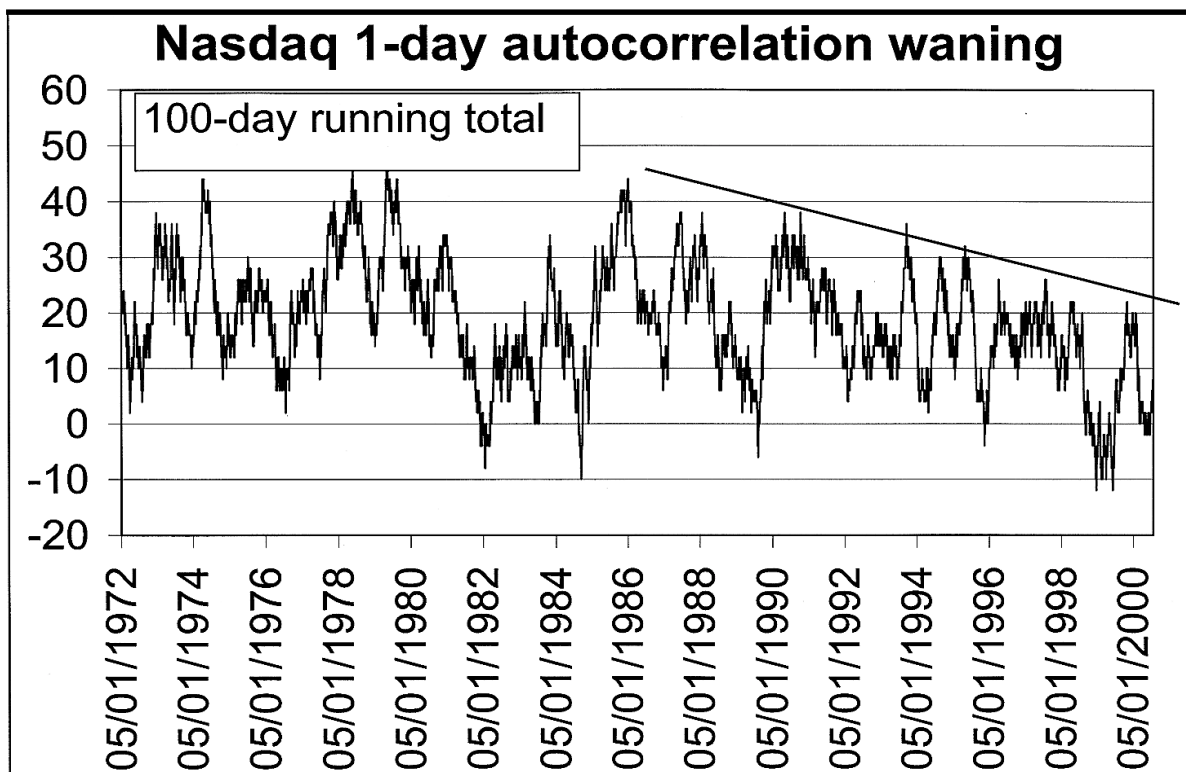
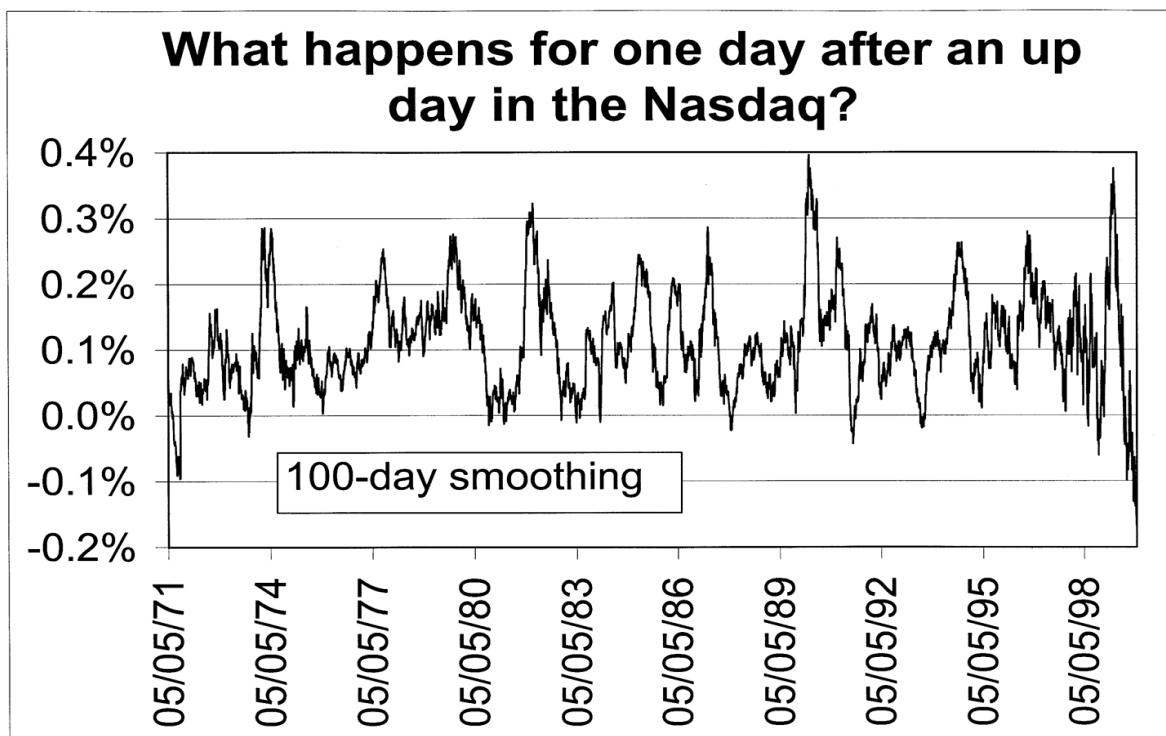


