A look at Equity Markets’ Historical Returns  
(Written March 2009) 

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The stock market in the U.S. reached its all time high on Tuesday 9 October 2007 with the Dow Jones Industrial Average (DJIA) closing at the level of 14,164. It has, since then, decreased by more than 50% to drop below 7,000 a level unseen since the beginning of 1997.

In what follows, I will draw some historical parallels with the three main previous market crashes, while simultaneously analysing if a not-so-well-informed stock market investor could have foreseen such a crash and hence rotated his equity portfolio between countries and sectors in order to reduce the losses made.

The study will start by revisiting the stock market crashes of 1929, 1987 and 2000 and their impact on both the stock market and the ensuing regulation. I will also introduce an historical review of the main milestones of the 2008 recession. In a second stage I will use the yield curve spread model to see if it was possible to expect this deep recession and its impact on the stock market. In the third part, I will look at the historical returns generated by the main stock markets and sectors/industries to see if a country rotation strategy or a sector rotation strategy would have been effective in hedging market declines. Finally I will conclude my analysis by trying to put into perspective the New World Order that could potentially emerge from the latest crisis.

Stock Market Crashes Revisited

A stock market crash is commonly defined as a rapid and sharp broad decline in shares prices. Crashes usually find their root cause in a given economic environment and are further aggravated by panic selling. They combine external economic events with behavioural side effects creating hence a vicious circle where selling by investors and bad economic news lead to more selling by other market participants. There has been, before 2008, three main market crashes in the U.S. and the world.

The crash of 1929:

On Tuesday 3 September 1929, the DJIA reached a record level of 381.17, following a market bubble which drove stock prices to increase by some 300% in eight years. As a result, shares prices became overvalued for that time with an average P/E ratio of more than 32 (as compared to around 5 in June 1920), well in excess of historical averages. In addition, a non negligible portion of the buying was done on margins with investors depositing 10% of the investment’s cost as initial margin and borrowing the remaining 90%. Given the fact that many feared that the stock market was overvalued, profit-taking started to take place and, by 3 October, the market had already dropped by 13.4%.

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1 The P/E ratio (or price-to-earnings ratio) is a financial ratio used for valuation and is a measure of the price paid for a share divided by the annual net income per share. The values used are derived from the work of Professor Robert J. Shiller in his book *Irrational Exuberance* [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005]
The situation was aggravated by a statement made by Philip Snowden, England's Chancellor of the Exchequer, who described America's stock market as a "speculative orgy" and by the reaction of Adolph Miller, the new president of the Federal Reserve Board, who tightened monetary policy which led margin borrowers to liquidate more positions, hence further driving down the market.

By 24 October 1929 (Black Thursday), the stock market had already dropped by 21.5% as compared to 3 September with the DJIA reaching 299.47. It did not stop here as the wrong policies adopted by the Federal Reserve combined with the failing of more than 40% of the banks in the U.S. led the stock market to pursue its decline for another 2 and a half years. On 08 July 1932 the DJIA reached a level of 41.22, which was 89.19% lower than its level on 03 September 1929, a value that the DJIA took some 25 years to recover (on 23 November 1954).

As a result of this crash, several measures were taken:
- The Securities and Exchange Commission (SEC) was established
- The Glass-Steagall Act (officially named the Banking Act of 1933) introduced the separation of bank types according to their business (commercial and investment banking)
- This Act also established the Federal Deposit Insurance Corporation (FDIC) to insure individual bank accounts for up to USD 100,000.

The Crash of 1987:

Another highly cited crash took place on 19 October 1987 also known as the Black Monday where the Dow Jones Industrial Average plummeted by 508 points in one day (or 22.6%) after completing a 5 year continuous rise in share prices. The crash began in the Far East and spread to the West through international time zones to Europe, hitting the United States after other markets had already declined by a significant margin. By the end of October, stock markets in Hong Kong had fallen by 45.8%, Australia 41.8%, Spain 31%, the United Kingdom 26.4%, the United States 22.68%, and Canada 22.5%. Although this crash did not affect the stock market for a long period of time, the Black Monday decline is still noted in the books as the largest one single day percentage decline in stock market history.

