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RECENT ANOMALOUS STOCK MARKET BEHAVIOR: POSSIBLE EXPLANATIONS AND IMPLICATIONS FOR THE INVESTMENT PROFESSION

Part B: Possible Implications

Earlier, Part A of this discussion suggested that recent excess stock market returns might be largely explained by several relatively obscure, typically minor components of the price structure, which recently have been exerting a predominant influence on stock prices. These factors were identified as "The Rule of Comparables," "The Law of Increasing Returns" and "King's Law of Prices." This week's concluding discussion suggests some possible implications for the investment profession if the proffered explanations are to any degree valid.

First it should be noted that while these three factors have been segregated for discussion purposes, they are quite similar and frequently overlap. And the critical trait that they all have in common is "self-reinforcement." For example, as mergers and acquisitions occur, the target companies become "comparables," imparting an upward bias to the price other stocks. And as other stocks are biased higher, these higher prices themselves create more "currency" to do additional deals. And, as the stock market generates excess returns, investors move money away from other investments and into the stock market--which biases stock prices even higher, attracting more money. And as share buy-backs bias

prices higher, these higher prices prompt managers to "enhance shareholder value" by buying back even more shares, which further lifts prices, etc., etc. Now so long as these virtuous circles remain predominant in the price structure, the equity market should continue to show outsized gains, and the investment profession should continue to enjoy great prosperity. Unfortunately, a "self-reinforcing" or "positive feedback" dynamic of this sort is inherently unstable, and does not go on forever. Typically some unpredictable development--either endogenous or exogenous--halts the process, which then goes in reverse. Currently the risk is that if and when today's anomalous activity abates--particularly M&A activity--stock prices will begin to unwind to the downside. For example, if for some indeterminate reason the market prices of some acquiring companies decline sharply, it would destroy much of the currency--and likely much of the animal spirits--necessary to bid up the price of potential target companies. And once potential deals are put in jeopardy, the value of "comparables" would begin to decline, thereby biasing the price of many other stocks downward. Some potential deals would never get done at all, thereby depriving the market of the price-lifting benefits of *King's Law*. And, as some stock prices fall below the level at which share buy-backs took place,

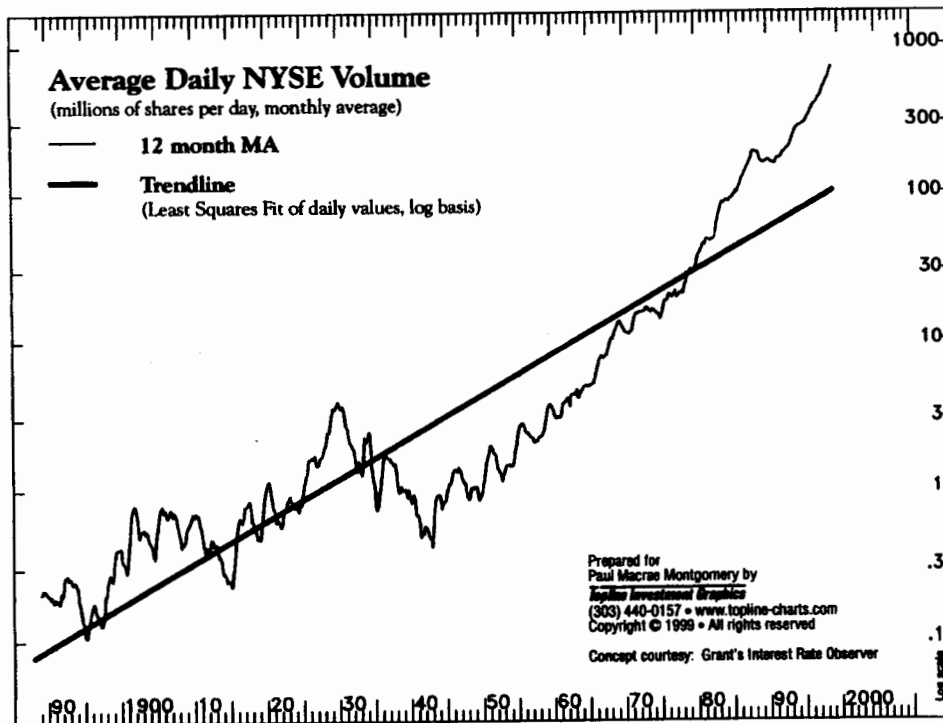
the "value enhancing" benefit of such activity becomes arguable, reducing the likelihood of future buy-backs. And the reduced return from common stocks causes investors to re-allocate assets away from equities, further reducing stock prices, etc.

As discussed at length elsewhere, the price structure of the stock market *can not* be adequately described by the universally accepted "dividend discount equation," wherein (S)tock prices are equal to (I)ncome divided by the (D)iscount rate. As critically important as these factors may be, reality can be described properly only if a *fourth* term is added to the $S = I \div D$ stock market equation. The necessary fourth term represents everything which affects stock prices other than cash flows and discount rates. And while the self-reinforcing factors discussed here *may* have little effect on cash flows and interest rates, they have an enormous effect on this *other* component of the price structure. Just how much effect they have had on the stock market--and how much they have will in the future--is the key question we now face.

