

# Wealth, War, and Wisdom

Barton Biggs



John Wiley & Sons, Inc.



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# Foreword

**F**or 30 years Barton Biggs wrote the financial world's most elegant and insightful prose in his regular submissions to the pages of Morgan Stanley's "Investment Perspectives." Barton Biggs knows writing, in part because of his training in English at Yale in the 1950s. Barton Biggs knows markets, in part because of his investing with Fairfield Partners in the late 1960s and early 1970s, in part because of his work with Morgan Stanley in the 1970s, 1980s, and 1990s, and in part because of his investing with Traxis Partners in the 2000s. Readers who care about markets and love the English language will thank Biggs for taking time from his current hedge fund responsibilities at Traxis Partners to write *Wealth, War, and Wisdom*.

Barton Biggs allows facts to drive conclusions. Relentlessly rational, Biggs builds his analysis on the foundation of strong fundamental research. Readers familiar with Biggs' Morgan Stanley research pieces or his book, *Hedgehogging*, already know that the topic on any given page is as likely to be a mountain climbing expedition as it is to be a price-to-earnings or a price-to-book ratio. Yet, Biggs' marvelous stories never fail to enlighten as well as entertain. The unusual combination of depth of

research and breadth of experience create a powerful platform for *Wealth, War, and Wisdom*.

In his book, Barton Biggs stretches our conception of market efficiency. In my undergraduate finance seminar at Yale, I teach Burton Malkiel's time-tested tripartite description of market efficiency, which includes the weak, semistrong, and strong forms. The weak form of market efficiency simply states that past stock prices contain no predictive information about future stock prices. In other words, momentum strategies do not work. The semistrong form states that investors cannot benefit from the use of public information to beat the market. In other words, security analysis does not work. The strong form states that investors benefit from neither public nor private information. In other words, even insider trading does not work. Note that all of these definitions focus on market efficiency at the security-specific level. Most of the academic debate on market efficiency concerns the semistrong form of the efficient markets hypothesis, to wit whether investors might benefit from astute security analysis.

Financial economists spend less time studying the predictive power of the stock market as a whole. Daunted by the staggering breadth of variables that influence stock indexes, finance professors generally cite Paul Samuelson's maxim about the stock market having predicted nine of the past five recessions, thereby cleverly dismissing the question of the stock market's prescience.\* Barton Biggs, ferocious competitor that he is, positively embraces the question of the market's ability to defeat what John Maynard Keynes characterized as the "dark forces of time and ignorance which envelop our future."

In *Wealth, War, and Wisdom*, Biggs intertwines a gripping narrative of significant personalities and important battles of World War II with a synopsis of stock market moves in the major countries of both the Allied and Axis powers. In his work, Biggs identifies a striking number of instances in which markets reacted to what turned out to represent important

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\*A quick Google search showed a strong preponderance of citations in which Samuelson suggested that the stock market predicted nine of the last five recessions. Also mentioned were 12 of the last nine and nine of the last four. With this numerical diversity, Paul Samuelson joins Woody Allen, whose well-known quote is variously cited as "Seventy/Eighty/Ninety percent of success in life is showing up."



turning points in the course of the war. The stunning conclusion that Biggs reaches is that in many cases the market foresees dramatic shifts in the prospects for the warring parties that completely escape contemporary observers. Barton Biggs challenges us to consider the possibility that the wisdom of crowds, as reflected in the level of stock prices, surpasses the wisdom of even the most astute observers of the current scene.

While Biggs cites an impressive number of associations between stock market moves and significant turning points in the war, he admits that his evidence sometimes falls short. In contrast to particularly impressive records of foresight in the U.S. and U.K. equity markets, Biggs notes that equity investors in France deserve mixed grades, at best.

Biggs adds to our store of knowledge about long-term returns of security markets. In my work at Yale, in my classroom, in my books, and in my speeches, I cite historical market returns to support the argument that stocks deserve an important role in the portfolios of long-term investors. Roger Ibbotson's more than eight decades of data, which he presents in his *Stocks, Bonds, Bills and Inflation*, focus predominantly on the U.S. stock market, which enjoyed more or less continuous operation from its very inception. Jeremy Siegel's more than two centuries of data, which he presents in *Stocks for the Long Run*, pay somewhat more attention to non-U.S. markets, but the centerpiece of his book remains the United States. Generally speaking, the most widely used compilations of market returns say little about the more difficult histories of markets that suffered extreme dislocation.

