

Equities

14 March 2011 | 6 pages

Eastern Japan Earthquake / Consumer electronics/electronic components

Alert: Primary damage from quake limited

■ Industry Overview

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- **Implications of Friday's quake** — Electronics factories were among those damaged by Friday's massive earthquake and tsunami in northeastern Japan, with some reportedly suspending operations. While the situation is not good, production of electronic components, semiconductors, and consumer electronics is widely distributed throughout Japan, with comparatively few major factories located along the coast in Iwate, Miyagi, and Fukushima prefectures. Major facilities in the region are so far being affected mainly by quake damage, power outages, and communication breakdowns, with primary damage limited in scale. However, the situation remains in flux amid a 70% probability of a major aftershock, rolling blackouts scheduled for metropolitan Tokyo, and strong quakes occurring in Niigata and Nagano prefectures.
- **No reports of major structural damage** — Companies with factories in Tohoku and Koshinetsu near the quake's epicenter include Nidec, TDK, Alps Electric, Hirose Electric, Rohm, Kyocera, Taiyo Yuden, Murata Mfg., Elpida Memory, Panasonic, and Sony. Most report little structural damage and plan to resume operations as soon as electricity and other utilities are restored. It remains unclear how costly the damage will be and how long factories will be closed. The information we have so far is compiled on page 2.
- **Locations of major factories** — Japanese electronic makers have been shifting production of electronic components to other parts of Asia. Flat-screen TV panels are meanwhile being made primarily in Kansai, Sony's semiconductors (image sensors, game-console chips) in Kyushu (compound semiconductors in Miyagi Prefecture), and Elpida's DRAM in western Japan (Hiroshima), with none of these in northeastern Japan. TDK has major factories in Akita Prefecture (in northeastern Japan, but on the Japan Sea side) and Murata Mfg. in Miyagi Prefecture (the Sendai plant was just restarted in January), with Alps Electric and Rohm (Oki Semiconductor) also operating key facilities near the quake's epicenter.
- **Prospects for reconstruction** — Electricity supply remains unstable, and we think this and other non-primary damage could emerge in earnest going forward. However, most companies can withstand plant shutdowns of a week or two thanks to supply-chain inventory and past efforts to decentralize production. While the quake could conceivably prompt increased demand for consumer electronics as a daily necessity, we certainly do not foresee it rendering electronics makers any less meaningful. We thus think that prospects for reconstruction of the affected areas could prompt investors to take another look at sector stocks sold off after the quake hit.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Figure 1: Plants near earthquake area

Ticker	Company	Plant
6594	Nidec	Copal plants, Koriyama plant, Fukushima plant
6762	TDK	Akita Prefecture, Honjo plant (MLCC), Hirasawa plant, Kisakata plant (development of various components), Inakura plant (ferrite cores), Chokai plant (ferrite cores), Akita plant (various electronic materials)
6767	Mitsumi	Atsugi plant (semiconductors), Yamagata plant, Akita plant
6770	Alps	Sendai Development Center, Miyagi Prefecture, Furukawa Plant (sensors, switches, automotive electronics), Wakuya plant (switches, adjustable resistors, encoders), Kitahara plant (metal molds), Fukushima plant, Onahama plant (input devices, printers), Taira plant (input devices)
6806	Hirose	Tohoku Hirose Electric (Iwate Prefecture, Miyako City), Koriyama Hirose Electric (Fukushima Prefecture, Koriyama City), Ichinoseki Hirose Electric (Iwate Prefecture, Ichinoseki City)
6963	Rohm	Miyagi Prefecture, OKI Semiconductor Miyagi (LSI), Ibaraki Prefecture, Rohm Tsukuba (transistors, diodes, SiC),
6971	Kyocera	Fukushima Prefecture, Fukushima Tanagura Plant (telecom equipment), Kyocera Chemical Koriyama Plant, Kyocera Kinseki Yamagata Plant
6976	Taiyo Yuden	Gunma Prefecture, Haruna plant, Nakanojo plant, Tamamura plant, Hachimanbara plant
6981	Murata	Miyagi Prefecture: Tome Murata (EMI filters, coils), Kanezawa Murata Sendai plant (piezoelectric products, high-frequency devices), Ibaraki Prefecture: Koyama plant (functional polymer capacitors)
6723	Renesas	
6665	Elpida	Akita Design Center, Akita Elpida Memory
6758	Sony	Tagajo City magnetic tape, optical filter plant
6752	Panasonic	Sendai plant (electronic components), Fukushima plant (digital cameras), Koriyama plant (Panasonic Electric Works), Tokyo Seisakusho (Gunma Prefecture, Sanyo)

Figure 2. Outlook

Ticker	Company	Outlook
6594	Nidec	According to Sankei, survey in process
6762	TDK	Productions lines in affected areas stopped due to power outages, etc., but details currently being confirmed. Management will gradually announce status of restoration efforts.
6767	Mitsumi	Atsugi plant: No major damage to building or equipment. Checks to confirm safety of the restart of business operations and production on semiconductor lines are underway. Yamagata, Akita plants: No major damage to building or equipment. Because power remains out, management will notify of the timing of the resumption of business activities when ascertainable.
6770	Alps	Some damage to each of the plants' electric, water, and gas infrastructure as well as to buildings and equipment. Nagaoka plant (Niigata Prefecture, Nagaoka City) continues to operate normally.
6806	Hirose	No comment from the company at this time.
6963	Rohm	No major damage to personnel or buildings from fire or collapse, etc. Miyagi plant and Tsukuba plant have stopped operations because of problems with infrastructure/supply.
6971	Kyocera	According to the Sankei, no damage to buildings due to fire or collapse. Damage assessments are underway.
6976	Taiyo Yuden	Damage assessments of buildings and manufacturing equipment are underway.
6981	Murata Mfg.	Tome plant: Some buildings and equipment show damage. Electric, water, and gas services are currently shut down. Management will announce outlook for the resumption of operations when ascertainable. Sendai plant: No major damage to building or equipment. Electric, water, and gas services are currently shut down. Management will announce outlook for the resumption of operations when ascertainable. Koyama plant: No major damage to plant or equipment. Electric power is being restored, so management expects to be able to resume operations at an early date.
6723	Renesas	No comment from the company as of yet. According to the Nikkei, plants at six locations have been shut down, including Hitachinaka City (Ibaraki Prefecture), Tsuruoka City (Yamagata Prefecture), and Goshogawara City (Aomori Prefecture).
6665	Elpida	No wafers have been scrapped due to the earthquake. Akita Elpida stopped operations because of the power outage resulting from the earthquake, but management expects the facility to resume normal operations on 14 March.
6758	Sony	According to the Nikkei, the magnetic tape plant in Tagajo City (Miyagi Prefecture) was damaged by water from the tsunami.
6752	Panasonic	According to the Sankei, no damage from fire or collapse. Four plants have shut down operations.

Source: Company announcements, media reports, and company contact.

Appendix A-1

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