Even if our "positive feed-back" thesis is generally correct, it does not necessarily follow that the stock market is destined to lose all of its recent gains. This is the case because *most* of these gains are not the product of unstable, self-reinforcing factors, but can instead be attributed to improvements in the underlying fundamentals--such as falling interest rates and rising corporate cash flows. The excess risk inherent in today's stock market relates primarily to the contribution that *non-tradition* factors

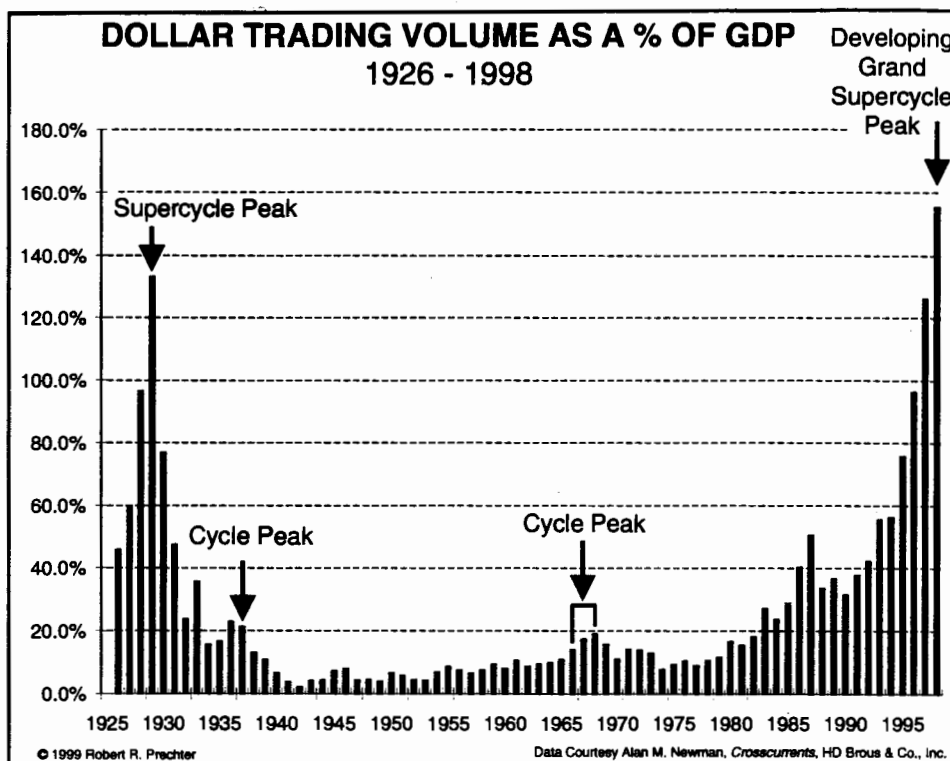
have made to the price structure. Quantifying such a contribution is impossible--certainly in practice and probably in theory. However, if we use historic equity returns and typical financial relationships, as well as *King's Law* analysis, flow of funds data and other such analytic tools, it may be fair to suggest that the two "real world" fundamental factors--cash flows and discount rates--together have accounted for very roughly two-thirds of recent stock market returns. This means that, at most, one-third of recent returns are due to positive feedback dynamics. Consequently, if and when these self-reinforcing principles *do* eventually begin to work in reverse--and these hitherto virtuous circles become vicious circles--the negative effect on the stock market should be confined to a minor portion of the price structure. And *so long as cash flows and interest rates remain benign*, any resultant decline in stock prices should be self-limiting. Nevertheless, given the current pervasiveness of these factors, such a contained bear market still could lower stock prices by 25%-50%.

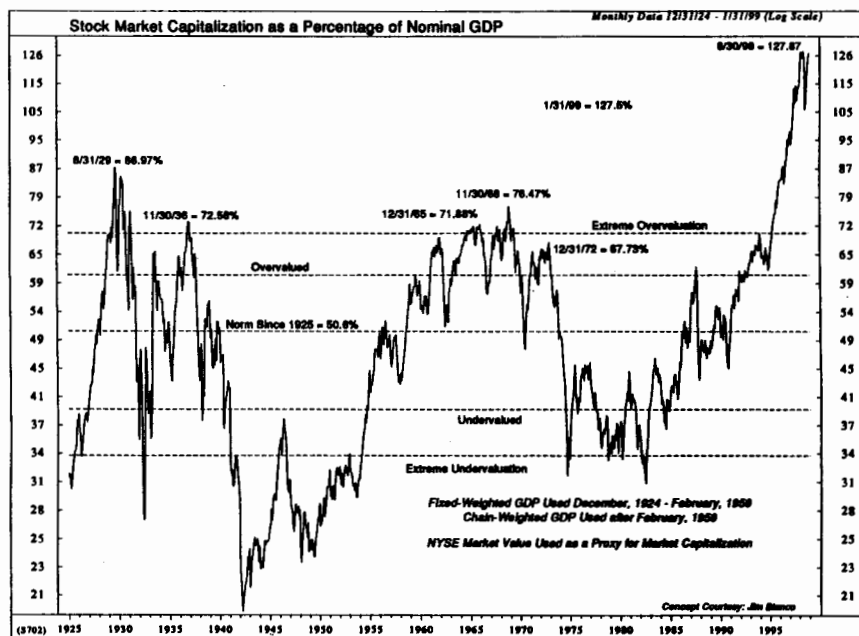
There is, of course, no *logical* necessity that stock prices must decline at all, because even if the premium currently attached to equity prices *does* contract, some combination of rising cash flows and/or declining interest rates could in theory compensate. But there is definitely some excess risk in the current environment. This is especially the case with respect to investment professionals, because their livelihoods as well as their portfolios would be affected by unfavorable price action. For example, commission income is heavily dependant on volume, and as



