PERKINS CAPITAL MANAGEMENT, INC.

April 25, 2001

Dear PCM Client:

We didn't think spring would ever come this year. We have had a very tough winter here in Minnesota with much more snow than we could find room for. It was piled high all over in the streets and driveways, to the point where the plows worked overtime just to move the white stuff from one place to another. Here in Wayzata on Lake Street, our "Main Street," where most of the shops and restaurants are located, the snow is pushed by the plows into the middle of the street and then is removed and taken to a municipal lot where it is dumped into huge piles that probably won't melt until July. It all seemed like it would never end, but it finally did.

We wrote in our April 1997 letter about the severe flooding in North Dakota and Minnesota, with old flood stage records being broken and new ones being set. Not the kind of records people wanted to hear about. This year was a repeat performance, although with crests slightly below those of 1997 in most cases. In St. Paul, however, the flood level would make it the third greatest since record keeping began in 1867. The combination of a huge amount of snow and heavy spring rains did it, causing extreme hardship for many families.

A ROUND TUIT

Now that spring is finally here, albeit a little later than usual, there are many jobs to be done. We can hear it now, in our own homes. "Honey, when will you be able to clean all that winter dirt out of the garage?" Answer: "Well, dear, just as soon as I get around to it." Or, "Please, dear, tell me when you will be able to rake the winter debris from the lawn so it will look nice again." Answer: "Just as soon as I get around to it." Fine. Now none of you have an excuse any longer, for attached below to this letter is your own genuine ROUND TUIT. So, again, no more excuses. Here is a list of things you have been putting off while you were waiting until you got a "round tuit."

- Sweep and clean the garage
- Rake the lawn of winter debris
- Sweep the deck and walk
- Plant a flower bed (see picture on page 2)

Now remember, all of this, and more, gets done before that first game of golf, and before you wet a fishing line. Oh, by the way, if you need another round tuit for your spouse so you don't get excuses from him or her, please let us know and we'll get another off to you right away.

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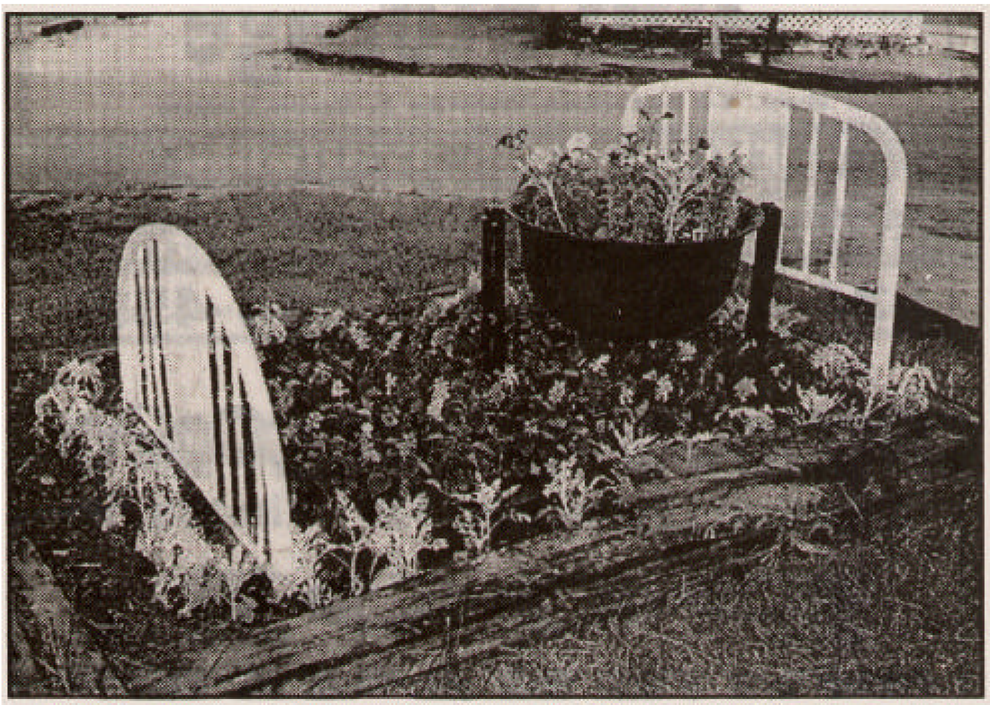


Local flower bed

FOOT-IN-MOUTH DISEASE

That's right, foot-IN-mouth, not foot-and-mouth. And, yes, the Brits have put their foot in their mouth again, by trying to get us to believe that cattle and sheep have feet instead of hoofs. We all know the difference between a foot and a hoof. In fact, we have all seen many photos of piles of cattle upside down with their hooves in the air, waiting to be incinerated. And if you want to look it up, when there was an outbreak of the disease in the U.S. in 1929, it was appropriately called hoof-and-mouth disease.

