GOLDMAN
MANAGEMENT, INC

Steven Goldman
President

500 Morris Avenue
Suite 110
Springfield, N.J. 07081
Office 973-258-0502
Mobile 973-727-8149
Fax 973-379-4076

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Highlights from last year's monthly letters 2019:

We do not portray our monthly letters to investors as research reports and market commentary will not necessarily be correlated with our returns. Nevertheless, when viewed sequentially over time the commentary may provide investors with an ongoing window into our data driven process. Please see last year's excerpts in their order of appearance listed below.

12/26/2018- Interim January letter-Non-economic or non- recessionary stock market corrections greater 10.5% since 1960 have occurred in 10 periods and the average duration of these declines was roughly 4.25 months (and since 1978 the average length was three months) and the average decline was roughly -19.00%. The largest decline was in 1987 at over -30%, and while the stock market was vulnerable, portfolio insurance may have exaggerated the declines. In the 1960's two other declines led to losses in the low to mid -20% range and both periods saw similar interest rate levels as the present. In both these periods stock prices reached a bottom with similar valuations levels **as the current PE ratio**. This analysis is based on the previous two quarters of earnings and two forward forecasts in quarterly earnings with the assumption that earnings forecast will be roughly in line with expectations.

February - The market's recent capitulation phase that ended on December 24th based one of our indicators occurred only two other times since 1950, first in 2001 and again in 2008. 26 days later the S&P's maximum gains were 13.91% and 21.36% respectively and this time around the S&P rose by 15.04%. Additionally, our Daily Sentiment Model which we have highlighted a couple of other times in the past few months rose to 356 that day which is considered a bullish reading when not in a bull market. Since the end of the Great Recession the last times the readings rose to similar levels were in August 2011 and August 2015, both leading to rebounds in stock prices.

March - The S&P at the market lows of December 24th close was on pace for a quarterly loss of -19.3% which would have been the 6th worst quarterly decline since 1940, and the 9th worst (4 occurred during the Depression) since 1926, which was the inception of the S&P. In the last 4 days of the quarter the market rally pared the declines to a quarterly loss of -14.0%. It should be noted although not fully applicable that since 1940 the 7 worst quarterly declines of -17.25% or more advanced on average by 23% (mean 28.5%) one year later. In two periods the returns were subpar. The two subpar periods were in 2002 when lofty stock market valuations and a recession saw the S&P little changed one year later and in 1948 when the S&P advanced by 6.45%, recession related. Using another permutation based on an oversold level as described above employs a 65-day rate of change with losses greater than -19%. This would have registered a buy signal at the market lows on December 24th. There have been 8 other identical signals since 1950 and the S&P advanced one year later slightly over 20% (roughly 25% mean) and only one negative in 2001-2002 when the S&P fell nearly -17% one -year later as the lingering recession and lofty valuations measures impeded the returns.

April - There have been a few significant occurrences attached to dramatic changes in direction in the past six months that should be noted: First, bond yields in the middle of October broke above a multi-year high and on March 20th bond yields broke to the lowest the level in the past twelve months. Multi-year highs in yields to a one- year low took place in roughly 5 months. This remarkably sudden shift has occurred just one other time, in late 2007, just before the onset of the last Recession. Widening the analysis on this observation to 9 from 5 months is less concerning with 2 out of 4 occurrences leading to double digit gains 6 months later. Another dramatic change that should also be noted was the S&P 500 declining by over 19% from an all- time high and then in less than 3 months from the bottom on March 21st rallying powerfully to just 2.53% under the all- time high. Only one other time in history have stock prices retested the highs so quickly – 37 years ago in 1982 after the conclusion of back to back Recessions over a few years' time span. Widening the time period under consideration from 3 months to 6 months since 1950 captures 5 such reversals. 3 were associated with a Recession, while 2 others occurred similarly to the recent market downturn and were not related to a Recession. In 4 out of 5 of these signals the S&P advanced by over 14% one year later. Additionally, the S&P's steep quarterly decline is 1 of 10 others since 1950 and within that group the S&P the following quarter was higher 89% of the time, averaging 7.2% with a 9.4% mean. This time around the S&P gained 13.07%.