Biggs reminds us that many markets did not enjoy the relatively uninterrupted trading that characterized the U.S. markets. His careful examination of stock, bond, and cash returns in markets that experienced disruptions adds valuable context to the often too broad-brush examination of time series of market returns. Biggs' conclusions about twentieth-century returns for what he calls the "stable lucky ones" that were spared catastrophe (the United States, the U.K., Australia, Canada, et al.) surprise no serious student of markets. Inflation-adjusted returns for stocks trump those for bonds and bills, with all of the asset classes besting inflation. In contrast, some of Biggs' conclusions about the "losers" (Germany, Japan, Italy, France, et al.) give the reader pause. Unsurprisingly, the averages of the twentieth-century asset class returns for the winners exceed those for the losers in all categories. Surprisingly, the asset class returns in the

loser countries show the familiar pattern of stocks beating bonds and bonds beating bills. Even more notably, only stocks in the loser countries managed to beat inflation, as both bonds and bills on average produced negative real returns. According to Biggs' analysis, even in those countries in which the most extreme forms of risk were manifest, the risky asset class of stocks produced superior returns and the safe asset classes of bonds and bills underperformed. Biggs reaches the now conventional asset allocation conclusion that stocks deserve a prominent place in investor portfolios, but he arrives at that conclusion via an unconventional route.\*

As to market timing and security selection, which along with asset allocation represent the three tools in every investor's toolkit, Biggs articulates some unexpected advice. Even though his entire career—first at Fairfield Partners, then at Morgan Stanley, finally at Traxis Partners—revolved around active management of investment portfolios, Biggs recommends that investors avoid market timing and shun security selection. The justification for his advice comes from the recognition that investors benefit from the long-run returns in the stock market only if investors own stocks. Maintaining exposure to the stock market requires the courage to hold (or even add to) positions in the face of extreme adversity. If a market timing decision, however well considered, causes an investor to underweight stocks and retreat into fixed income at an inopportune time, the investor's portfolio may never recover. Moreover, getting the market return requires holding the market basket of securities. If a series of security bets, however well considered, wreak havoc on a portfolio, the investor's portfolio may never recover. Sticking with a stable, equity-oriented, index-based portfolio represents a good strategy for the overwhelming numbers of investors.

Barton Biggs' *Wealth, War, and Wisdom* entertains us with a creative juxtaposition of a war narrative and a security markets history. He challenges us with a notion that stock markets exhibit incredible prescience. He teaches us that equity-oriented, stable allocations of passively managed assets provide superior investment results. As has been the case

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\*To protect against disaster, Biggs recommends extreme forms of portfolio diversification, including buying a farm or a ranch and burying some gold in the backyard.

throughout his remarkable career, Barton Biggs adds to our store of knowledge with his elegant, wonderfully crafted prose.

—David F. Swensen  
Chief Investment Officer  
Yale University  
*November 2007*



# Introduction

*And I looked and behold a pale horse: and his name that sat on him was Death, and Hell followed with him. And power was given unto them over the fourth part of the earth, to kill with sword and with hunger, and with death . . .*

—REVELATION 6:8

**T**wo subjects have long obsessed me. First, stock markets on a short-term basis are random, irrational, and undecipherable, but at major inflexion points and in the long-term ebb and flow of events are they truly intuitive and wise in their judgments, or do stock prices mostly just reflect the foolish consensus of crowds?

Second, at least once in every century there has been an episode of great wealth destruction when the Four Horsemen of the Apocalypse—Pestilence, War, Famine, and Death—have ridden rough-shod. World War II was the last time that the pale horse with Death on his back and Hell following him terrorized the world.

How do you preserve wealth in times when the Four Horsemen are on the loose? We know from history that equities are *wealth enhancers* in good times, but do stocks work as true *wealth preservers* when their country, their “home” society, is facing defeat and occupation from a foreign power? If they don’t, what should a person with wealth do? How well in *real*–inflation adjusted, purchasing power terms, do public equities perform?

To be the ultimate repository of family or institutional capital, an asset class, an investment vehicle, must be able to preserve as well as enhance wealth over the long run—in bad times as well as good. The value of accumulating wealth is terribly diminished if it cannot be preserved. As you become richer, protecting your fortune against the “slings and arrows of outrageous fortune” becomes at least as important as enhancing it.

