THE SPECULATOR'S EDGE



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Strategies for Profit in the Futures Markets

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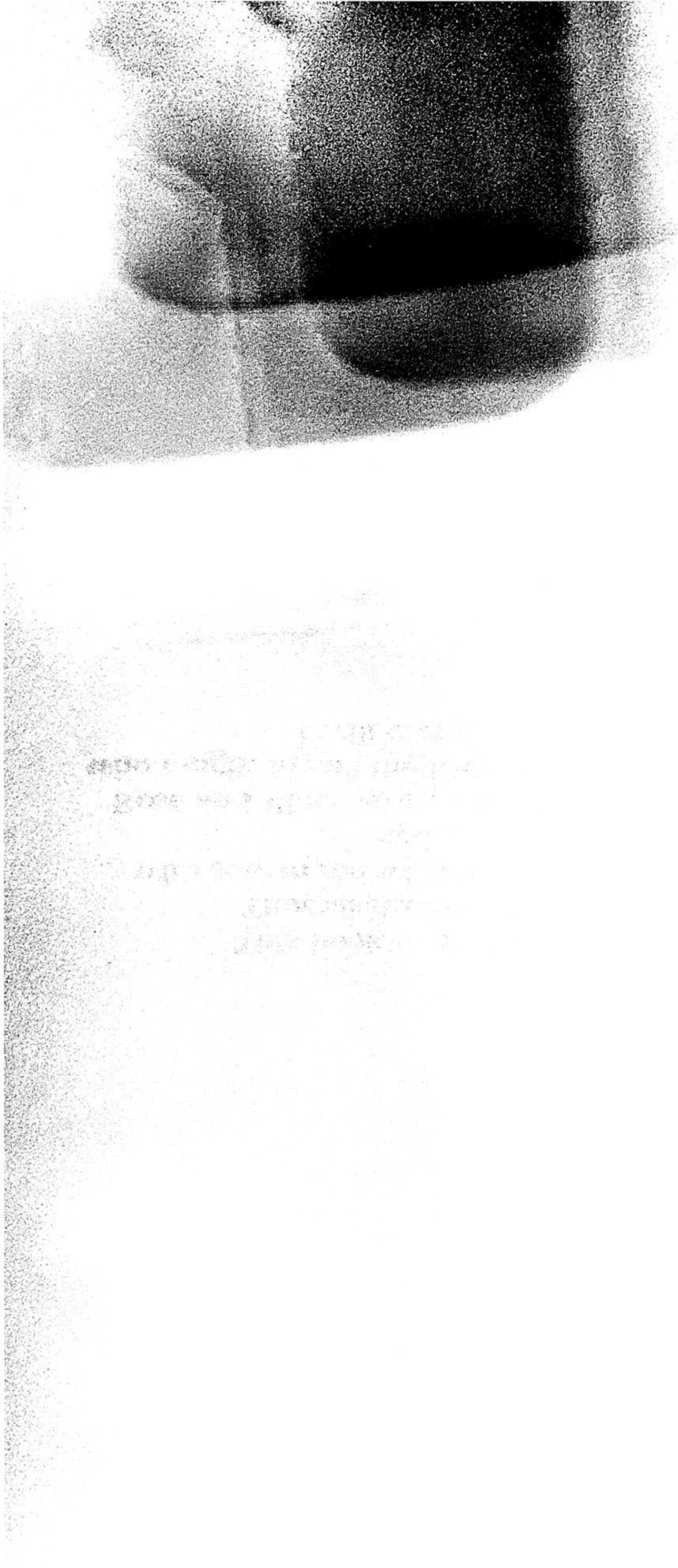
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This book is dedicated to
Thomas Anthony Russo,
who saw in me what others could not,
and to
Rose and Vincent, my mother and father,
who taught me all the truly important things
I will ever know.



ACKNOWLEDGMENTS

One sunny Sunday morning early in the summer of 1987, I was invited by my friends Marcy and Tom Russo to see their elegant Fifth Avenue apartment, which overlooks Central Park. Tom is a senior partner in the prestigious law firm Cadwalader, Wickersham & Taft, and has been influential in virtually every professional decision that I have made since my law school days. We were sipping coffee, when the talk turned to the markets. I remarked that the most astonishing thing about the markets was that, for all the time, money, and effort devoted to them, there was so little literature of quality that would be helpful to someone who wished to begin to speculate seriously. In a (caffeine induced?) fit of ego, I bragged that I could write the best book on the markets, not because I was so talented, but because the literature was so lacking. Tom, dear friend that he is, challenged me to do so. Since I always do what Tom says, I had no choice but to comply. You hold in your hands the result.

Now that the caffeine has worn off, I wish I could take the brag back. I'm still glad I wrote the book.

Even if he had not urged me to write the book, I would have asked Tom to review it, which he did the very day that I delivered it to him. His comments made the final draft much better than the initial one. I thank him for everything.

I would also like to thank Charles Rappold, senior vice president and general counsel, Bank of New York, for his characteristically detailed and considered comments and for permitting me to tell you about his escapades in the silver market (Chapter 1).

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I hope these three people understand that I selected them to review my manuscript because I respect their judgment about what makes a successful book, including matters of taste and humor.

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A.P.P.

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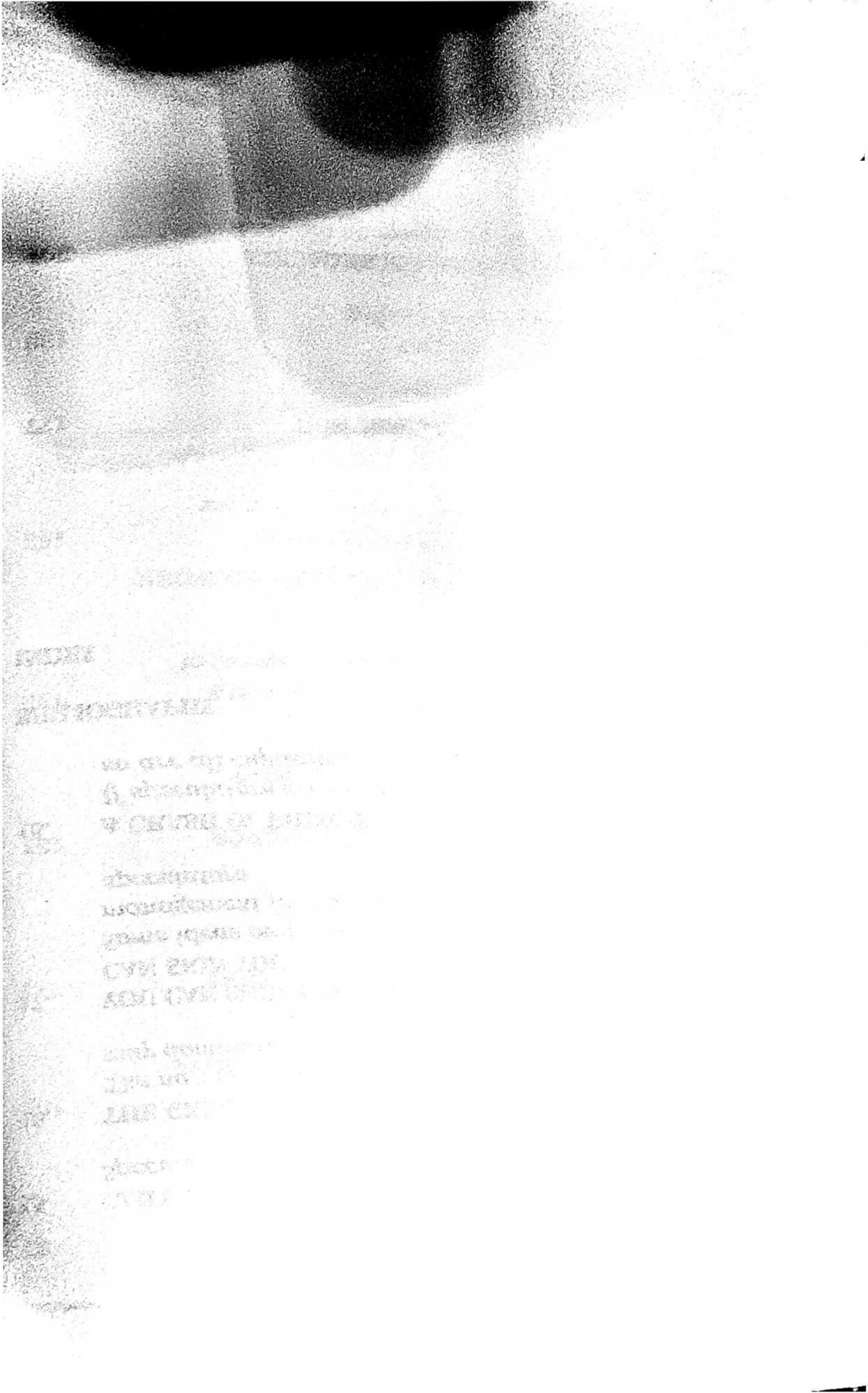
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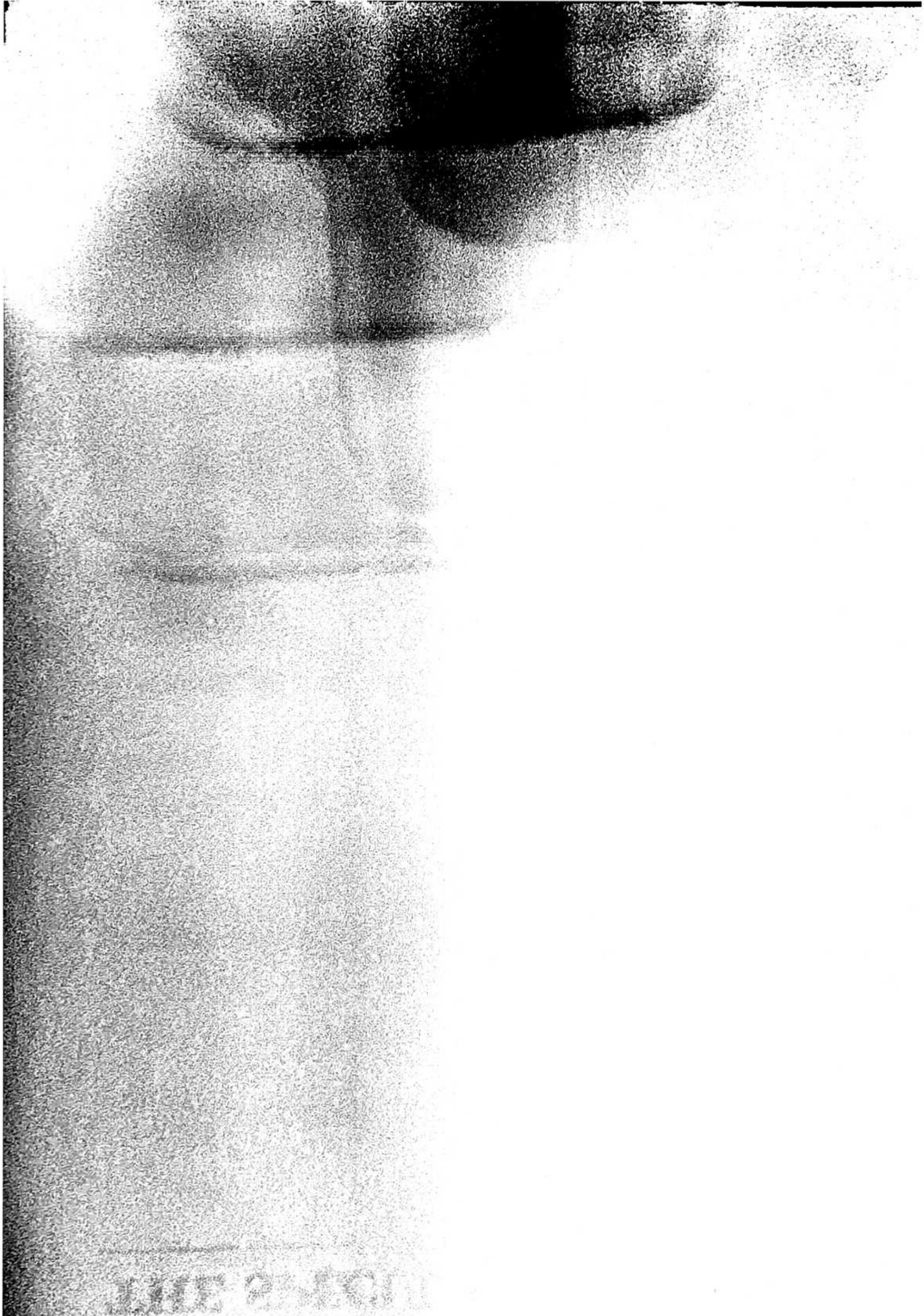
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THE SPECULATOR'S EDGE



INTRODUCTION


TWAIN

1 CHARLIE MAKES A BUNDLE IN SILVER

Introduction

In March of 1987, I did something I'd never done before: I called my good friend Charlie and told him to buy some silver.

I had been bullish on silver for some time. In fact, I had made my initial purchase of silver about a dollar higher and a year earlier than when I called Charlie, so at the time, my trade had not yet "matured."