May- One of our proprietary indicators towards the end of last year registered a bullish reading. The indicator measures the individual stocks in the S&P based on their fundamentals which by then had diverged sharply from their stock performance. In the past 70 years or since 1950 using a set of criteria and excluding the periods before the onset of a recession or in the midst of a recession, this has occurred 18 other times. The S&P one year later has advanced 17 out of 18 years, with an average gain of roughly 20% and a median gain of 23%. The only period when the S&P was lower was in the last 1970's, although during this period most secondary averages as well as the NASDAQ Composite did finish higher once year later.

June - We have detailed in recent letters regarding statistical measures that are a granular expression of the path of GMI's equity line such as retracing worst interim yearly drawdowns i.e., how many months to recoup 64%-100% of the drawdowns etc... Last month we detailed ‘bands of consistency” which measures the percent of time the equity curve is within 1%, 2,75% and 4.75% from new highs. The following statistic measures our accuracy over a six-month time horizon. A decline in our equity line/curve more than 1.2% over a six-month time frame is deemed inaccurate. Using the aforementioned criteria only 12% of time has the equity line declined by more than -1.2% over a six-month time horizon.

July -The Federal Reserve is likely to lower rates at month’s end. The time span since the initial easing phase in this cycle is the longest in over 50 years. From our observations, the Federal Reserve has followed the market’s expectation for the direction in the Federal Funds rate in all cases since 1994. In February 1994 the markets were blindsided by the hike in rates and havoc resulted in both stock and bond prices in the months immediately following the unexpected hike. The stock market this time around has smartly responded to the current anticipated declines in rates. From an historical perspective stock prices have generally reacted favorably to the initial decline in the Discount Rate (not using the Federal Funds Rate in this analysis). Reviewing the sixteen six-month historical windows after the initial declines reveals nine that are relevant to the current backdrop and seven that are not applicable. The data in the nine relevant periods reveals the following: 78% of the time the S&P finished higher, with an average gain of roughly 9%. Please note the exclusions: In two past periods the six-month time span saw a reversal of the interest rate decline and therefore are excluded from this study. Furthermore, the three largest gains in the S&P ranged from 23% to 36% but these gains occurred near the market lows following steep market declines; those years are November 1970, December 1974 and September 1998 and these periods do not resemble today’s backdrop. In addition, in two periods, January 2001 and August 2007 the Federal Reserve initially lowered in an attempt to stave off a recession, lowering rates in the midst of imploding bubbles (technology valuations in 2001 and housing prices in 2007) so are not applicable to today’s backdrop as it appears no “bubbles” are present. Last month our Daily Sentiment Model rose to favorable levels when in a bull market. Equity allocations were consequently raised following an initial pause to review data given the Mexico tariff concerns and the significant unknowns regarding China tariffs.

August- Given the heightened degree of uncertainty that has persisted in the U.S for nearly two years we have highlighted a few times an index which monitors uncertainty; The Index on Economic Policy Uncertainty (“EPU”). The Index is comprised of three components; newspaper coverage, federal tax code provisions set to expire in future years and disagreement among economic forecasters, all as a proxy for uncertainty. A chart on this Index Vs the S&P was last depicted in our February letter. The data series is compiled monthly with an inception date of January 1985. Reviewing the past year, the reading at the end of December rose to 227 followed by an extraordinary 284 in January. At the end of June, the reading stood at an elevated 213. In a similar Index, Global Economic Policy Uncertainty spiked in December to 341 and reverted to near this level at the end of June, when the most recent data point was available. This data series only goes back to January 1997. Overall, elevated levels in this data series coupled with a selloff in stock prices such as that experienced by the end of May have on average typically led to rebounds in stock prices over the intermediate term. The S&P has reacted favorably to the sharp declines in yields at the long end of the interest rate curve. Historically, using a formula based on rates at the long end of the curve coupled with the gains in stock prices has registered favorable outcomes for stock prices on an intermediate basis. One such signal occurred in early June

