THIRD QUARTER 2002 COMMENTARY

OCTOBER 2002

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Homer gave Odysseus all the qualities of a classic hero: guile, coolness, strength, determination, and a healthy dose of bad luck. We meet Odysseus briefly in *The Iliad* as a reluctant warrior, faking dementia to avoid being drafted into war. We really don't hear much about him till the end of the book, when he concocts the idea of building a giant Wooden Horse as a gift that he hopes the Trojans will take into their walled city. They do, and Odysseus leads the hiding men out of the horse and onto a rout of Troy. The Trojan War ends and everyone goes home.

Everyone, that is, except for Odysseus, and the next book, *The Odyssey*, is the story of his perilous return home to Ithaca. Leaving Troy, Odysseus' ships are caught in a storm and washed up on the island of the Lotus Eaters, where three of his men eat the strange Lotus plant and fall under a spell. Next they travel to the land of the Cyclops, who eats two of his men and traps the rest in a cave behind a boulder. Odysseus pokes out the one eye of the Cyclops and escapes. But the Cyclops was the son of Poseidon, not a god a mariner wants to upset.

Next up is the island of Aeolus, god of the winds, who puts all his bad winds in a bag for Odysseus so that he may have only good winds on his travels home. But the crew thinks the bag contains treasure, and when they open it a hurricane is unleashed. Their ship passes by the giant Laestrygonians, who hurl boulders at them and eat as many as they can, and the few survivors make it to the island of Circe, who turns them all into swine, except for Odysseus, with whom she falls in love and arranges to keep on the island for a year. He finally departs, and Circe warns him of the impending dangers: the Sirens, who lure sailors to their deaths with their irresistible songs; Charybdis, the violent whirlpool from which there is no escape; and Scylla, the six-headed monster that eats passing sailors.

Odysseus manages to escape these perils, except for losing six men to Scylla (sacrifices do have to be made), when his men persuade him to rest on the island of Hyperion, god of the sun, with its sacred herd of cattle. The food eventually ran out and his crew feasted on the cattle. Big mistake, as all the crew was killed by a lightning bolt and Odysseus ended up alone on Calypso's island, where he waited for the gods to persuade Poseidon to let him return home.

More than two years into what is, by some measures, the most vicious bear market in seventy years, investors are still waiting for the favor of the gods. There are many ways to measure how extraordinary these past few years have been, but consider that for exactly 2½ years, from March 2000 to September 2002, bonds outperformed stocks by an amazing 62 percentage points, a return differential exceeded only once in the past century (1929-32, when the differential was 85%). As the table shows, bonds have now outperformed stocks in every period over the past fifteen years. Even cash has been a better investment than stocks over the past five years. One of the great axioms of our time, that only stocks accrete wealth, has been turned on its head, and the flows out of equity mutual funds suggest investors have thrown in the towel.

Asset Class Total Returns as of 9/30/02

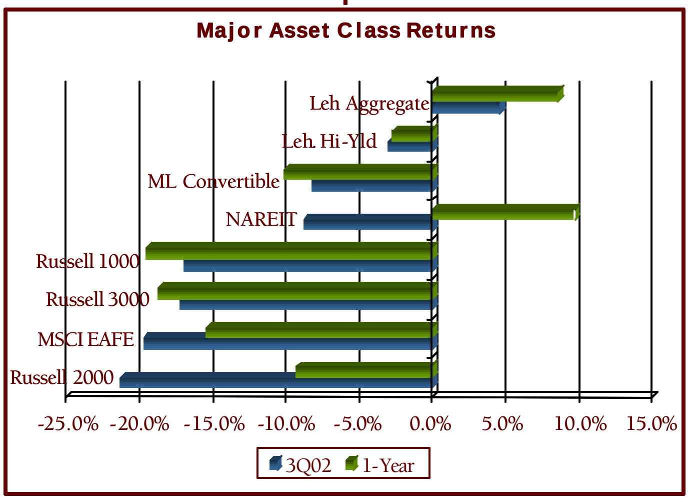
	5 Year	10 Year	15 Year
Stocks	-7.9%	136.4%	263.7%
Bonds	44.0%	150.2%	379.9%
Cash	25.5%	58.0%	123.4%

Source: Merrill Lynch Quantitative Strategy

Investors have had quite an odyssey these past few years, jubilance followed by despair. Before we can answer when the gods will favor us, we'll turn to a review of the quarter past, and the three primary dynamics in today's markets.