Charlie is one of the smartest people I know, and I know some pretty smart people. He was number one in his high school class, number two in his college class (I think he was distracted) and number one at the University of Virginia Law School. At the ripe old age of 34, Charlie became a senior vice president and general counsel to one of the largest and most profitable commercial banks in the United States.

The reason I don't like to call people with trading ideas is that, for a speculator, it is a no-win proposition. If you are wrong, you lose a friend. If you are right, your friend will want another idea. If you don't give him one, he'll think you're holding out on him, and you'll lose a friend.

The reason I decided to risk my friendship with Charlie was that I knew he had owned some silver in the past, and as far as I was concerned, it was as close to a sure thing as I was ever going to see. And, besides, if he got mad at me over the trade, I could always get even by writing something bad about him in this book.

The conversation went something like this:

"Charlie, I think you should buy some silver."

"How much is it?" he asked.

"$5.60 an ounce."

"Why would I want to buy silver?"

"Well, for one thing, there's plenty of it around, so it's very low-priced."

"You're not convincing me."

"Look," I said. "The best reason to buy silver is that *nobody wants it*. I mean, I just read an article that says silver isn't even a precious metal any more."

"Those sound like reasons to sell."

"I know. *That's* the whole point. That's why I want you to *buy* it."

By the time Charlie finally decided to buy his silver it was about $6.20 an ounce, still cheap by my reckoning. He bought 3000 ounces at a total purchase price of nearly $20,000. Within a couple of weeks silver was a dollar higher and Charlie's investment was worth about $23,000.

I decided to call Charlie again, because, if I knew Charlie, he would be thinking about taking his profit right about then.

"Been watching your silver, Charlie?" I asked.

"Yes," he said. "It's up a buck. Do you think I should take my profit?"

Guess I know my buddy Charlie.

"Charlie," I said, "if you sell that silver, I'll punch you in the nose."

Apparently Charlie's nose was worth more to him than a $3,000 profit because he held on to his silver.

One Friday morning about six weeks later, I arrived at the office. Silver had been limit up[1] for a couple of days on the Comex, and was now just under $10.00, about double its low. I opened my *Wall Street Journal*. On the front page there was an article about skyrocketing silver. The article attributed the dramatic rise in silver prices to increasing concerns that inflation might be reigniting.

It had been half a decade since I last recalled seeing silver on the front page.

I called Charlie again.

"Did you read the *Journal* yet?" I asked.

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[1]One of the ways to buy silver is through a vehicle called a *futures contract*. A futures contract is a standardized agreement to exchange a commodity in the future at a price determined at the time of entry into the contract (not at the time of exchange). Futures contracts are traded on exchanges. Many exchanges have rules that limit the amount by which the price of their futures contracts can change in a given session. When a future contract rises by the amount of the limit, it is said to be *limit up*.

"No, why?"

"Your silver made the front page."

"Really?"

"Yes. Listen to this. The article says inflation fears are fueling a bull market in silver."

"Great!" said Charlie. "Should I buy some more?"

"No," I said. "I called to tell you to sell."

On Sunday, silver was on the front page of the *New York Times* business section and, I'm sure, business sections across the country as well.

On Monday morning, silver was on the front page again and it opened about $1.50 higher at just over $11.50 per ounce. For an hour or two the market seemed stuck there, spinning its wheels on high volume but getting nowhere, like a dragster at the starting line. And it might very well have come screaming out of there just like a dragster—a market that strong can defy all reason—but it didn't. Instead, the market broke badly, about as badly as I've ever seen one break. By early afternoon, silver had fallen as low as $7.20, a drop of nearly 33 percent in a single session!

I called Charlie to make sure he had gotten out on time: "Did you get out of your silver yet?"

"Sold it at $10.50," he said smugly.

"Good trade," I said, congratulating him.

So Charlie managed to buy near the low and sell near the high. He made over $12,000 on a $20,000 investment in just a few weeks. What could be better than that?

As you might have guessed, Charlie's silver trade didn't just happen by luck. What actually happened is that the market rewarded Charlie with his profit because *in buying and selling his silver when he did, Charlie performed an extremely important economic function*. In other words, Charlie did his job as a speculator and got paid for it.

The Speculator's Edge is about speculation. It is about how markets work and how to take money out of them. It explains at length why trades like Charlie's silver trade work. It explores ways of identifying potential opportunities for considerable profit and tactics for converting such opportunities into real in-your-pocket money. Equally important, it provides the tools that will enable you to appraise all the market ideas, systems, and methods that you will ever come across.

If you read this book and think carefully about the material, you will learn:

- How speculators consistently beat the stock and commodity markets.
- What *all* trading approaches must accomplish in order to win.
- The pitfalls of traditional approaches to trading, including technical and fundamental analysis.
- Why all systems[2]—even the good ones—must ultimately fail.
- Why the widely held efficient market theory—which says that the only way to beat the markets is by luck—is incorrect.
- Alternative investment strategies for people without the time or talent to speculate successfully.

Along the way, I hope you'll come to appreciate how important we much-maligned speculators really are in a free market economy, so that you can be proud of what you're doing in the markets, when you're taking money out of them.

LIKE IT OR NOT, EVERYBODY IS A SPECULATOR

Everyone who earns more money than he or she spends is forced to decide what to do with it. You can put it in your pillow or lend it to a bank or the government. You might buy real estate or stocks or pork bellies. Most people think only people who invest in risky things are speculators, and in some economic environments where inflationism is not practiced, this may be so. But today, with our budget deficit in the hundreds of billions of dollars and our national debt in the trillions, *holding cash or cash equivalents is a speculative decision*. So all investment decisions, including putting your money in the bank or buying bonds, should only be made after considering the risks and the prospects for earning a real rate of return (after adjusting for the loss of purchasing power due to inflation). This book is intended to equip you to make your own decisions after taking into account your individual needs and ability.

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[2]As you will see, there is an important distinction between a trading system and a trading approach or method. As I use the terms, a *system* is a trading approach that generates trading decisions by the application of a finite set of objective rules. A *trading method* or *approach* is a cohesive set of trading principles that may be subjective or objective. *Trading systems* are a type of trading approach, but not all trading approaches are systematic—in fact, for reasons that we will explore in detail, the best trading approaches are not systematic.

WHAT'S SO DIFFERENT ABOUT THIS BOOK

No matter what their particular approach to the markets is, to win, *speculators must successfully perform a basic economic function*. This may sound obvious, but I defy you to find any investment guide that acknowledges the basic economic function of speculation and explains how whatever approach is being expounded fulfills that function. If you find one, let me know. I'd like to read it.

Virtually all popular investment guides have one thing in common: *They always tell you exactly what you want to hear*. Most such books fall into one of two categories. Popular investment guides of the first kind are the most common. They have titles like *Big Bucks, No Risk*. Their titles tell you all you need to know, but in case you have any doubt about whether they are really worth the money, the publisher's blurb promises you:

an easy to understand, proven system
for turning little or no initial investment capital
into a fortune
in virtually no time whatsoever

Wouldn't it be great if we really could make a fortune like this without working?

Well, we can't.

That popular investment guides of this kind could never be right—that is, that there could never be a surefire system that all of us could use to make big bucks with no risk—becomes obvious when you consider the following. If we all follow this surefire method so that we're all raking in the dough, who's gonna lose all that money to us? It won't take long for us, the users of this surefire system, to obtain all the money in the world. Then what? And if it really works, then why doesn't the publisher of *Big Bucks, No Risk* take its publishing budget and put the money to work in the markets where it can, with little effort and absolutely no risk, make vastly more money than in something that's so competitive and that has such skinny profit margins as publishing?

The only sure thing about books like *Big Bucks, No Risk* is that you are sure to lose your money following their advice.

The blatant failure of these popular investment guides to turn any of their readers into millionaires spawned their antithesis, books with titles

like *The Only Random Guide to the Money Game You'll Ever Need*. These books are written by very intelligent, very glib people, some of whom have considerable investment experience. They purport to be an insider's account of what they like to call *the investment game*. If nothing else, these books are extremely entertaining, and are often chock-full of chatty anecdotes about the rich, famous, and infamous characters who inhabit Wall Street. The thesis of the popular investment guides of the second kind is simple and direct: The investment world is a casino and speculation is nothing more than legalized gambling, which may enjoy varying degrees of respectability or infamy depending on the times, but remains gambling nevertheless. Their theme: The deck is stacked against everyone from the odd-lotter to the largest institution, and, in the long run, the only one who ever wins is your broker—you know, the guy who charges a commission whether you win, lose or draw.

Popular investment guides like *The Only Random Guide* . . . didn't gain their full measure of popularity until the late 1960s, coincident with the collapse of the bull market in stocks that prevailed from 1955 until 1968, the emergence of the efficient market theory (which says you can't outperform the markets except by luck), and the skepticism that engulfed the country during the last years of the Vietnam War.

Unlike popular investment guides of the first kind, popular investment guides of the second kind suffer from no obvious flaws of reason. Their thesis, which is known as the efficient market theory and which says that it really isn't possible for anyone to beat the markets except by luck, has been accepted by a significant body of the academic and investment community. In Chapter 5, I will explain why, although the markets are efficient in some ways, the theory simply does not correctly describe market conditions. For now, you'll have to take it on faith when I tell you that the authors of popular investment guides of the second kind are every bit as mistaken as the authors of popular investment guides of the first kind.

Given the message of books like *The Only Random Guide* . . . , i.e., that the final result of all your scurrying around the markets can only be to enrich your broker—you might wonder about their tremendous popularity. After all, who would want to read such disappointing stuff?

Losers, that's who, and plenty of them.

Most of us with even moderate wealth have at one time or another tried our hand at speculation. The rest can only be suffering from some malady of heart or character—i.e., they're either too chicken or other-

worldly—or why else haven't they tried to better themselves financially by taking a crack at it? Most of those who do try are not successful. So if you're unwilling to try or if you've tried and failed, just what is it that you'd like to hear? That everyone else is winning?

Remember: *Popular investment guides always tell you exactly what you want to hear.*

Unlike popular investment guides of the first kind, it would appear that books like *The Only Random Guide . . .* can't really hurt you if you follow their advice. After all, their advice is that you can't beat the markets, so don't try. *But this advice can hurt you.* During less turbulent economic times, such a fatalistic attitude might save a lot of people from making a lot of mistakes with their money. You buy a home. You save some money. You buy some stocks and bonds. Maybe a mutual fund. You make sound decisions and then forget about them. Over a long period of time, the things you own go up along with everything else. Maybe a little more, maybe a little less; it doesn't really matter whether you beat the markets at all. In the end you've done all right, simply by behaving as a responsible adult would.

But these *are* turbulent times. The United States has become the largest debtor nation in the history of the world. The stock market first soared to what just a few years ago was considered by many to be unimaginable heights, then collapsed in similarly dramatic fashion. Banks are folding in record numbers. And people who bought "safe" investments like municipal bonds, or even U.S. Treasury bonds, at the beginning of 1987 got whacked just months later. In fact, if you bought long-term U.S. Treasury bonds on January 1, 1987, your total return (interest less principal devaluation) through year end was just about zero!

Popular investment guides like *The Only Random Guide . . .* usually tell you to do something smart with your money like put it in the bank or a good money market fund or a good mutual fund. Depending on how much money you have, how interested you are in managing it, and how talented you are, this may be the best thing you can do. But if you decide to follow this course, don't do it blindly. Understand the temper of the times. Understand that your money is a fluctuating commodity like anything else (you will understand this after you read Chapter 8), and that deciding to maintain a significant portion of your net worth in cash is every bit as much a speculation (on the future value of money) as deciding to buy pork bellies. Understand that the dramatic decline in the value of the dollar, which has occurred virtually without interruption since 1985,

has made and is continuing to make all Americans poorer. Make sure you specifically consider the consequences of owning cash money that is printed by policy makers whose usual solution to the problem of getting elected is to print more of it.

So popular investment guides have carved up their target market into two segments: those who want to get rich quick without working and those who have failed as speculators. This is very good marketing and completely explains what makes popular guides popular. Unfortunately, what popular guides on investing have to tell you is not correct. And as we have seen, it can hurt you.

THE PAINFUL TRUTH ABOUT THE MARKETS

If all the popular investment guides tell you only what you want to hear, then the first book that comes along and tells you the truth, whether you really want to hear it or not, might appropriately be called an *unpopular* investment guide.[3] That's how I like to view this one, in large part because as you will see throughout the book, doing the unpopular thing in the markets is frequently the surest way to take money out of them. Lest you be forced to wait any longer to hear it, here is the truth:

The markets can be beaten

by a limited number of talented, rational people who know what they are doing

but the markets cannot be beaten easily and not by as much as you'd probably like to beat them.

The truth hurts, doesn't it?

Well, if it's not impossible to beat the markets, then how hard is it?

Consider these words by Bernard Baruch, one of the great speculators in American history:

> If you are ready to give up everything else—to study the whole history and background of the market and all the principal com-

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[3]I select this characterization with apologies to Bertrand Russell, who wrote a wonderful book of philosophical essays, which, because of their high degree of clarity and common sense, he called *Unpopular Essays*.