Several causes have been cited for this crash among them one can mention program trading, overvaluation, illiquidity, and market psychology. Indeed, large institutional investors where using computers to automatically order large stock trades when certain market trends prevailed. Simultaneously, stocks were trading at a historically high P/E ratio. By detecting such overvaluations, computer generated transactions acted so as to trigger the crash. In addition, during the crash, the markets were not able to handle the large volume of sell orders. Most common stocks on the NYSE were not traded until late in the morning of 19 October. No one knows why investors all wanted to sell at the same time.

The crash resulted in some reforms being implemented, the most important ones being the standardization of margin requirements for stocks and derivatives and the "circuit breakers" implementation at both the New York Stock Exchange and the Chicago Mercantile

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2 In the 1920's, banks were opening up at the rate of 4 to 5 per day. There were few federal restrictions to determine the capital needed to start up a new bank or how much of its reserve it could lend. As a result, most of these banks were highly insolvent or heavily invested in the stock market. Banks were closing at the rate of 2 a day between 1923 and 1929
3 Over the past decade the Federal Reserve and the banking regulators have softened some of the Glass-Steagall Act.
4 By Wednesday, January 25 1989 the DJIA had already recovered all its losses
5 Some analysts also claimed that index futures and derivatives securities buying were to blame
Exchange which relates to a mechanism allowing the trading to be halted on both exchanges for one hour if the Dow Jones average fell more than 250 points in a day and for two hours if it fell more than 400 points.

**The Crash of 2000:**

Also known as the Internet Bubble, this downturn can be viewed as part of a larger bear market or correction, after a decade-long bull market had led to unusually high stock valuations. Indeed, from 1992 till 2000, the markets and economy had a record expansion period. For instance, the DJIA rose from 3,301 as at end of December 1992 to a record of 11,497 as at end of December 1999, hence increasing by 248% in 7 years and providing investors with a CAGR\(^6\) of 13.9% per year.

Overvaluations were obvious especially with Internet related stocks (some of them not even profitable) trading at P/Es of hundreds if not thousands. This led the NASDAQ Composite to reach an intraday all-time high of 5,132 on March 10, 2000, a level far from being recovered since\(^7\). In addition, an outbreak of accounting scandals such as Enron and WorldCom as well as the aftermath of the 11 September attacks also contributed heavily to the stock market downturn.

In fact, the DJIA peaked at 11,722.98 on 14 January 2000 and started to drop afterwards. It took almost 6 years for the Dow to recover and close above this level in October 2006.

The reforms that took place afterwards consisted in further accountability for CEOs and CFOs who have been required to sign off their audited financial statements, more thorough disclosures in the notes accompanying financial statements and the separation between Investment Banking and Analysts Research.

**The Crash of 2008:**

The 2008 crash, or what I would like to call the “Investment Bankers’ Demise”, was largely due to investors’ and bankers’ greed alike and the prevailing low interest rates.

Given the low interest rates prevailing at that time, investors were looking at pick-up in yields. The main structured products in vogue then consisted in the packaging of sub-prime mortgage\(^8\) and credit-default swaps. The problems started when housing prices started to fall in 2007 leading homeowners to find themselves with underwater loans, that is a negative equity\(^9\).

As mortgage defaults started to rise, the national economy started to falter and fear crept into the credit markets. Despite the efforts of the Federal Reserve, the destabilization of the credit market quickly spread to the national financial system. Lenders began to fear borrowers could no longer repay their loans. This credit crunch rapidly evolved into a global crisis resulting in a number of bank failures in Europe and sharp reductions in the value of equities (stock) and commodities worldwide.

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\(^6\) Compounded Annual Growth Rate  
\(^7\) To note that the NASDAQ Composite closed at 1,577 as at end of December 2008, i.e. at 31% off its peak value reached in March 2000  
\(^8\) In sub-prime mortgages, individuals with poor credit are given loans they in fact could not afford. But as long as home prices were on the rise, they led to the homeowner’s equity in their house outpacing the debt value. If borrowers were to fail to pay back their loans, lenders could always foreclose on the home..  
\(^9\) In fact latest available data indicate that 1 out of 6 mortgage homeowners in the U.S. has a negative equity (source: CNBC)
Bear Stearns, the Federal National Mortgage Association (FNMA or “Fannie Mae”) and the Federal Home Loan Mortgage Corporation (FHLMC or “Freddie Mac”) showed rapid signs of financial distress. On 13 March 2008, Bear Stearns’ liquidity position had deteriorated and it informed the Fed that it would file for bankruptcy unless alternative sources of funds were made available\textsuperscript{10}. Fannie Mae and Freddie Mac either owned or guaranteed nearly USD 6 trillion in mortgage loans in 2008 and, given their problems, these two agencies were placed on 7 September 2008 under Federal conservatorship with the U.S. Treasury supplying funds to help stabilize them.