The quarter past was the worst for equities since the 1987 crash. US stocks fell more than 17%, international markets even worse. Every sector in the S&P 500 Index declined, for the second straight quarter. Energy remained a graveyard, as Dynegy and Mirant, two energy traders, lost 84% and 70% respectively in the quarter. Telecom also remained troubled, with Avaya, a spin-off of a spin-off of the old Ma Bell, falling 71%. On the other hand, Nextel was the best performing stock in the Index last quarter, up 135% (although still off more than 30% this year).

Graph 1



Bonds, of course, are shining. Their rally has bought yields to levels not seen since the Eisenhower administration (see Graph 2).

Graph 2

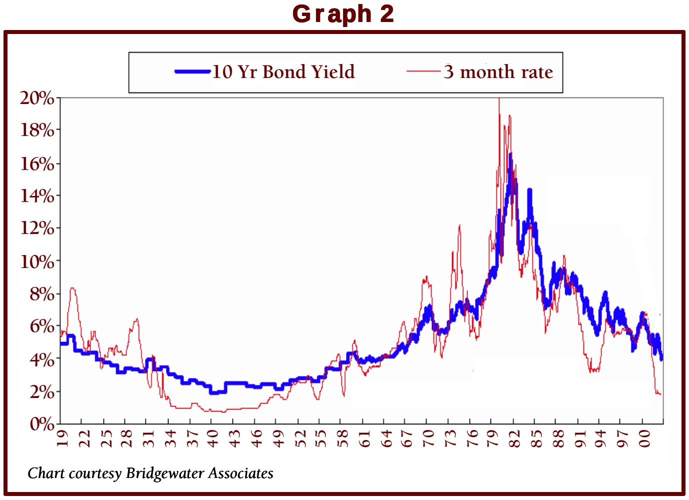


Chart courtesy Bridgewater Associates

Before we abandon all hope that we will ever again see positive returns in equities, we should examine the three dynamics that are driving the markets today: non-economic events, the world economy, and asset valuation.

Despite a brief spell many years ago as a political analyst, assessing the probabilities of another terrorist attack or war in the Middle East are well beyond our realm. These dangers are clearly present, but the most useful observation we can make is that history suggests they are transitory phenomena, and that markets adjust very quickly. Concerns will continue to abound, of course, but that has always been the case. The other two dynamics, the world economy and asset valuation, are likely to be more important drivers of investment returns over the next few years.

Deflation is the great worry in the world economy today. The world has not faced this threat on a global basis since the 1930s, and there are now some ominous signs. Most people are aware of the deflation Japan has faced for the past few years, but much of Asia is looking at deflation as well. The adjacent table shows the progression from inflation to deflation over the past 22 years for selected countries.

Consumer Price Index (Average YoY% change)

