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The Curious Case of Samsung's Missing TVs

By [Jun Yang](#) and [Kyunghee Park](#) on November 29, 2012

<http://www.businessweek.com/articles/2012-11-29/the-curious-case-of-samsungs-missing-tvs>



In August, workers at Samsung Electronics ([005930](#)) in the South Korean city of Suwon swathed 60 next-generation televisions in bubble wrap and nailed them into wooden crates. Two weeks later, when the boxes were opened at a Berlin trade show, two TVs were missing. The 55-inch prototypes—each costing \$10,000 and weighing about 43 pounds—featured breakthrough technology known as organic light-emitting diode displays, which make TVs thinner and help project brighter and sharper images. The suspects: corporate spies.

Thefts of TV sets, diagrams, and circuitry are on the rise, and that's bad news for Samsung and LG Electronics—the only companies that can commercially produce OLED displays, which the \$110 billion flat-screen TV industry expects to wow consumers and revive slumping sales. South Korea's National Industrial Security Center, part of the country's intelligence agency, last year reported 46 cases involving attempts to steal local companies' secrets overseas, up from 32 in 2007.

While estimates of industrial espionage are hard to come by, South Korea says foreign theft of its corporate secrets resulted in about \$82 billion in damages in 2008, the most recent data available, up from \$26 billion in 2004. The Koreans say 60 percent of victims are small and midsize

businesses, and half of all economic espionage originates in China, according to a 2011 U.S. congressional report. “Any company that has a competitive advantage or new technology will be targeted by industrial espionage,” says [Frank Schurgers, managing director of security agency Integris International in Berlin](#).

German companies lose an estimated \$28 billion to \$71 billion annually—and as many as 70,000 jobs—due to foreign economic espionage, regulators say. A 2007 survey by the Japanese government found that 35 percent of that country’s businesses reported some form of technology loss. And the FBI says its pending caseload of espionage cases represents losses to the American economy of more than \$13 billion this fiscal year.

The practice will be tough to stop. In a survey released in June, the Associated Chambers of Commerce and Industry of India found that 35 percent of companies there engaged in some form of corporate espionage to gain advantages over rivals or keep tabs on present and former employees. “Stealing technology basically helps cut down the time to market,” says Jyotirmoy Dutta, a manager at consultant ITC Infotech. “A lot of companies are going to do anything that makes their new product introduction faster.”

As secret-stealing picks up, companies as diverse as Samsung, Apple ([AAPL](#)), and Toyota Motor ([TM](#)) are boosting security, sometimes at immense cost. [Security expert Schurgers](#) says his firm charged a tech company about \$325,000 to protect one product and that a comprehensive program would easily run into the millions. For businesses that spend heavily on research and development, such security is worth it. Samsung says it spent seven years and “trillions of won” on OLEDs.

Orbotech ([ORBK](#)), an Israeli maker of equipment used to test screens for TVs, smartphones, and tablets, says its Korean subsidiary and six local employees have been indicted on suspicion they stole display technology from Samsung. LG says Orbotech workers are suspected of illegally gaining access to its confidential OLED data, too. A probe by Korean police into actions by Orbotech staffers is ongoing, and the company says its Korean subsidiary is cooperating with authorities there.

While it would be difficult to reverse-engineer the fundamentals of OLED technology from the missing televisions, simply understanding how Samsung packed the parts inside the superthin sets would be valuable information for thieves, says Kim Hyung Sik, an analyst at Taurus Investment & Securities in Seoul. “They will be able to get their hands on how components are aligned to make the TVs slimmer,” Kim says. “It saves competitors a lot of time.”

Korean authorities are operating on the assumption that Samsung’s missing TVs were stolen, not lost, says Lee Seung Yong, a senior inspector at Gyeonggi Provincial Police Agency in Suwon, where the company is headquartered. A freight forwarder packed the TVs in wooden boxes that were nailed on five sides and then sealed with a nut and bolt on the sixth. When the boxes arrived at the airport, they weighed the same as at the forwarder’s warehouse, and security cameras en route yielded no clues, according to a police report.

The 14 people involved in transporting the boxes from Samsung to a Korean Air plane were questioned, the report said. Police say they found fingerprints from 14 individuals on the box that the missing TVs were packed in. Although they didn't say whether the prints matched those of the people who were questioned, police have concluded the theft likely didn't occur in Korea. They're now coordinating with German authorities.

Since the TVs went missing, Samsung says it's tightened controls on shipments of equipment to trade shows. The company says it already uses special paper that trips an alarm when someone tries to sneak documents out of its offices. Other companies are also becoming more vigilant. Businesses testing Apple's iPad before its 2010 release had to promise to secure the tablet in a room with blacked-out windows and key-card locks and keep it tethered to a stationary object, according to persons at the time who were not authorized to speak before plans for the device were released. And visitors to many Toyota facilities are required to seal USB ports on laptops and place blue stickers over mobile-phone cameras.

Even affiliates of LG and Samsung have accused each other of purloining secrets. In July, Samsung asked its rival to apologize after Korean prosecutors investigated employees of LG Display, the company's panel-making unit, about the theft—so far unsolved—of information on Samsung's OLED program. LG Display refused to apologize and two months later sued Samsung for allegedly infringing its own OLED patents. A Samsung unit in November asked a Korean intellectual property tribunal to invalidate seven OLED patents held by LG. "The more advanced a technology is, the more attractive it is for companies or countries that don't have it," says Shin Hyun Goo, head of external relations at the Korean Association for Industrial Technology Security in Seoul. Samsung and LG "are like mice being eyed by eagles hovering around them."