On 14 September 2008, Bank of America agreed to acquire Merrill Lynch for USD 50 billion as a second wave of volatility began in the financial community. And, on 15 September, concerns over the ability of financial institutions to cover their exposure in both the sub-prime loan market as well as credit default swaps led to further market instability. That same day, Lehman Brothers was forced to file for Chapter 11.

On 16 September 2008, American International Group fell victim to a liquidity crisis as AIG’s shares lost 95% of their value and the company reported a USD 13.2 billion loss in just the first six months of the year\textsuperscript{11}.

The crisis did not affect the U.S. alone. In addition to Citigroup, Wachovia, Washington Mutual, and other U.S. based banks, several international banks faced tremendous losses as a result of the credit crunch. HBOS, Barclays, Lloyds Bank, Royal bank of Scotland, UBS, Credit Suisse, Kaupthing Bank, Natixis, etc. all needed government intervention to various degrees.

The three figures reproduced hereafter are meant to illustrate the extent of the declines in stock markets during the last three crises.

Figure 1: Evolution of the Indexes for 6 Developed Markets since end of 1969

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{Evolution of the Indexes for 6 Developed Markets since end of 1969}
\end{figure}

\textit{Source: Morgan Stanley Capital International (MSCI)/Barra, in USD, origin set at 100, from 31/12/69 to 31/12/08}

\textsuperscript{10} Two days later, Bear Stearns agreed to merge with JP Morgan Chase in a deal that wiped out 90% of Bear Stearns’ market value

\textsuperscript{11} AIG registered for the last quarter of 2008 the largest quarterly loss in history with more than USD 60 Billion
Was it possible to foretell the 2008 recession?

During recessions, business activity slows. As a result unemployment increases and profits fall. The question here is how to foretell a recession. An intuitive answer would be to study the causes of the past recessions and the economic signs that pointed to them, such as:

- In the real sector: rise in unemployment, drop in aggregate personal income, fall in the index of industrial production and decline in manufacturing and trade sales
- In the monetary sector: drop in the consumer price index as well as in interest rates.
However, although some causes such as overvaluation could be retraced as being one common factor, there are no clear predictive factors as each crash had its own “bubble” and hence one cannot regress common factors out of them. Alternatively, one could try to predict the evolution of the index of leading indicators\(^\text{12}\) which, by starting to decline months before recessions are officially recognized, could act as an explanatory variable. The most commonly used leading indicators are the stock market index, the building permits for new private housing units, the index of consumer expectations, the contracts and orders for plant and equipment, the M2 money supply, and the average hours worked in manufacturing, …

Since the stock market indexes are themselves a leading indicator, we must thus use another tool that has a longer lead time over business activity than the stock market indexes to help us forecast the stock market.

Figure 4: Evolution of the S&P 500 and the Business Cycle in the U.S. since 1969

\[\text{Source: Federal Reserve of St Louis (GDP growth), MSCI (S&P 500 growth)}\]

Economists often use complex mathematical models to forecast the path of an economy and the likelihood of recession. One of the mostly used predictors is the use of the yield curve, and, more specifically, the spread between the interest rates on the 10 year Treasury note and the three-month Treasury bill which historically appeared to be the most valuable forecasting tool.

This relates to the fact that prevailing monetary policy has a significant influence on the yield curve spread and hence on real activity over the next several quarters. A rise in the short rate tends to flatten the yield curve as well as to slow real growth in the near term. As explained in Mishkin (1990a, 1990b), this rate can be decomposed into expected real interest rate and expected inflation components, each of which may be helpful in forecasting. The expected real rate may be associated with expectations of future monetary policy and hence of future real growth. Moreover, because inflation tends to be positively related to activity, the expected inflation component may also be informative about future growth.