The preservation of wealth across time is not an academic matter. The world is and always has been prone to disasters that destroy great globs of wealth. In earlier centuries there were wars, natural disasters, famines, and plagues. Then in the eighteenth and nineteenth centuries came revolutions that confiscated wealth and heads. The last century, the twentieth, was perhaps the most ruinous of all time with World War I, hyperinflations, the Great Depression, and then the inter-connected climax, the worst ravager of them all, World War II. It was truly a world war, and in retrospect, it was a close call whether Western civilization as we know it was going to survive.

The Second World War has long been a fascination of mine. It offers so many lessons about life, politics, financial markets, wealth, and above all, survival. I have read and studied it for years, but as an amateur, not as a professional. World War II was unquestionably the war of the century and probably the war of the millennium because it gripped, ravaged, and tortured almost the entire world. Its effect on the conquered and then occupied countries, and later on the losers of the war was so extreme that it was the ultimate test in modern times of whether public equities or any asset could preserve the purchasing power of wealth in the face of a prolonged and total national disaster. It also was an epic struggle with first the Axis Powers and then the Allies appearing to be prevailing.

The 1930s and 1940s were an incredibly dark time for the world. Until you become really engrossed with the actual diary of events, you

don't realize how grim things were and how close the world came to a new Dark Age. Thus, I spend a lot of time in this book on the ebb and flow of the war and on the character and management styles of the leaders on both sides. I think I have found and included some unusual insights on Hitler, Churchill, Mussolini, and others. *Wealth, War, and Wisdom* focuses primarily on the events that occurred between 1938 and 1943 and not the Allies' later victories because it was the *turning points* in the struggle that mattered. Korea is included because of its significance for the Japanese market.

Investors (and for that matter, people in general) have to deal with adversity and hard times. This book relates how dire were the defeats and agonies of the late 1930s and of the early 1940s, and how the leaders—Churchill, Hitler, Stalin, MacArthur, and Yamamoto in particular—managed them, and how they dealt with people. All of us professionals have to practice and endure crisis control, and this is another reason why investors read history and biographies.

Looking back with the perfect vision and the perspective of today, we can identify the victories that were the great turning points. However, at the time, in the fog of war, it was far from clear that the tide had turned. Did equity markets with the unique wisdom of the crowd “through a glass darkly” sense these moments? I think the evidence is that they did, while the press and the so-called expert commentators and strategists mostly did not, and that we should be very respectful of the collective wisdom of stock markets. This means listening to what the market is saying by its action. (Chapter 1 provides more insight on the wisdom of markets.)

I first became fascinated with the subject of the wisdom of markets when, by chance, I discovered that the British stock market bottomed for all time in the summer of 1940 just before the Battle of Britain; that the U.S. market turned forever in late May 1942 around the epic Battle of Midway; and that the German market peaked at the high-water mark of the German attack on Russia just before the advance German patrols actually saw the spires of Moscow in early December of 1941. Those were the three great momentum changes of World War II—although at the time, no one except the stock markets recognized them as such. This, to me, confirmed the extraordinary (and unrecognized) wisdom of market crowds.

This leads to another important point. Today, almost every investor is a contrarian. Everyone knows about the dangers of groupthink and the madness of crowds. But is there a special, intuitive wisdom in the uncoordinated ebb and flow of the investor crowd? I have come to think there is. Mr. Market is a smart, canny old soul, and during World War II he often, not always but often, sensed important tipping points that at the time few of the elite grasped. The ebbs and flows of the stock market reflect the collective opinion of the investor crowd, and in this book, I maintain that markets have great wisdom. The investor ignores their message at his extreme peril.

Another major theme of the book is what happened to wealth before and during the war, and what insurance steps should a wealthy individual take to protect his or her fortune from the Black Swan-like appearance of the apocalypse. I also have studied whether stocks and bonds preserved and enhanced wealth not only in the years of extreme duress from 1930 to 1945 but also over the course of the century. I could not have come to the conclusions that I have without the massive studies of Elroy Dimson, Paul Marsh, and Mike Staunton of the London Business School. I found that equities generally did preserve wealth—over the full course of the century and particularly if you owned the right stocks in the right country (Chapters 9 and 15 especially address this topic). However, stocks (and bonds for that matter) had substantially higher returns if their country of residence was on the winning side. If your homeland lost the war and was occupied, public equities did not work during the years of war and occupation and bonds were even worse. Moreover, for the first 50 years of the twentieth century, equities in both France and Germany adjusted for inflation were a wealth-losing proposition. Government bonds were a disaster.