> panies whose stocks are on the board as carefully as a medical student studies anatomy—if you can do all that, and, in addition, you have the cool nerves of a great gambler, the sixth sense of a kind of clairvoyant, and the courage of a lion, you have a ghost of a chance.[4]

In my opinion Baruch overstates what's required. You don't have to give up everything else. But you do have to be prepared to put a lot of hard work into this project on a consistent basis. And you will do best if you treat your speculation as though it were a second job. If you are really interested in embarking on this venture, that's exactly what you better treat it as, because you are going to be competing against a lot of very intelligent people who do this for a living. This is not, as the authors of popular investment guides of the second kind would have you think, a game. It is a business, a very *competitive* business. And the purpose of the business of speculation is to make money.

Which brings us to a subject so close to all of our hearts: money.

REAL MONEY

Not too long ago I met one of the biggest and greatest speculators who ever lived. I'm sure you'll forgive me if, out of professional courtesy, I refrain from identifying him and call him "B. T." (for Big Trader) instead. By some estimates, B.T. has taken in excess of $200 million out of the futures markets. As far as I know, that would be more than anyone who has ever lived. We met to discuss the prospects of B. T. managing money that my firm would raise.

We sat in the lobby of a palatial old southern hotel having drinks on a sunny day in June. B.T. is a large, bespectacled man. He speaks with quiet efficiency. His mind is keen and focused. He conveys a rare combination of self-assurance and humility–one that seems to be characteristic of great achievers, including virtually all of the best traders I've met.

B.T. told me that the hotel had been a favorite place of his ever since he spent a couple of weeks as an undergrad at a nearby university, where one of the most important things he learned (my value judgment, not his)

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[4]Quoted in Paul Samuelson and William Nordhaus, *Economics*, 12th ed. (New York: McGraw-Hill, 1985), p.292.

was that he missed the markets so much that he would have to find another way to get an education.

Then he said, "So, I hear you're a trader."

"I have a small account," I said coyly. Next to B.T.'s, any account is small.

"What do you do to win?" he asked.

For the next 20 minutes or so, I described my approach in some detail. He nodded at intervals, and I sensed that he was impressed by the thinking behind it, but he did not say so. When I was finished, I said, "How about you? Do you ever make trades like these?"

He didn't hesitate in his response. "Sometimes I do," he said, looking me right in the eye. Then without malice he added, "But you'll never make any *real* money that way."

B.T. is wrong.

Personally, my objective is to make 20 to 30 percent a year on my trading account, after taxes. I've selected this goal because it is attainable by me with acceptable levels of risk. And if that doesn't sound like much to you, watch what happens to a single dollar that is compounded at these rates:

Year	*20%*	*25%*	*30%*
1	$ 1.20	$ 1.25	$ 1.30
2	1.44	1.56	1.69
3	1.73	1.95	2.20
4	2.07	2.44	2.86
5	2.49	3.05	3.72
10	6.19	9.31	13.79
15	15.41	28.42	51.19
20	38.34	86.74	190.05
25	95.40	264.70	705.64
30	237.38	807.80	2,619.99
40	1,469.78	7,523.16	36,118.82
50	9,100.46	70,064.93	497,928.40

An account that begins with $25,000 and grows at a rate of 25 percent per year for 25 years will be worth over $6,617,000! Now I have nothing but respect and admiration for B.T., who has the ability, courage and willingness to assume the risks necessary to take hundreds of millions of

dollars out of the markets. To B.T., $6,617,000 may just be a bag of shells. But as far as I'm concerned, $6,617,000 is *real* money.

If you share B.T.'s view of the world, then you would be disappointed if I stopped here and told you that this book is about how speculators make millions, not hundreds of millions. But that is not quite true. While I am not privy to the particulars of B.T.'s approach, I can assure you that he has succeeded *because he has done his job as a speculator* in spectacular fashion. And this book is about what that job is and some of the many ways of doing it. As you will see, the magnitude of the results is primarily a function of the amount of risk you are willing to take and the advantage you have. Of course, the more risk you decide to take, the more luck enters into the picture as well. In any case, if your goal is to top B.T., then this book is still the best place to start.

THE GREAT SPECULATIVE IRONY

There is a great irony about the subject of speculation. Few areas of human endeavor have had more hours devoted to them by more minds, many of which belong to the very smartest human beings who ever lived. The paths that these minds have traveled in search of the holy grail of speculation are astonishing for their creativity and variety. Some are ingenious. Some are absurd. Unfortunately, almost without exception, they lack satisfactory theoretical explanation for the phenomena they purport to exploit. When pressed for an answer as to why a particular market is rising, the best that most investment professionals can do is reply, "More buyers than sellers." I say the "best" they can do because the other answers you get are frequently silly. The irony is that the answers have been known by economists for decades, yet they receive little attention after they are cursorily covered in first-year economics.

Good, clear-headed economists understand the important role speculators play in the economy, at least in theory. They understand that speculators help assure that the economy allocates its scarce resources in such a way as to produce what is most wanted by consumers and to avoid production of those things that are of too low a priority. They know too that, after all is said and done, the way that speculators do this is by rationing supplies so that those who want them the most get them at a fair price. But the markets are a complex, social process, and there is a huge gap between understanding the role of the speculator and taking money

out of the markets. In fact, few economists actually make speculation an important part of their activity. Instead, most economists devote entire careers to attempting to quantify unquantifiable social phenomena, or to analyzing economic data that has been discounted (and therefore rendered useless) by the markets months before it is known. So economists know the theory but they can't prove it because they don't know how to use it to win.

One noteworthy exception was John Maynard Lord Keynes, who was perhaps the most famous economist of this century. As you will see in Chapter 5, Keynes at least partially understood how speculators take money out of the markets and is said to have made a fortune speculating. Yet, decades after Keynes articulated it, his description of the problem of speculation is generally ignored or, worse, derided by otherwise intelligent scholars. For example, in *A Random Walk Down Wall Street*[5], no less an authority than Burton Malkiel (currently dean of the Yale School of Organization and Management) characterizes Keynes' explanation as "the ultimate form of the castle-in-the-air theory of price determination." Interestingly, Malkiel does so after noting that Keynes managed to earn several million pounds investing for his own account and multiplied the market value of his college's endowment by ten times.

On the opposite extreme, there are the great speculators. It sounds presumptuou., I'm sure, but the truth is *few, if any, of these fellows really know why they win*. In fact, my guess is that if you asked most of them how markets function and what the role of the speculator in the markets is, few could tell you. In other words, by whatever route, they have found a way to do their job as speculators, but they don't really know what that job is.

And even if they do, most of them don't write books.

If this sounds dubious to you, consider an analogy. If you asked Mickey Mantle to explain the physical laws governing the movements involved in swinging a baseball bat, what kind of an answer do you think you'd get? If you really want the answer, ask your high school physics teacher. But who do you want on your baseball team? And remember, the markets are a social process—one that is not susceptible to scientific analysis as physical processes are.

The result is that there are literally a handful of people in the world who both understand the principles involved and who can actually apply

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[5]4th ed. (New York: W.W. Norton, 1985), pp. 22–23.

them to the markets in a way that will produce profits. The junk that is constantly produced and published on the subject has become so voluminous that it seems improbable that many of these people could have attained their knowledge without someone to guide them along the path. The aim of this book is to be your guide.

Having said that, I should forewarn you that speculation is a self-discovery process, which means it is a very personal thing. It is both an art and a science. The structure and principles are here. It will be up to you to find your own way, to develop your own approach and style.

THE SPECULATOR'S EDGE

Throughout this chapter, much has been made of the fact that in order for any speculative approach to succeed it must fulfill an important economic function. When a speculator is doing his or her job, he or she is trading with what speculators frequently refer to as an "edge." As used here, the term *edge* refers to any advantage regardless of its source, including fundamental analysis, technical analysis, or dozens of other approaches to the markets.[6]

Since the markets are a social phenomenon, there can be no such thing as a "sure thing." No trade or opportunity is ever guaranteed. The best any speculator can hope for in making a trade is that the odds be in his or her favor. Over a period of time, speculators get a sense of what their overall edge is—that is, how much better than the market they expect to be.

Once the ability to obtain an edge is acquired and identified, there remains the equally important problem of using it in such a fashion as to assure optimum results.

So speculation reduces itself to these two elements: obtaining an edge and putting it to work. And, not coincidentally, that is how this book is organized.

Part One is an exploration of the means of acquiring an edge.

In Chapter 2, we cover basic economic concepts that run to the heart of

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[6]There is a narrower meaning of *edge*, which is not employed here and which refers to the peculiar ability of market makers and certain other traders to buy at the bid and sell at the offer. If this concept is meaningless to you, fear not, the concept and its implications will be explained in detail in Chapter 10.

all markets. We talk about the nature of markets, money and price, how goods are valued, and why trading occurs.

In Chapter 3, we focus on the role of the speculator in the economy and identify the essential elements of successful speculation. There you'll meet Marty Presler, my trading mentor, and you'll see how I began to learn about the markets. As far as I am concerned, Marty knows more about the markets than any living human being, and his influence on me as a speculator has been enormous. Many of the ideas contained in this book were taught to me by Marty or arose from discussions that we have had.

In Chapter 4, armed with our knowledge of the speculator's job, we take a look at the most common approaches developed to forecast market prices, including fundamental analysis, technical analysis, systems, and econometric models.

Chapter 5 examines the efficient market theory, reaching some conclusions about the ways in which the markets are and are not efficient. After you have read Chapter 5, you will have a healthy respect for the formidable nature of the problem of speculation. You will understand that there is an important distinction between forecasting prices and recognizing conditions of supply and demand. Surprisingly, while all the emphasis is placed on forecasting prices, it is by doing the latter that speculators outperform the markets.

In Chapter 6, we reach some unusual conclusions about the utility of Contrary Thinking.

In Chapters 7 through 10, we examine one particular approach to speculation—the one that works best for me. Although the approach we focus on is the one I favor, it is by no means offered as the only viable or even the best one. It is explained by way of example only.

Part Two examines some of the ways to put your edge to work.

In Chapter 11, we examine the reasons most traders lose, so we can create an approach that avoids the obvious pitfalls.

In Chapter 12, we explore risk and reward.

In Chapter 13, we turn to tactics. We examine some technical considerations of what to trade and when and how.

In Chapter 14, we take a look at some special considerations that apply to the stock market.

Part Three leaves the markets behind and discusses some individual considerations.

In Chapter 15 speculation is considered as a self-discovery process.

In Chapter 16, I go out on a limb and tell you what I think the future holds.

In Chapter 17, alternative courses are considered for those who are unwilling or unable to speculate actively. The importance of individual needs and talents in determining an approach is explored, and suggestions are made on the basis of my ideas about the future.

In Chapter 18, the final chapter, I climb off the limb and onto the soapbox to express my views on the importance of speculation in our economy and the trouble I see brewing for those of us committed to the freedom of the marketplace.

The subtitle of this book refers to the futures markets, but let me point out that the ideas here apply to markets beyond the futures arena. The same psychological and economic principles apply to all free markets. That is not to say that all markets are the same, for they differ greatly in terms of the goods and instruments that are traded, the manner in which exchanges take place, who the participants are, and other important respects. Our approach will be to aim at a solid understanding of the key concepts, and to focus principally on the markets that I know best: the futures markets and, to a somewhat lesser degree, the stock market. I am absolutely certain that readers who are more knowledgeable in other markets will see plainly how the principles discussed here apply to their markets as well.

I have written this book so that it may be used by beginners and veterans alike. If you are a beginner, you will probably get the most out of it if you treat the book as a reference guide, something that you can continually refer to as you find your own path through the markets. If your experience is like mine, you will find that the utility of the ideas discussed herein will increase over the years—the more experience you have, the more you will be able to get out of the book. If you have been trading for a time, I trust that the utility of *The Speculator's Edge* will be apparent.

