

Global supply chains demonstrate resilience

News analysis

Japan's earthquake has not seriously disrupted delivery, write **Ed Crooks** and **James Wilson**

American and European companies have generally suffered only small-scale and short-lived disruption as a result of the March 11 earthquake in Japan, executives and analysts have said, emphasising the resilience of global supply chains.

The catastrophe led to severe problems for many Japanese companies such as carmaker Toyota but for companies in the US and Europe, effects have generally been minimal.

Logistics and management experts say the trend towards complex global supply chains will not be stopped by the disaster, just as it was not halted by previous incidents such as the 9/11 terrorist attacks.

Dale Ford of IHS iSuppli, the analysis company, said companies would consider building more back-up capacity into their supplier networks. However, he added: "One of the positive things we have learned [from] this is the ability of the supply chain to heal itself."

Moody's rating agency echoed that assessment on Thursday: "It is too soon to count the full cost of the disaster, [but] nine weeks later it seems clear that

the supply-chain disruptions were less severe than the worst fears suggested."

A reason fears ran high was that the complexity of modern manufacturing networks means companies typically have little insight into their full extent of their supply chains, says Yossi Sheffi, director of the

MIT Center for Transportation and Logistics.

"Even the best companies have very good visibility into their tier one [direct] suppliers, but little or none into their tier two and three suppliers," he says.

So it was always possible that problems would crop up in unexpected places. Ford and Chrysler, for example, had to stop or to slow production of some red and black vehicles after the closure of a Merck factory in the earthquake zone that supplied pigment to paint manufacturers for the industry. That plant reopened this month.

As time has passed, however, it has become clearer that US and European manufacturers have been able to respond to any problems by helping suppliers to

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restore production or by finding alternative sources – sometimes teaching new suppliers to provide the products they need.

As a result, recent corporate statements in the US and Europe have shown at most modest losses of production and earnings.

This week, the computer makers Hewlett-Packard and Dell both said they expected only small effects.

HP said the earthquake would affect revenue by \$700m this year out of a projected \$130bn in annual sales – about 0.5 per cent – but that included decreased demand as well as supply chain disruption.

Brian Gladden, Dell's chief financial officer, told analysts: "We continue to watch components, but in general it is pretty solid."

Apple – which had been the focus for much of the speculation about possible supply chain impacts – said there had been no effect in the second quarter, and it

did not expect any material impact to come in the third quarter, even though it sources hundreds of components from Japan.

Tim Cook, the company's chief operating officer, said on April 20 that the situation remained unpredictable, but paid tribute to the "incredible resilience" of Apple's Japanese suppliers.

That message has been repeated by other companies in several manufacturing industries.

Ford, for example, said the effect of earthquake-related supply disruption was not material to its earnings.

In Europe, Infineon, which makes computer chips, said it had "not experienced any shortage of materials".

Siemens, the German industrial group, has several important direct suppliers in the earthquake-affected region, and said it faced challenges at "complex sub-supplier level": the myriad smaller companies that feed into the supply chain. But it has not had to stop any assembly lines and does not expect substantial manufacturing delays in May or June.

Professor Sheffi of MIT said the benefits of complex



globally integrated manufacturing chains were too great for companies to want to move away from them.

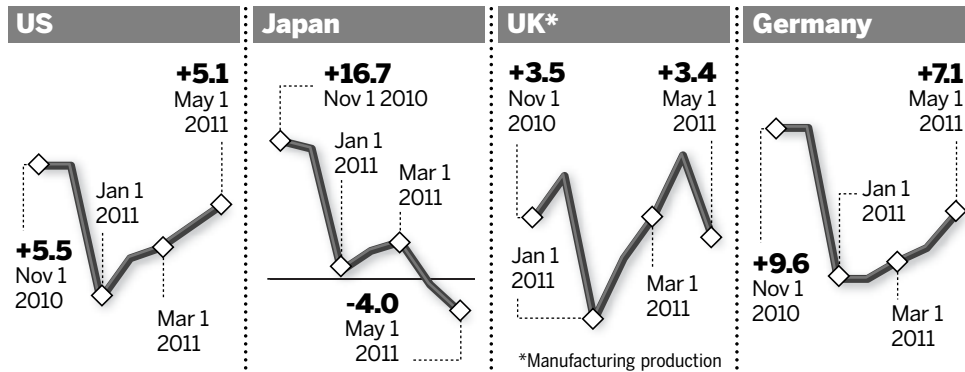
“These things are resilient,” he said. “The disruption is not really a big deal, and companies cannot just start working differently.”

Additional reporting by Joseph Menn in San Francisco

See Lex

Industrial production

Growth forecast for 2011, year-on-year (%)



GDP growth forecast for 2011, year-on-year (%)**



Source: Concensus forecasts

** May 2011



Business as usual



Photo: Getty Images

