



*The Road Ahead for Investors*

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We have just experienced the most bruising capital markets environment since the 1930's—and it may not be over yet. Time will tell. There are pundits on who believe that the market is still over-valued and there are those who believe it is under-valued—with everyone struggling to be heard above the noise. The sheer scale of the meltdown is dramatic, but equities are still not at lowest levels that have hit in previous calamitous periods. On the basis of some fundamental measures<sup>1</sup> such as trailing ten-year P/E ratios or Tobin's Q, equities are cheap but could get quite a bit cheaper before they match the fundamentals of previous bottoms. Equities are cheaper than they have been in a long time, many experts note, but they could go lower if past crises are any indication. Well, perhaps this is not exactly a stunning insight. There are plenty of negative voices out there, but it is worth being a skeptic. Nouriel Roubini, the so-called 'prophet of doom' who is predicting further market declines, has all of his 401(k) assets invested in equities<sup>2</sup>.

The aggregate risk tolerance of the market has shifted, from an attitude that risk doesn't really matter as a consideration to one in which investors are very risk averse. It was not so long ago now that retail investors were pouring money into emerging markets, heedless of the historical risk levels associated with this asset class. By their actions, investors were betting that the high risks associated with a range of foreign countries had been conquered—but this idea was not well supported<sup>3</sup>. Today, investors seem convinced that the wheels are—or have a meaningful probability—of coming off the system. As investors sell off their equity holdings, they have invested heavily in bonds<sup>4</sup>. The flight to government bonds, the safest of all asset classes, has created what many see as a bubble in bonds<sup>5</sup>.

If we take a step back, several themes emerge. First and foremost, are there good reasons to suspect that the equity risk premium will be lower in the future than it has been historically? The answer to this question depends on what period of history you happen to look at. The equity risk premium is the additional return that investors have historically obtained by investing in equities (as opposed to risk-free assets). The most readable scholar on the topic of equity risk premiums is Elroy Dimson. He has provided his outlook for the equity risk premium in the **Credit Suisse Global Investment Returns Yearbook 2009**<sup>6</sup>. His conclusion is that the equity risk premium is likely to be lower in future decades than it was for the 30-year period from 1970 through 2000, but that period was something of an anomaly when you look at the longer record. He estimates that the U.S. equity market as a whole will likely deliver an arithmetic average *real* return (after inflation is adjusted for) of 6% per year in the long-term. With inflation averaging 3% or so, this puts the total average annual return at 9%. This estimate is a bit higher than the baseline assumption that is used in *Quantext Portfolio Planner* of 8.3%.

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<sup>1</sup> <http://www.forbes.com/forbes/2009/0330/036-wheres-the-bottom.html>

<sup>2</sup> <http://www.portfolio.com/views/blogs/market-movers/2009/03/16/the-roubini-portfolio?tid=true>

<sup>3</sup> <http://seekingalpha.com/article/17957-risk-outlook-for-country-specific-etfs>

<sup>4</sup> <http://www.reuters.com/article/pensionsNews/idUSLNE52F00S20090316>

<sup>5</sup> [http://www.forbes.com/2008/12/18/treasury-bond-lehman-pf-ii-in\\_mt\\_1218chartroom\\_in1.html](http://www.forbes.com/2008/12/18/treasury-bond-lehman-pf-ii-in_mt_1218chartroom_in1.html)

<sup>6</sup> <http://topforeignstocks.com/wp/wp-content/uploads/2009/02/2009-global-investment-returns-yearbook.pdf>

The fundamental approach used by Dimson and others simply based on the idea that the returns from equities must be driven by three factors over the long term: dividends, growth in dividends, and increases in price to earnings (P/E) ratio. Increases in P/E are, by their nature, speculative—they are based on investors' belief in future earnings growth and other variables. P/E ratios may increase for some period of time, but it would be ridiculous to believe that there is no fundamental constraint. The value of any business comes from its earnings. When Dimson examines these factors across a range of countries, his findings suggest the general level of returns discussed in the previous paragraph.