Asset diversification helped. Real assets such as land, property, gold, or a business were somewhat better than stocks but far from perfect. A working farm protected both your wealth and your life. The other solution was having money outside the country in a safe haven, but of course, that didn't help you keep body and soul together at the time.

As far as I know much of the market data has never been compiled in this form or published before. *Wealth, War, and Wisdom* also relates what happened to other forms of wealth such as bonds, land, gold, jewelry, and property during those years (again, primarily in Chapters 9 and 15).



Anyone with wealth has to care about all this. There is no use working yourself to death to accumulate wealth if it can't be preserved and enhanced. There are definite messages in the book as to what a person of means should do to pass on wealth to future generations in an uncertain world although I concede the next apocalypse may be different from the previous one.

I also find the history of this epic war populated as it was with such extravagant figures to be an endlessly intriguing, incredibly dramatic, and gripping event. Some may quarrel with my judgments about the inflexion points and disagree with my interpretations of the leaders, of their actions, and the moods of the times.

Investors, as opposed to traders and speculators, have to make long-term, slowly evolving judgments about the course of events in economies and the world. The more history they know and understand, the better these perspective decisions will be. An investor simply must know some history as well as be a statistician, psychologist, and a gifted intuitionist.

However I am definitely not a *real* historian. This is in no way a true history book—either of stock markets or of World War II. I have done no original research on World War II, but I have read a number of books that are listed in the bibliography. I have shamelessly borrowed from the ideas, insights, and reminiscences of the true historians and warriors who wrote the tomes listed in the bibliography. In spite of my extensive reading, however, I found no source that deals with what really happened to financial markets and wealth during the war years. There are market statistics, but very little background information. To find the social information I present in this book, I have read old newspapers and interviewed people who lived through that time. Numerous market charts with event references are included in the book. I have written an impressionistic, interpretive account of those times that I hope reverberates today.

Barton M. Biggs  
October 2007



# Chapter 1

## Listen to the Market Crowd

*The only one who is wiser than anyone is everyone.*

—NAPOLEON BONAPARTE

**T**his book is about what happened to wealth in the throes of probably the most excruciating, destructive global disaster in all history, World War II. The focus is on equities and whether they preserved and enhanced the purchasing power of money. It also looks at what amount of diversification and other assets people with wealth should have to protect the purchasing power of their fortunes.

In exploring these subjects, it became startlingly evident that the equity markets in the principal contenders—the United States, Britain, Germany, and Japan—identified the monumental, epic turning points in the war with uncanny perception. The conventional opinion today is that

crowds in general and the stock market crowd in particular are manic beasts. However, as you study the history and read the sociology, you begin to come to the conclusion that there is great wisdom in crowds, that the equity market itself is the epitome of a wise crowd, and that we should pay close attention to its messages, particularly when it reverses its trend.

Much has been disparagingly written about the “madness of crowds.” In fact, it has become the deeply entrenched, conventional wisdom. However, as James Surowiecki has pointed out in his original and insightful book, *The Wisdom of Crowds*, it’s the collective **judgment** of crowds and their intuitions that we should be respectful of.

The great classic is Charles Mackay’s *Extraordinary Popular Delusions and the Madness of Crowds*, which is religiously stacked in every professional investor’s bookcase. Its most famous lines undoubtedly are: “Men, it has been well said, think in herds. It will be seen that they go mad in herds, while they only recover their senses slowly, and one by one.” Friedrich Nietzsche wrote: “Madness is the exception in individuals but the rule in groups.”

Another classic on crowd behavior is Gustave Le Bon’s *The Crowd: A Study of the Popular Mind* published in 1896. Le Bon, an aristocratic autocrat if there ever was one, believed crowds invariably make bad decisions and act foolishly. “Crowds can never accomplish acts demanding a high degree of intelligence,” writes Le Bon, “and they are always inferior to the isolated individual.” Le Bon’s definition of a crowd was broad in that it included any kind of group that could make decisions.

This disdain for crowds is deeply embedded. There is the old saying, source unknown, “None of us is as dumb as all of us.” Then we have that self-proclaimed investment genius Bernard Baruch quoting German poet and philosopher Friedrich von Schiller, “Anyone taken as an individual is tolerably sensible and reasonable—as a member of a crowd, he at once becomes a blockhead.” And Scottish historian Thomas Carlyle proclaimed: “I do not believe in the collective wisdom of individual ignorance.”