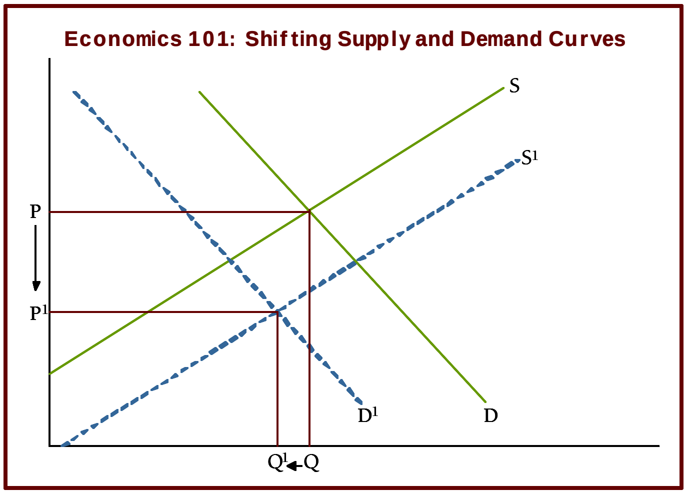
	1980-90	1990-97	1997-01	Jan-Jul 02
China	7.3	11.7	-0.1	-1.1
Hong Kong	8.4	8.5	-1.6	-3.0
Taiwan	3.1	3.2	0.8	0.0
Korea	6.3	5.7	3.6	2.5
Singapore	2.2	2.3	0.6	-0.6
Thailand	4.4	5.1	2.8	0.3
Japan	2.0	1.2	-0.3	1.3
US	4.7	3.0	2.5	1.3

Source: CEIC and Morgan Stanley Research
Note: China and US's data are for urban CPI.

The cumulative effect of deflation in many Asian countries is comparable to what the US faced in the 1930s. Hong Kong's GDP deflator has fallen 13.8% in the past five years, China's CPI is off 21% since 1994. China's economy is growing rapidly while Japan's is not, despite massive fiscal and monetary stimulus. Deflation persists and the remedies are not apparent. China's huge surplus of labor is the structural cause of the regional deflation, a condition unlikely to be reversed for many years.

The risk to us is that this Asian deflation is exported, and as China grows in economic importance, this risk increases. It's simple economics that surplus labor shifts the supply curve outward, as do advances in technology, such as distribution efficiencies. A cyclical decline as global economic growth slows shifts the demand curve inward. The effect of an outward shift of the supply curve and an inward shift of the demand curve results in lower prices and lower output; in other words, economic depression. (see Graph 3).

Graph 3



Indebtedness is another deflationary concern, and the data here too are disconcerting. Total debt as a percentage of GDP is the now highest in at least a century (see Graph 4), while debt servicing is near record levels. There is a structural component to this, as debt levels have been rising for 50 years, but the high level of debt just adds another element of risk should global growth falter.

Graph 4

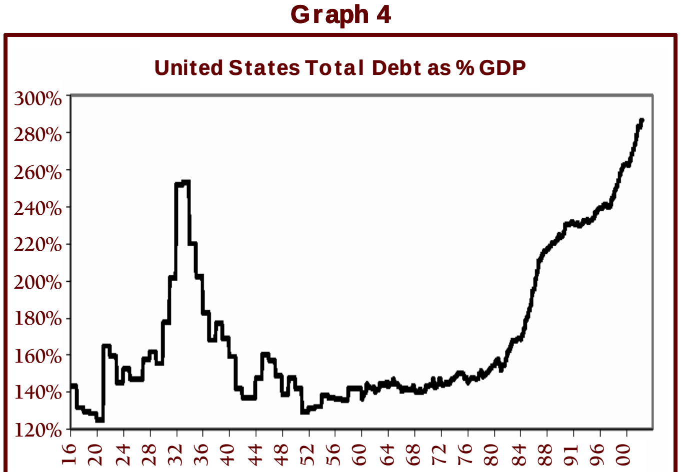
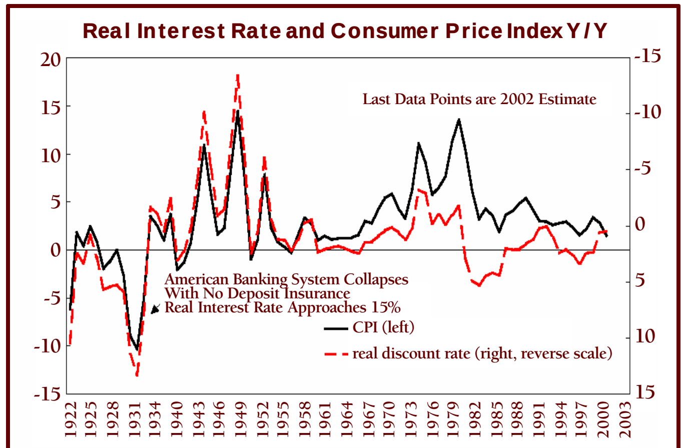