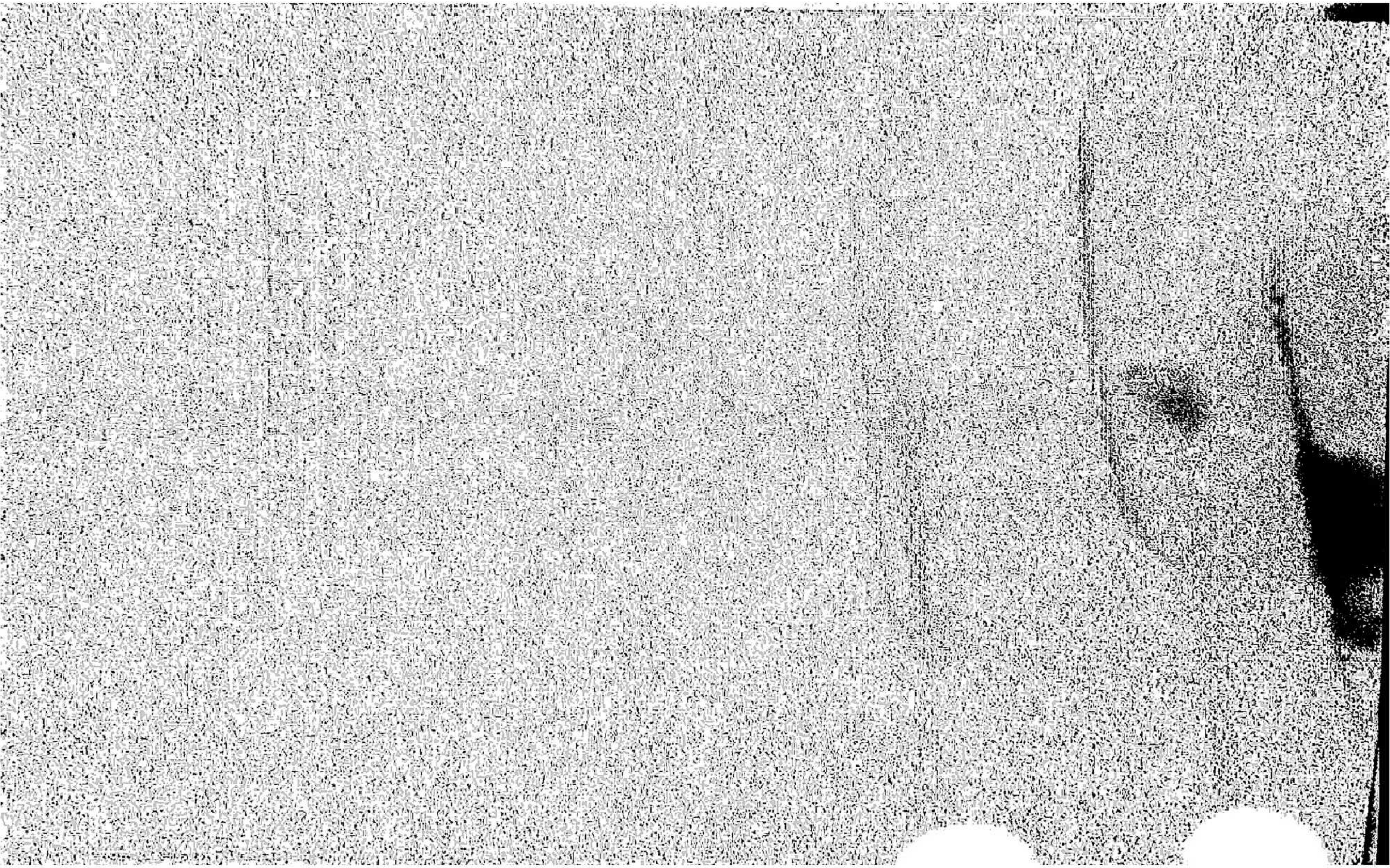
As many male authors quickly discover when they submit a book for publication, there exists an offensive shortcoming in our language which is at times a formidable obstacle to crisp prose. I am referring to the absence of a neutral word meaning *he or she*. Employment of such a cumbersome phrase instead of the universal but chauvinistic *he* frequently distracts, I think because we usually get away with the implicit sexism in speaking and are therefore unaccustomed to the sound of those words, especially when repeated frequently and followed by their close friend *his*

or hers. Although I am surely guilty of many terrible flaws of character, conscious sexism is not one of them. I have tried to solve the problem by alternating the use of the words *she* in some examples and *he* in others. Except where the context obviously requires, the good and bad characters that appear throughout the book can be assumed by the reader to be of the gender of his or her choice, despite my selection of pronouns.

One last thing before we go on. Now that this book is available, my good friend Charlie is on his own. After all, I wouldn't want him to have an edge over you.

PART ONE

THE EDGE



2

ECON 101— ECONOMICS FOR POETS AND SPECULATORS

Basic economic concepts essential to speculation

The first exchange I ever visited was the old New York Cotton Exchange, which, in 1976, was located on the second floor of a nineteenth-century office building on Wall and Exchange Streets. I had a summer job with the Commodity Futures Trading Commission, the newly created federal regulatory agency whose rather imposing task was to convince the nation's futures exchanges that they truly were subject to federal regulation. Until 1975, the futures exchanges were regulated by the Commodity Exchange Authority, a toothless division of the Department of Agriculture. As a result, the atmosphere at the exchanges was, to state the case most favorably to them, somewhat clubby, and their attitude made that of the colony of New Hampshire (Live Free or Die) seem conciliatory.

On that trip, I was escorted by Morris, a lifetime staffer of the old CEA. The din that met us as we ascended the stairs did little to prepare me for what awaited us out on the exchange floor. There were several circles that Morris explained were called "rings," each one devoted to the trading of a different commodity. Most were pretty sparsely populated, especially the orange juice ring, where four or five commission house brokers[1] sat reading paperbacks. But over to the left, there was one ring that was at the

[1] A *commission house broker* is a floor trader paid by a brokerage firm to stand at the ring and execute orders for the customers of the house. Since these brokers are paid a salary by a brokerage firm, they remain in the pit or ring regardless of the level of trading activity. Independent floor brokers generally go where the action is, since they are not on a salary and must trade to earn a living.

center of all the action. There, 50 or 60 grown men stood leaning in each others' faces, shouting as loudly as they could in primordial tones of voice that I had never heard before, except maybe the one time I tried to take a shrimp away from my cat, Paco. Veins bulged in the men's necks. Their eyes seemed ready to leap from their sockets any moment. They waved their arms threateningly at one another in some incomprehensible code.

It was like a cock fight without the cocks.

A crowd this angry couldn't help but come to blows at any moment. The pitiful ring that held the circle of men outward would crumple like so much aluminum foil. My heart was in my throat.

What was going on here?

The men were trading cotton.

Only someone who has never been to the floor of an exchange would call this business of investing a "game." Ask Muhammad Ali and Joe Frazier if the Thrilla in Manila was a game. Ask the Christians whether they were playing tag with the lions.

If it's not a game, then what's all the yelling and screaming about?

The answer is basic economics.

Although this is not intended to be an economics textbook, our plan is to cover in this chapter the basic economics of markets, so that we will be in a position to explore in Chapter 3 the role of the speculator in the economy. In this chapter we cover the laws of diminishing marginal utility, downward-sloping demand, upward-sloping supply, and market equilibrium. In the next chapter, we will identify what speculators must do to beat the markets.

The concepts covered in this chapter explain the price-discovery process by showing how the collective subjective preferences of individuals result in market prices. These concepts are especially important because they go a very long way toward explaining why trading successfully is such a difficult thing to do. Understanding them will help us recognize why many of the most popular trading systems and approaches will not work, and will help us identify, in later chapters, elements of approaches that may.

In addition to these concepts, we will also introduce the topic of the nature of money. We need to talk about money because it is against money that we measure the worth of our goods and services in modern society. As you will see, the implications of the fact that in the United States we live in a society of unsound money are so far-reaching that they will often override trading decisions we would otherwise make and even

determine whether we trade at all. We will cover the latter subject in depth in Chapter 8, but for present purposes all we need is a simple understanding of what money is.

The economic concepts we are about to discuss are not novel (in fact, none of them is newer than 50 years old and most have been understood for much longer), but they are carefully selected from an enormous body of thought with the goal of presenting the absolute minimum necessary to our task. Those who are interested in a fuller explanation are urged to read *Economics* by Samuelson and Nordhaus, or a comparable basic text.

THE ECONOMICS OF SCARCITY

Let's begin with a few simple observations. First of all, our world is, in some respects, imperfect. Specifically, we live in a world of scarcity—one in which unlimited supplies of everything are not accessible to everyone. In other words, as the classic British economist sang, "You can't always get what you want."[2]

Our second observation is that we live in a society in which labor is divided. This is so obvious that the alternative seems impossible to us, but it is probable that for most of human history, man produced exclusively to meet his own needs (i.e, Fred not only hunted, but made the club he hunted with, the tigerskin loincloth he wore while hunting, etc.). Human beings who produce goods for the consumption of others will behave in a manner different from those who produce solely for their own consumption. For one thing, these humans will *trade*.

A society with scarce goods and divided labor has several problems. It must decide what will be produced, who will produce it and how, and who will receive it. Various systems have been tried. The one we selected is called a market economy.

In our society, private ownership of property is permitted and the means of production and distribution of goods are, at least in major part, left up to *individuals*. This is what we mean when we say that ours is a free market system. Our system stands in sharp contrast to other societies in which production and distribution are directed by the state.

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[2]Mick Jagger, "You Can't Always Get What You Want" (Copyright ABKCO Records, Inc.). I lied about him being a classic British economist, but he did attend the London School of Economics.

UTILITY

Let's see how these characteristics take effect in the real world.

Consider the case of Fred, a hunter. His basic economic needs include shelter, clothes, tools with which to hunt, and food. Since his society has achieved division of labor, Fred doesn't expect to make his hut, clothes, or clubs; his job is to hunt. *He is sufficiently proficient at it to kill more than he can eat*. If he weren't, he would have to find another job.

One afternoon, after a particularly tasty brontosaurus burger, Fred looks about and notices that his tigerskin loincloth is going out of style, his club is splintering and needs to be replaced, and the roof on his hut is leaking. He goes over to the refrigerator and sees that he has stored up several boxes of brontosaurus burgers from his last hunting trip. He knows that Barney, the club maker, loves brontosaurus burgers, so Fred figures that Barney will be willing to trade a new club for a box of burgers. (Obviously, this was before they invented titanium shafts with beryllium copper faces.) Since Fred needs a new club and since he can always get more burgers once he acquires one, he decides to make a trade on this basis. So he goes over to Barney's and trades the burgers for the club.

This primitive trade is called a *direct exchange*. The important thing about it is that it takes place only because *the utility of a new club is greater to Fred than a box of brontosaurus burgers, and the reverse is true for Barney*. We can describe the trade as having taken place at a price: The price of one club was one box of brontosaurus burgers. Note that while the price can be specifically described, the trade took place not because Fred and Barney agreed on the utility of the goods exchanged, but because they disagreed! If both Fred and Barney valued a club more than burgers, then no trade would have taken place.

Consider Fred's position immediately before he goes over to Barney's to buy a new club. Fred must engage in a little self-examination. Since his needs are many and his resources are scarce, he has to decide what his priorities are before he goes on a shopping spree. His decision is as follows:

1. a new club
2. a new roof
3. a new loincloth
4. a box of brontosaurus burgers

5. another box of brontosaurus burgers
6. another new club
7. another new loincloth

This list of priorities is based on the utility of the goods on the list. Since Fred just ate, the brontosaurus burgers are relatively far down the list. What Fred needs most right now is a new club so he can go hunting and obtain food to eat and to trade. The roof is next in importance, because Fred prefers to sleep in a dry hut. Next in importance is a new loincloth since the one he's wearing is in tatters. Then come a couple of boxes of brontosaurus burgers, which occupy their lower spot because Fred already has several boxes in the refrigerator and he has just eaten.

Note that the additional club and loincloth are at the bottom of the list, since they are not needed *as much as the identical items at the top of the list*. This is an important point. While extra clubs and loincloths benefit Fred, the incremental benefit of each additional club or loincloth becomes smaller. Economists describe this phenomenon in an important law—the *law of diminishing marginal utility*. Simply stated, the law of diminishing marginal utility says that as the amount of a good consumed increases, the marginal utility of that good tends to decrease. So, economists like to say that the *marginal utility* of a second club is less for Fred than the other items above it on the list.

Of course, the list itself is a list of Fred's *subjective* values. But Fred lives in an *objective* world. That is, the items on Fred's list are also on other people's lists, but not necessarily in the same order. For example, people who can't hunt to save their lives have little desire for clubs at all, except to the extent that they can trade them for other goods that they do want. People who had their huts reroofed just last week wouldn't trade a berry for a new one this week. As all these people come to the market, they make trades that make sense to them *subjectively*, and, just as important, they refuse to make trades that do not make sense. In other words, people allocate their own limited resources in such a way as to maximize their own *subjective* utility—they keep making trades until their schedule of assets conforms to their list of priorities. In the aggregate, the subjective needs of all of the participants in the market result in an *objective* hierarchy of goods. At any given moment, the prevailing hierarchy, regardless of what you or I think of it, is the hierarchy of *objective* values.

MONEY AND PRICE

Now suppose Fred takes a box of burgers over to Murray, the roof repairman. As it turns out, Murray has just returned from the doctor, who told him to cut down on cholesterol. This puts Fred in a spot because, while Murray has something Fred wants, Fred doesn't have anything Murray wants. Or does he? It turns out that Murray is a sportsman who likes to hunt on weekends for fun. Murray sees Fred's new club and says he would gladly reroof Fred's hut in exchange for one just like it. So back Fred goes to Barney's, where he trades the box of burgers for another club. Then he returns to Murray's and makes the deal.

Something important has happened here. Instead of purchasing the second club for his own consumption, Fred traded first with Barney for the purpose of entering into a second transaction with Murray. In other words, Fred's demand for the second club reflected nothing more than its exchange value to him, its consumption value was important only to Murray. This is called an *indirect exchange*. Virtually all exchanges made in advanced society are of this nature. Except, of course, baseball cards.

Fred, Barney, and Murray have a problem, however. Obviously, clubs and brontosaurus burgers are not particularly useful media of exchange. What is needed is something easier to carry, more durable, with generally recognized beauty or utility. Nails, gems, copper, nickel, silver and gold are all candidates, and, in fact, have been used by one society or another. One by one the alternatives get whittled down, usually not by any formalized decision process, but by custom and usage. Today the most universally recognized medium of exchange (excluding for the moment bank notes of the U.S. Federal Reserve and other currencies) is gold.

We are now in a position to define *money*.