A crowd morphs into a *mob* when it becomes disorderly, violent, and vulgar. The etymology of mob is from the Latin: *mobile vulgus*. The inference is that a crowd, and particularly a mob, can be easily manipulated and turned to dangerous and evil pursuits. The bad reputation of groups or crowds is not undeserved, but what is not appreciated is that when asked or required to make judgments **independently** and in a **rational**

way, the record of crowds is impressive. In other words, the disparagement and mockery of Le Bon and the others are mostly incorrect.

In the investment world today, even a mention of “the crowd” has an intensely pejorative connotation. Everyone knows you don’t want to be part of *the crowd* because *the crowd* is always wrong. Avoid “crowded trades at all cost” has become a hedge fund maxim. Distrust of the wisdom of crowds has become deeply imbedded in the psyche of professional investors, strategists, economists, and sometimes, the media.

Conversely, it has become very fashionable to be contrarian—in other words, to do the opposite of what the crowd is doing because the crowd is so stupid and is almost always wrong. If everyone is bullish on the equity market, then the contrarian will be bearish and vice versa. Investors assiduously track sentiment indicators in order to do the opposite. Strategists and economists often in the preamble to their reports boast that their view is contrary to the consensus as though that supposition alone is more important than all their analysis. In reaction to the popularity of contrarianism, one of the best investors in the world, George Soros, once described himself as a “contra-contrarian.”

It is a truism that human beings are reactive imitators and are subject to emotional extremes of euphoria and despair. Investors and speculators run the gamut from greed to fear as they passionately, blindly stampede after markets and prices. From time to time this leads to excesses and eventually to bubbles. However, as will be discussed, this does not invalidate this book’s assertion that collectively the investor crowd often has superb intuitions about long-term events and that these judgments should be respected and followed.

### **Ignore the Opinion of Experts: They’re Not Reliable Forecasters**

On the other hand, there is increasing evidence that relying on expert opinion for advice is a loser’s game. Philip Tetlock in his new book *Expert Political Judgment: How Good Is It? How Can We Know?* concludes that expert opinion on politics, economics, and business should be ignored as random blather because experts are even less accurate than nonspecialists in guessing what is going to happen. Tetlock tracked

284 experts who made 82,361 forecasts over a period of years. What a tedious labor of sifting and evaluating masses of horse manure! Anyway he found, among other humiliating things, that the alleged experts were right less than half the time, and that they were worse than dart-throwing monkeys in forecasting outcomes when multiple probabilities were involved. As the Danish physicist Niels Bohr said, "Prediction is very difficult—particularly about the future."

After reviewing this accumulation of data, Tetlock concluded that although you need to be reasonably informed on a subject to make credible predictions of events or the economy, knowing a lot, being regarded as a real expert, a wise man, a guru, actually makes someone less reliable as a forecaster. The more facts, information, and history an expert knows, the more likely he is to have pet theories and to have developed complex chains of causation in making a prediction. Tetlock believes this is why experts fail to outpredict nonexperts. The odds tend to be with the simple and the obvious outcome. Tetlock reports that the better known, more quoted, more self-confident, and better credentialed an expert (or should we say *pontifactor*?) is, the more likely he is to be wrong.

Another reason that pundits who appear regularly on television are particularly unreliable is because they become obsessed with showmanship. In other words, they strive above all to be original and different, often just for the sake of being original and different. The clever, ingenious, outrageous forecast gets the most attention. Their tenure on the talk shows or CNBC and CNN (and in many cases their compensation) doesn't hinge on their accuracy (because there are so many forecasts being made no one can keep track of them), but on their entertainment shock value. Although they may not even acknowledge this, it complicates their thinking and screws up their expert heads.

After his study of the record of experts, Tetlock came to some other interesting conclusions. First, when experts are wrong, they seldom admit it. Second, experts tend to dismiss new information that doesn't fit with their previous beliefs or actions. This is called *cognitive dissonance*, and it has proved to be an ailment of the George W. Bush administration. Third, and even more disappointing but not surprising, they are much tougher in assessing the validity of new information that undercuts their theories than they are in evaluating information that is supportive.