\(^{12}\) A leading economic indicator is a gauge that usually moves up or down before the general level of business activity
To assess how well each indicator variable predicts recessions, Estrella and Mishkin (1996) used a probit model\(^{13}\), which, in their application, directly relates the probability of being in a recession to a specific explanatory variable such as the yield curve spread. In their analysis, they compared the recession forecasting performance of the yield curve spread with that of the New York Stock Exchange Index, the Commerce Department’s index of leading indicators and the Stock-Watson\(^{14}\) Index. Their conclusion was that, in predicting recessions two or more quarters in the future, the yield curve dominates the other variables, and this dominance increases as the forecast horizon grows.

The estimated recession probabilities for the probit model using the yield curve spread\(^{15}\) (four quarters ahead) can be summarized in the below Table:

Table 1: estimated recession probabilities based on the yield curve spread

<table>
<thead>
<tr>
<th>Recessions</th>
<th>Probability (Percent)</th>
<th>Value of Spread (percentage points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>0.46</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>-0.17</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>-0.5</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>-0.82</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>-1.13</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>-1.46</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>-1.85</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>-2.4</td>
<td></td>
</tr>
</tbody>
</table>

In order to test the predictions of the Yield curve, I have plotted the data as represented below.

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\(^{13}\) In statistics, a probit model is a popular specification of a generalized linear model. In particular, it is used for Binomial regression. Probit models were introduced by Chester Ittner Bliss in 1935. Estimation of the model only became practical in the 1970s with the availability of mainframe computers which could solve nonlinear maximization problems. It has since become the workhorse of analyzing discrete choice problems.

\(^{14}\) Stock-Watson XRI and related series have been retired in 2003 after 14 years. The most direct successor of the Stock-Watson indexes is the Chicago Fed National Activity Index (CFNAI), a monthly index constructed using 85 monthly indicators based on an extension of the methodology used to construct the original Stock-Watson XCI. The CFNAI is available at [http://www.chicagofed.org/economic_research_and_data/cfnaiacfm](http://www.chicagofed.org/economic_research_and_data/cfnaiacfm).

\(^{15}\) the spread is defined as the difference between the interest rates on the 10-year Treasury Note and the 3-month Treasury Bill.
The findings are that, although the model worked fairly well till the end of 2000, the indicated recession probabilities ranged between 20% and 40% for the 2008 crash which, in itself, is not a reliable indicator. The conclusion here is that the model failed this time to properly send the signal and hence the average investor would have had to use a multi-factor model including variables such as house prices, consumption data, interest rates, etc which will undoubtedly provide better predictions.

**Country Rotation Strategy or Sector Rotation Strategy: which was the best?**

Taking apart individual stock picking which is the “apanage” of professional portfolio managers, active portfolio management strategies that could be pursued by average investors can be divided into two distinct approaches:

- **Country Allocation:** Analysis of Economies and Security Markets
- **Sector Allocation:** Analysis of Industries/Sectors

Active management is the predominant model for investment strategy today. Active managers try to pick attractive markets/sectors/securities, determine when to move into or out of them, and place bets on the future direction. Their objective is to make a profit and do better than indexing. In pursuing their objectives, active managers search out information they believe to be valuable, and often develop complex or proprietary selection and trading systems.

Active management encompasses hundreds of methods, and includes fundamental analysis, technical analysis, and macroeconomic analysis, all having in common an attempt to determine profitable future investment trends. An investor who followed in 2008 country allocation strategy was to experience losses wherever he/she invested as depicted in Figures 6, 7 and 8.
Figure 6: Developed Markets: the 2008 disaster

Source: monthly data from MSCI, in USD terms, from 31/12/2007 to 31/12/2008

Figure 7: Emerging Markets did not fare better in 2008

Source: MSCI, in USD terms, from 31/12/2007 to 31/12/2008
Figure 8: Arab Countries followed suit

It looked that there was no safe haven for stock markets in 2008. Given the fact that equity investors calculate their returns based on longer term horizon, I have reproduced in Figure 9 the returns over the period 1998 – 2008. This study clearly indicates that developed markets’ returns were either negative on average (Italy, UK, Germany and Japan) or barely beating inflation. The exception is related to emerging markets who had delivered a much better performance.

