Computers Magnify A Bit of Human Error

Program trading comes under new scrutiny

By David Henry
STAFF WRITER

The error was caught almost as soon as it was made, but by then it was too late.

Within seconds after a clerk at Salomon Brothers mistakenly entered a computerized sell order for 11 million shares instead of $11 million worth of stock, machines at the New York Stock Exchange were processing hundreds of millions of dollars of sell orders that lopped about 15 points off the Dow Jones industrial average in the final minutes of trading Wednesday.

"It was human error," said Robert Baker, a Salomon spokesman. "He didn't double-check the number. The procedure calls for him to double-check the number and he didn't do it."

Baker said Salomon's computers "did catch the error seconds after it was made" and that the trading program was then stopped, but not until a lot of the sell orders had gone into the exchange.

The sudden drop didn't wreck the market; buyers erased much of the market's loss when trading resumed yesterday morning. But the error raised old concerns about program trading, the computerized trading technique in which huge bundles of stocks are bought or sold. The speed with which the clerk's error was transmitted illustrates the power of the computers Wall Street uses to trade hundreds of millions of shares a day.

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— Software expert Seth Merrin

Those computerized strategies have been developed to meet the demands of institutional investors who manage the money of pensioners, corporations and mutual funds.

When institutions decide to move 5 percent of their portfolios from stocks to bonds, that means billions of dollars of trading. "You need a mechanism to move big blocks of stocks and the computer has served that

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purpose," said Peter Grennan, head of stock index trading at Shearson Lehman Brothers.

Instead of the more traditional face-to-face trading on the exchange floor, where traders will quickly catch each other's mistakes, computerized trading is swift and certain, right or wrong.

"It is like the difference between a car and a horse and buggy," said William Silber, a former trader who is now a professor at New York University. "If you make a mistake driving a car, it is going to be more damaging than if I make a mistake driving a horse and buggy."

But Silber says it is unlikely that a sell program could mistakenly cause a market crash because other computer-equipped traders would immediately seize on the mistake and begin buying.

The computerized trading programs that contributed to the October, 1987, stock market crash weren't set off by mistake, but on the misguided faith that they would allow investors to sell whenever the market turned down. Still, the 1987 crash and Salomon's mistake are the kinds of episodes that make people want to pull the plug on the computers.

Instead of doing that, Silber predicted, Wall Street will try to make its machines more foolproof.

Seth Merrin, who sells institutional investors a computer system to catch their human errors, said, "This is something that is probably every computer user's worst nightmare . . . You can't just let technology run wild."

Securities and Exchange Commission Chairman Richard Breeden said yesterday that his agency will investigate the episode.