Finally, Tetlock divided the experts into two groups using the Isaiah Berlin analogy of hedgehogs and foxes. Hedgehogs are experts who

know a great deal about one big thing and tend to analyze complex problems from that framework. Within their small circle of competence they are regarded as brilliant. Foxes, Tetlock says, are “thinkers who know many small things, . . . are skeptical of grand schemes, see explanation and prediction . . . as flexible exercises that require stitching together diverse sources of information and are rather diffident about their own forecasting prowess.” Tetlock found that the foxes were significantly better predictors than the hedgehogs. The foxes’ cognitive diversity gives them a broad structure from which to analyze complex problems.

For example, in the investing world there are highly educated, very intelligent quantitative hedgehogs armed with PhDs and powerful computers. For a while their inventive models produce superior investment performance. Then their success spawns imitating competitors. Before long there are so many of them, that the exploitable valuation anomalies that the brilliant pioneers identified and used to create a portfolio management system, are almost immediately discovered by other quantitative hedgehogs and quickly no longer work. It is the investment world’s latest version of “creative destruction.”

It’s hard to argue with Tetlock’s data. However, the skeptic would reply that while Tetlock may be right about all experts as a class, there are some, particularly in specialist areas such as technology and the sciences, that are worth paying attention to. As for political or stock market forecasters, there are few that should be listened to. The problem is that just because someone *has* been right *recently* doesn’t mean that individual is going to *continue* to be right. In fact, with professional investors, it’s often just the opposite. Nevertheless, it can be amusing and sometimes stimulating to listen to an articulate and erudite forecaster. You just shouldn’t be under any illusions about the class’s long-term record. All this bashing of prognosticators and strategists is written with a pinch of chagrin since the author once sheltered under that sobriquet.

## **Global Markets Understood What Was Happening during WWII**

Intuition, gut hunches, and common sense count for a lot in making forecasts. But as we will see, it’s not the guru’s forecast you should be respectful of, it’s the wisdom of markets, the collective judgment of many

individuals filed individually and then collated that you should pay close attention to. The London stock market deduced in the early summer of 1940, even before the Battle of Britain at a time when the world and even many English despaired, that Britain would not be conquered. Stocks made a bottom for the ages in early June although it wasn't evident until October that there would be no German invasion in 1940 and until Pearl Harbor 18 months later, that Britain would prevail.

Similarly, the German stock market, even though imprisoned in the grip of a police state, somehow understood in October of 1941 that the crest of German conquest had been reached. It was an incredible insight. At the time, the German army appeared invincible. It had never lost a battle; it had never been forced to withdraw. There was no sign as yet that the triumphant offensive into the Soviet Union was failing. In fact, in early December a German patrol actually had a fleeting glimpse of the spires of Moscow, and at the time Germany had domain over more of Europe than the Holy Roman Empire. No one else understood this was the tipping point.

The New York stock market recognized that the victories at the battles of the Coral Sea and Midway in May and June of 1942 were the turn of the tide in the Pacific, and from the lows of that spring never looked back, but I can find no such thoughts in the newspapers or from the military experts of the time. A barrage of defeats and surrenders had engendered intense criticism of the management of the war and the commanders in the field. The wise men of the media were so busy wringing their hands that they didn't grasp the significance of the battles of the Coral Sea and Midway as the high-water mark of Japan's grand design for empire and of its attack on the United States.

In fact, the American media had been wrong on the war from the beginning. Fed by the U.S. War Department, the *New York Times* in the first weeks after Pearl Harbor was exaggerating any small successes of the allies and under-reporting the damage to the Pacific fleet. For example, five days after Pearl Harbor, on December 12, 1941, the banner headlines were **JAPANESE CHECKED IN ALL LAND FIGHTING; 3 OF THEIR SHIPS SUNK, 2ND BATTLESHIP HIT**. The story reported that one of the three ships sunk was also a battleship. It was pure fiction. Only one relatively insignificant Japanese destroyer had been sunk.



## **Markets Outperform Experts— Human or Computer**

But to get back to crowd theory, in 1945, economist and political philosopher F.A. Hayek wrote a powerful essay to refute the then-popular socialist doctrine of central planning. In it he argued that central planning could never be as economically efficient as the price mechanism. It was impossible, he said, for the central planner, be he human or computer, to accumulate all the bits and pieces of diverse information scattered widely throughout the vast population needed to make as efficient, “good” economic decisions as are accomplished by the price mechanism. Markets function so efficiently because the totality of all relevant information including subjective preferences are aggregated through the price mechanism into a single market valuation which, while perhaps not perfect, is better than any number concocted by a human entity or even a computer.