the chart above shows, volume is currently so far above trend that some regression to the mean seems likely. Now *absolute* volume has been increasing in a secular fashion, and any setback may eventually lead to new highs. Unfortunately, the same cannot be said of *relative* volume, as can be seen from the chart below, which depicts dollar-weighted stock market transaction volume relative to the prevailing Gross National Product.

Notice that trading volume is currently estimated to be 160% of GNP. This ratio is now significantly above every other peak in history; e.g. it is 3½ times the 1987 peak; 10 times the 1973 peak; and nearly 25% above the frenzied 1929 peak. Quite obviously stockbrokers and other transaction-based investment businesses are presently garnering a bigger piece of the GNP pie than ever before. There is probably no intrinsic level at which a





series such as this necessarily must implode, but transaction volume relative to the economy is clearly a *cyclic* rather than a *secular* phenomenon. For example, while *absolute* volume has increased 3000 fold over the last six decades, *relative* volume was the same in 1995 as it was in 1930. Since 1995, relative volume has exploded in an anomalous and arguably unsustainable manner. This is a concern because peaks in transaction volumes typically have been associated with peaks in stock prices. Note that daily trading volume in this country fell 90% between 1929 and 1942 along with stock prices; and volume in Japan fell 75% between 1989 and 1993 as stocks in that country declined. However, even independent of any bear market, disproportionate trading activity such as this tends to promote additional regulation and increased competition, as well as various fundamental changes in the way investment assets are handled. Consequently, brokers currently seem to be doubly at risk; viz.; if there is a bear market, it will severely damage their business income as well as their portfolios; and if there is no bear market, other factors will bring

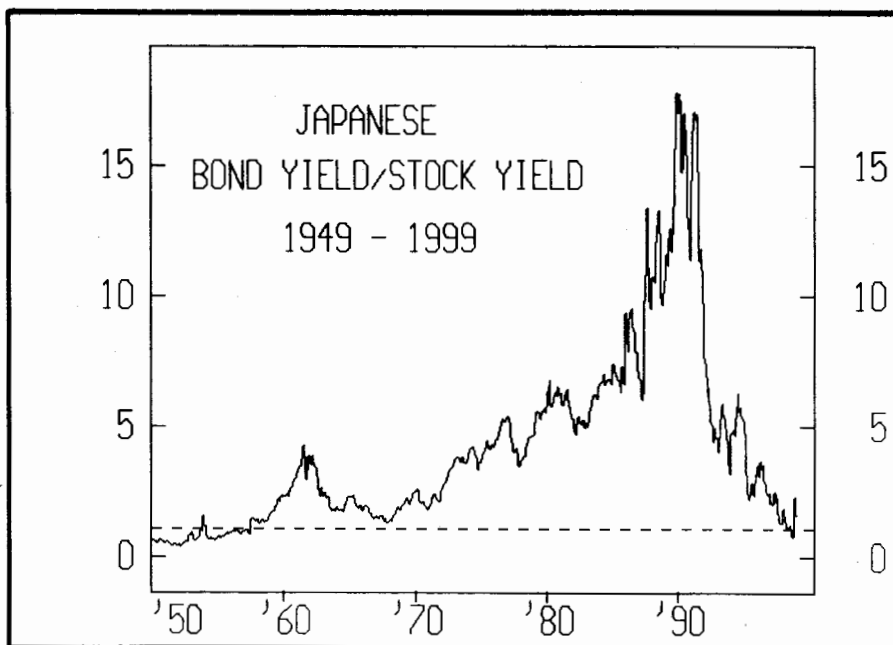
pressure on their business profits.

