

Notes

RE: How Many Positions to Own?

We'll discuss in more detail at the annual conference the reasons for the demise of Northfield's Optimizer, but one of the issues was likely our self-imposed constraint of owning relatively few positions. With this tool, we originally intended to build 25-stock portfolios to replicate our normal procedures. However, to derive a satisfactory solution in terms of their risk metrics, we had to relax our number of positions constraint to 35-stocks. This just barely satisfied their algorithms, and perhaps the following explains the optimizer's hunger for more positions.

Through time, we've come to believe we haven't owned enough positions in our accounts, motivating us periodically to increase our diversification guidelines. On the side of owning fewer stocks are magnifying the impact of ones stock selection, lower transaction costs and less PM trading effort. On the side of owning more stocks are limiting the impact of one's stock selection (on the occasions when a particular choice doesn't pan out) and increasing performance consistency, both as a function of time and from one account to another.

Twenty years ago, \$50K accounts were invested in 10 stocks. In 1991 we bumped our guidance to 12 stocks and today the SOP (updated in 1999) calls for 15. Per the table to the right, our guidelines also call for larger accounts to own more positions. With discount trading rates what they are today, we should reconsider the merit of this, as both \$100K and \$1M clients expect the same consistent delivery of superior performance. Further, we don't make this distinction with Clone accounts, so why should we with the others?

# Positions	1986	1991	1999
\$50,000	10	12	15
\$100,000		14	18
\$250,000		18	23
\$500,000		20	28
\$1,000,000		22	31

So consider the following hypothetical situation: As a PM, you're convinced you know exactly how to position your accounts wrt Size, Style and Sector. Further, you're absolutely certain Score will deliver another couple of percentage points of return. You know for a fact this combination will give you the potential to beat the market by five percentage-points. An academic would scoff at such an absurd claim, but you know you're good and have no doubts. Then finally, after years of pursuit, your mother has just handed over her \$100K life's savings for you to manage, but she's promised to write you out of her will if you fail to deliver acceptable returns. Before you peek at the charts on the next two pages, how many stocks would you buy for her? If your answer is 15 or 25 or even 35, there's a pretty decent chance your siblings will split the inheritance without you.

The charts that follow are the results of a fairly substantial project Yev just completed analyzing Score's effectiveness. Not believing the performance dispersion of the charts he initially (and easily) generated, I made him laboriously redo them, carefully controlling for Size, Style and Sector. As it turns out, this was yet another snipe-hunt I sent him on, as the results were no better. Having said this, they *were* more convincing, as it demonstrated that our present method of constructing portfolios is leaving us with good and bad luck significantly involved.