Regardless of what it is called, this is a very difficult situation with which to cope. If mad cow disease, which we wrote about in our January letter, is not bad enough, resulting in the destruction of a million or more cattle and sheep in Europe, especially Great Britain, they now have to cope with hoof-and-mouth disease, which also requires the destruction of cattle and sheep in an effort to contain it. Hundreds of farms in Great Britain are being wiped out as their herds of cattle are destroyed. There are many sad stories, such as the recent one about 38-year-old Mark Shadwick, of Carlisle, England, whose entire herd of 401 cattle were slaughtered and burned within days of the discovery of an infected cow. The look on the face of his 6-year-old son Ben, could make a grown man cry; he lost his favorite cow, Gidget, without really understanding why. And, almost worse, all sheep and cattle within a 3-mile radius of an infected farm are also destroyed in a containment effort. It is all very, very sad. So now, in addition to worrying about BSE, or mad cow disease, we also have to worry about hoof-and-mouth disease spreading to the U.S. Precautions are in place, especially as to travelers into this country from Great Britain (16 million per year), but whether such measures will be adequate or not, will be told only by the passage of time. We are pessimistic, however, and think the disease here is inevitable.

SHOOTING FROM THE LIP

But it is not just the Brits that have foot-in-mouth disease; we have it right here in Minnesota. Governor Jesse Ventura constantly puts his foot into his mouth. The most

recent incident was during an interview with well known outdoor columnist, Dennis Anderson, when he said "until you have hunted man, you haven't hunted yet, because you need to hunt something that can shoot back at you to really classify yourself as a hunter." Can you believe this guy? Here we are still trying to recover from all of the school shootings from Columbine to the recent one in Gary, Indiana, and yet in a public forum he makes immature statements like that. A great lesson for our young people! But this kind of stuff is not new for our governor. Back in October 1999 in an interview with *Playboy,* he said, "organized religion is a sham, and a crutch for weak minded people." He had to backpedal on that one also, saying later that he meant only "some" organized religion. It is endless. Now he is also in trouble with the marines after he told a joke that goes as follows: "Why did God give the marines a one point higher IQ than a horse?" Answer: "So when a marine marches in a parade he won't _ _ _ _ in the street." All of this stuff is just simply tasteless, especially from the mouth of our governor.

MAD DOW DISEASE

The last time we talked about the construction of the Dow Jones Industrial Average was January 2000, in a paragraph titled "HOW NOW NEW DOW." We gave the history of the Dow and discussed the changes that have taken place in its construction over the years, which have been such that the level of the Dow is probably far from where it would be if some of these substitutions had not been made in 1932, 1997, and 1999. But that is only part of the story. The main story is that the Dow is an arithmetic average, and not capitalization weighted like the S&P 500, NASDAQ, and the other popular averages. Today only the three Dow averages - - Industrial, Transportation and Utility - - are arithmetic. It all goes back to May 26, 1896 when Charles H. Dow first published his average by adding up the prices of 12 stocks and then dividing by 12. This has continued since then, although for a time there were 15, and then 20; it has consisted of 30 stocks since 1928, although many changes have been made through substitutions of one stock for another for various reasons. But today we can really see the dramatic difference between an unweighted arithmetic average and a weighted one. In its April 23 issue, *Business Week* has an article titled "How the Dow Hides the Bear" which shows that a capitalization weighted version of the Dow was down 25.6% from the January 14, 2000 high, to April 9, 2001 vs. the actual posted arithmetic decline for the same period of 16%. Amazing, isn't it? The fact is that we and many others had been impressed that the Dow had done so well vs. the S&P decline of about 28% for that period, which had largely been blamed on its stable of high tech stocks. The reason is not that the larger old economy stocks, which comprise the Dow did better, but rather the difference is in the way the numbers are calculated. A cap-weighted version of the Dow was down over 25% vs. the arithmetic average of 16%. How does this happen? Well, in an arithmetic average each component stock is given exactly the same weight, while in a capitalization-weighted average the larger-cap stocks have a greater impact than the smaller ones. Therefore, once again, we learn that things are not always what they seem to be.

When it started, as we said earlier, the divisor was the number of stocks in the average (12), but over time that divisor has been changed to take into account stock splits, stock dividends and substitutions, such that the divisor is now 0.15369402, which means that a $1 move in the price of a stock is equal to about a 6½-point change in the Dow, and if all 30 stocks move up or down one point, that will move the average nearly 200 points.

STRAWS IN THE WIND

Everyone, it seems, is looking for a market bottom, which won't happen, of course, until they all give up trying to find it. But there are many "straws in the wind" that are pointing to at least an intermediate bottom leading to a good bear market rally.