In the narrowest sense, money is a *commodity* that is universally employed as a *medium of exchange*. I say in the narrowest sense, because as we have become more sophisticated we have often replaced *commodity money* with other forms of money that have no underlying *commodity* value. The most obvious example of this phenomenon is the green stuff in your pockets: Federal Reserve notes.

It is astonishing that, for all the fuss we make about money, so few of us understand its nature or from whence its value derives. Money originated as commodity money. Initially, it had no value other than its consumption or production value. However, as its usefulness in facilitating indirect exchanges grew, its value also grew to a premium over its

commodity value. It acquired *money value*. Unlike other goods, the value of money *as money* depends solely on its usefulness in facilitating exchange. Take away its exchange value, and the value of commodity money reverts back to its commodity value. From 1873 until the early 1930s, the value of silver declined as most countries demonetized it in favor of gold. During World War I, as many countries replaced gold with bank notes and Treasury notes, the value of gold declined as well.

The almighty dollar is the ultimate expression of the evolution from commodity money to what we call *fiat money*. Not too long ago it was backed by silver (you remember silver certificates, don't you?)—that is, the paper money could be exchanged (substituted) for a given quantity of silver, a *commodity* that had both commodity value and *money value*. Once liberated from its precious metal backing, the dollar became nothing more than paper money—that is, its commodity value disappeared. The dollar is called *fiat* money because it is created out of paper by fiat of the United States government. Its current value is based on custom and belief only. If anything happened to destroy that belief, its value would revert to its consumption value only—that is, it would be worth the paper it is printed on, nothing more. You could use it to start the fires in your barbecue. Ever hear of Confederate dollars?

Now that we know what money is, let's return to our friends, Fred and company, to find out a little more about *price* and *utility*.

Let's suppose Fred had five pieces of gold. Let's also suppose that Fred knew that Barney would give him a club for ten pieces of gold and that Murray, who decided not to follow his doctor's orders, would exchange five pieces of gold for a box of brontosaurus burgers. Obviously, Fred's best course of action is to sell the burgers to Murray and then take the ten pieces of gold to Barney's and buy a new club. We could say that one club cost two boxes of burgers, and indeed it did. We also could say that one club cost ten pieces of gold (or ten dollars if dollars happen to be the common medium of exchange), and we usually do. In other words, the price of a good can be expressed in terms of any other good for which it can be exchanged, or it can be expressed in terms of money. Remember, money is a commodity in most respects like any other commodity.

Now, is one club really *worth* two boxes of burgers simply because Barney says so?

Of course not.

Remember, it takes two to make a trade. A trade takes place when and only when there is *disagreement* on the utility of the goods exchanged. In

fact there is no such thing as fair value or true value in an economic sense. The market is nothing more than a series of trades among individuals who disagree as to the utility of the goods or services traded.

You now know all you need to know about what prices are and how they reflect the basic needs of the individuals who come to the markets. But what causes prices to be one thing and not another? What can we say about how objective prices are discovered?

THE LAWS OF DOWNWARD-SLOPING DEMAND AND UPWARD-SLOPING SUPPLY

These important questions are answered by the laws of downward-sloping demand, upward-sloping supply, and market equilibrium.

Demand is the quantity of a good that buyers are willing and able to purchase at a given price.

Supply is the quantity of a good that sellers are willing and able to sell at a given price.

The *law of downward-sloping demand* says that, *ceteris paribus* (all things being equal), demand is inversely related to price. The *law of upward-sloping supply* says that, *ceteris paribus*, supply is directly related to price. In other words, in a free market, *where the nonprice determinants remain the same*:

as price increases, demand decreases
as price increases, supply increases
as price decreases, demand increases
as price decreases, supply decreases

These relationships are often depicted in demand and supply schedules and charts. A demand schedule shows the relationship between the quantity of a good demanded and the price charged. The demand schedule includes not only the amount actually demanded at the currently prevailing price, but also the amount purchasers would be willing to buy at different prices.

Here is an example of a demand schedule for cotton:

Price	*Quantity Demanded*
$1.50/lb	500 lbs
$1.00/lb	1000 lbs
$ .50/lb	2500 lbs
$ .25/lb	5000 lbs
$ .10/lb	6000 lbs

The demand schedule for cotton can be depicted graphically as a *demand curve* which is shown in Figure 2.1.

Similarly, supply schedules show the relationship between price and the amount of a good that sellers are willing to sell. Here is a supply schedule for cotton:

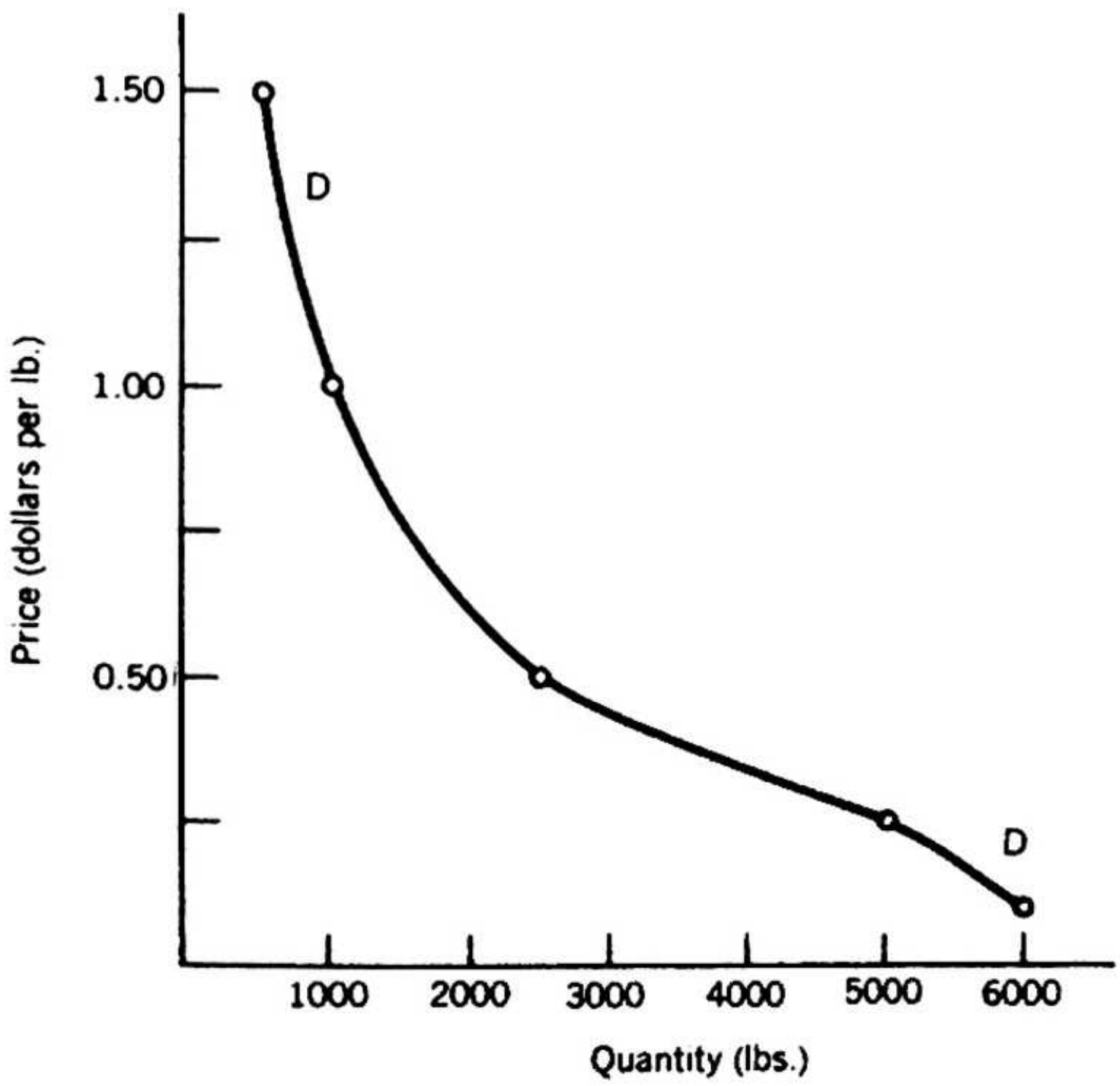


FIGURE 2.1. DEMAND CURVE FOR COTTON. **The law of upward-sloping demand states that, all things being equal, demand varies inversely with price. Here, the demand curve for cotton (DD) shows that as the price of cotton rises, the quantity demanded declines.**

Price	*Quantity Supplied*
$1.50/lb	6000 lbs
$1.00/lb	5000 lbs
$ .50/lb	2500 lbs
$ .25/lb	1000 lbs
$ .10/lb	200 lbs

And, a chart of the supply schedule, called the *supply curve*, is shown in Figure 2.2.

The laws of upward-sloping supply and downward-sloping demand follow our common sense. In general, if the price of a good is high, we will buy less of it than if it is lower. By lowering prices, producers can frequently entice new purchasers to buy and existing purchasers to buy more.

It is extremely important to note that while demand is inversely related

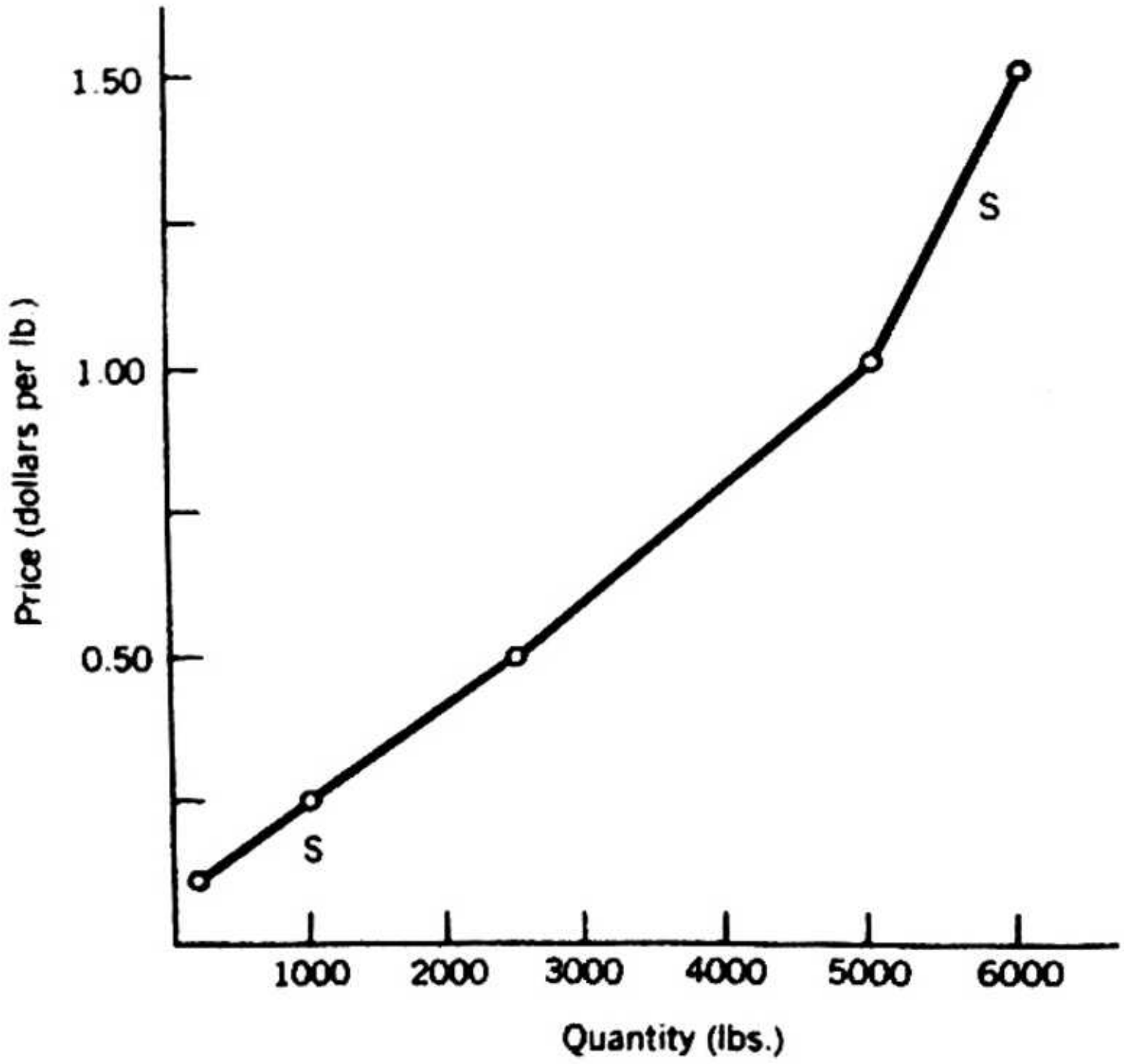


FIGURE 2.2. SUPPLY CURVE FOR COTTON. **The law of downward-sloping supply states that, all things being equal, supply varies directly with price. In this figure, the supply curve for cotton (SS) shows that as the price rises, producers are willing to sell more cotton.**

to price, the relationship is not necessarily one to one. Let's take an example. A Ferrari Testarossa costs, perhaps, $120,000. I do not own a Ferrari. If they cut the price to $60,000, I would buy one. If they cut the price to $30,000, I might not buy a second, because its marginal utility to me is less than $30,000. But if they reduce the price to $1, I would probably own seven, one for every day in the week. That way I could be certain that at least one of them would start.