Chart courtesy Bridgewater Associates

As ominous as this all sounds, it's hard to see a true global depression in the absence of a collapse of the financial system. In the US in the 1930s, thousands of banks failed, money supply fell 30% and real interest rates approached 15% (see Graph 5). There is a financial crisis in Japan, China and elsewhere in Asia, but none (yet) in Europe or the US.

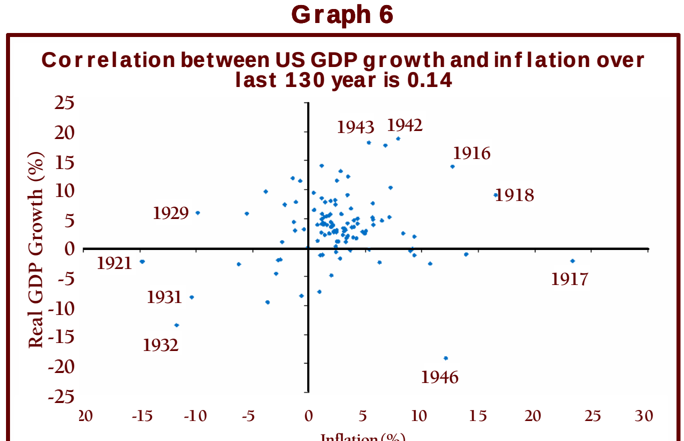
Graph 5



Source: FRB, BLS, SalomonSmithBarney

As to another economic contraction causing deflation, this is a common misperception. Not only is the causality unproven, the correlation between economic growth and changes in prices is very low (see Graph 6).

