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The Coming Commodity Inflation Tsunami **April 3, 2001**

Introduction

In a paper entitled "Is A Bear Lurking Behind the Goldilocks Stock Market" (December 27, 1999 -- http://www.aisgroup.com/specialreport/specialreport.htm) we first presented the concept of a major secular change developing. In that earlier paper we put forth evidence that the markets were more likely in a speculative bubble than a new era, due to a unique confluence of economic conditions that could not continue indefinitely. While skeptical of the mania then in place, we will readily admit surprise at the speed and degree of the subsequent unwinding of the bull market. Nonetheless we feel vindicated that we correctly identified the beginning of a significant change in the works. This paper, then, is an attempt to update those earlier thoughts.

Important secular changes in the investment landscape occur infrequently. Often 15 to 25 years separate these important changes. As a result adults spend most of their investment years getting accustomed to one set of conditions that have served them well. Positioning for significant change is psychologically difficult and involves making decisions that are most likely not socially popular at the time. Such a secular change may be unfolding at the present time. Two decades of disinflation, an environment that has greatly benefited a buy and hold strategy for investors in equities and fixed income instruments, may have come to a close. If this is the case, a very different investment approach will be required to preserve and grow one's assets.

It is not known yet whether the first half of 2001 will be classified as a recession (we think it will be) or just a period of slow growth. Either way, the financial markets reflect a high level of uncertainty. Forecasts range from a quick V style recovery by mid-year to a long malaise similar to what the Japanese have been experiencing during the last decade. This economic slowdown is unique in the era of modern U.S. economic cycles in that it is largely the result of malinvestment in the technology sectors and the negative wealth effect from breaking the speculative Nasdaq bubble. It was not an economy suffering from excess inflation that could be cured by a quick dose of Federal Reserve tightening and the subsequent inventory liquidation.

In many respects we have been living with a bifurcated economy in which capital spending in the older sectors was ignored while investors chased expectations of fabulous wealth from the new technologies. These misdirected investment trends have left the economy with serious excesses in many newer, previously high growth areas while many of the older sectors are operating at close to full capacity. This bifurcated economic condition may be setting the stage for much higher levels of inflation in the next recovery. In the near term cyclical inflation pressures could diminish as recessionary conditions temporarily depress prices. However, the cyclical trough in inflation during the current year is likely to be much higher than the previous cyclical trough setting the stage for higher inflation during the next recovery.

Our concern is that the level of government intervention necessary in the short term, to stabilize the weakest economic sectors, will have the unintended consequence of higher inflation, possibly stagflation, over the intermediate to longer term time frame. Inflation will develop more quickly because certain sectors of the economy are currently at full capacity (e.g. electric power generation) and will quickly experience price pressures from any incremental increase in

demand. Secondly, higher energy prices have not been fully passed through the cost of production in a wide range of products. Should higher inflation permeate the economic landscape, most investors will not be prepared for the consequences. This paper examines the factors that are likely to lead to higher inflation and outlines ways to profit from such potential economic change.

Inflation/Deflation Tug of War

Certain aspects of the past decade's economic expansion and the present slowdown could have deflationary consequences. Parallels can be made between the bursting of the Nasdaq speculative bubble in the U.S. and the collapse of the Japanese stock market in 1990 and the subsequent Japanese deflationary recession that followed. Eleven years later the Japanese economy still languishes and their stock market is approximately 67% below the 1989 high. Like the Japanese problem, the current U.S. slowdown is due to over investment rather than excess consumption and to the breaking of a speculative investment bubble.

While parallels exist between current U.S. conditions and the 1989 peak in Japan, the duration of the subsequent Japanese malaise is probably due more to the types of Japanese government policy responses after the initial collapse of stock prices than to the initial bursting of the speculative bubble. Factors that have delayed a recovery in Japan include a failure to effectively deal with problem loans held by the banks, anti-growth legislation such as consumption tax increases rather than tax-reduction measures, and insufficient monetary easing. Rather than assist the banks in writing off problem loans so that new liquidity could be channeled into more productive new enterprises, the country has been in denial as it has tried to keep alive the old, inefficient large enterprises that carry political clout. In addition rather than stimulate domestic consumption and investment through more favorable tax legislation, the country has continued to rely solely on export growth while failing to take steps to stimulate private consumption growth.

In addition the Japanese have historically been a nation of savers. Although Japanese individuals were, to some extent, caught up in the real estate and stock market bubble of the 1980's it was much more of a corporate speculation. The average Japanese individual had a much higher proportion of his net worth tied up in savings accounts that would not benefit from an inflationary spiral. Therefore pressures for policies with an inflationary bias were not as politically popular in Japan as they would be in a nation where individuals have higher debt levels.

Unlike Japan, cultural pressures in the U.S. are more likely to lead to U.S. government policy initiatives that have an inflationary bias which would be beneficial to debtors. U.S. individuals have historically saved a much smaller proportion of their personal income and are much more inclined to take on debt for consumption purposes. As a result the typical American consumer unit would feel a sense of financial well being from a rising general price level. Therefore although we recognize the possibility of certain deflationary trends if the U.S. economy were left to its own devices, the more likely problem is one of accelerating inflation in the next decade as government policy initiatives seek to restart economic growth.

Inflation a Monetary Phenomenon

Different economic schools of thought have their own specific ways of defining inflation and its causes. We subscribe to the view that inflation is essentially a monetary phenomenon. When money and credit expand faster than the economy's ability to produce goods and services it will ultimately lead to a rising price level. Having said that we also recognize that excessive money creation can manifest itself in multiple ways, from excessively speculative equity markets to the more traditional rise in the consumer price index. Therefore how the excessive money creation manifests itself is somewhat dependent on the interplay of multiple factors at work in an economy. During the past decade money and credit creation have been accelerating. However until recently the excess credit has positively impacted the financial markets far more than the general price level for goods and services. Circumstances may now be changing in a way that will bring about a more traditional inflation.