The law of supply operates in the same fashion. If there is plenty of something around, we are unwilling to sacrifice much to get it. As the supply becomes scarce, what we are willing to pay will increase as well, though, again, not necessarily on a one-for-one basis.

There is another way of saying all this that you should consider. Everything else being equal, if producers decide to increase the quantity of goods sold, they can do so only by decreasing the price at which they offer their goods.

THE LAW OF MARKET EQUILIBRIUM

The law of market equilibrium states that markets tend to *equilibrium*, a state in which neither the buyers nor the sellers see any need to change the price or quantity of the goods they are trading. This occurs at the price at which goods *clear*—that is, where producers sell as much as they are willing and able to sell and consumers buy as much as they are willing and able to buy, and further trading ceases.

How and why the law of equilibrium works may be easily seen if we combine our supply-and-demand schedules as follows:

Price	*Quantity Demanded*	*Quantity Supplied*	*Effect on Price Structure*
$1.50/lb	500 lbs	6000 lbs	Sellers will compete to fill limited demand, lowering prices
$1.00/lb	1000 lbs	5000 lbs	Sellers will compete to fill limited demand, lowering prices
$ .50/lb	2500 lbs	2500 lbs	Equilibrium price occurs and trade is maximized
$ .25/lb	5000 lbs	1000 lbs	Buyers will compete for limited supply, raising prices
$ .10/lb	6000 lbs	200 lbs	Buyers will compete for limited supply, raising prices

Note that the equilibrium price of cotton in the above example is $.50 per pound of cotton, and, at that price, the maximum trade of 2500 pounds will take place. Assuming static conditions, once this 2500 pounds of cotton has been exchanged, no further trade will occur.

We can also view equilibrium by putting the supply-and-demand curves on the same chart, as shown in Figure 2.3.

Note that the shaded area labeled "Surplus" directly above the E point shows that, at all prices higher than the equilibrium price, more goods are desired to be sold by producers than are desired to be purchased by consumers. If the price were higher than the equilibrium price, producers would compete with each other for the relatively limited demand of

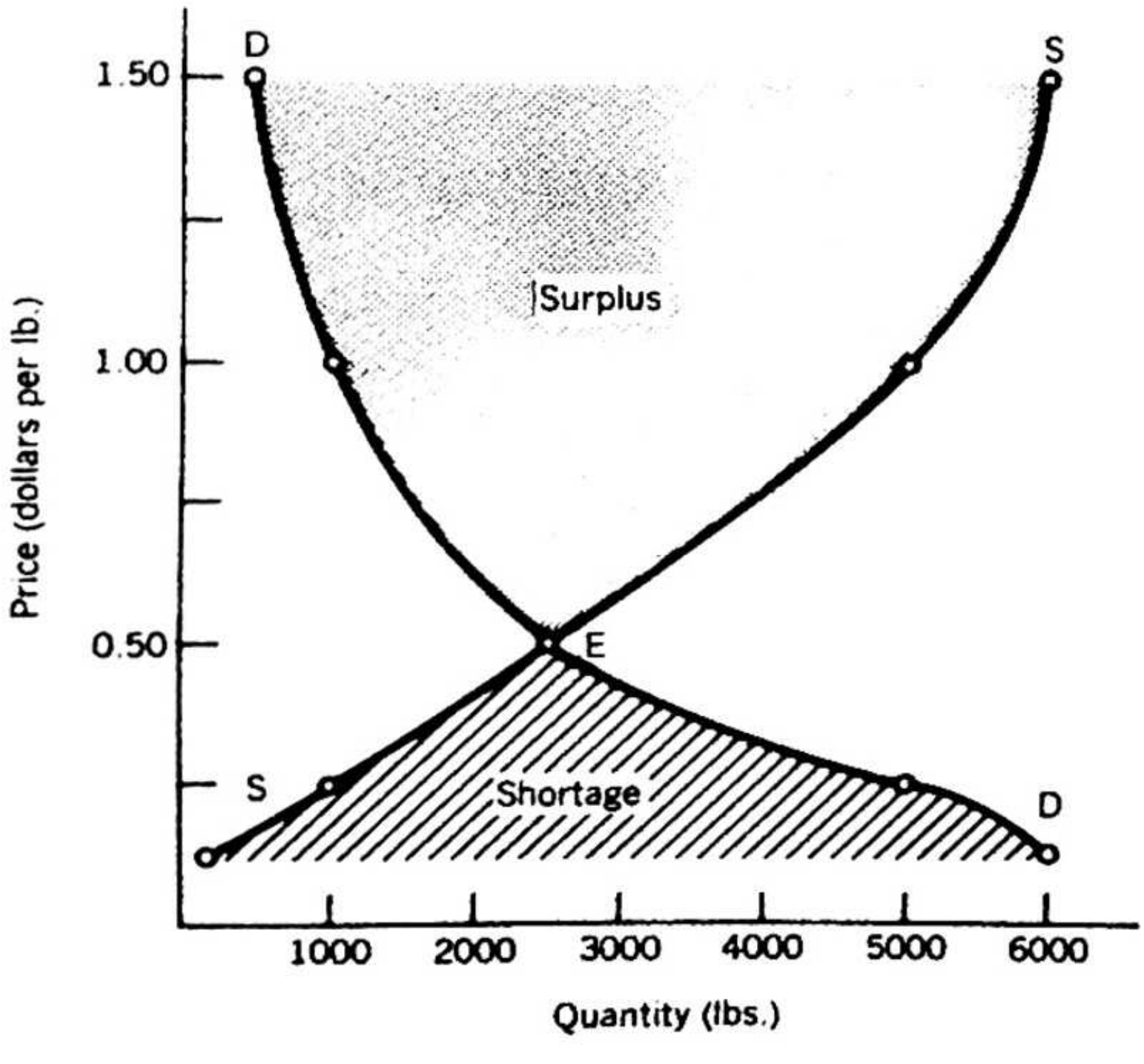


FIGURE 2.3. SUPPLY/DEMAND CURVES FOR COTTON. **This figure combines Figures 2.1 and 2.2. Note that the supply curve (SS) and the demand curve (DD) intersect at the equilibrium point (E). At equilibrium, buyers buy all the cotton that they demand and sellers sell all the cotton they wish to supply. Above equilibrium, sellers are willing to sell more, but there are fewer buyers and a surplus (shaded area) exists. Below equilibrium, buyers demand more cotton, but sellers are unwilling to supply it, so there is a shortage (also shaded).**

consumers. Producers compete by lowering price. The price would quickly fall to equilibrium.

Similarly, the shaded area labeled "Shortage" directly below the E point shows that, for all prices under the equilibrium price, demand exceeds supply. If the price were under the equilibrium price, consumers would bid prices up (or producers would simply raise them to ration goods) until demand and supply came into line at equilibrium.

At equilibrium, there is neither a shortage nor a surplus. Here, producers sell all that they are willing to sell and consumers buy all that they are willing to buy. When distribution is complete, the market is said to "clear" and further trading ceases.

You might be thinking, why doesn't the market ever seem to go to equilibrium and clear in the real world?

Although there is some academic debate on the extent to which equilibrium is ever achieved, at least one important school says that the market in fact is always at equilibrium. Even in highly organized, actively traded markets like those found on U.S. securities and commodities exchanges, trading ceases frequently—sometimes for an instant and sometimes for significant periods. Ultimately, however, conditions change. People's needs change. They eat, then grow hungry all over again. They are born and they die. Their valuations change. A price that a moment ago was too high for a potential buyer now looks good, so he or she buys. As life goes on, the price structure of goods must fluctuate.

SHIFTS IN THE CURVE

Consider what would happen to our demand curve for cotton if it represented reality just prior to the advent of designer jeans. One day designer jeans are unknown. The next day "Ooh La La, Sasson" is on everybody's lips—and hips. What happens to the demand curve for cotton, which is used to make denim, which is used to make designer jeans? The curve shifts to the right (from DD to D'D') to reflect the fact that the demand for cotton has increased at all possible prices. We might depict the situation as shown in Figure 2.4.

Note that the result of increased demand under conditions of static supply was to cause the equilibrium price of cotton to rise from $.50 per pound (E) to $.75 per pound (E').

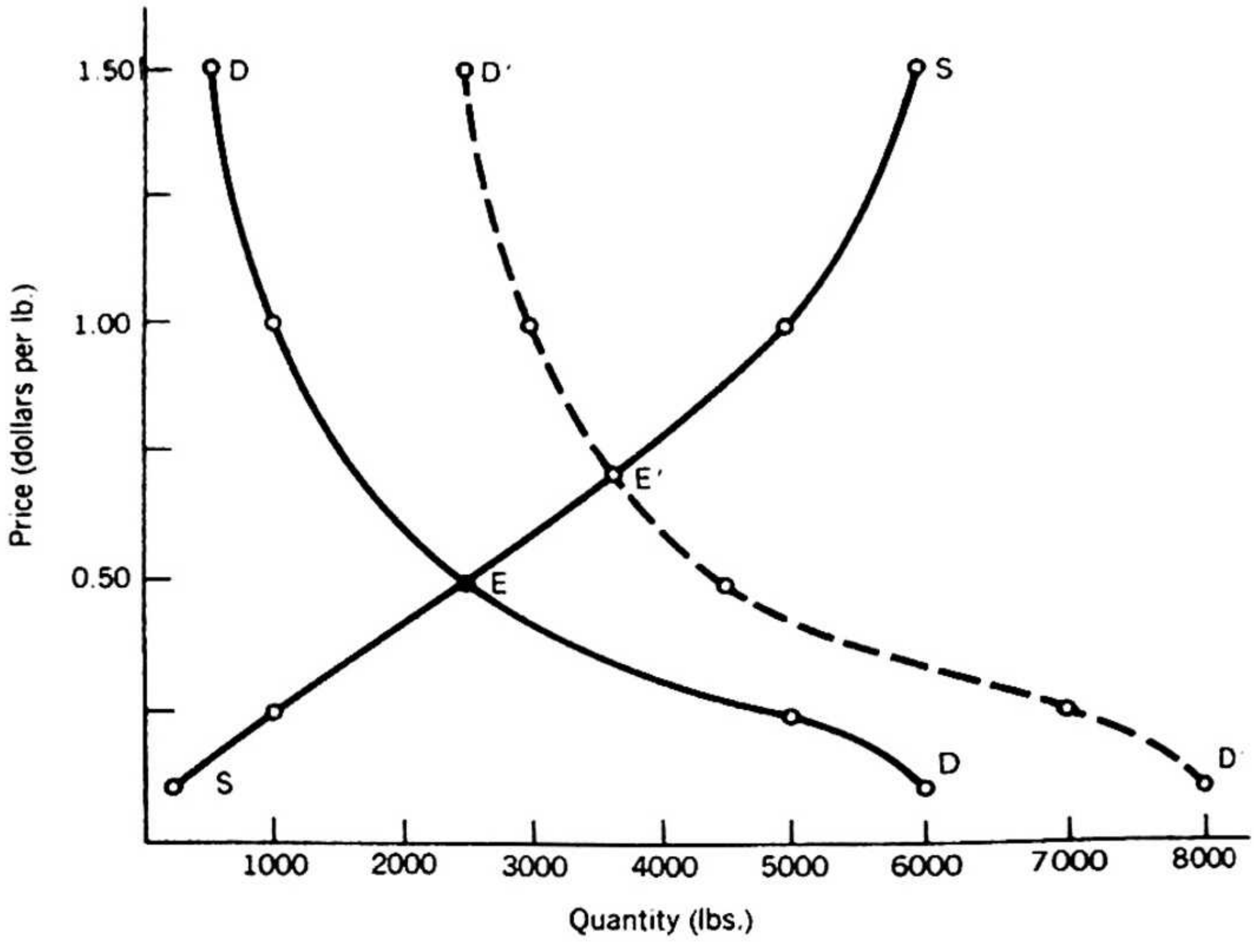


FIGURE 2.4. EXPANDING DEMAND FOR COTTON. **This figure illustrates the change in conditions when the demand for cotton increases at all prices while the supply is unchanged. Note that the increased demand causes the demand curve (DD) to shift to the right. The increased demand curve (D′D′) intersects the supply curve (SS) at a higher equilibrium point (E′) than had prevailed. At the higher equilibrium, more cotton is sold for higher prices.**

Of course supply curves can shift, too. Suppose our supply curve for cotton represented the state of affairs just before the invention of the cotton gin. Now Eli Whitney gets his brainstorm. What happens to the supply curve? It shifts to the right (from SS to S′S′) to reflect the fact that producers, whose costs of production have been suddenly and dramatically reduced, are willing to sell more cotton at prices all down the line. Figure 2.5 shows what the chart might look like.

Observe that the increase in supply under conditions of static demand caused the equilibrium price to fall from $.50 per pound (E) to $.35 per pound (E′).