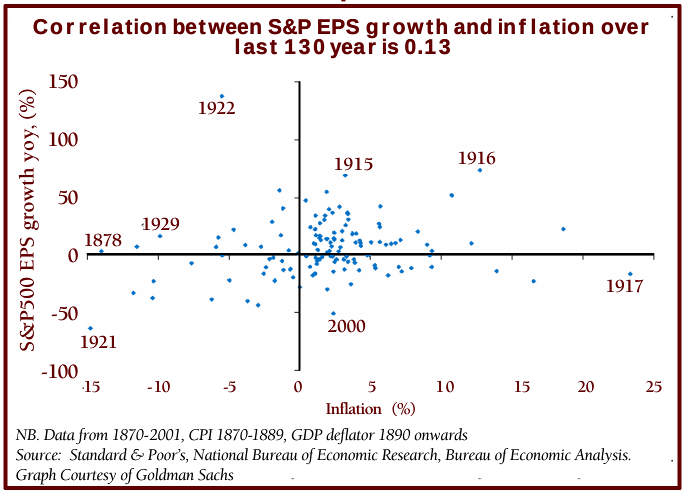
Graph 6



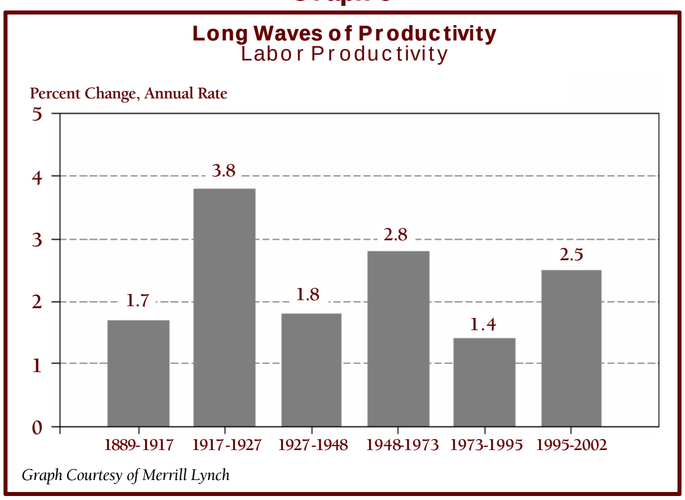
NB. Data from 1870-2001, CPI 1870-1889, GDP deflator 1890 onwards
Source: National Bureau of Economic Research, Bureau of Economic Analysis.
Graph Courtesy of Goldman Sachs

Following the worst profits decline in over sixty years, corporate profitability needs to be restored, and in another misperception, profits are not correlated to changes in prices (see Graph 7), i.e., profits are not dependent on

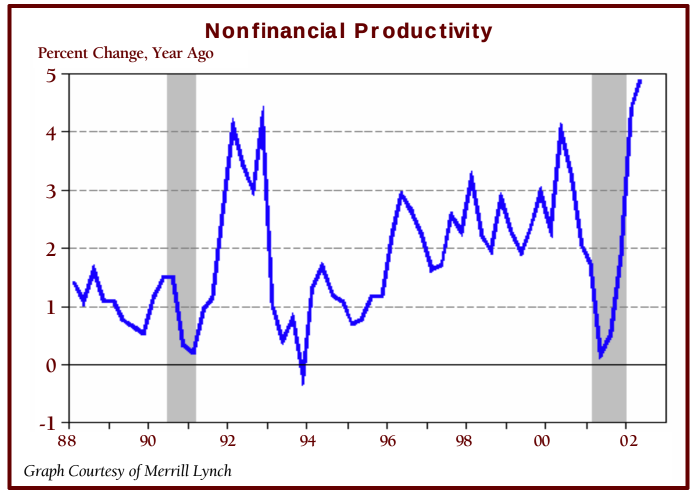
Graph 7



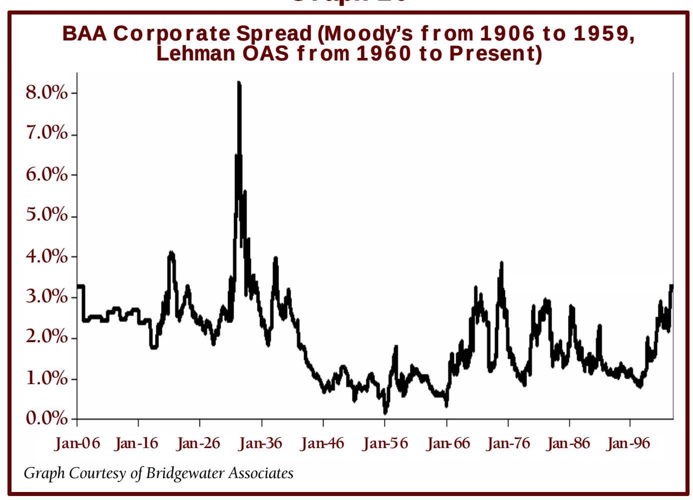
Graph 8



Graph 9



Graph 10



rising prices. Neil Williams of Goldman Sachs suggests that there is bad deflation and good deflation. Bad deflation is when falling prices are accompanied by falling output (as we saw in the 1930s, for example). Good deflation is when growth is positive amid falling prices, which we saw in periods of innovation and rising productivity (especially 1917-1927, see Graph 8). Fortunately, productivity growth has been surprisingly strong (see Graph 9).