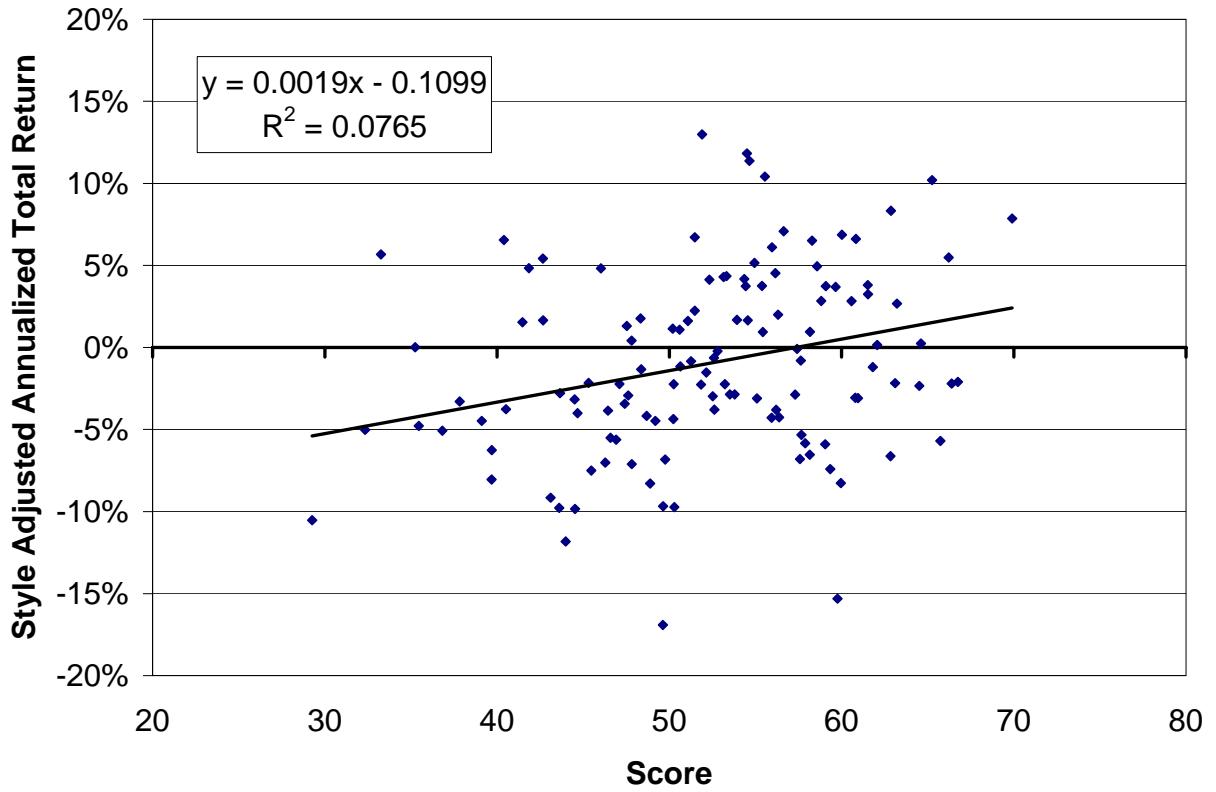
If you consider just the portfolios in the buyable range (60 or better Scores) in the following charts, 15-stock portfolios produced a best-to-worst spread of +10% to -7%. 25-stock portfolios knocked the range down to +10% to -4% while 35-stock portfolios constrained the range to +8% to -3%. As one crosses the 50-stock threshold the range drops to +5% to -1%, finally well into the single-digits. In all these cases, the average annualized excess return attributable to Score is about 3pp, but as is clearly evident, your certainty of achieving that return ain't very impressive with the 15- to 35-stock portfolios we currently build.

So how many will you buy for mom, or your next client? Jack has added this topic to our annual conference agenda, so please come prepared to share your thoughts on this matter. In the meantime...

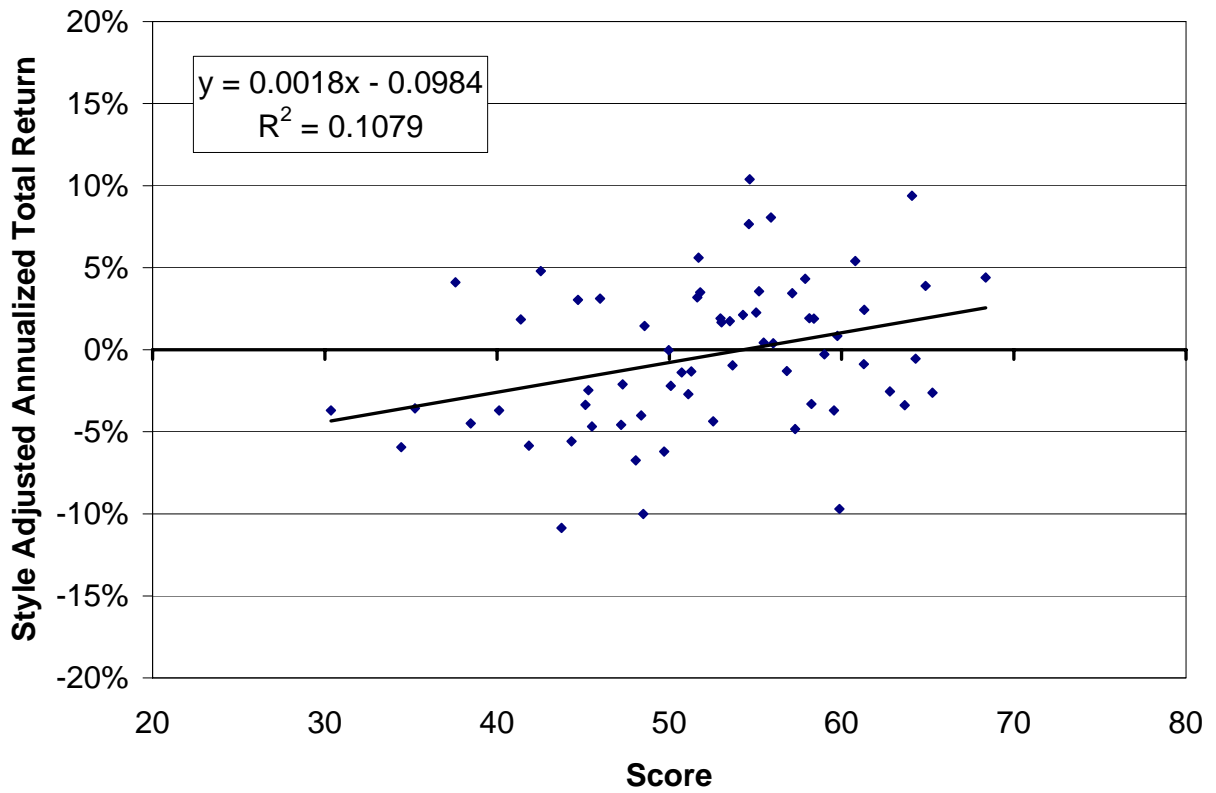
Enjoy!