One response to the vulnerability of commission income would be for the investment profession to shift revenue from a transaction basis to an asset basis. But while such a move may be well advised, similar if less severe problems may exist in this venue as well. Note, for example, the chart above, which depicts the capitalization of the *New York Stock Exchange* as a percent of GNP. Currently the market value of NYSE listed stocks is roughly 130% of Gross National Product, which is a record high. This ratio is now about 2½ times its 1987 peak; roughly twice the 1966 and 1973 peaks; and 1⅔ times the infamous 1929 peak. Thus professionals who are compensated on the basis of the market value of the equities under their purview are likewise garnering an all-time record share of the national wealth. This is also a cyclic rather than a secular phenomenon—the ratio was the same in 1995 as it was in 1929—and the levels of last few years seem too anomalous to persist. Reportedly, subsequent to the 1989 peak in the *Nikkei*, a combination of redemptions and falling share prices wiped out 90%

of the assets in the Japanese equivalent of mutual funds. So while switching one's business from a transaction basis to an asset basis has certain advantages, the income stream from *both* sources appear unusually vulnerable at present.

Since these phenomena are largely a consequence of this roaring bull market in stocks, one line of defense would be to diversify one's portfolio posture and one's business operations into non-equity venues, thereby reducing one's dependence on perpetually favorable stock prices. The obvious alternative to the stock market is the bond market—but there are currently some serious risks that must be addressed with respect to debt securities. For example, the *variable* relationship that obtains between stocks and bonds is one of most important and least understood aspects of today's unprecedented capital market dynamics. As a consequence of many factors—particularly the self-reinforcing factors discussed here—the ratio between bond yields and stock yields has soared to unprecedented levels.

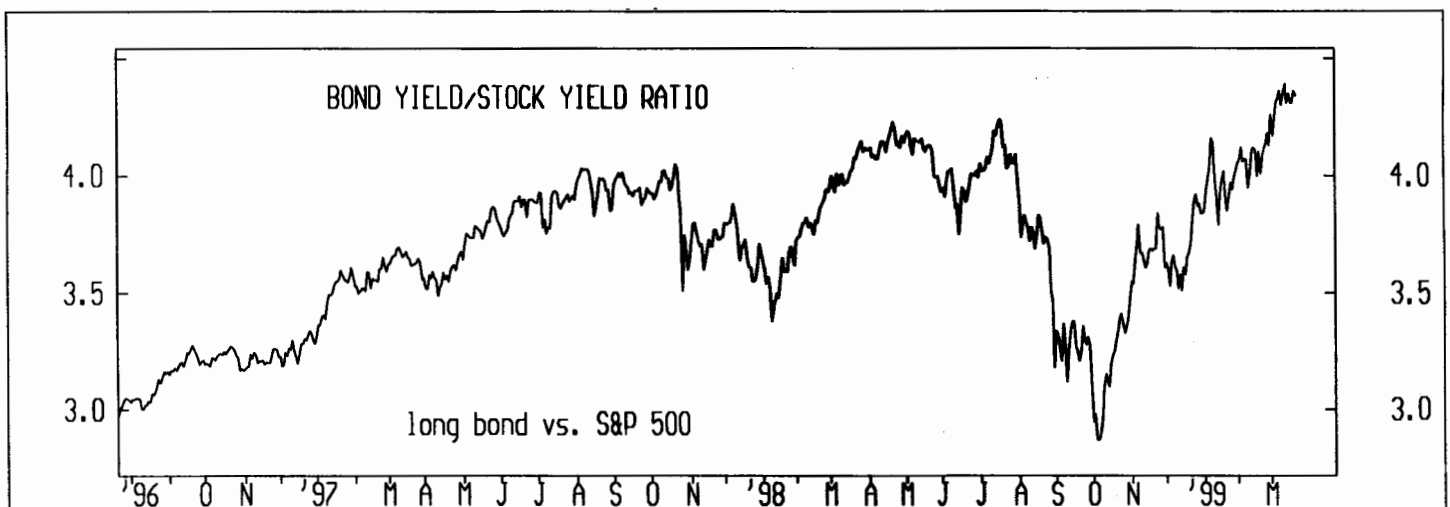
Because this relationship is cyclic, it can be exploited. For an extraordinary example of how important the stock/bond relationship can be, and how it can be utilized to generate excess returns, note the chart below, which depicts the *Bond Yield/Stock Yield Ratio* in Japan from January 1949 through January 1999. Notice that in the early to mid-1950s, bond yields in Japan—like those in this country—were lower than stock dividend yields. Then for the next few decades, rising stock prices in both countries worked to lower dividend yields, sending the *Bond Yield/Stock Yield Ratio* in both countries dramatically higher. In Japan this ratio finally blew off at about 17 to 1 in December 1989, when the *Nikkei 225* was above 39,000 and Japanese bond yields were approaching 7%. From that point the *Nikkei* fell below 13,000, while bond prices soared—eventually lowering yields to less than 3/4% and taking the *Bond Yield/Stock Yield Ratio* back below 1 to 1. This is obviously an extreme example, but the odyssey of the Japanese stock/bond relationship has very important theoretic and empiric



implications. For example, in theory, if cash flows and discount factors fully explained stock prices, this graph would essentially be a flat line. So the huge run up, and then back down, means that factors *other than* those in the "dividend discount model" can, *at certain times*, be the *predominant* force driving stock prices. And empirically, this experience shows the enormous value, *at certain times*, of proper asset allocation. Switching out of Japanese bonds into Japanese stocks in 1950 when this ratio began to rise; and then out of stocks and back into bonds in 1990, would have generated excess returns orders of magnitude higher than anything normally considered possible on Wall Street. (A switch out of Japanese bonds and back into Japanese stocks arguably was called for in late 1998).