TRIN readings of 1.50 or greater. The 10-day NYSE Trading Index (TRIN) also sometimes called the ARMS Index, had a reading of 1.518 on March 16. This index has an excellent record of giving a buy signal whenever it moves above 1.50 although, as can be seen in the table, there is often a lag of up to 20 days before the bottom, as well as a further decline before the bottom. In this instance it looks like the bottom was reached on March 22, four days after and 4.4% below the March 16 signal.

Record of Previous Historical Signals of 10 Day Average of Arms Index Moving Above 1.50

Date of Signal	Closing Dow Low	Days Until Final Closing Low	Dow Level at Day of Low	% Decline of Dow from Signal to Closing Low
May 28, 1962	576.92	20	536.77	6.96%
October 1, 1962	571.95	16	558.05	2.43%
October 7, 1966	749.6	1	744.32	0.70%
May 4, 1970	714.55	16	631.15	11.67%
September 30, 1974	607.86	4	584.55	3.83%
November 19, 1974	614.04	12	577.89	5.89%
March 24, 1980	765.44	3	759.97	0.71%
September 3, 1981	867.01	15	824.01	4.96%
August 6, 1982	784.34	4	773.59	1.37%
October 16, 1987	2246.74	1	1738.75	22.61%
November 30, 1987	1833.55	4	1766.73	3.64%
October 27, 1997	7161.14	0	7161.14	0.00%
March 16, 2001	9823.41	4	9389.48	4.4%

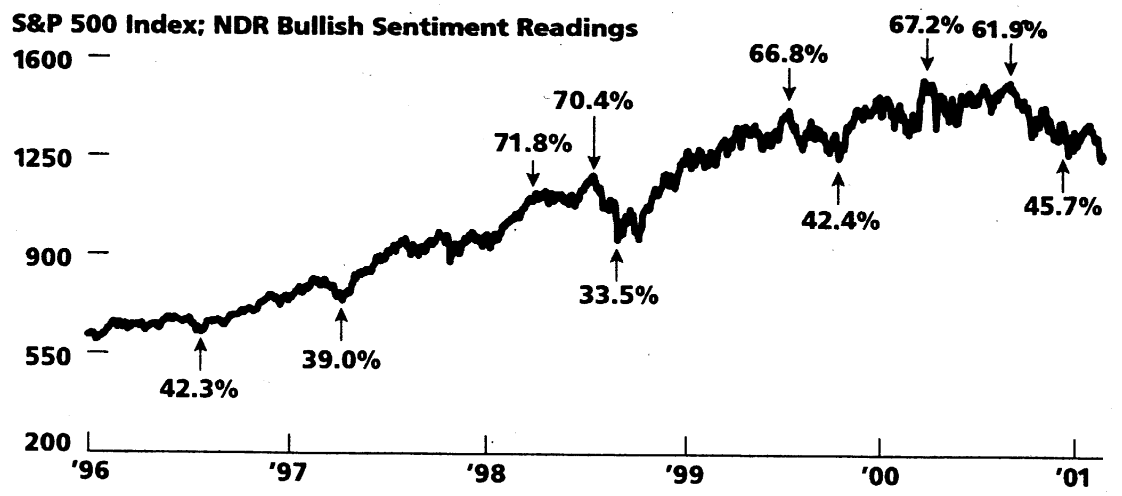
Source: Hays Advisory Group LLC

Fourth Fed Rate Cut: We have often written about Edson Gould and his "two stumbles and a jump" rule, which said that the market would bottom after two rate cuts in close succession, which was the opposite of his "three steps and a stumble" market top signal. This time around, however, it seems to be similar to 1981 when the market continued down another 6.6% after the second cut; it took the third cut to get it going. We had a third rate cut on March 20 close on the heels of the second cut on January 31, and the first cut on January 3. The record shows that after the third successive cut, the market (Dow Jones Industrial Average) is up 7%, 12%, and 21% respectively three, six, and twelve months after the third cut. The exception to the rule, of course, was in 1929-30 when the market paid scant attention to rate cuts and continued to go down. The record of Fed cuts argues well for a market advance, especially now that we have received a fourth cut on April 18. The table shows what has happened to the market (both the Dow Jones Industrial Average and the S&P 500) twelve months after the fourth rate cut. There have been only eight such times in the past 70 years, with the market indices up an average of between 15.5% and 13% twelve months out. Eliminating the two instances in the 1930s, we are left with only six examples and the average then moves up to 27% and 25% twelve months out. Another similar measurement looks at the percentage decline in rates and measures market performance (Dow Jones Industrial Average) after a 30% or greater reduction in the Fed funds rate, which is what the 200 basis point (four ½ point cuts) reduction equals. Under this calculation the market is up 3.6%, 9.4%, 16.2% and 25.1% one, three, six, and twelve months after cuts equaling 30%. The message is clear. Don't fight the Fed. And by the way, history shows that following that fourth cut there have usually been several more, actually from three to five more cuts in the four instances since 1975. Maybe we will get another as early as May 15 when the Federal Open Market Committee meets again. Who knows? Greenspan, that's who!