Factors Leading to Accelerating Inflation (Or the Law of Unintended Consequences)

Two factors may now be interacting which could have traditional inflationary consequences. The first is what we expect to be a very aggressive level of government response to sluggish economic growth. Government intervention in the market place can be a powerful antidote but it can also bring with it certain unintended consequences. One unintended consequence of an aggressive pro-growth policy may well be accelerating inflation in the years ahead. The second factor is the lack of capital spending during the past decade in the older infrastructure sectors of the U.S. economy. This has left certain areas of the economy operating at or near full capacity. As the Federal Reserve injects excess liquidity into the banking system to stabilize the weakest areas (e.g. technology), it may have the effect of providing too much stimulus to sectors currently near full capacity. Therefore as economic growth resumes, demand for goods in economic sectors at or near capacity is likely to lead to accelerating price increases.

Society's Heightened Expectations of Government's Responsibility

During the last 50 years there has been an increasingly aggressive level of U.S. government response to adverse economic conditions. There is no longer a social/political tolerance for economic adversity. Political demands have shifted beyond full employment expectations to expectations for both uninterrupted maximum growth and wealth creation. These expectations are further heightened by government's belief that correct policy responses are fully definable and executable. An example of this evolving change is no better illustrated than the current period with a new administration. In the past it was assumed that during the first 12 to 18 months of a new administration the economy would experience slow growth or even recessionary conditions. Once economic excesses were wrung from the system, government policy would shift to revving the economic engines for the mid-term elections and especially going into the final year of the four year presidential term. George Bush Sr's loss in 1992, largely as a result of soft economic growth, heightened the political sensitivity for strong growth earlier in a presidential cycle. Finally, society's expectations from the current Federal Reserve

Chairman verge on semi deification. There is a heightened level of expectancy that the Federal Reserve will both guaranty optimal economic growth and place a floor under equity prices.

Government can be expected to stimulate the economy with both fiscal and monetary initiatives. Fiscal stimulus can take the form of accelerated budget expenditures and tax cuts. While the Republican Congress has talked a good game of fiscal responsibility, spending has been accelerating under their leadership. Furthermore, examining the elements of the Bush agenda does not suggest any spending frugality out of Washington in future years. In addition to political proclivities for normal pork barrel spending, the new administration will push forward accelerated defense spending. Spending for programs such as missile defense could add significant incremental amounts to the overall budget. In addition a tax cut package appears certain to become law this year.

The other engine of government stimulus is monetary policy. Monetary policy can be measured in two ways, targeted interest rate levels and monetary growth rates. While Federal Reserve policy changes are usually expressed in terms of interest rate targeting, their impact on money supply growth are probably more relevant. During the first quarter of 2001 the Federal Reserve lowered federal funds interest rates by ½% on three separate occasions with suggestions of more easing to come. While this suggests aggressive easing, the rapid acceleration of money supply growth is even more significant. On a four week basis the annual growth of M3, one of the broadest measures of money, has reached the high teens. Such a rapid growth rate has only occurred briefly on a few previous occasions. On a longer term basis money supply growth has been accelerating since early 1993. During the last several years the 12 month rate of change has exceeded 10% on several occasions. Such rapid growth of the monetary aggregates has not been seen since the 1960's-1970's, the last period of higher inflation. Typically there is a long lead time from the commencement of rapid monetary growth until inflation becomes a problem. In the 1960's money supply growth reached high levels by 1962 but inflation did not begin accelerating until 1965. By the 1970's, once an inflationary psychology was imbedded in the system, accelerating money supply growth more quickly led to higher inflation rates. A similar situation may be unfolding now. The combination of rising growth rates for money since the mid-1990's combined with the potential for faster economic growth in other areas of the developed world, and their competing demands on finite resources, may be setting the stage for a higher level of inflation to become imbedded in the economy once again.

The Shift in Central Banker Attitudes

Central bankers historically have used an anti-inflation rhetoric even when they were providing excessive monetary stimulation; however, even this tradition is disappearing. As an example, Mr. William McDonough, President of the New York Federal Reserve, said recently in a speech in Brussels that "there is a tendency for central banks to be uniquely interested in fighting inflation rather than realizing that economic growth is what it is all about". Since the president of the New York Federal Reserve Bank is one of the most senior positions within the Federal Reserve and the only regional bank president who is a permanent voting member of the policy making Federal Open Market Committee, his words are worth paying attention to.

This used to be the kind of rhetoric coming from a politician not from one of the senior Federal Reserve officials. Central banker comments, not only in the U.S. but also from Europe and Japan appear to be shifting away from the vehement anti-inflation rhetoric of the past 25 years toward an emphasis on growth at any cost. During the early 1990's both Europe and Japan pursued anti-inflationary, slow growth policies for their own unique reasons. In Japan it was to correct the previous speculative bubble in Tokyo real estate. In Europe it was to align individual country inflation rates with Germany's low inflation rate, in order to create the common currency, the euro. Only in the U.S. was their an emphasis on economic growth. In the U.S. the inflation battle had been successfully won in the 1980's. Because the U.S. was able to pursue growth in a vacuum, inflation pressures were minimized due to little competition for resources from the other major developed countries. Thus the lack of an inflation problem for the past two decades has engendered a complacency which appears to have enveloped even the central bankers' attitudes.

As further support of a major policy shift, Japan recently moved to a policy of quantitative easing. Under this policy monetary reserves will be injected into the banking system until there is clear evidence that consumer prices are no longer falling. This policy shift appears to represent a victory by the more pro-growth elements within the Japanese government. Since there is a long lead time between monetary stimulation and higher inflation, the Japanese central bank runs the risk of severely overshooting their intended goal of ending deflation. Finally recent statements out of Europe suggest that monetary easing will be necessary to deal with the expected slowdown caused by weak demand in the U.S. Thus for the first time in many years all three major developed economic blocks will be pursuing pro-growth economic policies. While we have no quarrel with these goals, the combined emphasis on growth is likely to lead to strains in capacity of several economic sectors and to concomitant pricing pressures.