Given the current record high level of the stock/bond ratio in this country, (see below) efficient asset allocation between debt and equity securities is a viable approach to today's anomalous capital market conditions. For example, the July 1998 to October 1998 stock market decline, and the subsequent October 1998 to March 1999 stock market rally, were

both entirely the result of a decline and recovery in the stock/bond ratio: No change in either earnings or interest rates in any way explains either of these two dramatic moves. Switching from stocks to bonds in July, and from bonds back to stocks in October easily could have produced a couple thousand basis points more return than a buy-and-hold approach. Nevertheless, this sort of stock/bond asset allocation still does not seem to offer the career-making opportunity it did in Japan in 1989/1990, because today the level of excess in this country is barely one-third as great as it was in Japan. Also, in this country "corrections" in this ratio have been very brief. For example, in 1987 several years worth of stock/bond excesses were corrected in 48 hours; and last fall the relationship between stocks and bonds moved from record excess back to near normalcy in just eight weeks. This means that our current inefficiencies may be more cyclic, trading opportunities, than secular, career-making opportunities. And, finally perhaps the greatest problem with trading the bond/stock yield curve at present derives from the fact that this ratio bespeaks only *relative*





performance. Last fall this ratio corrected very rapidly because bonds soared coincident with a collapse in stocks. This unusual dynamic of *inversely* correlated capital markets provided astute asset allocators with great *absolute* returns as well as great *relative* returns. However, an over-extended stock/bond ratio such as we had last July—and such as we have again today—*could* correct itself in half-a-dozen *different* ways. For example, in the future this ratio might correct itself by means of a simultaneous decline in both stocks and bonds, where stocks decline more severely than bonds. In a case such as this asset allocators would garner good *relative* returns, but they would still lose money. In theory, such an unhappy scenario has a low (20%) probability, but in the present environment, the risk of such a dual decline is probably much higher than theory suggests. For example, the chart above depicts the rolling 20-year returns from both the stock market and the bond market from 1946 to date. Notice that the latest 20-year stock return of 17.8% per

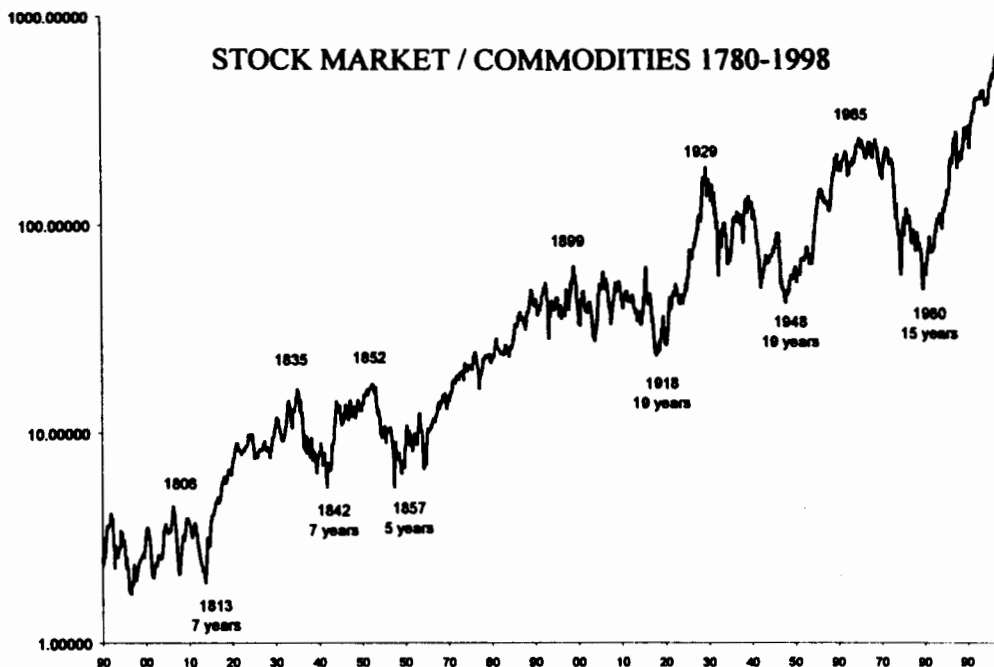
annum is an all-time high, and is more than 150% as great as the median return of 11.4%. Mean reversion analysis thus suggests that at *some* time in the future, stock returns will likely be quite poor. Note further, however, that the latest 20-year bond return, which is 11.2% per annum, is *also* an all-time high. But in this case the latest return is 350% as great as the median return of 3.3%. So on an historic basis, it actually could be argued that bonds themselves are even more over-extended than stocks. We believe that bonds will still offer great trading opportunities, such as we saw last Fall. But it nevertheless should be borne in mind that in 1990, Japanese bonds were ending a severe bear market, thereby rendering them a great alternative to stocks; whereas today, U.S. bonds have been in an historic *bull* market for fully 19 years. Consequently the opportunity for good *absolute* returns, as opposed to good *relative* returns, may already have been pretty much squeezed out of our bond market.

