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F YOUR PORTFOLIO HAS been murdered over the past year, you're probably blaming imploding technology stocks. But don't overlook the innocent-looking accomplice.

According to a Wall Street rule of thumb, "all you need to build a diversified portfolio are 15 or 20 stocks." Sound harmless enough? In truth, it's extraordinarily dangerous advice.

Emboldened by that popular adage, many investors abandoned mutual funds during the late 1990s and loaded up on individual stocks, only to be hammered by the Nasdaq Composite Index's 62% plunge.

What went wrong? It turns out that you need a lot more than 15 or 20 stocks to reduce risk. Here's why:

Volatility Rising: The market's overall gyrations didn't increase between 1962 and 1997, according to a study in the February 2001 Journal of Finance by John Campbell, Martin Lettau, Burton Malkiel and Yexiao Xu. But over the samé stretch, the volatility of individual stocks more than

"Investors that have a portfolio that is highly concentrated

in just a few securities are taking on a lot more risk than they were 20 or 30 years ago," says Mr. Malkiel, an economics professor at Princeton University.

Not all the news is bad. While individualstock volatility has been rising, Mr. Malkiel and his co-authors also found that stocks were less likely to move in lockstep with one another. Because some stocks zig while others zag, you can re-

duce a portfolio's overall volatility by spreading your money across more stocks.

"The benefits of diversification are even greater," Mr. Malkiel says. "But you need somewhat more securities to get that benefit. Because of the enormous specific risk of individual stocks, the old rule that says 'get 20 well-diversified stocks' should probably be replaced by a rule saying 'get 40 well-diversified stocks.'

Losing Track: A 40-stock portfolio shouldn't perform much more erratically than the broad stock market. But unfortunately, volatility isn't your only worry.

With a limited number of stocks, "you can end up with a portfolio that has very low risk," says William Bernstein, an investment adviser in North Bend, Ore. "But you can also have a very low return. The risk of having a volatile portfolio is completely different from the risk of having a low return."

At issue is the notion of "tracking error." In a Winter 2000 Journal of Investing article, Ronald Surz and Mitchell Price calculated returns for portfolios of 15 randomly selected stocks over the 13½ years through June 1999.

The authors found that among such randomly selected 15-stock baskets, the typical portfolio strayed as much as 8.1 percentage points a year from the market's return. Thus, if the market was up 11% in a given year, the typical portfolio might gain as much as 19.1%-or as little as 2.9%.

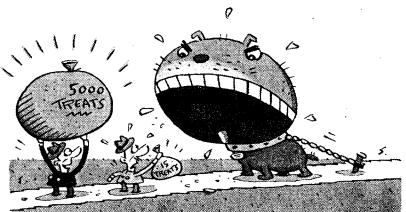
What if you are careful to pick a group of 15 well-diversified stocks? The typical tracking error was 5.4 percentage points. Some 15-stock portfolios strayed far more than this amount, while others would track the market more closely. Even if you held 60 stocks and even if you were careful to diversify, the typical tracking error was still 3.5 percentage points a year.

"Fifteen names aren't enough," argues Mr. Surz, president of PPCA, an investment-software firm in San Clemente, Calif. To get decent diversification, "the number is probably north of 60.'

Future Shock: Purchasing 60 or more stocks is no longer a crazy idea for small investors, thanks to the emergence of "fo-

lios," those portfolios of individual stocks that can be bought through Web sites like www.foliofn.com and www.netfolio.com.

But you may, in fact, want a lot more than 60 stocks. "At the level of 300 or 400 stocks, you're probably down to one or two percentage points of tracking error," Mr. Bernstein says. "Do you want to take the risk of underperforming the market by one or two percent-



age points a year over the next 20 years? I don't."

Over time, trailing the market by a few percentage points a year can really bite. If you earned 9% a year for 20 years while the market gained 11%, for instance, you would amass 30% less than if you had earned the market's return. The only way to eliminate this tracking error is to own the entire market, preferably through a low-cost index fund that mimics the Wilshire 5000 or the Russell 3000.

Of course, rather than trailing the market by two percentage points a year, you might beat the index by that much. The problem is, the costs of failure are far greater than the benefits of success. If you hit the jackpot, your retirement might be somewhat more comfortable. But if you destroy your retirement nest egg, you might not be able to retire at all.

"People are trading off the high likelihood that they will lag the market for the small chance of winning the lottery," says Larry Swedroe, research director at Buckingham Asset Management in St. Louis. "You're playing with the money you're going to retire on. You shouldn't be taking unnecessary risk. But that's what you do when you don't diversify."