Figure 9: The Lost Decade for Developed Markets (CAGR in %)
In order to see if, during the last 5 years, a diversification of the portfolio across countries would have provided a sort of hedge against market fluctuations, I have computed, based on the MSCI data, the correlation coefficients between the markets including the AC World which is an MSCI index representing the World market. Here also data indicate that correlation coefficients are above 0.8 (with the notable exception of Japan with Hong Kong and the Emerging Markets) and hence we can conclude that returns over the last 5 years have been strongly interdependent.

Table 2: International Markets Correlations: last 5 years’ data indicate that diversification is of no use

<table>
<thead>
<tr>
<th></th>
<th>AC World</th>
<th>EAFE</th>
<th>Europe</th>
<th>Japan</th>
<th>UK</th>
<th>HK</th>
<th>USA</th>
<th>Emerg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC World</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.89</td>
<td>0.98</td>
<td>0.94</td>
<td>0.97</td>
<td>0.95</td>
</tr>
<tr>
<td>EAFE</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.90</td>
<td>0.98</td>
<td>0.93</td>
<td>0.96</td>
<td>0.94</td>
</tr>
<tr>
<td>Europe</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.87</td>
<td>0.98</td>
<td>0.94</td>
<td>0.96</td>
<td>0.95</td>
</tr>
<tr>
<td>Japan</td>
<td>0.89</td>
<td>0.90</td>
<td>0.87</td>
<td>1.00</td>
<td>0.89</td>
<td>0.72</td>
<td>0.89</td>
<td>0.76</td>
</tr>
<tr>
<td>UK</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.89</td>
<td>1.00</td>
<td>0.89</td>
<td>0.99</td>
<td>0.88</td>
</tr>
<tr>
<td>HK</td>
<td>0.94</td>
<td>0.93</td>
<td>0.94</td>
<td>0.72</td>
<td>0.89</td>
<td>1.00</td>
<td>0.87</td>
<td>0.97</td>
</tr>
<tr>
<td>USA</td>
<td>0.97</td>
<td>0.96</td>
<td>0.96</td>
<td>0.89</td>
<td>0.99</td>
<td>0.87</td>
<td>1.00</td>
<td>0.86</td>
</tr>
<tr>
<td>Emerg.</td>
<td>0.95</td>
<td>0.94</td>
<td>0.95</td>
<td>0.76</td>
<td>0.88</td>
<td>0.97</td>
<td>0.86</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: data from MSCI, from 31/12/2003 till 31/12/2008, in USD (EAFE or Europe/Australasia/Far East is an index representing the developed world excluding the US and Canada)

Let us now analyze the returns derived from a Sector Allocation Strategy. This strategy is based on the fact that, during different business cycles (recovery or recession), some economic sectors behave better (or less bad) than others. In such circumstances, portfolio managers endeavour to take advantage of the highs and lows of the business cycle by trying to anticipate bull and bear markets and determine which sectors are the best at one point in time. They potentially execute their trades at advantageous times. Those who win in such situations are said to have good market timing.

Table 3 summarizes the various returns per industry since 2000. As one can note, no industry escaped the 2008 crash with some global industries such as Information Technology and non-cyclical services posting negative average returns over the 2000-2008 period.
Table 3: Sector Allocation: World Industries Returns since 2000

