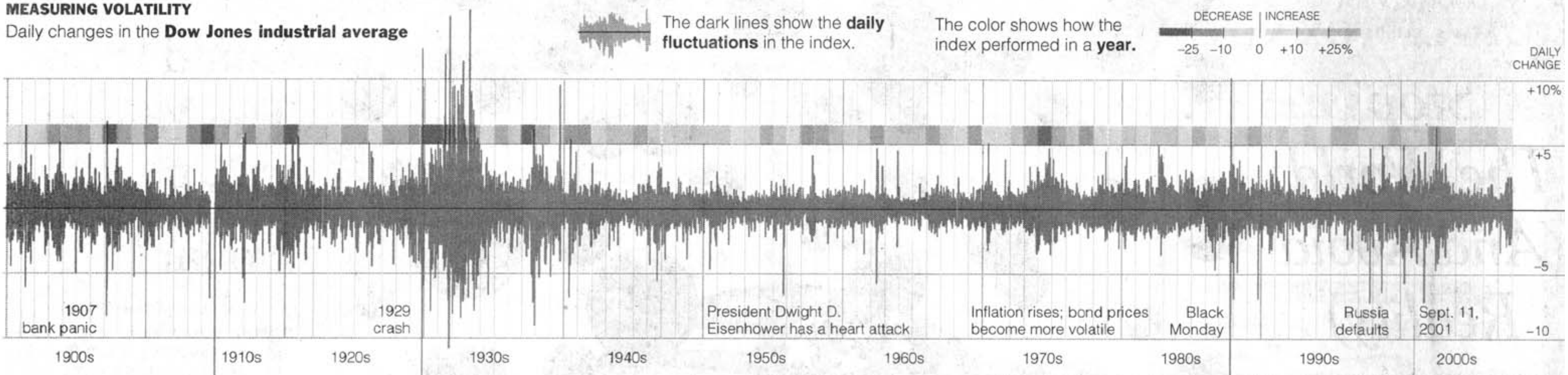
SOAPBOX

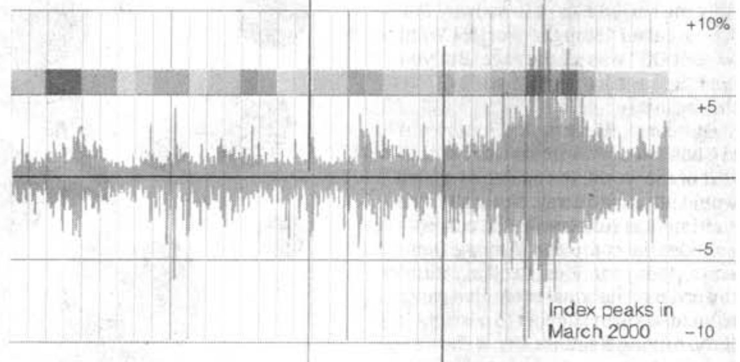
MEASURING VOLATILITY

Daily changes in the **Dow Jones industrial average**



Nasdaq composite

In its early years, the Nasdaq was often used as a proxy for the movement of smaller stocks. But it became dominated by technology stocks, and its volatility accelerated in the late 1990s.



The Pulse of Uncertainty

There is no question that volatility on Wall Street increased last year, and many analysts expect the rockiness to continue in 2008.

But 2007 may have seemed especially tumultuous only because the years before it were remarkably calm.

GRAPHIC ESSAY

There was only one day from 2004 to 2006 when the Dow Jones industrial average moved up or down by more than 2 percent. Last year, amid concerns about the subprime mortgage sector and credit markets in general, swings that large occurred 14 times.

Historically, though, 14 times is not exceptional: that total ranks about average over the last 10 years and slightly less than that over the last 20. The Standard & Poor's volatility index, or VIX, which measures expectations of future volatility based on the prices of options, also ended the year near its 10-year average.

Taken another way, if the Dow's daily changes — the dark lines in the chart — were stacked end to end, they would stretch about 110 percentage points from July to December of last year. That compares with nearly 200 percentage points in the second half of 2002, when the market was shaken by corporate scandals.

In 2007, some of the most volatile stocks in the S.&P. 500 were **E*Trade Financial**, **Countrywide Financial** and **MBIA**, a company that specializes in guaranteeing the financial health of others.

Among stocks that gained value, **MEMC Electronic Materials,** whose silicon wafers are used by semiconductor and solar cell producers, and **Amazon.com** had the most drastic swings.

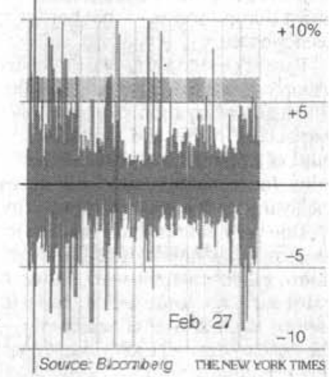
"Internationally and domestically, there are things that are a little unsettling," said G. William Schwert, a finance professor at the University of Rochester. "But in the scope of things, it's not that unusual."

Mr. Schwert has studied why volatility changes over time. His answers include bank panics, wars and recessions.

AMANDA COX

Shanghai composite

Last February, an investing scare in China sent markets tumbling around the world. But it was only a temporary setback — one of several last year. Shares in Shanghai fell by at least 1.5 percent once a week, on average, but they still ended the year up nearly 100 percent.



Source: Bloomberg THE NEW YORK TIMES