## SURUVAL TECHNOUES FOR EVERY INVESTOR WARREN BRUSSEE

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## The Great Depression of Debt

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## Survival Techniques for Every Investor

## Warren Brussee

John Wiley \& Sons, Inc.

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To my wife Lois and my daughters Michelle and Cheri.
They believed in me as a writer and researcher even as I expanded into areas beyond Six Sigma and statistics.

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## Preface

In the late nineties, two other people and I developed a real-time computerized stock investment program to identify insider trading that had caused a stock's price to go up. The program used statistical tests to identify signs that employees had seen a new product, or other positive development, that they felt would positively affect their company, triggering the purchase of an unusual amount of stock.

This computer program was successful in the positive nineties' stock market. Over a period of two years, several millions of dollars were successfully invested. However, the market changed in 2000, and the algorithms were no longer finding investment opportunities. The good thing was that the computer program took us out of the market. However, I wanted to invest in all markets, so I began to look for algorithms that worked in the "new market" after 2002. When reviewing the economy, I became aware of some dire problems. Those insights triggered the eventual writing of my 2004 book The Second Great Depression.

I had written two earlier books, Statistics for Six Sigma Made Easy and All About Six Sigma, so I felt comfortable in my ability to select and analyze data. The essence of Six Sigma is getting good data and
analyzing that data to reach conclusions. The economy and the stock market have reams of data from which the premise of a debt-caused depression emerged.

In my depression book I also told a story. There were many supporting graphs and charts that showed how we were on the precipice of a depression. But the events leading up to the present, starting with the nineties, were just as important as the graphs. Just as someone can't understand the Great Depression without understanding the years preceding it, current graphs on the economy make little sense without understanding the mind-set of the people who brought the economy and the stock market to be where they now are. This understanding also assists in making some determination on what is likely to happen in the near future

Following is an excerpt from my 2004 book The Second Great Depression.

Come 2008, the number of people giving up on making house payments will skyrocket. Since many of the recent mortgage loans are adjustable rate, have teaser rates, or require little or no collateral, banks will be forced to foreclose on homes and sell them, causing a glut of homes on the market and a deflation of home values. In the 2000 market drop, almost no banks went belly up because people had not bought stocks on leverage. This is not true in housing, where people and banks are leveraged. As the current inflated home values go down, many people will have mortgages greater than the value of their homes, and they will happily give their homes back to the bank rather than fight their mortgage payments. Unless the federal government comes to their rescue, many banks will fail in this downturn. This is because banks got too confident and optimized bottom line results with little consideration for the risks they were taking with marginal mortgage loans.

You will be able to get a great deal on a used SUV, especially a Hummer! The automotive market will be for cars getting great gas mileage, and Detroit will again be caught off guard and all geared up for the gas guzzlers. Sound familiar? This will cause massive layoffs at Detroit carmakers, and all the under-funded automakers' pension funds will become zero-funded. Millions of Japanese high mileage cars with new technologies, like hybrid engines, will have been on the road for many years. But the American automakers, with
little on-road experience with these new technologies, will be a car-generation or two behind.
(Brussee, Warren T., The Second Great Depression, Booklocker.com, 2005)
Most of my predictions are proving themselves true. But it is time to relook at the predictions that I made for the years beyond 2008, to see if they are still true. And, with the benefit of four more years of data, we want to see if we can discover even more insights into the future.

This required writing this new book, The Great Depression of Debt! Although many of the predictions made in my earlier book remain largely unchanged, the addition of current data and updated charts with current information, enable us to take a closer look at today's bleak economy and subsequently give my earlier predications more substance and scope. With this knowledge, this book will provide you with the steps that you need to take advantage of the dramatic shifts in consumer spending, the mortgage industry, and the stock market.