One venue in which the

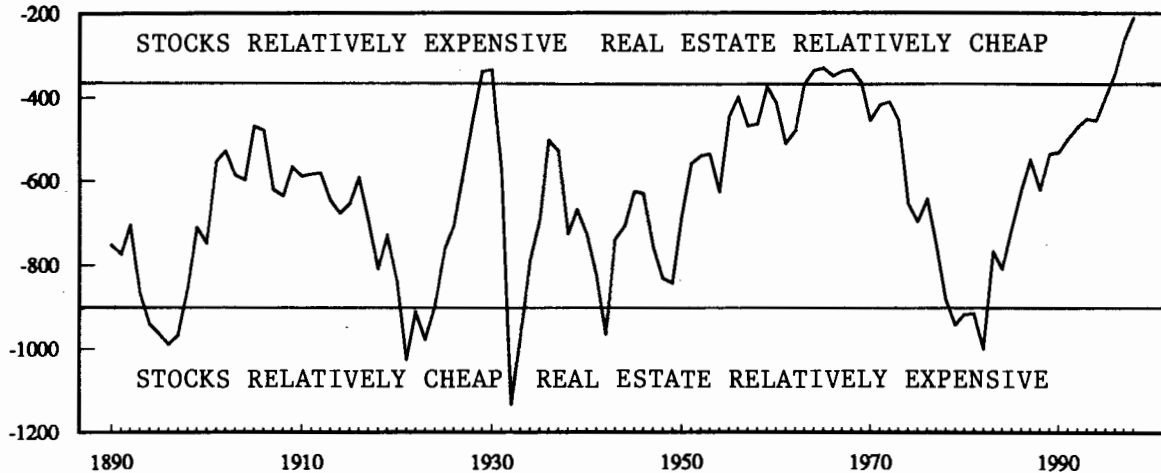
opportunity for great absolute returns definitely has *not* been squeezed out is the commodity sector. Just this month, for example, most commodity indexes--agricultural, energy related, industrial material, etc.--hit 17-year to 24-year lows. Most major stock indexes, by contrast, have consistently made new all-time highs during these same two decades. As a consequence of these two persistent and dramatically opposite trends, the ratio of stock prices to commodity prices has skyrocketed to totally unprecedented levels. The fact that stocks have greatly out-performed commodities is hardly surprising--over time business enterprise necessarily must earn more from the raw materials it uses than it pays for them. And the compounding of retained earnings guarantees that stocks will ultimately out-perform copper, lumber, oil, real estate and the like. However, despite the *theoretic* superiority of equities, *practically* things sometimes get over done. For example, while the long term trend of equities has been inexorably higher since the 1700s, there have been long periods of time during which commodities have out-performed

stocks; followed by times during which which stocks have out-performed commodities; followed by times when commodities have out-perform stocks, etc. We do not know whether this cycle in the relative strength of stocks versus commodities is due to endogenous or exogenous factors, but empirically since 1780, the up and down phases of this cycle have lasted from 5 to 19 years (see below). Since the current cycle of stocks out-performing commodities is now 19 years old, it is time to be alert for a major change in the capital and commodity markets. Opportunities must be analyzed on an ad hoc basis, but recall that in 1980 the price of the DJIA was only 17 times the price of Silver, whereas today it is more than 1700 times the price of Silver. (The thousand-fold move in this ratio compares with four or five-fold moves in the bond/stock ratio.) This does not mean that Silver is necessarily a Buy or that Stocks are necessarily a Sell. It does mean, however, that there can be huge potential opportunities in the stock versus commodity area.

As another graphic example of this turning wheel of capital market



S&P 500 versus Average Single-family House; 1890-1998 (adjusted for retained earnings)

