How to gauge volatility, one asset at a time

➔ To gauge uncertainty in the stock market, traders often use the CBOE Volatility Index (VIX), which reflects expectations of future volatility in S&P 500 stocks. But Chicago Booth PhD candidate Rui Da and Booth’s Dacheng Xiu have developed a measure of the real risk of individual assets such as stocks, futures, and exchange-traded funds.

➔ Designed as an interactive app on Xiu’s Risk Lab website, the gauge provides daily estimates of assets’ annualized realized volatility. The researchers use high-frequency data on the assets’ past or realized returns, including some trade-and-quotes data collected in millisecond increments.

➔ One example, shown here, charts the volatility of the biggest ETF that tracks the S&P 500. The sharpest spike, bringing the measure above 100 percent, came during the height of the 2008–09 financial crisis.

Volatility on the S&P 500
SPDR S&P 500 ETF Trust (Higher value = greater volatility)

Risk Lab website: dachxiu.ChicagoBooth.edu/#risklab