<table>
<thead>
<tr>
<th>Sector Total Return in US$</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil &amp; Gas</td>
<td>12.8%</td>
<td>-5.9%</td>
<td>-5.4%</td>
<td>30.7%</td>
<td>28.4%</td>
<td>31.9%</td>
<td>21.7%</td>
<td>33.8%</td>
<td>-41.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Basic Industries</td>
<td>-5.8%</td>
<td>-7.7%</td>
<td>-5.4%</td>
<td>46.7%</td>
<td>22.0%</td>
<td>15.8%</td>
<td>32.7%</td>
<td>47.5%</td>
<td>-52.6%</td>
<td>10.3%</td>
</tr>
<tr>
<td>General Industrials</td>
<td>4.9%</td>
<td>-15.8%</td>
<td>-24.3%</td>
<td>41.9%</td>
<td>18.5%</td>
<td>12.9%</td>
<td>20.7%</td>
<td>18.4%</td>
<td>-44.8%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Cyclical Consumer Goods</td>
<td>-11.9%</td>
<td>-12.7%</td>
<td>-6.3%</td>
<td>36.5%</td>
<td>13.7%</td>
<td>8.6%</td>
<td>22.3%</td>
<td>5.8%</td>
<td>-36.7%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Non-Cyclical Consumer Goods</td>
<td>14.4%</td>
<td>-10.8%</td>
<td>-10.7%</td>
<td>19.4%</td>
<td>9.3%</td>
<td>9.7%</td>
<td>17.1%</td>
<td>17.4%</td>
<td>-27.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Cyclical Services</td>
<td>-6.6%</td>
<td>-7.2%</td>
<td>-23.4%</td>
<td>31.9%</td>
<td>15.7%</td>
<td>2.8%</td>
<td>16.3%</td>
<td>7.1%</td>
<td>-37.0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Non-cyclical Services</td>
<td>-29.7%</td>
<td>-23.4%</td>
<td>-26.9%</td>
<td>28.0%</td>
<td>19.9%</td>
<td>-1.1%</td>
<td>31.5%</td>
<td>21.1%</td>
<td>-33.9%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Utilities</td>
<td>19.2%</td>
<td>-20.0%</td>
<td>-13.8%</td>
<td>30.7%</td>
<td>29.6%</td>
<td>15.6%</td>
<td>38.0%</td>
<td>24.5%</td>
<td>-31.0%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Financials</td>
<td>18.3%</td>
<td>-14.5%</td>
<td>-15.5%</td>
<td>39.7%</td>
<td>19.4%</td>
<td>13.0%</td>
<td>25.6%</td>
<td>-5.6%</td>
<td>-53.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>-25.4%</td>
<td>-32.5%</td>
<td>-39.3%</td>
<td>48.9%</td>
<td>2.5%</td>
<td>7.3%</td>
<td>12.0%</td>
<td>13.3%</td>
<td>-44.3%</td>
<td>-6.5%</td>
</tr>
<tr>
<td>FTSE All-World Index</td>
<td>-4.2%</td>
<td>-16.1%</td>
<td>-18.9%</td>
<td>34.4%</td>
<td>16.1%</td>
<td>11.7%</td>
<td>22.2%</td>
<td>12.7%</td>
<td>-41.8%</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Source: http://www.ftseall-world.com

International Asset Allocation: What have we learned?

- Stock Markets are becoming more and more integrated as a result of delocalisation and financial integration.
- Emerging markets are extremely volatile but their returns have been much better than those of developed markets for the last ten years.
- While some sectors such as oil & gas, mining and tobacco weathered the 2000 crash, they have been unable to withstand the 2008 stock slump.

Given the above, we can reach the conclusion that no active stock management strategy would have been able to deliver positive results in 2008\(^\text{16}\).

Facing such crisis, and for strategic asset allocation to work, an average investor had to look broader than the stock market in itself. A redistribution of wealth to include cash, money market, short-term bonds and protective puts strategies would have been much more advisable.

Towards a New World Order

Despite all the losses made, stocks till now have historically outpaced the money market and the bond market returns with an annualised equity risk premium of 3.88% since 1927.

This can be depicted in Figure 10 which represents the compounded dollar value as at end of 2008 of USD 100 deposited at end of 1927.

\[\text{16 Although one could argue that financial shares dropped by some 75% as compared to a decline in the S&P 500 index of 51%} \]
In the long term, one can still consider that the stock market should provide, on average, higher returns than bonds. However the bet is that the broad equity risk premium will be lower than the past and this is due to the following two reasons:

- Overleveraged financial structures will be replaced by simpler and more transparent forms of banking, and some activities may be subject to limitations. This implies fewer opportunities to derive abnormal profits.
- The emergence of a new banking model driven by increased regulatory pressure and government oversight. Banks will tend to pursue “zero risk” activities and this, in turn, will reflect on investments of corporations and their returns.

The result will be a financial system (whether bank-based or market-based) under a new stricter governance model, in which risks and returns will be lower and operating in a global economy that will look very different from the pre-crisis world order.
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