Markets across Asia suffered another bruising day as investors scrambled for the exits, with Japanese stocks falling more than 6%, entering a bear market, and heavy losses in China and across Southeast Asia.

The selloff has gripped global markets all week, fueled by uncertainty over the direction of the Federal Reserve's monetary policy and signs of cooling growth in emerging economies. The mood is sending investors to traditional safe havens, with the yen and Japanese government bonds moving higher.

"It is a sentiment driven fall that is feeding on itself," said Nader Naeimi, head of dynamic asset allocation AMP Capital Investors in Sydney, who helps the firm manage around $120 billion. "Investors seem to be taking profits wherever they can."

The most dramatic move was in Japan, with the Nikkei Stock Average falling 6.4% to close at 12,445.38 and putting it around 21% down from the intraday peak reached on May 23, the day Japan's 6-month rally turned south and begun three weeks of wild trading.

"There is no clear downside target (for the Nikkei) unless there is more clarity of the Fed's policy," said Shigeo Sugawara, senior investment manager at Sompo Japan Nipponkoa Asset Management. "Depending on the comments from the Fed, the direction may become clearer."

The fear that the Fed could change its monetary policy, along with signs that the U.S. economy is recovering, has encouraged investors to pull money out of emerging markets that are typically perceived as risky. The resulting outflows have hit some of Asia's smallest markets the hardest—such as the Philippines and Thailand, which were down 5.4% and 5.5% respectively on Thursday.

The other dampener to sentiment came from China. Chinese stocks plunged after markets in the mainland reopened after a three-day public holiday, getting their first chance to react to a series of poor economic data that came out over the weekend, with both trade data and inflation disappointing the market.

The Shanghai Composite Index hit a six-month low of 2126.22 earlier in the session and was last down 3.2% at 2139.62. The Hang Seng China Enterprises Index, a measure of Chinese companies in Hong Kong, plunged 3.7%, its worst percentage fall since late 2011.

The dollar was last at ¥94.05 compared with ¥96.01 late Wednesday in New York, and hit a two-month low against the dollar and has now lost around 9% of its value against the yen from the multiyear peak it reached on May 22.

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