## The Next Great Depression

A recession occurs when there is a significant decline in economic activity spread across more than a few months. This decline is shown in real GDP, real income, employment, industrial production, and wholesaleretail sales. When the recession becomes severe or long enough, it transitions into an economic depression. As I write this book in late 2008, all the measures of economic activity are declining, so we certainly qualify for a recession. And given the depth of the housing, mortgage, debt, and credit issues, we appear well on the way to a full-blown depression.

The U.S. economy began to slow in 2007, and the GDP went negative in the fourth quarter of 2007. Some people only look at the GDP (Gross Domestic Product) when determining whether we are in a recession/depression. However, the government's definition of a recession includes many additional factors, such as unemployment. And, as mentioned earlier, a depression is just a severe and extended recession.

In the Great Depression the GDP went down four years in a row starting in 1930; it then went up the next four years, down the next year,
then up again as we entered World War II. But we generally consider the whole period of 1929 through 1940 a depression because of its severity, because unemployment stayed very high, and because other economic measures remained weak even during the years when the GDP was rising.

The start of the current recession/depression was delayed almost a year longer than I expected because people continued to do cash-out refinances on their homes well into 2007, even though homes had already begun to drop in price. However, this delay is only going to make the recession/depression worse because of the increased number of people with mortgages greater than the values of their homes. As I write, 10 percent of homeowners are upside down on their mortgages, and this is increasing at a relentless pace as homes continue to drop in value and more homes come into the market due to record foreclosures. This, in turn, hurts all the credit markets as "mortgage walkers" abandon their homes, causing mortgage-backed securities to continue to lose value. In addition, an extra 1.5 million homes were built in response to the demand caused by the increased number of people able to buy houses based on foolish mortgages. These extra homes are now an albatross around the neck of the housing recovery. Home prices will continue to drop for years; and home building will be largely stagnant, driving related unemployment up. And, of course, all of this is in addition to the underlying problem that consumers have been spending more than their incomes, which is now reversing out of necessity. This reduced spending is causing a severe slowing of the economy, exacerbating the economic problems related to housing.

These problems are so severe that it will take until 2012 or 2013 before the economy bottoms out and our economy again begins to grow. In the meantime, the stock market will drop dramatically, unemployment will be over 15 percent, and the dollar will lose its position as lead currency. Our country will be humbled as it is forced to adapt to a far lower and simpler standard of living.

Although the turnaround of the economy is likely to happen in approximately 2013, it will be somewhere around 2020 before our country's economy fully recovers.

## Acknowledgments

Iwould like to thank Chris Welker, Roy McDonald, and Jeff Kolt for their valuable feedback on the initial manuscript. Like most writers, at some point in writing I become blind to my own words, and I read what I mean to say rather than what I actually write. My reviewers shake me out of that fog with both their helpful suggestions and polite corrections. This book would not be possible without them.

## Part I

## THE ESSENCE OF WHY WE WILL HAVE A DEPRESSION

Part I discusses the historical elements, starting in the 1990s, that set us up for this depression. This history shows how people got so enamored with stock market gains and using debt to finance their standard of living that they no longer felt the need to save. This started a series of bubbles that are now breaking because the consumers' debt level is now at its maximum.

There are many parallels between now and the years preceding the Great Depression, except that this current depression is likely to be inflationary rather than deflationary. There are other economic conditions that may exacerbate this depression, but the depression's trigger was consumer debt, forcing spending to decline. As the consumer continues to reduce spending, industry is slowing and unemployment increasing. As resets on mortgages raise house payments, people are being forced into foreclosures, and the banks holding those mortgages have to be rescued by the government. This is causing a domino effect as the depression spreads.

The Fed will try to stop the depression through interest rate adjustments and various financial incentives to individuals and banks. But it is fruitless to try to get people who have already spent too much to spend even more. Eventually, the government will have to turn to job creation in an effort to get the economy going, but this will trigger high inflation rates as the government is forced to print money to pay for all this.

Chapter 1, The Crazy Nineties: Craziness in the 1990s' stock market prices was one of the precursors for this depression. People stopped saving and began to rely on their stock market investments for their financial future.

