

## Clinging To The Calendar

Cinderella is one of our more enduring cultural myths. Who doesn't dream every now and then of being magically transported to a wonderful time and place where the rest of the world will finally recognize our true glory? But then that darn clock strikes midnight, and why is that pumpkin waiting for us at the curb?

Based on seasonality, will there be joy on the other side of midnight? We can hope so, but that's about all. Cyclical and seasonal analyses have their place in our arsenal, but they're imprecise weapons. Both are based on the premise that the future is going to behave like the past and that a market's driving forces will appear and disappear regularly and on schedule. This assumes, of course, that markets are incapable of discounting these developments.

Certain seasonal effects are understandable, such as crop cycles or heating fuel demands. Certain economic cycles are understandable as well. Witness the natural gas market, wherein years of low price both discouraged exploration for new supplies and encouraged utilities to build gas-fired generating plants. Even certain financial seasonal effects are readily understood, such as the annual spike in short-term interest rates each December as banks scramble to meet their reserve reporting requirements.

### A Season In The Dimming Sun

We have been told, over and over, that September and October are the weakest months of the year for the stock market, and there was little in this fall's rout to dispel that notion. Conversely, the November-January period is supposed to be the strongest time for the market. Why? Well, for starters, we blamed mutual fund tax selling for much of the NASDAQ's October weakness, and this certainly is plausible. We also ascribe most January rallies to year-end bonus money arriving in the market, and that's plausible as well. Yet mutual funds were not a dominant force in the markets until the mid-1980s, and year-end bonuses and stock option grants were not a big factor prior to that date, either.

Like so many other Wall Street chestnuts, this one does not withstand even modestly serious analysis. Over a long period of time, a seasonal analysis of the S&P 500 using standard Census Bureau X-11 methodology indicates non-stable amplitude of seasonal variations. Since 1928, November and December have been the third and first weakest months seasonally, with the dreaded October coming in at number two. July and August are the strongest months.

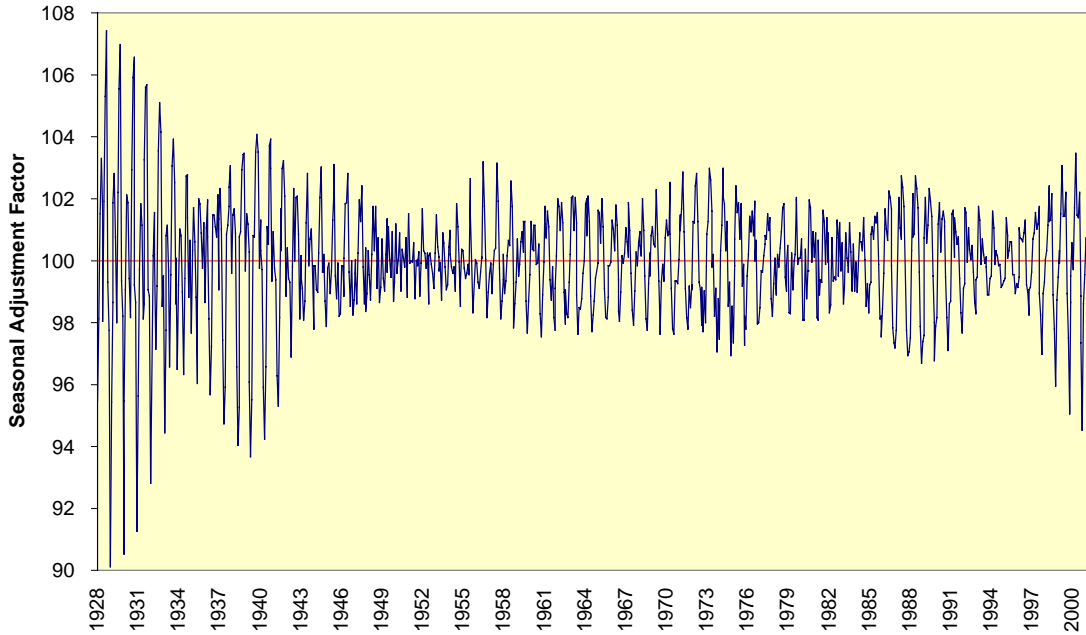
In the tables and graphs below, a seasonal factor greater than 100 indicates a strong month, and a seasonal factor less than 100 represents a weak month. Raw data are divided by these factors to produce seasonally adjusted time series.

### S&P 500 Consolidated Monthly Seasonality

	Mean - 1 Std.	Mean	Std. Dev.	Mean + 1 Std.
Dec	96.51	98.64	2.14	100.78
Oct	97.40	99.16	1.76	100.91
Nov	97.87	99.32	1.45	100.76
Jun	98.26	99.80	1.54	101.34
May	97.85	99.93	2.07	102.00
Jan	98.42	100.01	1.58	101.59
Feb	99.17	100.25	1.07	101.32
Sep	98.24	100.34	2.10	102.44
Apr	98.81	100.48	1.68	102.16
Mar	99.30	100.50	1.20	101.71
Aug	98.65	100.57	1.92	102.49
Jul	99.34	100.96	1.62	102.58

The largest seasonal variations for the S&P 500 occurred between the late 1920's and World War II, a period in which neither mutual fund tax selling nor bonuses played much of a role. Some of the lowest seasonal variability on record took place in the mid-1990s, when both proffered reasons were extant. Stock prices are seasonal, but apparently we have to look beyond the conventional wisdom for reasons.