Decentralization of sources is also very important because it is crucial for the collection of what Hayek called “tacit knowledge.” Tacit knowledge is knowledge that is intuitive to individuals or is derived from a particular place or job or way of life. Since it is so intuitive and instinctive, it can’t easily be summarized or communicated and, in fact, the people that have it may not even know they have it. Yet it is very valuable because it reflects the deep life experience of human beings dispersed over the world.

This insight was the basis of efficient market theory, but it has remained an observation, not a conclusion. As Henry Manne, Dean Emeritus of the George Mason School of Law, recently pointed out, it does not explain a theory of how this massive amount of information gets so effectively disseminated into the prices of goods and services. He asks: “How does the weighted averaging get done?” Similarly, “The efficient market hypothesis was based almost entirely on empirical observations and did not offer a theory of how the market came to be so efficient.” Manne’s answer seems to be: *the wisdom of crowds*.

In his book, *The Wisdom of Crowds*, Surowiecki argues convincingly that groups often are more right in their decision making than brilliant experts. In other words, “the many are smarter than the few.” He points out that experts have biases and blind spots, and that there is little correlation between an expert’s confidence in his prediction and the accuracy

of it. You are more likely (but not guaranteed) to get a better estimate or decision from a group of diverse, independent, motivated people than you are from a single or even a couple of experts. Other psychologists have shown that posing a judgment question, then asking a large number of people what they think the answer is and taking the mean is superior to asking a few experts no matter how highly qualified or deliberative and informed a group.

The group, the crowd, the market must have diversity. The mass of investors takes information from their experience and interaction with multiple environments. Stock markets provide an effective aggregation system. This collective judgment system works best when the individuals have some incentive to be right. The aggregation of investors in a stock market essentially is what the social sciences people call “a complex adaptive system.” As the market strategist Michael Mauboussin has pointed out in his excellent essays, one of the key lessons of a complex adaptive system is that you can’t understand the whole by adding up the parts. The whole is greater than the sum of the parts.

Many people attempt to understand markets by talking with experts or other supposedly astute investors, but if markets really are a complex adaptive system, individual agents will provide little or no worthwhile help on the workings or the course of the market. This is why I will argue it is so important to *listen to the market*. In other words, at crucial turning points observe what markets do and ignore what the experts and the commentators say about what is going on.

## **Experiments that Prove the Wisdom of Crowds**

As an example of a complex adaptive system at work, Surowiecki relates how at a famous contest at a county fair in England to guess the weight of an ox on display, there were 800 guesses entered, some by knowledgeable farmers but most by those who had no expertise whatsoever. Not only was the average of all the guesses of 1,197 pounds almost exactly correct (the weight was 1,198 pounds), but it was far superior to the estimates of the so-called livestock experts. He also conducted an experiment with a group of 56 students who were shown a jar and

asked how many jelly beans were in it. The average of the group was 871 which was closer to the correct number of 850 than that of all but one of the students' estimates.

Surowiecki conducted a number of similar experiments. He tells in his book how he would approach random people in New York's Times Square and ask them how many jelly beans were in the plastic jar he was carrying or to estimate his weight. They must have thought he was nuts. On another occasion when he was in front of an audience he succinctly described his study and asked them to guess how many books were in it. At the time he didn't even know himself. In each case the average of the collective guesses was very close to the mark, and the average was better than the vast majority of the individual guesses. He argues the mis-judgments that individual people make effectively cancel themselves out leaving you with the knowledge that the group has. Incidentally, the larger the crowd and (as noted previously) the more decentralized it is, the more reliable its decision will be. Obviously a stock market is a very large, decentralized crowd indeed.

Manne goes on to make the point that the literature of "prediction" or of "virtual" markets proves that the more participants in a contest and the better informed they are, the more likely the weighted average of their guesses is likely to be correct. Surowiecki writes of the remarkably successful results of the Iowa Electronic Markets (IEMs) in which speculators make bets on the outcomes of elections. The resulting "predictions" from these wagers have been much better than those of the political pundits and the polls. The bettors in the IEMs aren't predicting their own behavior but are forecasting what the voters of the country will do. Three quarters of the time the IEM's market price on the day each of the pre-election polls was released was more accurate than the results of the polls.

In the last five presidential elections the IEM predicted the vote percentages with an absolute average error that was nearly 30% less than the experts. In the 2004 election for Prime Minister of Australia, just before the election the pundits were saying the race was too close to call while Australia's equivalent of the IEM, Centrebet, showed John Howard comfortably ahead. He won easily. The IEM's and Centrebet's superior results also confirm that predictions are best when the predictors are motivated with real money at stake.