Date of 4th Rate Cut	**Dow Jones 12 Months Performance**	**S&P 500 12 Months Performance**
3/14/1930	-32.33%	-25.40%
2/2/1934	-6.19%	-20.57%
1/22/1971	39.57%	36.20%
3/10/1975	4.12%	8.10%
8/2/1982	28.24%	18.82%
3/7/1986	44.51%	48.66%
9/13/1991	32.96%	27.81%
	13.08%	10.87%
Average	15.50%	13.06%
Ex 1930 & 1934	27.08%	25.08%

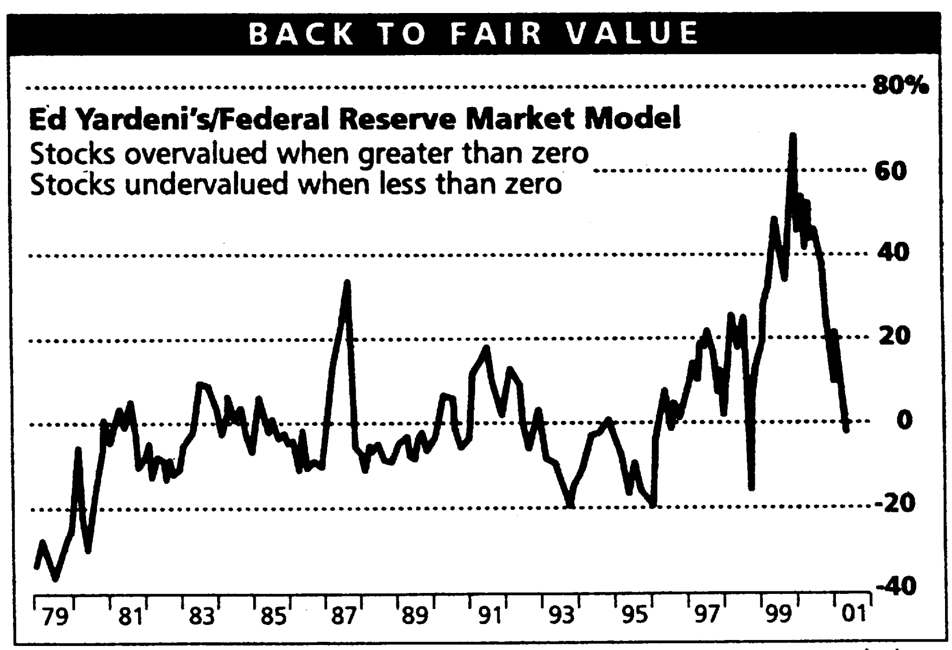
Source: Salomon Smith Barney

Valuations/Sentiment Indicators: Market analysts keep track of investor sentiment by tracking dozens of indicators, since the level of sentiment is usually a contrary indicator. When too many people feel upbeat about stocks they're usually fully invested and have no money left to buy. Conversely, when they are negative they are usually avoiding the market and have cash to spend. As shown in the following chart, the Ned Davis Research measure of sentiment is well below the 55% which is considered to be the dividing line between neutral and extreme pessimism; a reading over 61.5% is considered extreme optimism. This level of sentiment is another "straw in the wind" and signals a market rally; since this chart was prepared, the level has moved up to 52.6%, still a positive reading.



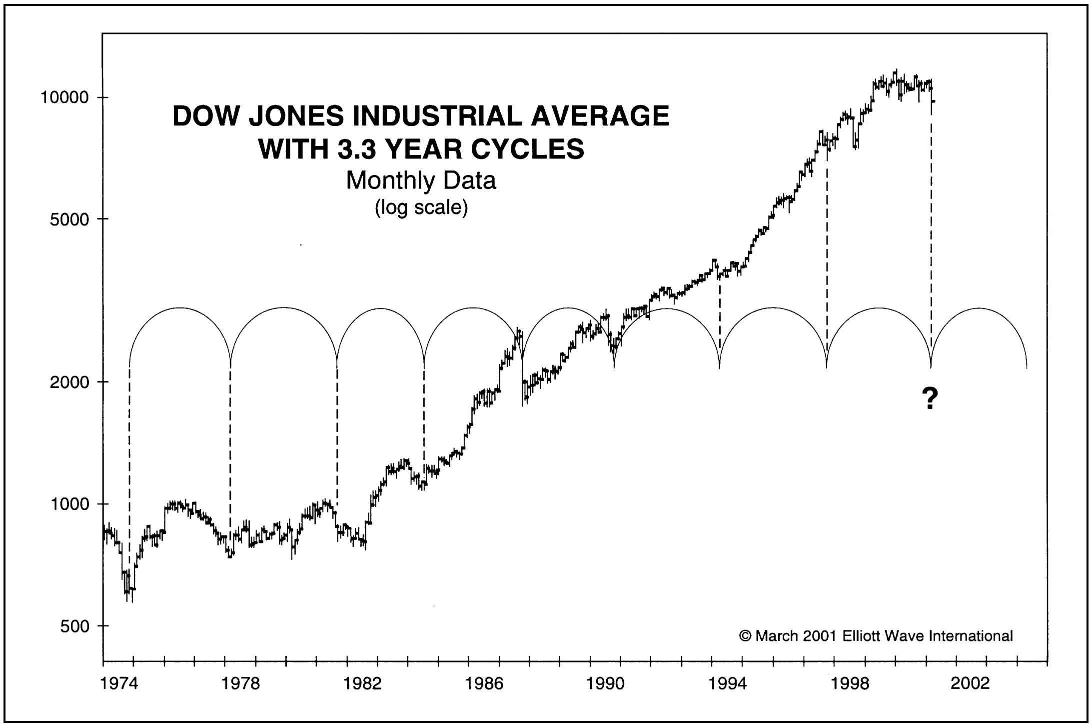
Source: Barron's and Ned Davis Research, Inc.