The Technology Bubble

An uneven capital spending boom occurred during the last decade. Massive spending occurred primarily in the Technology, Media, and Telecom areas(TMT). One of the benefits of technological innovation is an acceleration of productivity gains. As a result, the economy experienced a long cycle of extended growth with minimal inflation until late in the cycle. As is often the case when excessive gains are initially achieved, excess capital flowed until these areas were overbuilt. Speculative enthusiasm created both excess capacity in economically sound ventures and wasted investment in uneconomic entities that failed. This left the economy with its current morning after hangover.

The underlying economic problem has been exacerbated by the excessive stock market valuations and the subsequent Nasdaq collapse. Upwardly spiraling stock prices led to a reduction in the savings rate and much higher levels of discretionary spending as well as to stepped up borrowing against inflated asset valuation levels. Recently released Federal Reserve statistics on household wealth indicate that 2000 was the first year, in the fifty plus years of keeping records, that household wealth declined from the previous year. Prior multi year increases in household wealth may have been sufficiently large to keep individuals from going into a massive savings mode. Nonetheless, a challenge for the monetary authorities will be to

keep consumer confidence healthy enough to avoid a prolonged malaise of slow economic growth. Thus the combination of malinvestment in the TMT areas and the negative wealth effect from a declining stock market may force greater than usual Federal Reserve easing. They may be required to drive real short term interest rates down close to zero and keep the money supply growing at an excessive rate until the economy shows renewed growth.

The Bifurcated Economy

While capital rushed into new technology areas during the past decade, more mundane infrastructure areas (e.g. electric power plants) experienced under investment. Under investment occurred both due to unattractive returns and to bureaucratic and environmental constraints. While the growth in demand in these older infrastructure areas is slower, a decade of economic growth increased demand to the point where buyers began experiencing supply limitations due to capacity constraints. As an example although California has garnered all the headlines, electric power plants nationally are now operating at 93% of capacity. These are levels not seen since 1973 and are close to practical full capacity. Since capacity additions often require considerable time, renewed economic growth will, in fairly quick order, have to deal with capacity constraints and their concomitant price increases in many of the older economic areas.

In addition to capacity limitations, the significant rise in energy costs has set in motion a whole series of price and production distortions. Products that are heavily dependent on energy inputs (e.g. fertilizer, metal smelting) have not experienced commensurate price rises in order to justify the higher cost of energy inputs. As a result production of many of these products has been curtailed. Stories abound of smelters in the Northwest shutting down production since it is more profitable for them to resell their long term electricity supply contracts back into the power grids, than it is to use the power to produce their products. The consequences of these supply curtailments are not immediately apparent because of the current business slowdown. However, it is inevitable that the reduced supply consequences will be quickly felt once economic growth resumes. Unless the producers of products heavily dependent on energy are able to pass through the cost increases, it will lead to supply curtailment. Eventually the supply constriction of these products will be so significant that it will set off severe price increases in order to entice new production.

The energy price increase of the last two years creates an interesting policy dilemma for central bankers. An energy price increase by itself is not inflationary. As an isolated event it is simply a consumption tax and a transfer of wealth from consumer to producer. Consumers of energy must either curtail other spending, borrow additional funds or liquidate assets to maintain their previous spending patterns. Therefore unless central bankers compensate for the energy price increase through easier monetary policy, the higher energy prices would be deflationary and act as an economic depressant. This may be a partial explanation for the current economic slowdown.

When similar distortions occurred in the 1970's the central banks responded with accelerating monetary growth. This had the effect of supporting the energy price increases which then encouraged cost pass through price increases throughout the economy. Given the current social

intolerance for sluggish economic conditions, we suspect that an inflation problem is considered the least of potential economic evils. Thus central bank response is likely to be the same as in the earlier period. Therefore we should expect more rapid monetary expansion in the years ahead.

Supply Rigidities Will Be More Apparent in the Next Cycle

The last cycle was driven by growth in industries that benefited from technological innovation, placed minimal demands on basic resources, and allowed for greater import substitution. As an example, both technology hardware and software production allow for maximum outsourcing flexibility from multiple locations. Therefore price competition from import substitution was always in the production equation. The nature of technological innovation also leads to continual movement down the price curve as economies of scale are realized. Finally most high tech products consume minimal amounts of basic materials. Therefore pricing pressures from either materials or labor were minimal.

By contrast if the next business cycle is lead by infrastructure expansion and possibly defense spending, the role of cost containment by import substitution will be minimal. As an example, the building of a new electric power plant will involve major demands on basic materials, will benefit minimally from economies of scale or technological price improvements, and will require domestic (and probably unionized) labor that prefers cash in the paycheck rather than stock options. This type of spending is also more likely to be subject to cost overruns resulting from bureaucratic delays due to environmental issues. Such spending will more likely strain available supplies of labor and materials if strong growth develops. Thus we would expect upward pressures to develop in the traditional inflation indices.

The Dollar as Wildcard

Another factor which has held inflation at bay has been the strong dollar. Throughout the last half of the last decade the dollar appreciated by approximately 6% per year. This has been a powerful antidote for depressing inflation in a country such as the U.S. which allows relatively free movement of goods. In this rising dollar environment, foreign manufacturers gained the benefit of a 6% price increase in their local currency without having to raise prices in dollar terms. This had the effect of forcing American manufacturers to forgo passing on cost increases in order to stay competitive with the foreign producers in their market. This currency factor probably did more to keep inflation at bay in the last five years than any other factors including the much publicized (and we suspect over hyped) productivity increases.