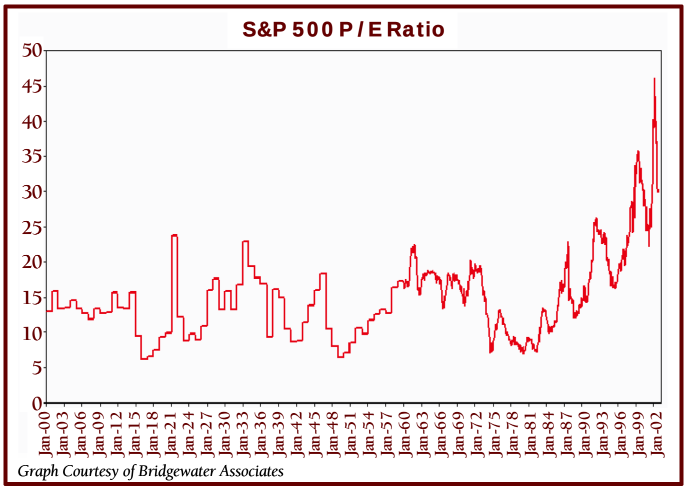
Still, the markets believe deflation is a very real risk. Investment grade corporate bond spreads, for example, are as high as they've been since the 1930s (see Graph 10), and the Merrill Lynch High Yield Master Index reached a record high spread to Treasuries in early October of +1,063 basis points, surpassing the previous record set in January 1991.

Our view is that deflation is a serious risk to the world economy for two principal reasons. First, deflation is already a fact in much of Asia, a region of central importance to world trade. China's surplus labor and the ruination of the financial system in Japan and elsewhere will likely take years to redress. As trade becomes a growing part of the world economy (trade already represents the biggest percentage of the world economy in history), and China a larger economic power (set to surpass Japan next year as the second largest economy in the world), the risk of deflation spreading rises. Secondly, households and corporations and even governments (especially in Europe and Japan) must repair their balance sheets by reducing debt and spending. This will put a cyclical drag on economic demand, exacerbating the world output gap (the difference between actual and potential output), making deflation more likely.

The world's major financial institutions certainly face significant challenges, from credit (J.P. Morgan) to regulatory (Citigroup) to structural (Deutsche Bank). But a collapse of the world financial system seems improbable, and deflation and depression in the absence of systemic financial failure are unlikely to occur. So we conclude that deflation and depression are serious risks, but a period of sluggish, but positive, economic growth, with prices neither accelerating nor declining, is the economic environment we expect for the foreseeable future.

Which brings us to the question of valuation. It is painfully evident that equity valuations were stretched considerably in early 2000, but the 50% decline in equity prices has gone a long way to bring valuations back to historical norms. Traditional price-to-earnings multiples are still high (see Graph 11), although we've also just been through the worst drop in profits in over sixty years. Consensus earnings estimates for 2003 show the market to be at its long-term historical average valuation.

Graph 11

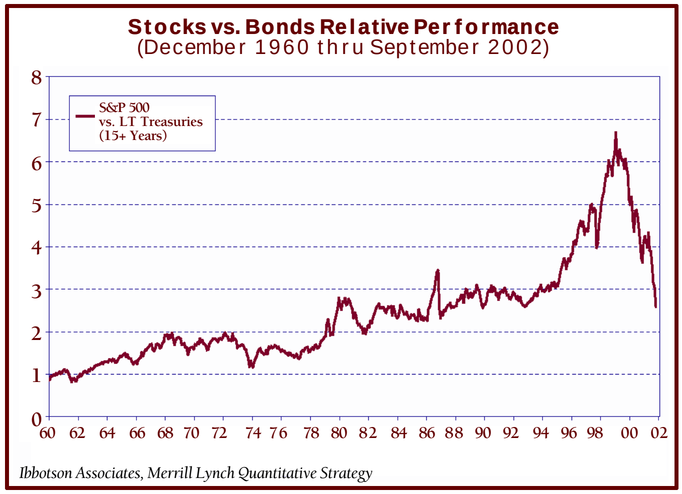


Relative to bonds, stocks seem reasonably valued, as the excesses of the late 1990s have largely been corrected (see Graph 12).