The Fed Market Valuation Model: In our July 1999 letter we presented a chart of the Fed's "stock valuation model" which is calculated by constructing a ratio of the S&P 500 to "fair value" which is the consensus estimate of operating earnings over the next 12 months, divided by the U.S. Treasury bond yield. That same chart updated is shown below. Back then when we showed it to you, it revealed an overpriced market and was undoubtedly part of Greenspan's view of "irrational exuberance." At that time, the chart was at 45% and subsequently went as high as 70%. Today, however, the model is at zero, which indicates a fairly valued market. Although it is not flashing an undervalued market, which has happened in the past at levels of -20%, nevertheless, it is another "straw in the wind" for a market bottom.



Source: yardeni.com

The 3.3 Year Cycle. The 3.3 Year Cycle was due to bottom in approximately the first quarter of 2001. The chart shows the accuracy of this cycle since 1974. The bad news is, however, that the next bottom is in 2004 and as our readers know, we have said in the past that the true bear market bottom which will have corrected all of the excesses of the recent bull market may not come until 2004. However, it is certainly possible to have good stock market periods during this time span when wonderful profits can be made, especially in small-cap stocks, which have been shown to do better during a poor market for larger companies. Bear market rallies can be very profitable.



MADE IN THE USA

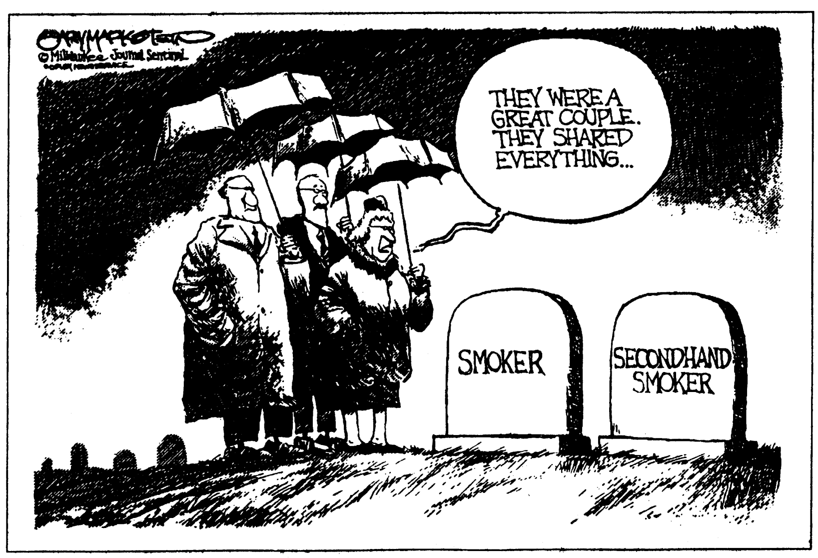
As outlined in the previous paragraphs, there are reasons to anticipate a rising stock market, even if only a lengthy bear market rally. Part of this case rests on the assumption that there will be an economic revival in the second half of this year. The Fed has given us four back-to-back rate adjustments, which would seem to indicate that the Fed is panicked over the economic outlook. The current recession is "made in the USA" and not because of a slowdown elsewhere in the world. Indeed, we cannot blame Japan, which has been sick for years, or Europe. The U.S. economy has its own set of problems, including high consumer debt levels and negative personal savings. There are those who like to compare the 1990s with the 1920s. The Great Depression of 1929-33, they point out, followed seven boom years during which GDP grew by over 5% per year and unemployment dropped to 3.5%. There was little or no price inflation and the time was celebrated as a new era, which of course justified the sky rocketing stock prices. Sound familiar? There were new technological innovations then, too - - the radio and the automobile, most notably. As we move through today's excesses in the high-flying technology and Internet stocks there is still a sense, however, of underlying confidence, an almost arrogant belief that the U.S. somehow is immune to a deep recession or depression. And of course, the belief is that Golden Greenspan would rescue us before it was too late. Talk about Hubris. We have it today in spades. We hope the pessimists are just that - - pessimists - - and that they are wrong. But if they are right, and we do suffer more than the usual short mild recession, it was custom made in the USA by Greenspan and Company who, while fighting inflation that did not exist, turned the tightening screw one too many times. We should point out that the one major difference between 1929-33 (when lower interest rates didn't really help stocks) and today is that during the 1929-33 period the money supply contracted 25% and that is not the case today as M3 is currently expanding at a record rate. We think the weight of the evidence points to a mild recession from which we can recover fairly quickly. If in fact that is the case, then one must be prepared to buy stocks in advance of the bottom of the recession. Our friend, Walter Deemer, recently produced the information shown in the table below which points out that the market normally bottoms three to six months prior to the bottom of the recession. The problem, of course, is that since people are still pessimistic at the bottom of the recession, it is difficult to have the courage to buy stocks while the economy is still heading south. As Walter points out, the only information you need from your economist is for him or her to tell you, four months ahead of time, when the economy is going to bottom. That will give you a month or two to buy stocks, and then sit back and enjoy the bull market.