The dollar was strong primarily because investment returns were superior in the U.S. Higher investment returns were partly a result of American technological ingenuity and the entrepreneurial environment that pervades our society. However, one must also recognize that U.S. economic growth was occurring in a vacuum due to the previously described special circumstances prevailing in Europe and Japan. Policy goals in these two other major areas now have economic growth at the top of their lists unlike what prevailed 10 years ago. Given that these areas have major opportunities for improving business efficiency and for employing

technological innovations (trends that are already well developed in the U.S.), Europe and Japan have the potential for economic growth rates that could dwarf the U.S. for the next decade. Should this occur, the dollar could weaken as capital flows to the higher investment return areas.

A weaker dollar is therefore a wildcard in forecasting future inflation rates. A weak dollar would exacerbate inflationary tendencies that may be developing. Domestic manufacturers faced with price increases would no longer be restrained in passing on costs if their foreign competitors are also raising prices. Just as a virtuous price restraining atmosphere fed on itself in the 1990's a vicious pricing cycle could take hold. Since most internationally traded commodities are priced in dollars, any future dollar weakness will set off a whole series of price increases in these commodities as buyers in stronger currency countries experience temporary currency related pricing bargains.

The trade weighted dollar began weakening in late 2000 as the U.S. economy nose dived. However, recently it has strengthened most likely due to fears of global financial instability. Therefore its longer term trend is still somewhat uncertain. Nonetheless the weight of the evidence suggests that weakness could develop if the relative growth rate in the U.S. begins to trail that of Europe or Japan. If the dollar experiences cyclical weakness, there is always the potential for a deeper crisis of confidence to develop in the underlying dollar exchange standard on which the world economic system currently functions.

Economic Summary

The U.S. economy may be at the cusp of significant secular change. The combination of the bursting of a speculative bubble of historical proportions and the aftermath of excess capital spending in the TMT sectors has set in motion what could be a serious deflationary recession. However government countermeasures, in response to the electorate's expectations, may well lead to a period of slow economic growth with accelerating inflation. Because of the bifurcated nature of the 1990's boom in which capital spending was concentrated in the TMT sectors, many other older and infrastructure sectors of the economy are in need of significant capital expenditures in the near future. The spending required in these areas plus stepped up federal government spending for defense, when combined with accelerating money supply growth, should overwhelm the deflationary recession tendencies of the TMT overhang.

This economic split personality is not unlike the period in the early 1980's following the boom and bust in the energy sector. The collapse of the energy sector took regional real estate markets and banks down with it. However, government bailouts of the banks and S & L's stabilized those areas while other regions of the country led the recovery.

However the economic recovery that we perceive will in all likelihood be accompanied by rising inflation. Rising inflation is likely because money supply growth has been excessive for several years now and will likely remain excessive in order to stabilize the weakest economic areas. In addition the types of spending we perceive being the strongest (e.g. infrastructure and defense) will place greater strains on basic materials and domestic unionized labor than comparable spending in the TMT sectors.

Another factor that will cause upward pressure on inflation are the inevitable cost pass throughs of rising energy prices. Rising demand resulting from rapid money supply growth will cause capacity strains on products and services that have high energy inputs in their cost structures (e.g. metals, fertilizer, grains, and transportation).

Finally, the U.S. economy, unlike in the 1990's, may well be competing for resources and capital with other geographic areas. If growth and investment returns are relatively better in these other areas, the U.S. dollar may come under selling pressure. If the dollar weakens, any rise in the U.S. inflation rate will be exacerbated.

Slower economic growth and a rising inflation rate could play havoc with the financial markets, especially given there historically high valuations. Therefore it would behoove investors to become more creative in their investment choices.

Investing When The Secular Change Occurs

If a secular shift in the investment climate is to occur, identifying indicators that will provide compelling evidence is critical to the process. A strong intellectual argument is useless if the markets do not confirm the shift. Finally, identifying ways to profit from the shift and acting on the change is critically important.

There are essentially three scenarios that the economy and markets can follow at this juncture. One would be a deflationary implosion similar to the Japanese experience of the 1990's. If the deflation view is correct, stocks and physical commodities should languish and bonds should continue making new price highs (new lows in yield) over the next several years.

A second scenario would be an economic recovery with a continuation of the low inflation environment of the past decade. This scenario would be the most ideal for both stocks and bonds, with growth stocks once again leading the market upward.

A third scenario would be a cyclical recovery that experiences accelerating inflationary pressures within the first year of the recovery. Under this scenario bonds would be early casualties of the rising inflation pressures. Industrial commodity prices and gold should experience the strongest upward price moves. Stocks should advance during the initial stages of this type of recovery, lead primarily by beneficiaries of inflation. However at some point the negative impact of rising interest rates at the long end of the yield curve will begin to hurt stock prices. It is at this point that non-traditional investments will make a major contribution to the portfolio.

To date there is no evidence that Federal Reserve easing moves have provided sufficient liquidity to stabilize either the stock market or the economy. So conjecture about either of the latter two scenarios is just that, conjecture. As for a deflationary implosion, it is far too early in the cyclical slowdown to consider that as a likely possibility. Furthermore it is our contention that if any evidence of this scenario emerges, it will be met with powerful monetary and fiscal measures that will quickly lead to scenario three.

As for useful gages of the changing environment, several that are worth monitoring are money supply growth, gold prices, bond prices, industrial commodity prices, and the trade weighted value of the U.S. dollar.

The bond/gold ratio chart (page 15) represents one of the best barometers of the financial environment. A rising trend, such as the past two decades, is indicative of a disinflationary environment. If inflation is to become a problem there should be a major reversal of this ratio. A reversal of this ratio will probably signal a very hostile environment for financial assets generally. Equities even after the decline of the last year continue to sell at historically high valuations. The majority of the rise in equity prices over the last two decades is the result of a rise in p/e ratios rather than earnings growth. Therefore even companies with rising earnings may experience a stock price decline if inflation accelerates due to greater downward pressure from shrinking p/e ratios.