September- Since the early 1960's, encompassing roughly 60 years, the S&P 500 PE ratio based on operating earnings over the previous four quarters has averaged 16.0. During this time span the U.S. 10-year note has averaged 6.14%. Combining the S&P 500 PE ratio plus the yield on the U.S. 10-year note is a useful gauge to determine undervalued/overvalued stock prices relative to interest rates. At the end of the quarter the S&P PE ratio stood at 18.10 and U.S. 10- year note stood at 2.00% for a combined total of 20.10. Had the S&P closed the quarter a couple of weeks later the PE would have declined to 17.29 with the 10-year rate at 1.53% which would have equaled 18.82. The historical average on this combination has been 22.2 since the early 1960's Had the S&P closed the quarter on August 15 this combined sum would have ranked in the lowest 20% percentile of this data series. On average, a reading in the lower 20% percentile has been followed by the S&P one year later outperforming its own average yearly gain by a large margin. In contrast when this combined indicator registers in the highest 15% percentile, stock prices on average were little changed one year later. The yield on the U.S 10-year note last month declined by roughly 50 basis points falling below the S&P 500 dividend yield (1.45% on the U.S -10 year Vs 1.96% by nearly 50 basis points, based on our estimate on the S&P 500 dividend yield using our weekly data series). Of the past 60 years only in the recent decade following The Great Recession has this spread between U.S.-10 year note and the weekly S&P 500 dividend yield declined to this threshold (45 basis points below). On average stock prices have stabilized and eventually responded favorably to this spread in the 10 other such signals and (skipping 12 weeks between signals) over the 3 months to one-year outlook

October- As detailed last month the yield on the U.S 10-year note last month declined and touched a level roughly 50 basis points below the S&P 500 dividend yield (1.45% on the U.S 10-year Vs 1.96% on the S&P dividend yield using our weekly data series). In the past 60 years only in the recent 10 years has the difference of more than 45 basis points been reached. On average the S&P has stabilized and eventually responded favorably to this spread. For the record the S&P stabilized last month gaining just under 2% though the month's returns were slightly below the historical norm based on the previous 10 signals.

November -As detailed in our August 7th letter to investors "The S&P has reacted favorably to the sharp declines in yields at the long end of the interest rate curve. Historically, using a formula based on rates at the long end of the curve coupled with the gains in stock prices has registered favorable outcomes for stock prices on an intermediate basis. One such signal occurred in early June". It should be noted that another permutation of this indicator registered a similar reading in the third week of August and has favorable historical projections, similar to the June signal over the intermediate outlook. The largest selloff in the S&P 500 so far this year has amounted to 6.2%, which occurred in the month of August. Assuming that decline remains the deepest of the year, it would be the third shallowest pullback in the past two dozen years, only surpassed by 2017 at 2.7% and 2013 at 5.8%, which were the shallowest. The 6.2% decline was also the tenth shallowest decline in the S&P since 1950. In those years when the S&P decline was limited to 6.2% or less the S&P full year gain has averaged 25.10%. Regarding recessionary concerns, we track a proprietary index of common stocks that we deem are cyclical growth stocks and instrumental/linchpins that are vital to U.S growth prospects. Reviewing the S&P top in the year 2000, before the recession this Index was roughly 14% below its highs when the S&P was in the process of testing the highs in September. At the stock market top in October 2007, just before the 2008 recession this Index stood nearly 12% off its highs. This time around this Index has repeatedly been making new highs in the months of April, June September in October. In addition, using industry reports which span decades and are broadly reflective of both business and consumer strength, we do see signs of ebbing in volumes but when reviewing the three- month breath of components (how many components are contributing to growth) this data is less concerning. Three- month average in breadth remains at 50%, while even in the economic slowdown (non-recession) in early 2016 this measure stood in the low 30% area. A reading in the high 20% in this breath Index would be troublesome. Lastly, on the subject of recessions, given our role of forecasting stocks with respect to our risk matrixes, recessions are a major focus if impactful to our six to nine-month outlook, not 18 months to 24 months, which we regard as irrelevant for stock prices.

December -There has generally been a lack of bullishness by investors this year, from both individuals (see paragraph below) and from professionals (Hedge Funds). One measure of sentiment can be applied by monitoring the Barclay Hedge Fund Index and HFRX Equity Hedge Fund (see above). The Barclay Hedge Fund is a data base which measures all hedge funds that report to the Barclay's data base excepting Fund of Funds. The Index is simply the arithmetic average of all funds that have reported that month. As of the end of October, the Barclay Hedge Fund index of roughly 1,900 funds gained 33.72% of the S&P's total return (7.81% Vs 23.16%). Reviewing the S&P's largest half dozen gains since 1997 this average had been at 55%, placing this year's ratio 40% below this average.

Happy, Healthy and Prosperous New Year!!

Steven Goldman

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