Date of Economic Trough	Market Bottom	Lead Time	Strong Market Advance Began	Lead Time
Apr 1958	Oct 1957	6 months	Jan 1958	3 months
Feb 1961	Nov 1960	3 months	Nov 1960	3 months
Nov 1970	May 1970	6 months	Aug 1970	3 months
Mar 1975	Oct 1974	5 months	Jan 1975	2 months
Nov 1982	Aug 1982	3 months	Aug 1982	3 months
Mar 1991	Oct 1990	5 months	Jan 1991	2 months

Source: DTR, Inc.

SECONDHAND SMOKE

Minnesota has figured out how to spend some of the millions of dollars it received in the state's tobacco settlement. The Minnesota Partnership for Action Against Tobacco was endowed with $202 million over a 25-year period under the $6.1 billion settlement which the state made with the tobacco industry in 1998. Starting soon we will be bombarded with an advertising campaign to create awareness of the dangers of secondhand smoke. This campaign will cost $5.5 million and is, as we pointed out, sponsored by the Minnesota Partnership for Action Against Tobacco, or MPAAT. Dr. Richard Hurt, of the Mayo Clinic, and a director of the partnership board, says that "Secondhand smoke kills more Americans each year than murder, drugs and AIDS combined, yet a recent survey shows that most Minnesotans don't realize how serious secondhand smoke is. More than 50,000 Americans die of secondhand smoke each year. Think of that. That's an incredible number. It's not just a nuisance; it's a serious health problem. Children who live in homes where the parents smoke inhale the equivalent of 102 packs of cigarettes by age five. When compared to children who are not exposed to secondhand smoke, they have 70% more respiratory problems, miss more school and are four times more likely to die of Sudden Infant Death Syndrome." According to Dr. Hurt, studies also show that a nonsmoker who spends two hours in a room where someone is smoking inhales the equivalent of 4 cigarettes, 200 poisons and 43 known carcinogens. And for every eight smokers who die from smoking, one nonsmoker dies from inhaling secondhand smoke. Startling statistics. And have you noticed how all of the smokers have been driven out of the office buildings and are now puffing away in entryways just outside of the buildings? They have become a permanent fixture in the urban streetscape. For us nonsmokers, we find that we have to hold our breath as we exit buildings these days until we get far enough away to breathe clean air again. An unsightly fallout from all of this is the cigarette butts lying around the street, in the curbs and on the sidewalks.