Lowell

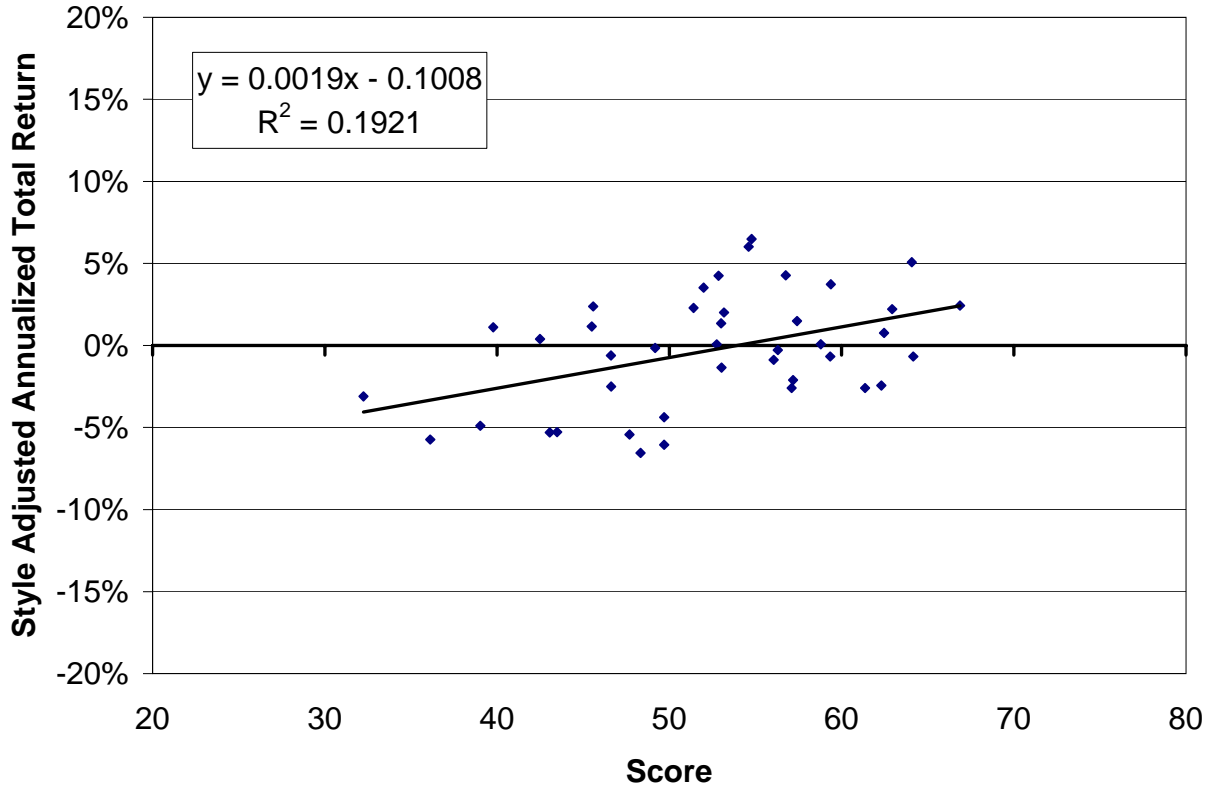
15 stock Portfolios (03B-05B model)



25 stock Portfolios (03B-05B model)



35 stock Portfolios (03B-05B model)



55 stock Portfolios (03B-05B model)