While over valuation exists in the equity market, commodities appear very under valued. In many respects commodity markets have similarities to the equity market pre-1982. The equity market in that earlier period had declined or moved sideways for many years and sold at price levels that were historically under valued. All that was needed was the catalyst of declining inflation and interest rates to set off the bull market. Even the most optimistic forecasters could not envision the 12 to 15 fold price move that would develop over the next 18 years.

It is possible that something similar could happen with commodity prices in the next decade. Commodity prices tend to go through long cycles in which prices move sideways for years, sometimes decades. This occurs due to previous price peaks which bring on excess supply. Excess supply depresses prices which both encourages consumption and depresses new supplies. Eventually modest growth in demand overtakes available supplies. If no new production has been brought on line for a couple of decades, the inflation over that period will mean that the cost of incremental new production may be substantially higher than the cost of existing production. In addition since it may take a couple of years for new supplies to come on stream, prices can increase several hundred percent before the next down cycle develops. Historically major commodity bull markets have extended over an 8 to 12 year time span.

Energy prices have already moved significantly since February 1999. Oil prices more than tripled in little more than a year's time. Such a powerful price move off of a low is often indicative of the start of a multi-year bull market. During the last major price advance in oil it rose over 20 fold from slightly under $2.00 per barrel in 1970 to $40 per barrel in 1980. For oil to match the inflation adjusted equivalent of the 1980 high, it would have to rise to the mid $80's. While this may be hard to fathom at this point, there are geopolitical factors that could easily bring this about. The U.S. now imports close to 60% of its petroleum needs. Of the remaining world reserves approximately 65% are held by five low population countries in the middle east. The irony of these low population countries is that above a certain price level they may prefer lower production. This occurs because once their internal budget needs are met, higher prices may only generate financial assets that will not appreciate as rapidly as their oil in the ground. This occurred during the last oil price spiral. Oil producers were paid in dollars that

were depreciating against other currencies and they became very vocal against further production increases. As with equity bull markets, factors occur along the way which feed the upward trend. This can easily happen in an oil bull market as well.

The rise in energy prices since February 1999 may be the precursor of a general bull market in all commodity prices during this next decade. As discussed earlier in this paper, the energy price rise has left some unfinished business for the economy to deal with. Energy is a significant cost input in many areas of the economy, most notably metals, chemicals, agriculture and transportation. The rise in energy costs has lead to supply curtailments in these energy dependent industries that will bring about further price shocks once the economy begins growing again.

In addition to the upward cost pressures from higher energy prices, general demand growth from a synchronized worldwide economic recovery will also pressure existing supply sources of many of these key industrial commodities and agricultural products. If the developed world economies grow there is every reason to expect a continuation of strong growth in the developing world. As the developing world's standard of living increases, their propensity for western style consumption habits increases. For instance as diets shift from grain consumption to meat consumption, the demand for grain increases by a much higher percentage. This occurs because it is less efficient to produce meat than to eat grains directly. Therefore if one assumes that world economic growth remains on track, it is inevitable that a commodity bull market will develop as demand outstrips available supplies at current prices.

If indications develop that inflation is accelerating what portfolio strategies are appropriate? At a minimum a buy and hold strategy which worked so well in the 1990's will most likely be an exercise in frustration. The market is more likely to experience cyclical tendencies with wide swings in both directions yielding little net gain over a long period. Therefore the investor must be willing to move into a substantial cash position for extended periods of time until bear markets run their coarse. The second key to improving portfolio returns in an inflationary period is to include non-traditional investments such as gold or managed futures.

Gold represents one of the easiest and safest ways to diversify a traditional financial portfolio. Gold can be bought and sold on a daily basis, offers significant liquidity, and transaction expenses are similar to buying and selling equities. Gold has a high negative correlation with both stocks and bonds and a high positive correlation with inflation. Therefore inclusion of gold in a portfolio at the appropriate times can be a highly profitable decision for investors. Our TAAP, tactical asset allocation balanced portfolio approach, will invest up to 60% of the portfolio in gold when conditions warrant. In addition TAAP can allocate up to 80% to either stocks or long term U.S. treasury bonds. Finally when no long term asset classes are attractive TAAP will move to 100% cash equivalents in order to protect principal.

A second strategy is to include managed futures in the portfolio. This is particularly true if the managed futures portfolio includes a high exposure to physical commodities. Our MAAP, managed futures portfolio, is structured to go both long and short in six different asset classes, equities, bonds, currencies, grains, metals, and energy. Up to 50% of the portfolio is allocated to

the three physical asset classes. Because of the MAAP portfolio structure, it has no correlation with either the stock or bond markets. Therefore it provides excellent portfolio diversification and a means of profiting from environments that are hostile to financial markets.

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AIS is an acronym for "Applied Intelligence Strategies", computer programs, that combine the best aspects of sound investment principals with the strict disciplines of mathematics.

The AIS Group consists of two companies that offer three different investment styles:

AIS Capital Management is a registered investment advisor that offers a conservative, tactical asset allocation, program referred to as TAAP. TAAP actively rebalances the portfolio weights among four assets: equities, bonds, gold bullion, and cash equivalents.

A second program, Capital Growth, is an aggressive equity growth process that also periodically shorts stock index futures as a portfolio hedge.

AIS Futures Management is a registered C.T.A. that offers two growth oriented diversified, managed futures investment programs. The most diversified program, MAAP, maintains long, short, or neutral positions in 15 markets within six asset groups, equities, bonds, currencies, energy, grains, and metals. Actual trading for 3X-6X commenced on 7/8/92 and 2X-4X commenced on 10/15/92. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. For a complete disclosure document of AIS Futures Management LLC's MAAP Program, contact AIS Futures Management LLC.