Chapter 2, The Debt Bubble: The American economy has been fueled by consumers who reduced their savings and began spending more than what they could afford. This created debt and housing bubbles.

Chapter 3, Why Are the Good Times Ending and the Bubbles Breaking? The growth of stock buyers aged 30 through 54 has leveled off, and the number of households owning mutual funds has peaked. There is no longer a growing demand for stocks. And the bubbles are, by necessity, breaking.

Chapter 4, Current Times Compared to 1929-1930: There are similarities of the years just prior to the Great Depression and the current times.

Chapter 5, What This Depression Will Be Like: Starting in 2008, this depression will affect many. Unemployment and inflation will grow, and houses will deflate in value. The market will eventually drop 65 percent, and the economy will go to its knees.

Chapter 6, What Else May Deepen the Depression: The wars in Iraq and Afghanistan, terrorists, energy prices, a drop in the dollar's value, the deficit, the balance of payments, inflation, and interest rates may all deepen this depression; but debt is the depression trigger.

Chapter 7, Could the Fed Have Stopped This Depression? No! In fact, the Fed's past decisions have just delayed the inevitable, trading several short recessions in the past for this depression.

Chapter 8, Now That It Has Started, How Are We Going to Work Our Way Out of This Depression? Effective job creation in alternative energy, electric cars, and the required infrastructure will be key; along with training for related skills. Reducing debt and a return to saving will be required.

## Chapter 1

## The Crazy Nineties

This chapter shows how, in the 1990s, an increasing number of people started investing in the stock market. This increase caused an increase in demand for stocks, driving up stock prices. As stock prices rose, investors became so enamored with their gains that they no longer felt it necessary to save. And they increased their debts in the faith that their gains in the stock market would enable them to pay down their debts at a later date. This caused the stock bubble of the nineties and set up many people for the inevitable break of the stock market bubble.

## The Lure of the Markets

I had two neighbors in the late 1990s, one a retired doctor and the other a retired small-business owner, who were never seen in the daytime when the stock market was trading. But, in the evenings, they would have smiles on their faces from ear to ear! These neighbors felt that they
had discovered the secret to wealth: day trading! Neither of them ever shared with me their methods of playing the market, but their wives worried that they were buying stocks based on hunches, rumors, recent headlines, and so on. Apparently they were not making any in-depth analysis of stocks, nor did they make any effort to see if they were doing any better than the market in general. All they cared about was that, on an almost daily basis, their on-paper worth was increasing. They believed that they had discovered the secret to making great amounts of money!

They weren't alone in their craziness. Something strange was happening to much of the country during the nineties. Computer nerds, who were never thought to be giants in the practical world of business, were given almost unlimited funds to pursue their latest business ideas related to the Net or other software ventures. These newly ordained entrepreneurs told everyone that their dot-com businesses did not have to make a profit; that the idea was to develop a customer base using information technology, and the profits would come later. They used esoteric measures, like "eyeballs," to determine how many people were visiting their web sites, which they felt was a measure of their business success. Or they counted how many other worthless web sites were sending visitors to their worthless site. They didn't even bother estimating when they would make a profit, nor was there any analysis of what those future profits would be. They said that the important criterion in these new-era businesses was generating customers; profits would just naturally come later. Some of their projections of customer base growth took them quickly to exceed the population of the world, but no matter. Venture capitalists and investors believed them. So did my neighbors. We all believed!

Not only were investors like my neighbors sucked in; grizzled CEOs of large companies, who should have known better, gazed at these dotcom companies in awe. These were the same executives who, just a few years before, were trying to look, act, and dress like the Japanese, who were the previous rock stars of industry. These techie-wannabe executives tried to do high-fives and make their companies look and perform like the dot-coms. These executives took crash courses on using the Net, but only after one of their in-house techies bought them computers and taught them how to boot up. GE's CEO Jack Welch even bragged that investors looked at GE as being equivalent to a dot-com
company. He made all GE executives take courses on surfing the Net, and each individual business within GE had to set up their own web site where customers could peruse that business's management and product lines. Any project having interaction with the Net got priority corporate funding. Jack Welch and many other corporate heads also did what was necessary to make their stock prices act like dot-com stocks. It didn't seem to matter that most of the perceived financial gains during this era came from accounting creativity that made bland corporate performance look stellar by pushing costs into future years and doing other financial wizardry.