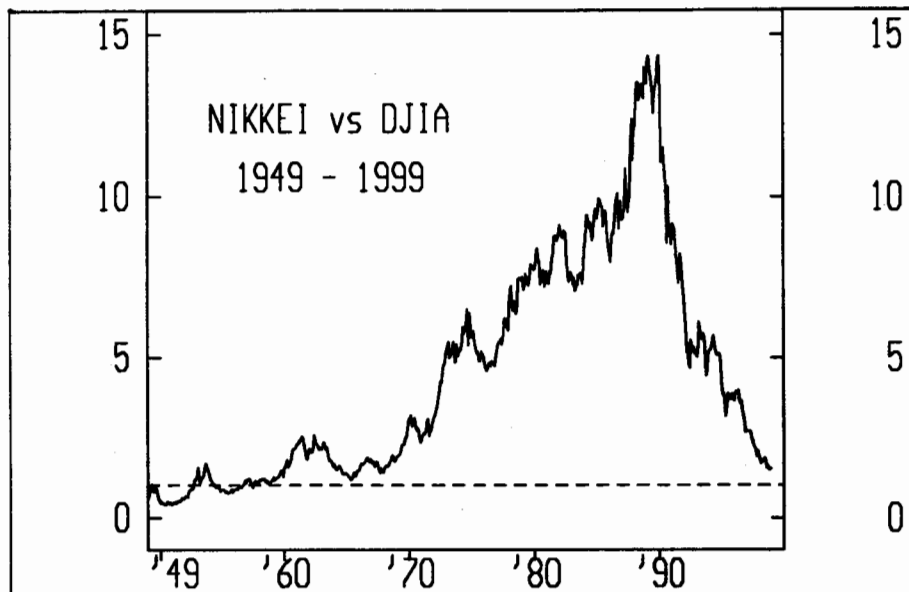


fortunes, we have constructed the chart above, which regresses stock prices against housing prices *after adjusting for retained earnings*. Note that with the intrinsic superiority of stocks filtered out, the relative dominance of stocks versus real estate historically has moved in cycles of 14 to 19 years. Since the current cycle favoring stocks is now in its 18th year, this phenomenon may offer some support for the hypothesis that commodities will begin to outperform stocks relatively soon. No such change in fortunes is yet confirmed, but in the past the shortest cycle of commodities outperforming stocks lasted five years (1852-1857) and the longest lasted 19 years (1899-1918 and 1929-1948). And even recently, both commodities and real estate outperformed stocks for 15 and 17 years respectively (1965-1980/82). These cycles are certainly long enough to be exploitable, and it may be well to prepare for such an eventuality fairly promptly.

The danger inherent in trading the stock/commodity ratio is the same as exists within the stock/bond ratio; namely, that these ratios bespeak only *relative*, not *absolute*, price action. This is a particular risk in the

present case inasmuch as there is typically a *positive* correlation among commodity prices, corporate earnings and stock prices. Hence a prolonged contretemps in the stock market *could* leave a commodity investor or a real estate investor with serious losses—despite their superior performance *relative* to stocks. Nevertheless, the following table shows that profound and prolonged divergences between stocks and commodities periodically have occurred, and they have provided opportunities for positive *absolute* returns as well as positive relative returns.

MAJOR MOVES IN COMMODITIES VS STOCKS		
Dates	Commodities % Change	Stock Market % Change
June 1806 Dec 1813	+65%	-32%
May 1835 Mar 1842	-26%	-76%
Oct 1852 Oct 1857	+24%	-61%
Apr 1899 Mar 1918	+269%	+37%
Aug 1929 Jan 1948	+105%	-54%
Jan 1965 Feb 1980	+403%	-4%



Historically, the extent of the differential behavior of financial assets as compared to real assets has periodically been quite significant. And the duration of the current cycle favoring financial assets has been so long, that real assets may soon become the assets of choice. But here again, it is imperative to get the absolute as well as the relative direction right.

Another venue of current interest is Japan. Typically the world's stock and bond markets are positively correlated one with another--especially when expressed in local currencies--rendering foreign securities unattractive substitutes for U.S. securities during domestic down cycles. Over the last decade, however, Japanese equities have had a neutral to slightly negative correlation with U.S. equities. Also, the chart on page 5 showed that the long equity bear market in Japan has driven the bond/stock yield ratio in that country from above 17 to below unity; i.e. to the point that the dividend yield on Japanese stocks is greater than the coupon yield on Japanese bonds. Also, the chart above compares Japanese stocks with U.S. stocks, and it shows the long

odyssey of the *Nikkei 225*--which went from trading below the *DJIA* in the 1950s, to trading at a level 15 times that of the *DJIA* in the late 1980s, back to 1½ times the *Dow* today. These two ten-fold changes in relative valuation, and the low current correlation between stock market returns in this country and in Japan, combine to suggest that Japanese equities may periodically offer an attractive alternative to U.S. stocks. This potential allure is enhanced at the moment by the fact that the multiple on the *Nikkei OTC* is 15 times, compared to 100 times for our *NASDAQ 100*; as well as by current negative cover stories regarding Japan and positive press regarding the U.S. The great danger in trying to trade the *Nikkei/Dow* ratio, of course, derives from the fact that it could give continual bullish signals in the face of a simultaneous decline in U.S. and Japanese stocks. So this *relative* price indicator must be buttressed with various *absolute* price indicators if one is to hazard assets in this venue.