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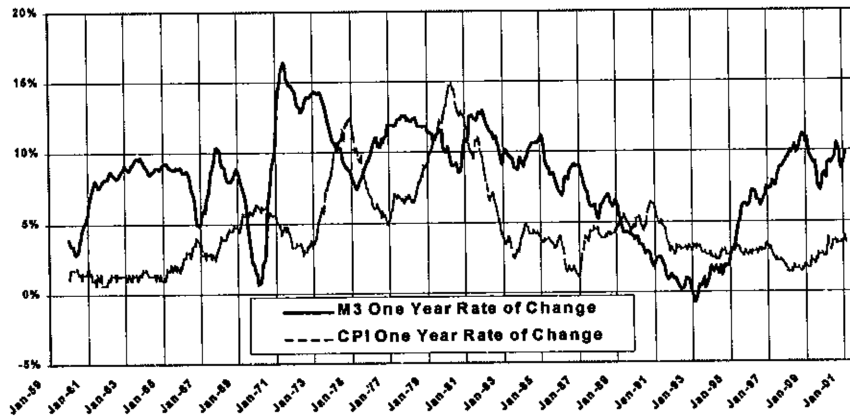
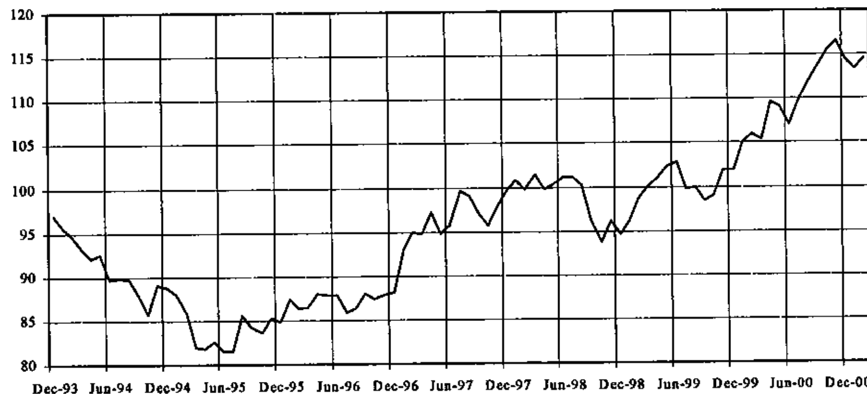
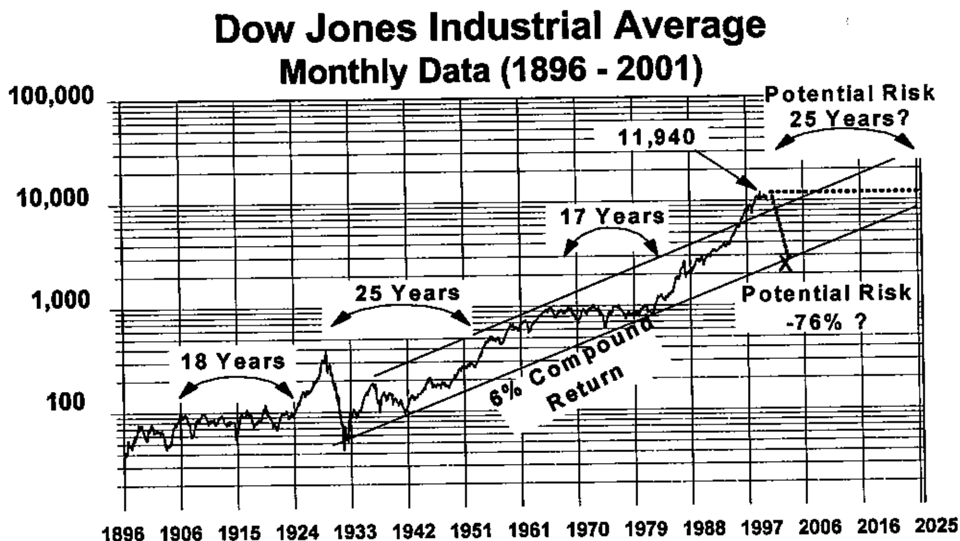


The growth rate of money tends, with a lag, to influence the future rate of inflation. The rate of growth of money has been accelerating since the mid-1990's and the rate of inflation has gradually been rising. Most recently the rate of money supply growth has once again approached the 10% annual rate. If it remains at or near this level it is highly likely that inflation will become more of a problem, especially once the economy begins growing again.

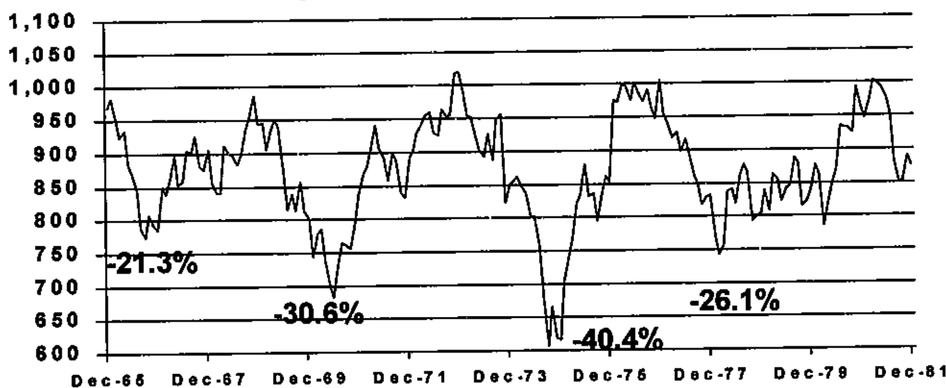
Trade Weighted U.S. Dollar (12/31/93 - 2/28/01)