Baby boomers, who were wondering if they were going to be able to keep up with the gains realized by their parents' generation, suddenly saw their salvation. Like my day-trader neighbors, the baby boomers would buy stocks in this new-era stock market and watch their riches grow. As more and more of them bought stocks, the demand drove prices up to ridiculous levels. The feeding frenzy had begun. As a result of all this buying pressure, in the later years of the last century the stock market performed brilliantly.

It wasn't just naïve investors who became overconfident in their abilities related to the market. In 1994, Bill Krasker and John Meriwether, two winners of the Nobel Prize in Economics, started a company called Long-Term Capital Management (LTCM). These two individuals had done massive data analysis on the "spreads" between various financial instruments, such as corporate bonds and Treasury bonds. When these spreads became wider than what was statistically expected (based on their computer program), LTCM would buy the financial instrument likely to gain from the correction that was expected to occur shortly.

Using this methodology, LTCM was unbelievably successful for four years. By leveraging their money, they had gained as much as 40 percent per year for their investors, and Bill Krasker and John Meriwether became very wealthy.

They were so successful that, by 1998, LTCM had $\$ 1$ trillion in leveraged exposure in various financial market positions. Then, LTCM became victim of the "fat tail" phenomena, which is where a normally balanced distribution of data now has a lot of data far out to one end of the distribution tail. The reason this happened is that everyone who played in similar financial markets all decided to get out at once, and

LTCM was seeing results that their computer models had predicted would not statistically happen in more than a billion years! Unbeknownst to them, because of the sudden exit of the others playing this financial game, the relationships of the spreads between various financial instruments had changed, which made the earlier computer-generated probability predictions invalid.

The risks that LTCM had taken were so dangerous that LTCM was close to upsetting the whole world's financial institutions. Fed Chairman Alan Greenspan and several of the world's major banks got together to offer additional credit to LTCM to successfully avert this potential global financial disaster.

Long-Term Capital Management lost over $\$ 4$ billion, and the relaxed credit that was established by the banks to save LTCM later enabled companies like Enron to do their thing. This story is indicative of the overconfidence shown throughout the nineties. If LTCM had not been leveraged to such an extreme level, they probably would have survived this event. But they had gotten overconfident and greedy. Many people in the nineties thought they could get something for nothing by playing financial games, which in this case included being leveraged to the hilt.

## The Potential Stock Gains

Anyone who was able to capitalize on the market gains of the nineties was fortunate indeed. In fact, if you bought the S\&P 500 stocks in 1994 and sold them in 1999, your investment tripled in value. Figure 1.1 is a graph of the real gains (discounting the effect of inflation) of the S\&P 500 stocks since 1900 showing how unusual and dramatic those 1994-1999 gains were, as evidenced by the huge upward spike near the right-hand side of the graph.

However, buying stocks in 1994 and selling in 1999 is not the normal way people invest, nor were many people fortunate enough to time the market that well. The general way of saving is to invest on a consistent basis and then hold the stocks. This is also the savings method advised by most market "experts." If someone saved a fixed amount every year, starting in 1994, the same beginning year as above, and was still investing this fixed amount through the first quarter 2008, he or


Figure 1.1 Real (Without Inflation) S\&P 500 Value History (2007 Dollars)
Source: Stock Data, www.econ.yale.edu/~shiller/data/ie_data.htm.
she would only be ahead 51 percent (including inflation). This assumes a 1.5 percent annual mutual fund management cost, which is typical of what most $401(\mathrm{k})$ pension savings programs charge. If TIPS were available at this time, this 51 percent gain is almost identical to what someone would have gotten with basically zero risk Treasury Inflation Protected Securities (TIPS) paying 3 percent for much of the time period. TIPS will be discussed in Chapter 9. So, even for those who started to invest in the dramatic market of the nineties, without some fortunate market timing, the gains realized by most investors were not all that phenomenal.