So far we have looked at various asset categories that may prove viable alternatives to U.S. equities in the coming years. However, it may be well to note that

on occasion **the dominant** force driving the **nominal price** of an asset is the "unit of **account**" in which that asset is **quoted**. For example, in Weimar Germany in the 1920s, stock prices **soared** and the *Bond Yield/Stock Yield Ratio* headed for infinity, not due to any of the principles discussed here, but due rather to a depreciation in the unit of account--viz., the Reichsmark. And there have been countless examples where apparently **overpriced** markets have been held up in nominal terms by **currency devaluation**. So even if the U.S. and other equity markets are significantly **overpriced** at present, equilibrium does not have to be restored by means of a massive bear market in stocks. Major re-alignments in foreign exchange rates and/or a rise in the gold price might achieve a functionally equivalent equilibrium. Consequently the gold and currency venues may soon become increasingly important to equity investors.

Now if a bear market *should* eventuate, the ideal alternative to common stocks would be short positions in shares of U.S. corporations. But while there is **certainly** a place for such a strategy, **because** of certain peculiarities inherent in a short portfolio, few managers **will be able** to handle this alternative--**even under** the best of circumstances. (See *The Down Side to the Short Side* March 4, 1991). Furthermore, the challenges involving short management appear **particularly** daunting today. Because this is **such** an anomalous stock market, **most** of the time-tested techniques of fundamental, technical, **cyclical** and psychological analysis have **all misfired** lately, and there is no **reason to expect** that they

all will suddenly start working again. This rare dynamic constitutes a huge risk for shorts just as it does for longs.

A final alternative to common stocks is Cash, which after short sales, must be the most despised asset category today--especially with the DJIA having just hit the 10,000 landmark. However, according to *Ned Davis Research*, if one had moved his stock portfolio into Cash when the DJIA first hit 1000--the previous order of magnitude landmark--his cash would have outperformed the stock market for the next 21½ years. The fact that a riskless asset such as Cash provided a higher return than the stock market for more than two decades--from the Spring of 1966 to the Spring of 1987--should be constantly borne in mind by anyone whose primary concern is to serve the best interests of his clients.

Summary and Conclusion: We feel this is an anomalous stock market and that alternative investments may soon be called for. However, some may question the wisdom of looking for alternatives to an investment which historically has returned 12% per annum. However, this frequently quoted "12% average return" relates only to stocks bought at "average" prices--i.e., when the market sold at a dividend yield of $\approx 4\frac{1}{4}\%$. Buying stocks when they were priced "above average"--for example, when their dividend yields were less than 3%--has produced average 10-year returns of **about 6%**. This is less than half the 12% so often cited as the expected return from common stocks. So even if this is a "normal" stock market--and not an anomalous one as this paper proposes--history still does not support

Date	Dow Yield	Annual Return	
		10 Year	20 Year
01/31/29	2.91%	-1.7	2.9
02/29/36	2.99%	7.5	11.8
07/31/59	2.95%	7.6	6.4
12/31/65	2.95%	3.2	8.5
03/31/87	2.96%	13.2	
		Avg 5.96%	Avg 7.4%

the notion that buying and holding common stocks *today*, when the Dow is yielding a record low 1½%, will generate a 12% return. (Data courtesy of Joe Kalish of *Ned Davis Research*). Recently, of course, it has been argued that dividends no longer matter, because corporations are now using their free cash flow to enhance shareholder value by buying back stock--their own and that of other companies--instead of paying it out in dividends as in the past. But while this point is in a sense valid, the fact remains that the total return from stocks consists of two components only; viz., dividends and price appreciation: and with dividends at historic lows, huge future price gains and/or monumental increases in dividend payments would seem to be necessary if stocks are going produce "average returns" in the future. But if dividend payments *are* boasted significantly, then share buy-backs and M&A activity will decrease proportionately; and according to *King's Law*, stock prices will *suffer*--not benefit--from the increased payouts. For these and many other reasons, the search for alternatives to U.S. equities is not a fool's errand, but is rather an important part of our current professional responsibilities.

History never repeats exactly, and the greatest risks and the greatest opportunities that await us undoubtedly will lie in areas undreamed of in these pages (For example, who would have forecast that an internet auction site would provide a 5-month return of more than 1500%). But in looking for and attempting to grapple with these future risks and opportunities, it is important to keep today's peculiar capital market dynamic in mind. For example, the equity price structure has many valid components, but so long as we are in a positive feedback, self-reinforcing market, many traditionally important factors such as cash flows, book values, dividend yields, discount rates and the like, temporarily will be of limited use. The most helpful tools in such a market are likely to be those of a "self-correcting" nature; tools such as moving averages, relative strength gauges, point & figure algorithms, etc. While such techniques are highly anti-intellectual, they serve a vital function in that they force capital away from depreciating asset categories and toward appreciating asset categories. And in today's markets, brute protection of capital is more important than intellectual niceties and analytic fine points. For example, it is our *intellectual* position that today's "bond/stock ratio" or "equity premium" is 50% too *high*; while another school of thought takes the position that it is 70% too *low*. However, the *correct* position in a market such as this is to be totally agnostic with respect to the "proper" level of the "equity premium," and to devote all of one's efforts to seeing that client assets are continually kept in appreciating asset categories--whatever they may be.