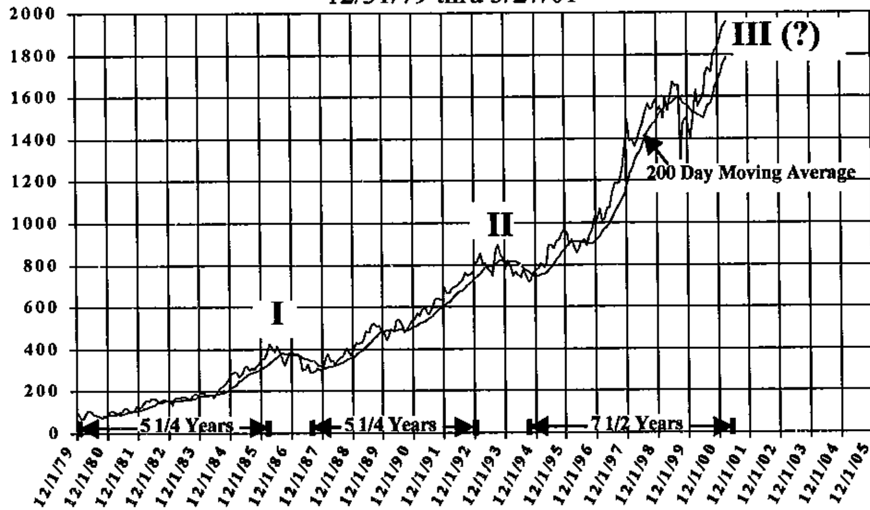
The strength of the U.S. dollar since mid-1995 has had a major influence in keeping inflation at bay. During the last five plus years it has appreciated at over 6% per year. This has enabled foreign sellers of goods in the U.S. to avoid price increases since they have continually received higher payments in terms of their local currency. This in turn inhibits U.S. based manufacturers from increasing prices for competitive reasons. If the U.S. experiences lower investment returns relative to other areas around the globe, then the dollar may weaken and exacerbate any inflationary trends which develop.



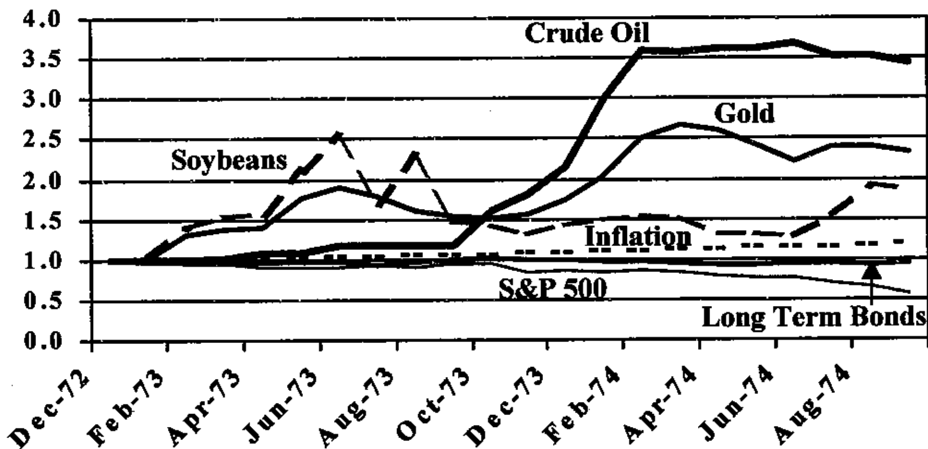
Throughout history, the stock market has experienced long periods of above average returns followed by long periods of under performance. Given the record high valuations that currently exist it is highly likely that stock market returns may be entering an extended period of under performance.



During the 1966-1981 period the stock market experienced multiple bear markets interrupted by relatively short bull markets and for the entire period essentially went nowhere. Due to the combination of historically high valuations and the potential for less ideal economic conditions the stock market may experience something similar for the next few years. In such an environment it will behoove investors to change their investment tactics from a simple buy and hold strategy.

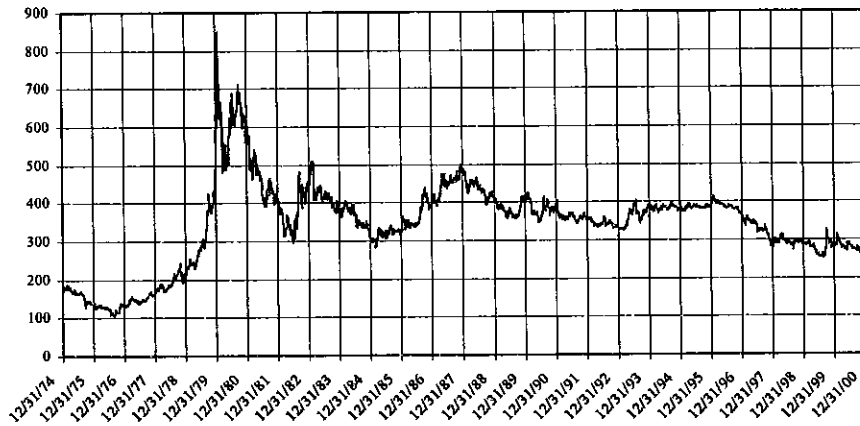


The Bond/Gold Ratio chart is derived by dividing the price of U.S. Treasury bonds by the price of gold each day. Since both of these markets involve global investment decisionmakers the ratio provides an excellent barometer of the health of the financial markets. A rising trend indicates financial market health and disinflation. A falling trend is an indicator of financial upheaval and rising inflation. If the markets are at a secular point of change, it should be apparent by a reversal of the two decade up trend that this ratio has been in since the end of 1979.