One doesn't hear much about the extraordinary bull market in bonds, but we think it's worth considering whether the next five, ten or fifteen years will look like the past periods. With a 4% yield, the ten-year US Treasury note sports an equivalent P/E multiple of 25, higher than equities. True, this 4% return is guaranteed whereas stock returns are not, but the bond yield is also guaranteed not to grow, whereas stock returns have historically outpaced inflation.

With the yield and duration of the Lehman Aggregate Index roughly the same (around 4½), a 100 basis point rise in yields will result in a price decline about equal to the yield, resulting in a zero percent return to bonds. A greater increase in rates would lead to negative returns. Twenty years ago, when yields were 15%, it took more than a 300 basis point rise in rates to offset the yield advantage of bonds. Bonds are as risky today as they have been in over forty years.

Graph 12



Investing is largely about probabilities. When assets are cheap, the odds favor (but don't guarantee) higher returns than when assets are expensive. The accompanying table suggests that while there is a wide range of outcomes, bond returns should be much lower in the coming years than in the past. We are not saying abandon bonds today, but we are very comfortable in recommending we stick to a disciplined rebalancing program that calls for pulling some

Bond Returns in Different Rate Environs —1926 on
5 Year Annualized Total Returns on LT Govt Bonds

Entry Yield	Average	Min	Max	+1 St Dev	-1 St Dev
<=2	2.8%	0.9%	3.9%	3.9%	1.7%
2-3	2.3%	-1.7%	5.1%	4.0%	0.7%
3-4	3.9%	-0.4%	7.6%	5.3%	2.4%
4-5	1.4%	-3.3%	7.7%	3.8%	-0.9%
5-6	4.4%	1.6%	6.8%	5.7%	3.2%
6-7	6.9%	3.2%	10.1%	8.7%	5.2%
7-8	6.7%	-2.3%	10.8%	10.4%	3.0%
8-9	7.6%	-0.5%	14.2%	11.2%	4.1%
9-10	11.5%	4.2%	15.4%	14.6%	8.5%
10-11	11.9%	9.7%	14.2%	13.1%	10.6%
11-12	14.3%	12.2%	16.8%	15.5%	13.2%
>12	18.9%	13.7%	24.6%	21.9%	15.9%

Source: Ibbotson, Morgan Stanley Research chips off the table and placing them in assets that have underperformed. Mean reversion is still a powerful force in investing.

It is particularly *apropos* that the Nobel committee chose Daniel Kahneman as this year's co-winner of the Economics prize. Kahneman, with the late Amos Tversky, pioneered the field of study now known as behavioral finance, which posits, among other things, that investors are not necessarily rational in their assessment of risks, exhibiting strong a preference for (irrational) risk avoidance. For example, given a choice between an 80% chance of winning five dollars and a 20% chance of winning fifty dollars, the vast majority of people will choose the former, even though the expected return of the former is four dollars (.80 x $5) versus the latter's expected return of ten dollars (.20 x $50). I replicated these experiments dozens of times in my finance classes, and the outcome was always the same. This is just one example of their work, but it is quite clear that the vast majority of people, finance professionals included, do not easily grasp statistical probabilities. It is human nature to want to buy when prices are high (after all, if prices have been rising they are likely to continue to rise), and to sell when prices are low (surely if prices have been falling, tomorrow they will be cheaper). But investment success comes from the opposite actions, counter-intuitive as they are, which is why we rely on predetermined mechanics, rather than our instincts, to guide our asset rebalancing.

Odysseus, our hero, knew this. The songs of the Sirens simply could not be resisted, and all who passed by were lured to their deaths. Odysseus instructed his men to fill their ears with wax, and had himself lashed to the mast. But his ears were unplugged. He knew the Sirens' songs would entrance him and only the shackles would keep him from steering toward disaster. But he did want to hear those songs.

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