaster struck on March 11 has stirred unease about two pillars of manufacturing: the country's role as a crucial link in the global supply chain and "just-in-time" production.

Manufacturers slashed costs by adopting Japanese-style small inventories and close links to a tight circle of suppliers. But that left them without a cushion of raw materials to ride out disruptions,

forcing factories as far away as Louisiana to close when the March 11 quake and tsunami battered Japanese producers.

“There’s no question people are saying: Look, we may have gone too far. Let’s revisit this and do some different things about just-in-time,” said Jim Lawton, vice president of D&B Supply Management Solutions, a unit of Dun & Bradstreet Inc.

Companies can use more suppliers spread over more countries, but that would mean they have less bargaining power to lower costs. Manufacturers may hold more inventories. That might mean higher prices for consumers.

Tsunami damage and power shortages that idled thousands of Japan’s factories highlighted its role as a key “and sometimes the only” source of auto parts, graphics chips and other high-end components. Lack of parts from Japan prompted General Motors Co. to temporarily shut down a Louisiana factory that makes pickup trucks. Other companies have warned of possible disruption in supplies of mobile phones, personal computers and other goods.

CEOs embraced just-in-time production in the 1990s, imitating Japan’s automakers and other manufacturers. They boosted profits by cutting stockpiles of parts and won discounts by buying more parts from a smaller group of suppliers.

“All these things have made companies lower-cost and much more competitive, but they have made them much more brittle in cases like this,” said Lawton, a former procurement executive for Hewlett-Packard Co.

GM, Nokia Inc. and other major companies said they were closely watching their supply chains in Japan but declined to say how their long-term strategy might change.

Already, suppliers of electronics and other components in Taiwan and Southeast Asia are seeing a spike in orders as customers look for alternatives to Japan or Japanese companies outsource work from their idled factories.

“There has been indeed an increase in our orders because many Japanese chip makers have suffered damage from the quake and tsunami,” said CEO Morris Chang of Taiwan Semiconductor Manufacturing Co.

The company is the biggest contract producer of chips used in mobile phones, computers and video games.

Taiwan’s Foxconn Technology Group, which manufactures Apple Inc.’s iPod and other products, and Wistron Corp. have received extra orders from Sony Corp. to produce TV screens and digital cameras, according to local news reports. Representatives for both companies declined to confirm that.

South Korean companies, which compete with Japan in electronics, autos and steel, stand to benefit but have avoided talking about that publicly, possibly for fear of appearing to profit from a disaster that has killed thousands.

Samsung and Hynix Semiconductor Inc. could sell more flash memory chips to Apple and other customers that used to rely on Japanese suppliers, said Lee Min Hee, who follows the industry for Dongbu Securities in Seoul.

Samsung said in a written statement it was assessing the impact of the disaster but did not respond



to questions about how its business might change.

Also in South Korea, LG Chem Ltd. used chemicals from Japan to make batteries for laptop computers and electric cars but might switch to local suppliers or make parts itself once its stockpiles run low, said company spokesman Terry Lee.

"In the long term if Japan is struggling it could cause some trouble," Lee said.

Japan's own makers of autos and electronics already were shifting production to China and Southeast Asia in search of lower costs. That might accelerate as they look for less disaster-prone manufacturing bases.

Friday, April 1, 2011:

\* <http://search.japantimes.co.jp/cgi-bin/nb20110401a2.html>

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### **Nissan to restart normal domestic operations in mid-April**

Nissan Motor Co. said it will resume normal operations in mid-April at nearly all of its domestic plants.

After the March 11 tsunami, Nissan shut down its entire auto production in Japan from March 14 to 16. All auto plants have been running at limited capacity due to parts shortages, but the company expects to start receiving supplies again.

"However, as the delivery of parts will still take time to be fully re-established, operation levels will still be limited, depending on the delivery status from suppliers," the company said Wednesday in a statement.

An engine plant damaged by the tsunami will take longer to restore. Nissan said the Iwaki factory in Fukushima Prefecture "one of its two engine factories in Japan" will begin partial operations in mid-April. It hopes the plant will be completely back online by the end of April.

Nissan spokesman Mitsuru Yonekawa said the Iwaki factory still has no running water. The factory typically makes 376,000 engines a year.

The automaker will temporarily suspend vehicle assembly between Monday and April 8 ahead of the resumption of normal operations, it said.

### **The Associated Press**

Friday, April 1, 2011

\* <http://search.japantimes.co.jp/cgi-bin/nb20110401a3.html>

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