THIS YEAR IS DIFFERENT FROM OTHER YEARS.....



The above chart shows the 100-day auto-correlation of the Nasdaq Composite. How many net times is there a one-day follow through to the direction of price change in Nasdaq? If today is up, what are the odds that tomorrow will be up. Same for down days. If today is down, what are the chances that tomorrow will be down?



There has, in the past, been a tendency for the Nasdaq Composite to follow through with daily gains by rising the day after. This has not been the case over the past 100 days.

## **WILL CHANGES THAT HAVE TAKEN PLACE IN THE MARKET BECOME PERMANENT?**

### **DAY TO DAY FOLLOW THROUGH IN NASDAQ AT VERY LOW LEVELS:**

With our recently introduced DNS Nasdaq trading system running into a streak of losses, drawdowns in the system the largest in more than thirty years, it has not taken us long to go back to the drawing board to see what, if anything, we could discern to account for the real time problems DNS has been facing. Last issue, we discussed the increase in daily volatility to record levels, not necessarily in itself a problem, but as we shall see, a problem since the rise in volatility has been accompanied by other changes in market behavior which negatively impact the performance of market timing models.

The top chart on page 4 shows the one-day autocorrelation of the Nasdaq Composite. This is the tendency of market direction on any given day to be similar to the market direction the previous day. Levels of autocorrelation are significant inasmuch as our (and other) timing models tend to buy on upside market reversals and to sell on downside market reversals.

The average 100-day level of autocorrelation since 1971 has been between 18 - 19. That is, over any given 100 days, 59.5 days would follow the direction of the day previous and 40.5 days would not follow the direction of the previous day. So, for example, if you purchased on an up-day, there would be roughly a 60% chance that your position would start profitably. This is consistent with our hypothetical research.

Over the past 100 days, the auto-correlation level stands at only approximately 8, which means that 54 of 100 days have been showing market direction similar to the day previous. We did not segregate for rising days compared to falling days, a next stage in our research, but with Nasdaq in a downtrend, we expect that autocorrelation for up days is below that of declining days.

There have been only three periods since 1971 when levels of autocorrelation have been lower than they presently are. There has been a clear downtrend in autocorrelation since the mid-1980's, which, if it continues, may create long term problems for traders.

### **ONE-DAY RESULTS FOLLOWING RISING MARKET DAYS ON NASDAQ:**

Changes in the levels of autocorrelation have had their impact on market behavior following rising days in Nasdaq, particularly during this bear market year for the over-the-counter market.

The lower chart shows a 100-day average of percentage changes in Nasdaq on the days following positive changes in that index.

Since 1971, there have been only a few brief periods during which days following advancing days in Nasdaq have shown a net decline, and then only barely. The worst such period prior to the present took place during the late autumn of 1971, a period of sharp market decline. Since 1971, rising days have tended to be followed by rising days, with only a few periods of exception, during which negative results following rising market days were negative by just a bit. Even during the worst days of the 1974 bear market, rising days in Nasdaq showed a net gain the day following.

Over the past 100 days, days in which Nasdaq have risen have been followed by declines averaging .15% on days following, negative amounts increasing more recently. This may not seem like much, but given the rising volatility of the Nasdaq Composite, this has been a difficult pattern against which to trade.

We have also tested for two day results following rising days in Nasdaq. If Nasdaq is up on any given day, what have been changes over the two day period thereafter. Here we find that over the past 100 days, the Nasdaq Composite has declined by approximately .3% over two-day periods following market rising days. This appears to be the worst two-day result following rising days since 1971.

### **SUMMARY:**

There have been clear changes in patterns of market behavior in recent years, and especially in recent months. Timing models may have to be modified to reflect these changes, if current patterns continue. Hopefully, markets will resume more normal patterns of behavior in the more or less immediate future. If not, we expect to be developing filters that will simply avoid market entry during more uncertain market periods.