Others have come to similar conclusions on the stock market. John Bogle, founder of the very successful Vanguard Group, estimates that the average return for equity funds from 1984 through 2001, a time period that includes the great stock market bubble of the nineties, was just slightly more than inflation! Contributing to this disappointing performance were the fees charged by mutual funds and the "churning" of stocks-constant stock turnover-which not only adds trade costs, but also causes any gain to be taxed as regular income rather than at the reduced tax rate of capital gains.

However, in most people's memories, the nineties were a time of great gains made in the stock market. They can't get out of their minds the 200 percent gain that could have been realized by buying in 1994 and selling in 1999.

## The Cause of the Nineties' Stock Market Jump

Let's try to identify what made the stock market grow the way it did at the end of the last century. When we look for the most likely cause, let's keep in mind Occam's Razor, a logical principle attributed to the mediaeval philosopher William of Occam, which emphasizes that the simplest and most logical explanation is usually the best.

Between the years 1990 and 2000, due to the baby boomer surge, the number of people in the age group 30 through 54 increased almost 25 percent. These are the primary stock buying ages. Below the age of 30, people are involved with getting an education or starting their careers. Once people become 55, some of them begin to move investments into more conservative areas, getting ready for retirement. Figure 1.2 shows the nineties' 25 percent increase in potential stock purchasers, ages 30 through 54.

Figure 1.2 also shows that, after 2005, the number of people in the stock buying years is declining as the baby boomers age. Just as the nineties' increased number of people of stock-buying age increased the demand for stocks, driving prices upward, now that the number of people in this age group is declining, there is a reduced demand for stocks and a downward pressure on stock prices. This is in addition to the downward price pressure caused by the general slowing of the economy as the depression deepens. At the time of writing, the S\&P 500 has dropped 22 percent from its 2007 high.

At the same time as this surge of potential stock buyers, there was an increase in awareness of and participation in the stock market. Stock ownership by families went from 23 percent to 52 percent between 1990 and 2001, largely due to the growing number of $401(\mathrm{k})$ pension plans whose regular savings from income were designated for mutual funds. This is shown in Figure 1.3.


Figure 1.2 Population 30 through 54 Years of Age
Source: U.S. Census Bureau, www.census.gov/population/estimates/nation/intfile2-1.txt.


Figure 1.3 Percentage of Households Owning Mutual Funds
Source: U.S. Census Bureau, www.ici.org/pdf/fm-v15n6.pdf.

This increased stock market interest, coupled with the previously noted increase of people aged 30 to 54 , meant that there were almost three times as many potential stock buyers at the end of last century than at the beginning of 1990 . This put an unusual pressure on the demand side of the traditional relationship between supply and demand. This is not a difficult concept, and its importance has been known for hundreds of years. There are other more esoteric explanations given for the nineties stock price rise, but this is the simplest and most likely cause.

We must emphasize the importance of this increased demand. A relatively small percentage of stocks are in play on any given day. When one of these stocks becomes available for sale, if there are a large number of people interested in buying that stock, the stock will trade at a higher price than normal due to the demand. Simply put, that is what happened in the nineties. People weren't analyzing whether a stock was priced correctly or doing any in-depth analysis of a company's potential. There were just a lot of people who wanted to buy stocks at any price because they believed that the price would go even higher in the future.

This motivation to buy stocks did not just affect individual investors; it also affected the professionals picking stocks for mutual funds. Every week, the increasing number of automatic investment dollars generated by $401(\mathrm{k})$ savings plans was dumped on mutual fund managers' desks. These fund managers could delay the investment of this money for a few days or weeks if they thought the market would go lower. But they would eventually have to jump into the stock market, driving up demand. No mutual fund manager could keep large portions of her investment money out of the stock market for extended periods of time. After all, the customers wanted to invest in the stock market.