**S&P 500 Seasonality:  
1928 Through 2001 (Projected)**



**A Matter Of Interest**

In aggregate, equity prices have three components, expected earnings growth, expected interest rates, and investors' appetite for risk. Of these three, only interest rates may have a seasonal component. Traditionally, the reason given for October selloffs was increased credit demand during the harvest season. This may have had some validity when the U.S. economy was more agricultural, but it is a dubious proposition today.

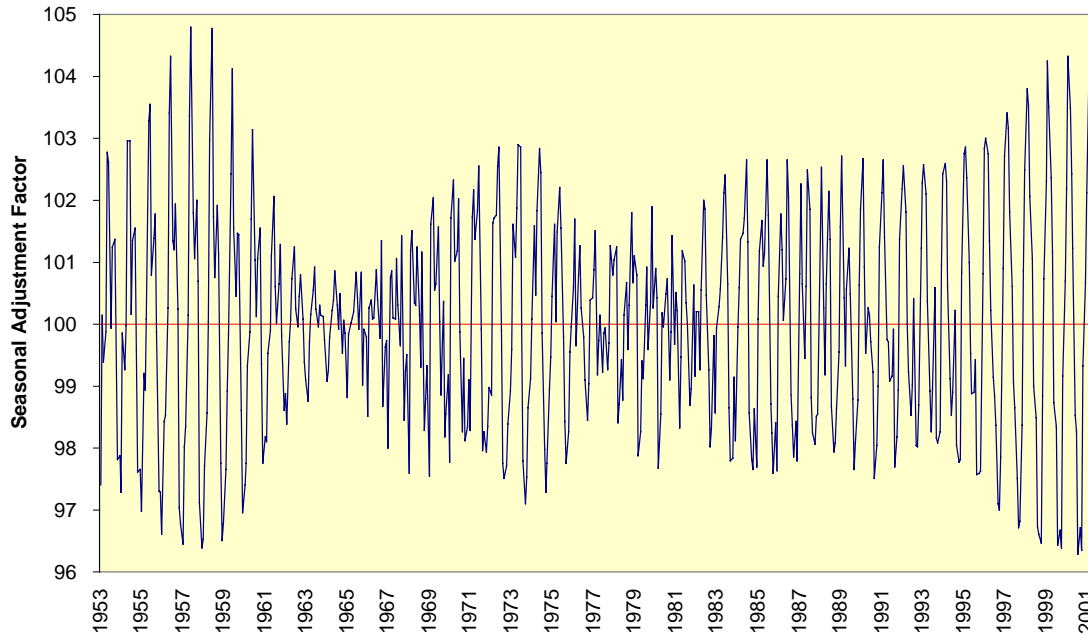
Still, Treasury note yields exhibit a pronounced seasonality consistent with the agricultural hypothesis. September and August have the highest yields, while December, January, and February have the lowest. While this may be an example of spurious correlation, it appears to be real nevertheless.

**Ten-Year Note Consolidated Monthly Seasonality**

	<b>Mean - 1 Std.</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Mean + 1 Std.</b>
Sep	99.37	101.21	1.84	103.05
Aug	99.85	101.06	1.21	102.28
May	99.25	101.04	1.79	102.83
Jun	98.99	100.58	1.59	102.17
Jul	99.45	100.43	0.98	101.41
Oct	99.21	100.19	0.98	101.16
Apr	97.91	99.88	1.96	101.84
Nov	98.07	99.33	1.27	100.60
Mar	97.91	99.30	1.38	100.68
Dec	97.34	99.06	1.71	100.77
Feb	97.84	99.01	1.16	100.17
Jan	97.42	98.76	1.34	100.11

Even stranger than this agricultural cycle is how the amplitude of seasonal factors has been increasing since the mid-1990s. If the information economy has done anything, it has moderated inventory cycles, and this should have led to a less-seasonal interest rate cycle.

### Ten-Year Note Seasonality: 1953 - 2001 (Projected)



On a long-term seasonal basis, we should be heading into a phase of lower interest rates, but the outlook for equity prices is more clouded. This is more consistent with what we can see unfolding in the markets at present, a deflation of equity multiples as investors risk appetites diminish and lower interest rates as credit demands slow and the probability of a Federal Reserve rate cut grows.

Of course, we could have reached the same conclusions in the absence of seasonal analysis altogether, and therein lies our conclusion: If seasonality were truly dominant, all we would ever need to make money would be a calendar. No one trades and invests on this basis, and that's all we ever need to know.