Historically, markets have swung from one extreme to another—they do not settle into equilibrium. This is why many investors think of markets as a process of Reversion To the Mean (RTM). Periods of outsized equity returns are likely to be followed by periods of low equity returns (and vice versa). This notion rests on the idea of reasonably efficient capital markets—assets are not priced properly at any given instant in time, but they are likely to average to a fairly reasonable price over long periods. This mechanism is implicit in examination of variability in price-to-earnings ratios, dividend yields, etc. as the basis for determining whether stocks are expensive or cheap. Markets have historically cycled between high and low risk tolerance—with investors leveraging or de-leveraging themselves depending upon their outlooks. This process—elegantly described in Minsky's Financial Instability Hypothesis—has never looked more relevant than in the aftermath of 2008.

While the recent declines in equities have been enormous, they must be put into a long-term context. Over the past ten years (through February 2009), VFINX (Vanguard's S&P500 index fund) has generated an average annual return of -2.75% per year, with a standard deviation of 15.6%. Over the twenty years through February 2009, VFINX has generated an average annual return of 7.9%, with a standard deviation of 15.2%. Quantext Portfolio Planner (QPP) uses a baseline estimate of 8.3% for long-term average annual return, with a standard deviation of 15.1%. In other words, the trailing twenty years through February of 2009 has delivered just slightly less return than QPP estimates as "fair"—and we have been using these same baseline statistics since QPP was released—well before 2007-2008. If we push history back just a bit further to 21.5 years (to include the crash of 1987), we end up with an average annual return of 7.2% and a standard deviation of 15.5%. These results suggest that equity investors have actually reaped slightly less than our estimate of 'fair' returns over the last twenty years—including 2008. The market goes up, and it goes down, but the last twenty years have actually ended up giving us returns that are consistent with long-term estimates of the equity risk premium. In the twenty-year period through 2007, the average annual return was 11.4% per year, so we can see 2008 for what it was: a substantial case of mean reversion.

What do we make of this? First, there is no way to tell how long it takes for markets to cycle between their extremes. This is why academics like Dimson use a variety of methods to estimate the equity risk premium and don't just look at historical averages. Over a ten-year period, equities have under-performed the long-term estimate based on

the equity risk premium. Over the twenty-year period, equities have delivered 0.4% per year less than the baseline that I use in QPP—but that is actually remarkably close. Jeremy Grantham believes that the S&P500 is substantially under-valued<sup>7</sup> and a recent comparison between QPP's and Grantham's long-term projections showed remarkable consistency<sup>8</sup>. Grantham predicted the relative returns of a range of asset classes remarkably well over the last seven years<sup>9</sup>—so he deserves some attention. Grantham looks at fundamentals and provides tactical asset allocation insight. QPP is primarily a strategic asset allocation tool. When Grantham's outlook suggests returns higher than the long-term estimates for the equity risk premium, and the historical return on stocks is at or below its long-term average, this would suggest that stocks are attractively priced.

None of this discussion means that equities will not sink further—the market can dramatically swing beyond equilibrium values. Personally, I find the popular practice of 'calling the bottom' somewhat ridiculous. I don't know where the market will bottom out and neither does anyone else. So what does a rational person do? One must start with historical perspective. Experts have been telling us for that the long-term average annual return for equities (based on fundamentals) was much lower than we had experienced during recent decades (prior to 2008). The fact that people ignored this note of caution was no less foolish than people believing that houses could consistently rack up double-digit annual price gains, despite the long-term historical record that showed that residential real estate appreciated at rates slightly better than bonds. The simple reality is that people get too bullish when markets go up and too bearish when markets go down. When I am running portfolio analysis scenarios, I have always used 8.3% per year for the baseline assumption for the arithmetic average annual return for the S&P500. 2008 has provided more support for the fundamental analysis of equity risk premiums by academics like Elroy Dimson. In terms of layering a tactical component in portfolio planning, I would tend to increase the equity risk premium if I made any change at all—perhaps to be even more consistent with Jeremy Grantham, as I have previously discussed<sup>10</sup>. One of the main reasons why our projections match Grantham so closely is due to a view that risk is coupled across markets (this is a key component of our modeling approach for long-term planning).