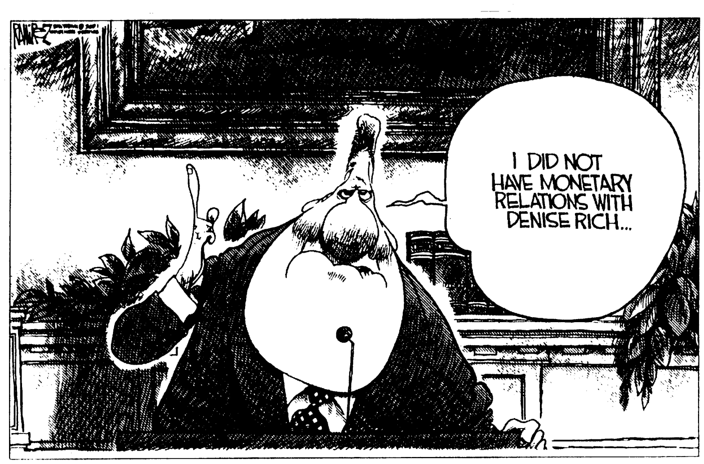
GARY MARKSTEIN/COPLEY NEWS SERVICE

But maybe we shouldn't be spending the tobacco settlement money on a campaign to inform people about the dangers of secondhand smoke, not to mention firsthand smoke. Some years ago Don Larson, publisher of the *Business Newsletter*, said that smokers were not a tax burden as contended in the lawsuits against the tobacco companies. The lawsuits were based on the theory that smoking causes serious and expensive illnesses, which of course is correct, and the fact that states have paid millions of dollars over the years for medical expenses for these illnesses. Larson said that the ironic thing about the lawsuits is that if the courts used common sense they might put it the other way around by paying the tobacco companies for money that they have saved taxpayers, as studies have shown that most smokers not only pay their own medical expenses through the hefty cigarette taxes in the first place, but many of them die prematurely from lung cancer, heart attacks, etc. before collecting health and retirement benefits. The sad truth is that smokers don't cost taxpayers millions of dollars; they actually save them millions of dollars. Don used the example of a typical nonsmoker who lives to be 75 and for ten years before death collects Social Security and Medicare. A smoker, on the other hand, might die of cancer or a heart attack at age 55 or earlier because of smoking and the cigarette taxes that were paid for 40 years were much more than the medical costs and nothing is collected from Social Security or Medicare, thus saving the government a lot of money.

STRIKING IT RICH

The story of Bill Clinton's last minute pardons was not available when we wrote our January letter, but it is now and we think worth writing about. As it turns out he had not acted on clemency matters in a regular and timely fashion over the eight years in office. As a result the backlog grew; when he left office he left behind over 3,000 pending clemency cases. But the 139 last minute pardons which he gave on his last day in office included Carlos Vignoli, a name well known to Minnesotans because of his conviction here in Federal Court in 1994 on cocaine charges. Most notable on the list was Marc Rich, a fugitive living in Switzerland, who was on the FBI most wanted list. Since his indictment in 1983, prosecutors have been trying to extradite him for a long list of felony charges including fraud, racketeering, arms trading and tax evasion.

Normally, processing of a pardon application begins in the pardon attorney's office. But Rich's lawyers completely bypassed standard procedures, intent upon preventing any negative feedback about the prospective pardon. If his application had followed standard procedure, it would have been summarily rejected, because Rich would have been deemed ineligible even to apply for a pardon because he had not served his sentence, and in fact, had not even stood trial. And so to avoid the certain rejections, Rich's lawyers went straight to the President, obviously through his ex-wife, Denise Rich, for it has been noted in the press that she made numerous visits to the White House in the final days. So all of this has created quite a furor resulting in a far-reaching inquiry by a Senate Judiciary Committee. Now we have learned that Denise Rich has been granted immunity after lengthy negotiations; she had refused to testify having invoked the Fifth Amendment. The fact that she has been granted immunity means that she can testify without fear of prosecution and will no doubt have some damaging things to say. If there were irregularities, as suspected, Clinton may find himself in hot water all over again. After all, why would she invoke the Fifth if she had nothing to hide? The suspicion, of course, is



By Michael Ramirez, Los Angeles Times, for USA TODAY that substantial funds were given by Denise Rich, from her ex-husband, to fund the Clinton library and Hillary's Senate campaign. If that is the case, it may not go so easy for Clinton this time, for now he does not have the White House spin doctors to help him, far fewer friends to support him, and ex-friends who no longer fear him. And if it progresses to a logical conclusion many of the old scandals will be dragged back out, and for Clinton's old associates who someday will write their memoirs, there will be more money to be made in telling the truth than in telling lies. The cartoon is very descriptive and brings back old memories. You can find a complete list of names, addresses and offenses of the Clinton pardon grants on the web. Just go to www.jurist.law.pitt.edu.

As usual, we like to add a little humor to the letter. We think you will get a kick out of the addendum titled "Why Did the Chicken Cross the Road?"

The cartoon hopefully is a contrary indicator. If the Old Bear Retirement Home is full, there must be too many bears, and hence the bottom is here.

