The outbreak of violence at Lonmin PLC’s South African mine drove platinum prices to a one-month high Thursday, amid fears that supplies to the world market could be disrupted.

Platinum futures for October delivery climbed 2.8% to finish at $1,435.20 a troy ounce in New York, the highest closing price since July 13 and the largest one-day increase in nearly seven weeks.

“The situation in South Africa is very disturbing,” said Tom Winmill, who holds some platinum mining companies in his portfolio at Midas Funds. He said the escalating violence, as well as the potential for spreading unrest, was responsible for platinum’s gains.

South African platinum mines account for about 80% of global supply.

Platinum prices have been falling since February, and many platinum producers have been scaling back output even before the strike at the Lonmin mine began on Aug. 10.

Falling prices, combined with labor unrest, rising production costs and electricity shortages, have made some mines unprofitable to operate.

Aquarius Platinum PLC has suspended many of its mines in the country due to difficult market conditions. No. 2 platinum miner Impala Platinum Holdings Ltd. shut a major mine for several weeks this year because of clashes between rival labor unions.

Platinum is chiefly used in car-exhaust filters, or auto catalysts, with much of that demand coming from diesel engines. Europe is the world’s largest market for diesel automobiles, and demand there is expected to drop as some of the Continent’s major economies wilt under the euro-zone banking crisis.

Precious metals refiner and specialty chemicals company Johnson Matthey PLC expects platinum demand from the auto sector as a whole to be flat this year, positioning the global market for a surplus.

Platinum is also used in jewelry, and has other industrial uses for chemical companies and oil and natural-gas refiners.

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