## Groupthink vs. Crowdthink

Both Manne and Surowiecki maintain that it is essential the participants be diverse and their judgments be independent of each other. The participants also must “care.” There should be an economic incentive. Their estimates can’t be casual throwaways. They also can’t sit around and exchange ideas about what the right answer should be and then finally reach a consensus. If they did, their collective judgment would become *groupthink* with all its well-known and pernicious sins. Groupthink results in decisions that usually are less wise than the knowledge of the collected individuals. When properly collated, *crowdthink* is just the opposite.

James Monitor has written extensively and well on behavioral finance, and he argues that these findings are true but only under a very strict set of circumstances. Three conditions must be met, says Monitor. First, people must be unaffected by others’ decisions. Two, the probability of being correct must be independent of the probability of everyone else being correct. Three, the participants must be unaffected by their own vote possibly being decisive. I would add that good group decisions are more likely to occur when most of the members of the group either don’t know or don’t pay any attention to what other members of the group think. In other words, crowds do have imbedded in them a collective wisdom that is very prescient but it has to be artfully extracted. The price action of a stock market on a longer term basis is a highly efficient collection mechanism.

In a way, isn’t the recognition of this truth the basic tenet of democracy with its popular elections? Democracy is predicated on the belief that the majority makes better decisions than a ruling elite. Stock markets are really voting machines, and I submit that often the wisdom of this kind of collective intuition is seen in the ability of stock markets to understand the ebb and tide of human history and events—particularly at crucial turning points. As Surowiecki writes: “The idea of the wisdom of crowds is not that a group will always give you the right answer but that on average it will consistently come up with a *better* answer than any individual could provide.” The Japanese stock market was wise during the Second World War and at the onset of the Korean War, but the French bourse was dead wrong in 1941 when it forecast prosperity from the German occupation.

The stock market should be a good case study of whether crowds have some wisdom. Not wisdom on little things, but insights on the ebb and flow of great events. The stock market encompasses a very large, diverse crowd of people, and even in the Second World War years there were at least several hundred thousand active participants in each of the major equity markets of the world. Because of the diversity of this collection of investors and because it is also decentralized with a lot of tacit knowledge, this crowd brings a variety of different intuitions to the process. In addition, it is a relatively intelligent and well-informed crowd. All investors are not rocket scientists but they are not complete idiots either. Just the fact that they have sufficient money to be investors suggest there is some natural selection process at work. Furthermore, the stock market crowd fulfills the motivation criteria because the judgment this group is making involves its own money. It is a crowd of “foxes,” not a crowd of “hedgehogs.”

As a result, the stock market is a wise and farseeing old thing. It can get panicky and crazy in the heat of the moment, and as we all know it can get suckered into frauds and blow enormous bubbles. Individual investors and clusters of investors can be irrational or become irrational, but the overall market on a longer term basis is generally rational. As Maubossin puts it: “We must be very careful to avoid extrapolating individual irrationality to market irrationality.”

In fact, investors with their extremes of fear and greed make the stock market prone to boom and bust cycles. But every mania stems from some degree of substance in a life-changing development whether it was the railroads in the nineteenth century or technology in the waning moments of the twentieth. In retrospect, even in 2000 there was some rationality in the market as a whole. Tech and Internet growth stocks were selling at ludicrous valuations, but other major value segments of the market that were out of favor were ridiculously underpriced. I am not for one moment arguing that the crowd is a good interpreter of individual sectors or stocks.

However, despite the fog of war and the smoke of statistics, the stock market has a great nose and amazing intuitions. This is what the wise old traders are expressing when, in the face of a gloomy environment or bad news, they say “the market is acting well” or vice versa “the market is acting badly.” A classic example of all this can be seen in the major stock

markets' reactions to the most serious crisis of the twentieth century, the rise and fall of the Axis powers in the 1940s.

I argue that the stock market, because it is the collective conclusion of multiple, independent, diverse, decentralized, motivated judgments, is a far different creature from the mob or the group. This is not to claim that the stock market is all wise or cannot make mistakes or in the short-term misjudge events. I am saying that in general its judgment is good and worth paying attention to. The ultimate test of that thesis and of equities as wealth preservers is World War II—a time of overwhelming anxiety and fear. In the next chapter, I describe a world darkened by fear and the malaise that depressed stock markets.