Sincerely,

Richard W. Perkins, C.F.A.
President
Senior Portfolio Manager

Daniel S. Perkins, C.F.A.
Vice President
Portfolio Manager

Richard C. Perkins, C.F.A.
Vice President
Portfolio Manager

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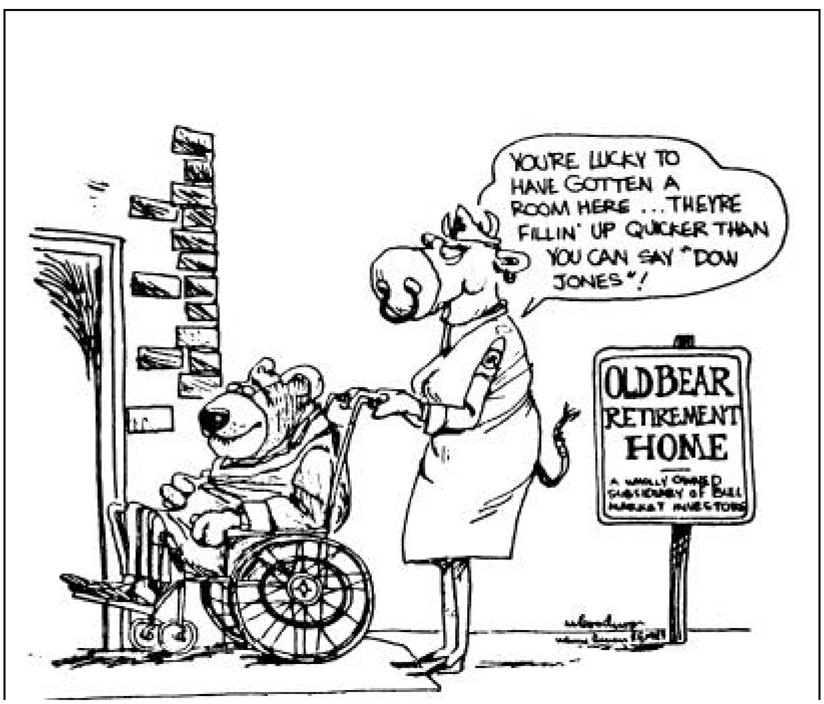

WHY DID THE CHICKEN CROSS THE ROAD?

QUESTION: WHY DID THE CHICKEN CROSS THE ROAD?

ACCORDING TO THE CONSULTANT:
So he could cross back again later and charge the client for doing a transportation survey.

ACCORDING TO THE ACCOUNTANT:
So he could claim the extra mileage deduction.

ACCORDING TO THE BIBLE:
And God came down from the heavens, and He said unto the chicken, "Thou shall cross the road." And the chicken crossed the road, and there was much rejoicing.

ACCORDING TO PAT BUCHANAN:
To steal a job from a decent, hardworking American.

ACCORDING TO JERRY FALWELL:
Because the chicken was gay! Isn't it obvious? Can't you people see the plain truth in front of your face? The chicken was going to the "other side." That's what "they" call it, "the other side." Yes, my friends, that chicken is gay. And, if you eat that chicken, you will become gay too. I say we boycott all chickens until we sort out this abomination that the liberal media whitewashes with seemingly harmless phrases like "the other side." That chicken should not be free to cross the road. It's as plain and simple as that.

ACCORDING TO DR. SEUSS:
Did the chicken cross the road?
Did he cross it with a toad?
Yes! The chicken crossed the road,
But why it crossed, I've not been told!

ACCORDING TO ERNEST HEMINGWAY:
To die. In the rain.

ACCORDING TO MARTIN LUTHER KING, JR.:
I envision a world where all chickens will be free to cross roads without having their motives called into question.

ACCORDING TO GRANDPA:
In my day, we didn't ask why the chickens crossed the road. Someone told us that the chicken crossed the road, and that was good enough for us.

ACCORDING TO ARISTOTLE:
It is the nature of chickens to cross the road.

ACCORDING TO KARL MARX:
It was a historical inevitability.

ACCORDING TO SADDAM HUSSEIN:
This was an unprovoked act of rebellion and we were quite justified in dropping 50 tons of nerve gas on it.

ACCORDING TO RONALD REAGAN:
What chicken?

ACCORDING TO CAPTAIN JAMES T. KIRK:
To boldly go where no chicken has gone before.

ACCORDING TO FOX MULDER:
You saw it cross the road with your own eyes. How many more chickens have to cross before you believe it?

ACCORDING TO FREUD:
The fact that you are at all concerned about the chicken crossing the road reveals your underlying sexual insecurity.

ACCORDING TO BILL GATES:
I have just released eChicken99, which will not only cross roads, but will lay eggs, file your important documents, balance your checkbook, and Internet Explorer is an inextricable part of eChicken.

ACCORDING TO EINSTEIN:
Did the chicken really cross the road or did the road move beneath the chicken?

ACCORDING TO BILL CLINTON:
I did not cross the road with THAT chicken. What do you mean by chicken? Could you define chicken please?

ACCORDING TO GEORGE W. BUSH:
I don't think I should have to answer that question.

ACCORDING TO LOUIS FARRAKHAN:
The road, you will see, represents the black man. The chicken crossed the "black man" in order to trample him and keep him down.

ACCORDING TO COLONEL SANDERS:
I missed one?