My overall conclusions are the following. First, there is a substantial body of research that has been predicting since before 2008 that overall equity prices were too high to be justified based on fundamentals. The massive drops in 2008 among almost all asset classes represents a large scale increase in risk aversion across markets and the associated de-leveraging predicted by Minsky. Going forward, the long-term case for equities as an engine of wealth creation has not been diminished—though many investors may feel this way for quite some time. How long will it take before investors' appetite for risk comes back? That is not something that I can predict. Events like 2008 are sufficiently rare that they cannot be well described using statistical models. I think that investors re-entering

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<sup>7</sup> [http://www.gmo.com/websitecontent/JG\\_ReinvestingWhenTerrified.pdf](http://www.gmo.com/websitecontent/JG_ReinvestingWhenTerrified.pdf)

<sup>8</sup> <http://seekingalpha.com/article/112655-analyzing-granthams-asset-class-outlooks>

<sup>9</sup> [http://www.gmo.com/websitecontent/JGLetter\\_ALL\\_4Q08.pdf](http://www.gmo.com/websitecontent/JGLetter_ALL_4Q08.pdf)

<sup>10</sup> <http://seekingalpha.com/article/112655-analyzing-granthams-asset-class-outlooks>

the equity markets will tend to be look for ‘quality’ equities—companies that do not rely on high (and uncertain) estimates of growth to justify their value. I also think that investors will be somewhat less enthusiastic with regard to emerging markets now that they realize that the old ‘decoupling’ story was simply not true. This does not mean that it is rational for investors to have far less weight in emerging markets—but this seems likely.

The enduring point that 2008 makes so clear is how powerful a role psychology plays in the minds of the collective market participants. Not so long ago, investors could see no end to their amazing returns from emerging markets. Before that it was housing. Before that it was tech stocks. Momentum cannot persist in one direction forever. While Grantham pointed out prior to 2008 that we were in a ‘risk bubble’—where investors simply wanted more and more aggressive portfolios—we are now in a ‘risk aversion bubble’---investors are petrified of taking on or holding risky assets. Another fairly disturbing feature of the current market is that investors seem to have largely discounted inflationary pressures—nominal bonds are the least attractive asset in an inflationary environment. There will always be a general over- or under-enthusiasm for different asset classes, sectors, etc.—this is the nature of markets. There are ways to exploit any particular bias in the market. When markets are insufficiently risk averse—as they were in the years leading up to mid 2007<sup>11</sup>—investors can stay out in front by owning more defensive assets. When markets are exceedingly risk averse, investors can bet against this risk aversion<sup>12</sup>. Even if we are correct in these tactical moves, however, the timing is challenging—gambler’s ruin is a risk for everyone.

Before concluding, I hasten to note that I took my lumps in 2008. I am by no means claiming to have been prescient in seeing this disaster coming. The general trends in this market certainly weight to the mean reversion view of the world, however. Volatility has reverted to its long-term average (about 15% for the S&P500) and the equity risk premium is in line with its long-term average. Going forward—in the long-term—the statistics suggest that (1) equities will recover, (2) bonds will decline, and (3) inflation will return. We cannot know the timing of these things—but that uncertainty is what we, as investors, are being paid to take on.

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<sup>11</sup> <http://seekingalpha.com/article/27508-foreign-and-domestic-market-risk-outlook-from-february-2007>

<sup>12</sup> <http://seekingalpha.com/article/107756-profitng-from-risk-aversion>

*Quantext Portfolio Planner* is a portfolio management tool. Extensive case studies, as well as access to a free extended trial, are available at <http://www.quantext.com>

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