Media coverage of the market became intense, and many people began to actively trade stocks on the Internet. The almost instant investment information on the Web enabled many people to become day traders or self-proclaimed investment experts. The trade costs of playing the market dropped dramatically with the advent of discount brokers and online trading. The almost continuous rise of the stock market just fed the self-aggrandizing of these investors.

Many people began to extrapolate their paper gains for the next 20 years and could see themselves as millionaires with little more effort than the few minutes it took at a computer keyboard to enter their
current stock picks. This was how they were going to get their proverbial pot of gold. There was no point in trying to save outside of the stock market. Even if the market took a temporary drop, the stock market gurus assured them that it would always come back and go even higher.

At no point did these people stop to wonder if the stocks they were buying were overpriced or whether the companies really had growth potential. Nor did they ever stop to think that there was not enough money in the world for every investor to become truly wealthy. They couldn't conceive that, when they finally decided to sell their stocks, there could be no one to buy them - that everybody would already be fully invested, with no additional money to put into the market. Sure, if their timing was right, they could be one of the lucky early sellers and do very well. But the following sellers would do worse; and the next sellers even worse, until perceived stock gains miraculously turned into losses. The demand-versus-supply relationship would be turned on its head, with more stocks available than there would be buyers for them.

In the nineties, there was no reason for investors to question the wisdom of what they were doing. The Motley Fool crew was on the radio on weekly broadcasts explaining how they were doing it. Investment groups were rampant, including a group of grandmothers who got national attention based on their claim of beating the market experts. People regularly monitored the ongoing media competition between the dartboard stock picks and the market experts. Chat lines gave "inside information" on stocks. Anyone not playing the market was obviously naïve or stupid.

TV business news guests were explaining how the information age was enabling companies to realize efficiencies-through-knowledge with little capital investment, thereby justifying the unusually high stock prices. Instant information enabled companies to have minimum inventory and to adjust product mix quickly if consumer tastes changed. This was predicted to eliminate the normal up-and-down cycles in the economy. The market would just consistently go up!

Industrial processes could be fine-tuned, using information system feedback, and methodologies like Six Sigma promised only three defects-per-million-parts-produced if data were used to drive decision making. There was no need to invest in new production equipment because the old-era equipment would run so much better with this new-era information knowledge.

There were books that touted the Dow at 36,000 or even 100,000 . No matter that the rationale for the high Dow values was based on fantasy future earnings that would never come to be. Also, these books stated that there was no more risk in investing in the stock market than in other, more traditionally conservative investments, such as bonds. All the stock investor had to do was wait out any downturn of the market-the market always came back and would go on to even higher levels. Of course, the books didn't mention that when the effect of inflation was included, it may take well over 20 years before the investment would recover, and most people's investment window couldn't tolerate that. All the misleading information on the market's potential would have been humorous if it weren't for the fact that many people were risking their lifetime savings on the unrealistic dream of getting rich with little effort!

## The Bubble Begins to Break

Then, in 2000, the Motley Fool began to lose money. It was starting to become obvious that information technology in most cases only produced more junk mail and junk information. People already had more information than they could handle before the information era started. Often, the additional information just caused people to spend more time sorting.

Someone discovered the accounting error in the Grandmas' claimed gains in the market. The Grandmas forgot that they were regularly infusing additional funds into their investment club, which was not factored in when they calculated their supposed gains. Efficiency gains touted in government statistics on productivity were found to be largely due to changes in the government's accounting system baseline, such as counting productivity gains based on the increased speeds of computer processing rather than any real gains truly affecting productivity. The hyped image of the new-era economy was beginning to get blurry.

I started to see our neighbors out walking during the day, no longer day trading in the stock market. They grumbled that the market was no longer acting rationally! Again, they did not choose to share their results with me, but their wives indicated that all their paper gains had been lost, along with a bundle more. The market fooled many people in the