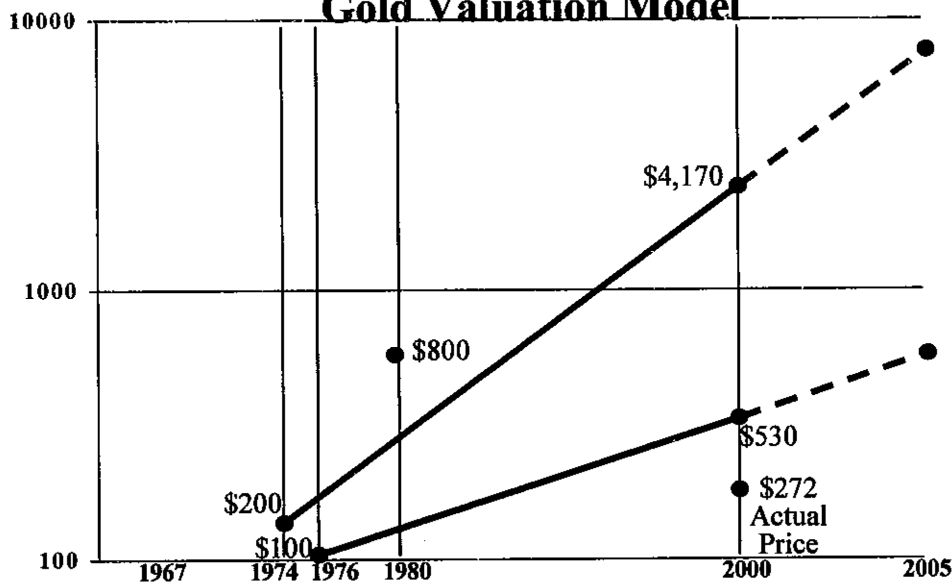


During the two year period in 1973-74 when inflation accelerated, investors in stocks and bonds experienced severe losses. However, gold and other physical commodities were in major bull markets. Investors who included these in their portfolios were protected against financial market losses.

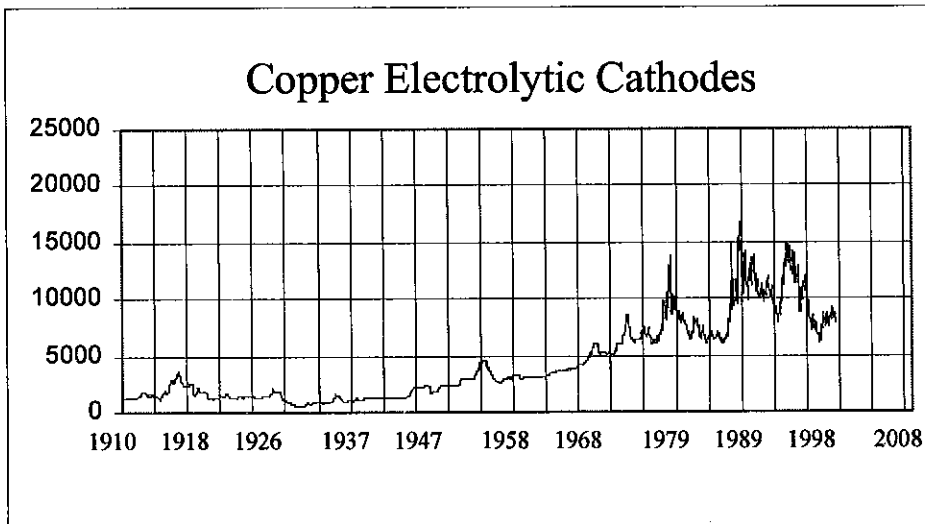
Spot Gold
(1/2/75 - 3/27/01)



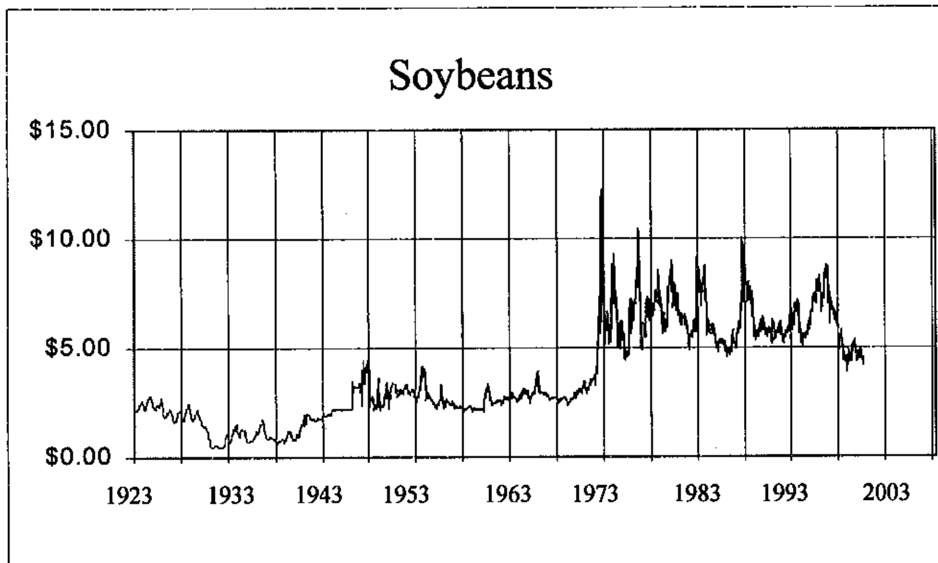
Gold has been in a major decline for over 20 years. A major base may be forming below $300 an ounce since early 1998. Supply demand factors favor higher prices. Therefore if inflation rises the price of gold could commence a major new advance.



This chart compares multiple financial relationships (money supply, currency, financial debt, and U.S. gold reserves) and the price of gold at two earlier extremes in 1974 and 1976. Based on the relationships at those earlier points it suggests a range of $530 to $4,170 for the price of gold at yearend 2000. If inflation and financial distress develop in the financial markets, the price of gold has major upside potential.



Copper represents a proxy for industrial metal prices. In the face of a global business slowdown, copper prices remain well above lows in early 1999. This suggests that once business conditions begin improving copper prices could embark on a major price rise.



Agricultural prices such as soybeans have not experienced a major price rise since the mid-1970's. If inflation accelerates and strong global growth in demand for grains continues, a price increase of several hundred percent is possible over the next few years.