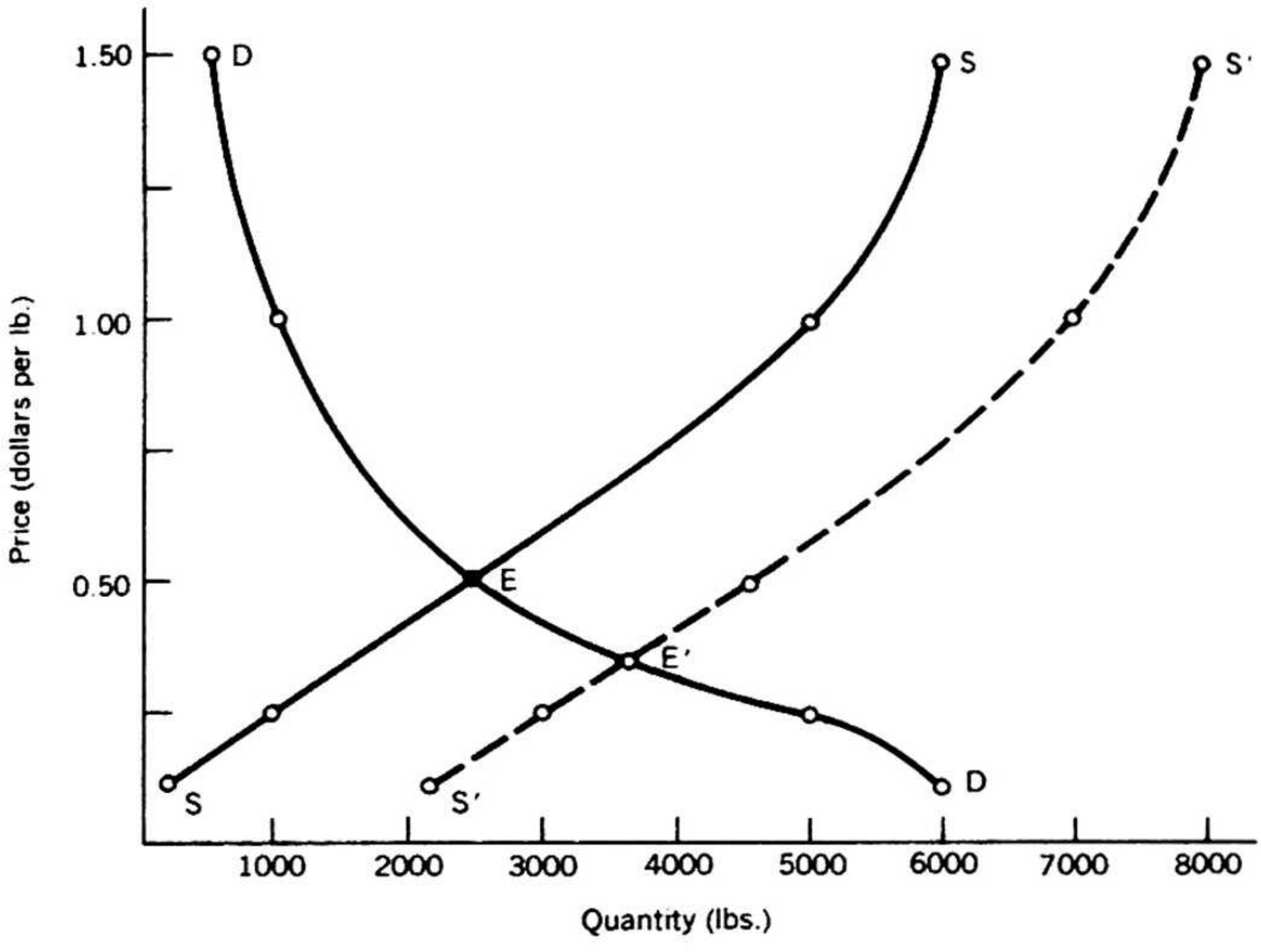


FIGURE 2.5. EXPANDING SUPPLY OF COTTON. **In this figure, supply expands at all prices, causing the supply curve (SS) to shift to the right (S'S'). Demand is static. The new supply curve intersects the demand curve at a lower equilibrium point (E') than did the initial supply curve. At lower equilibrium more cotton is sold for lower prices.**

HOW CONSUMERS DIRECT PRODUCTION THROUGH THE MARKET

The ultimate arbiter of price is the consumer. As we have seen, the consumer's valuation is based upon his or her subjective appraisal of the utility of a good. If the consumer needs something and can make an advantageous trade, he or she does so. If the price is too high, he or she will not pay it. Good business people know that they cannot stay in business for very long by producing *what they wish to sell*—they must produce what their customers wish to buy.

The market directs the individuals that comprise it. It tells producers what and how much to produce, and where, how, and when to deliver it.

It also determines which of the consumers who desire goods will obtain them. It does this through the mechanism of price.

If consumers want more of something than is currently being produced, producers recognize the increased demand and raise their prices. The increased prices serve two functions. The most immediate impact is to ration the existing supply by providing the goods only to those consumers willing to pay the increased price. Marginal consumers, the ones that were willing to buy at the lower (but not the higher) price, are precluded from buying. Equally important, but usually slower to occur, the higher prices encourage (1) more production of goods for which demand has increased and (2) reduced production of marginal goods of a different nature.

Let's return to our cotton example again. Figure 2.6 shows what happens to the price and quantity of cotton when designer jeans come into vogue.

Figure 2.6 (*a*) depicts the supply/demand condition prior to increased demand of designer jeans. Figure 2.6 (*b*) shows the increase in demand. Since it takes time to grow cotton, the supply remained fixed, and prices skyrocketed. Cotton farmers reaped windfall profits. Figure 2.6 (*c*) shows what happened in the next growing season, as farmers responded to the higher cotton prices. The farmers *took acreage away from less profitable crops* and planted more cotton. Supply expanded sharply to meet the higher level of demand. Prices fell back near to where they were at the outset, but now more cotton was being sold.

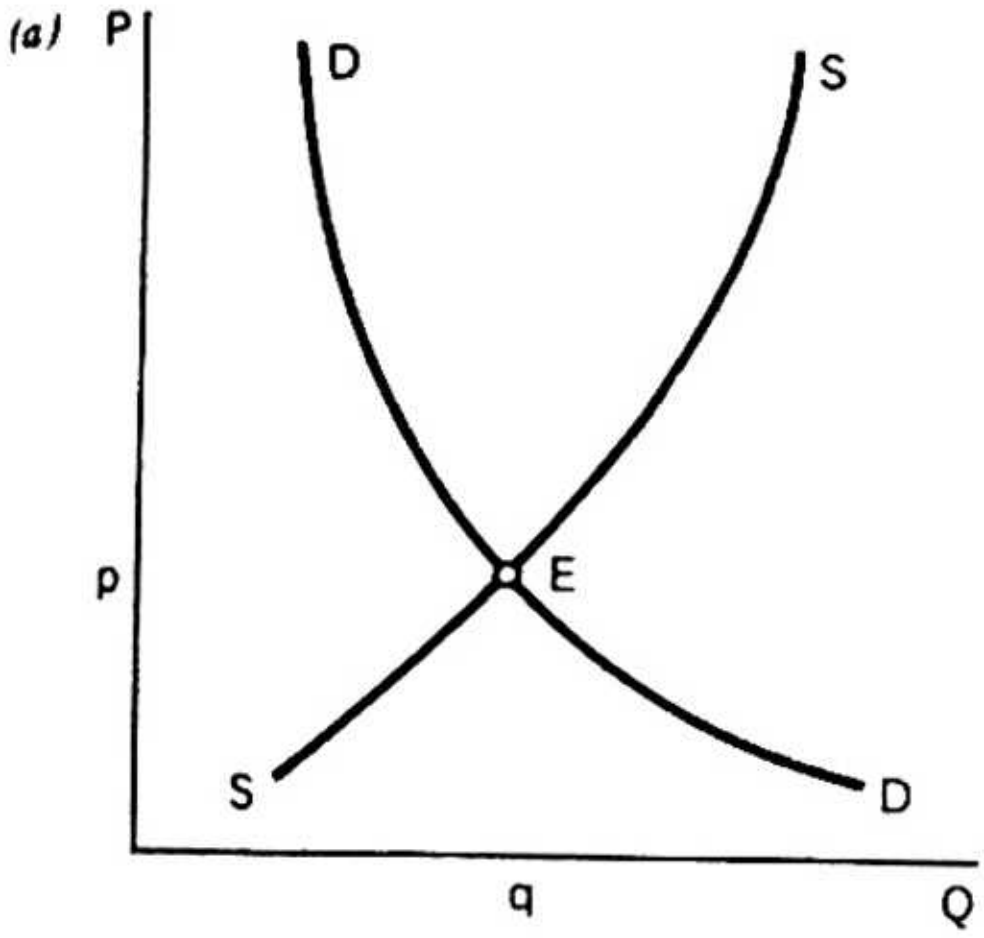
Supply and demand meet each other in many different locations and under many different rules. They meet in your grocery store. They meet on exchanges and in boardrooms. They meet at Sotheby's, and they meet on street corners too.

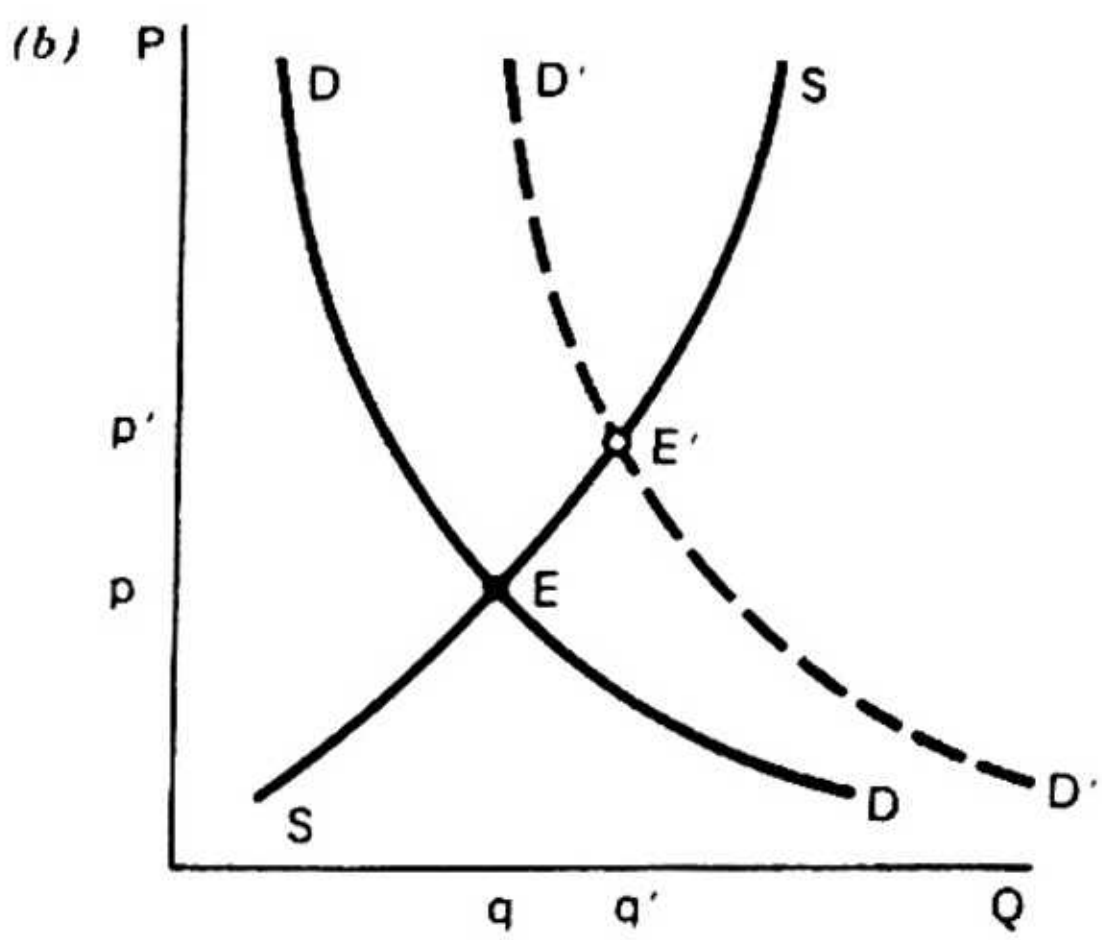
Producers supply the goods that consumers demand.

They can do it inefficiently at the direction of a centralized government as is common in some socialist and communist countries.

Or they can do it efficiently, *as directed by speculators in a free economy*. In the next chapter we will see how speculators direct the markets to maximize the utility of society as a whole.

And, by the way, that's what all the yelling and screaming was about down there on the floor of the New York Cotton Exchange.





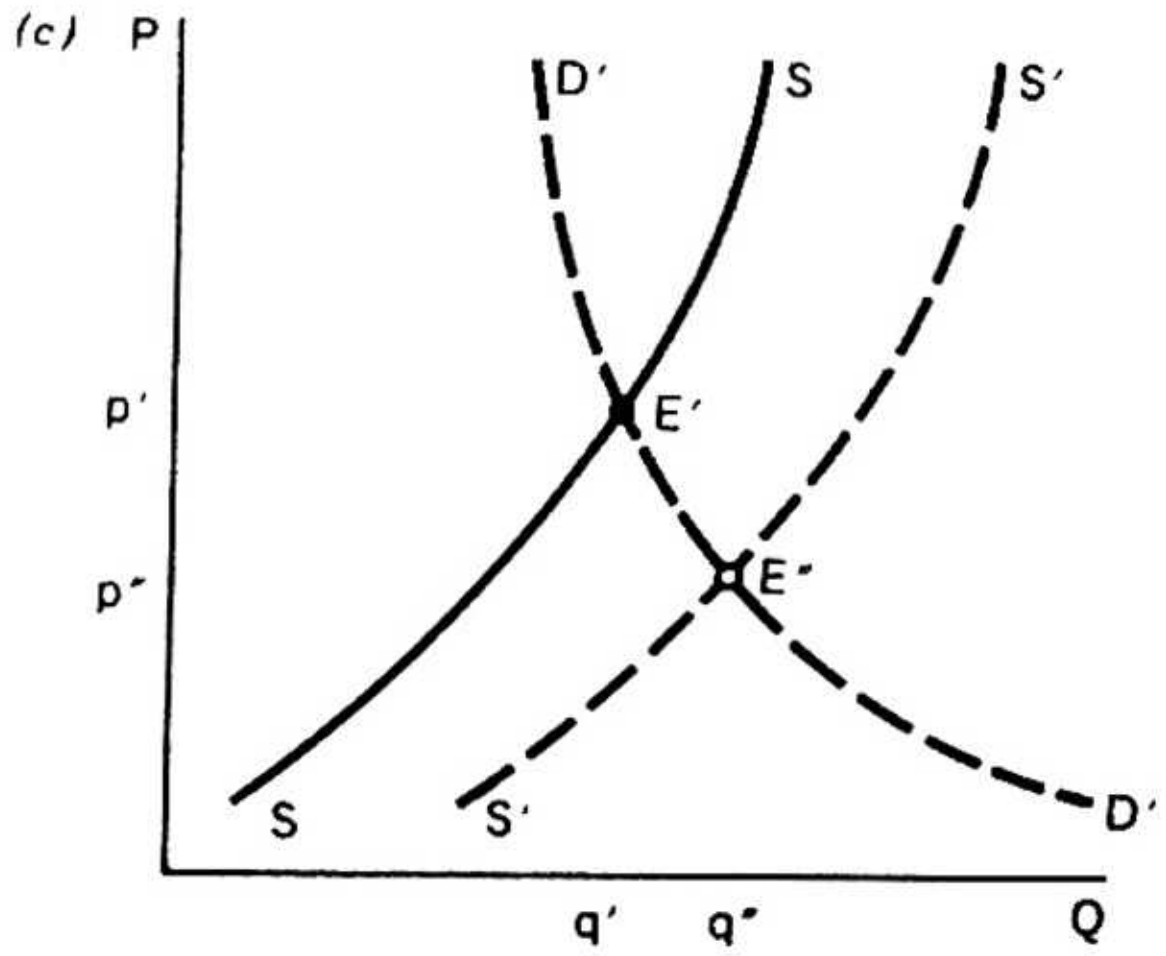
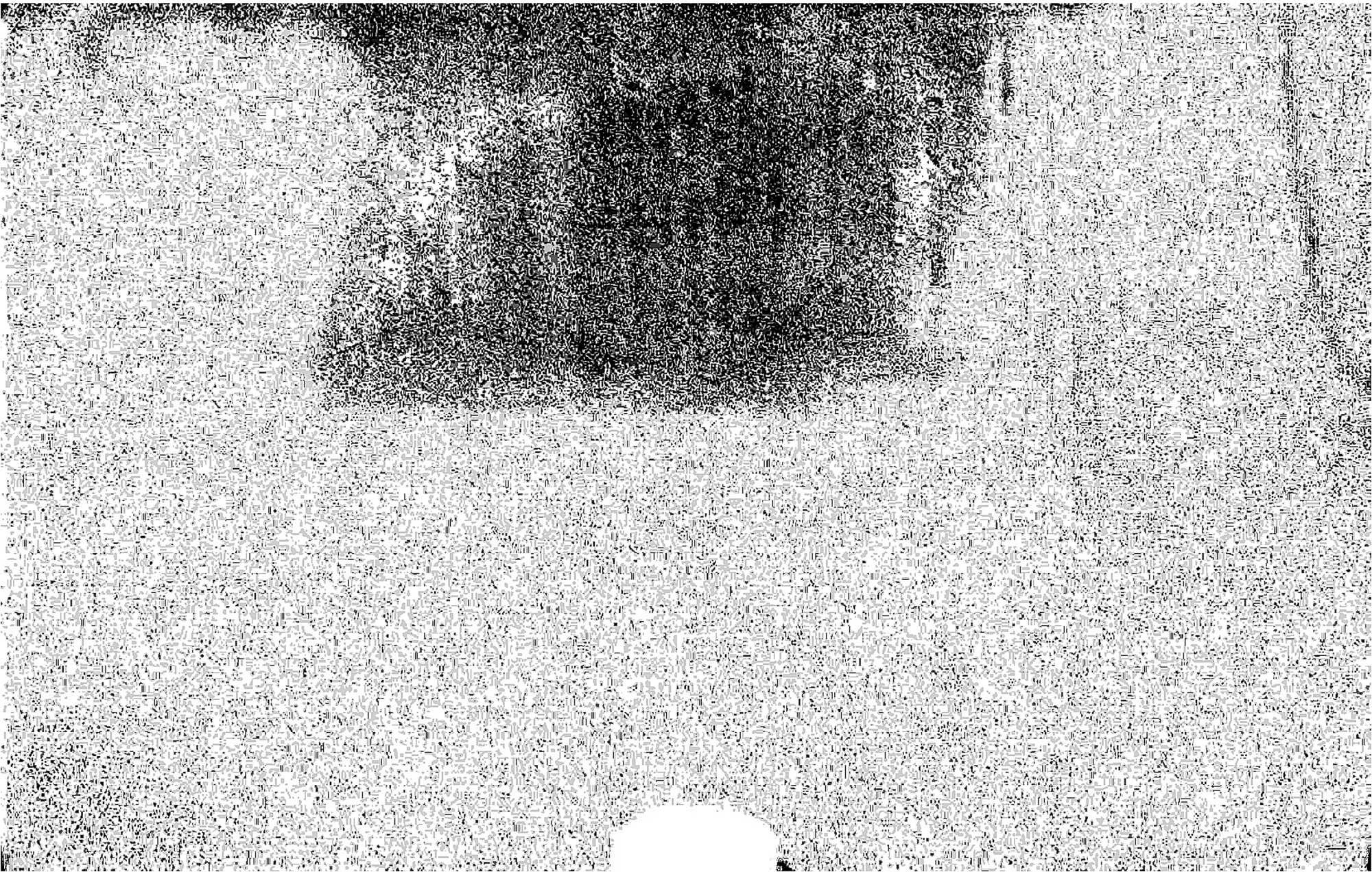


FIGURE 2.6. EXPANDING DEMAND FOR COTTON CAUSES SUPPLIES TO INCREASE. **Figures 2.6(a), (b), and (c) show how an increase in demand for cotton may ultimately induce producers to increase production. In Figure 2.6(b), expanding demand causes higher equilibrium (E′) than prevailed (E) in Figure 2.6(a), so more cotton (q′) is sold at higher prices (p′). All else being equal, the effect of the increased demand is to increase the profitability of cotton production, which encourages growers to plant larger crops. Figure 2.6(c) shows how supply (S′S′) might expand to meet the new demand. Note that the equilibrium point (E″) in Figure 2.6(c) is at a lower price (p″) but higher quantity (q″) than in Figure 2.6(b).**



3

HARD WORK WILL GET YOU NOWHERE IF YOU DON'T KNOW WHAT YOUR JOB IS

The task that all speculators must perform to win

In the summer of 1970, I was 18 years old. I worked as a lifeguard at the New Haven Lawn Club, while I awaited the coming fall to begin my studies at the University of Pennsylvania. My dad was kind enough to let me keep all of what I earned while still living at home, and, by the end of the summer, I had saved $500. I decided that I wanted to begin investing in the stock market. I don't remember exactly what my thought processes were, but I do remember that I always wanted to make a fortune, and to do so at an early age, and without any real work. Given these criteria, the stock market seemed the perfect place to start.

My dad, who has since retired, was a successful businessman, but not an especially successful stock market operator. When I presented him with my aspirations, he agreed to add $4,500 to the till and we began an investment partnership.

Two can fail at this business just as easily as one. In fact, for reasons that we will spend a fair amount of time on, two can fail at this business better than one. And that was precisely what we did.

What we did precisely was to purchase a couple of investment advisory letters. When the reports came in, I read them thoroughly, showed the ones I thought were "interesting" to my dad (I'm sure I had absolutely no criteria for determining what constituted an interesting report), and over a period of several months, I made several purchases. What I had no idea of at the time, of course, was that, in signing on my "advisory" team, our little herd, which had consisted of myself and my dad, now included

the advisers who gave the advice we followed and everyone who read them as well. And a herd as big as that can fail at this business much better than a miniherd of two. (If you don't understand this business about herds, don't worry, you will by the time you finish reading this book.)

Don't ask me why, because I really didn't have a reason, but I bought 100 shares each of Electronic Memories and Magnetics, which made ceramic magnetic cores for computer memories, Simmons Precision, United Industries, and Cellu-Craft. I also bought warrants to purchase 100 shares each of Fuqua and United Brands. Then we waited. We were fully invested.

Within a couple of months our portfolio was worth about $10,000.

Then, just as quickly it was worth about $2,000.

I reflected on the situation.

After much thought, I reached the following conclusion: *This must be a fool's game.*

After all, if I couldn't figure it out, then who could? I would have been a perfect candidate for some investment guides like *The Only Random Guide to the Money Game You'll Ever Need* except that my conviction that nobody could win was so strong that it required no reinforcement.

Then I made another decision: I simply wasn't going to think about it any more. This was an acceptable decision because I wasn't earning any money anyway, so I didn't have any money to think about.

If disillusionment is the beginning of knowledge, then I had made a good start, and at an early age. But, as it turned out, a full decade was to pass before I would take a single step forward. In the meantime, I graduated law school and worked first for the government and then for a large Wall Street law firm. Later, I joined the commodities department of a major investment firm as their counsel and sort of a manager without portfolio. I was hired by Marty Presler, who, I would come to find out over a period of months, knows more about markets than any human being. That is not to say that Marty is the greatest speculator alive, for if great speculators are measured in net dollars taken out of the markets over a lifetime, then my guess is that there are probably a couple of dozen active speculators who are greater. I have had the honor of discussing the markets with several of them and some of their ideas appear in this book. But Marty has never aimed at taking as much money out of the markets as he could. Instead, he has methodically and consistently expanded his net worth by taking carefully controlled risk whenever the markets presented him with an advantage that justified it. As far as I know, he hasn't had a

losing year since 1958, and I've seen him have some pretty good years.

Over the months, as I watched Marty speculate, I went through various stages of skepticism (remember, given the conclusion I reached in the spring of 1971, I could not accept Marty's success except as a statistical aberration—a lonely point at the end of a bell-shaped curve), mild curiosity, annoyance (I remember asking Marty whether it bothered him that he would never really know whether his success was based on knowledge or on luck, receiving a very predictable response: "No"), fascination, and finally resolve to replicate his experience. Of course, this last stage required me to abandon the conclusion that I had wrapped around me for so many years like a blanket, but logic required it. Consider the following syllogism:

A. If I can't win, then nobody can win.

B. Marty can win.

C. I must be able to win.

As I mentioned in Chapter 1, there is some chance that anyone who trades successfully, even over a large sample size, succeeds by luck, not skill. But it is in the nature of the methods that this book describes that trades are made only where there are plainly identifiable reasons for them, reasons that are consistent with textbook economics, so if it is by luck that wealth is accumulated, then so be it. And, in my case it was teachable, which would seem to cast substantial doubt on the luck theory.

In any case, having resolved to reopen the issue, it became a matter of finding the opportunity to bring up the subject, because at that point I was still only a willing pupil in search of a teacher. And there were a couple of good reasons why Marty might not want to teach me. First of all, it would require a lot of uncompensated work on his part. Second, at that time, I don't think Marty thought it was teachable, and if it was he had no reason to believe that I was capable of learning. So, instead of asking Marty to teach me to trade, I decided to ask him in casual conversation, when an opportunity arose, about individual trades and to see what I could piece together.

My first opportunity came a few days later, while we were sharing a cab home. Although I had no reason to suspect it at the time, what I was about to hear would have a more profound effect on my financial life than anything I've learned before or after. I remember it in the same way I

remember I was in the Racebrook School library taking out a book called *Paul Bunyan and Babe the Blue Ox* when the announcement came over the loudspeaker that President Kennedy had been shot. Marty and I were coming across Central Park when I brought up a soybean trade Marty had made that day.

"Why'd you buy the beans today?" I asked.

"Because prices are low and there are plenty of them around," he said.

"That doesn't sound like much of a reason to me," I said. (Reminds you of my good friend Charlie, doesn't it?)

And then he said, "Well, basically, what I try to do is *absorb the supply and fill the demand.*"

When I first heard those words they didn't mean much to me. In fact, when I first heard those words, I thought Marty was being glib, trying to dismiss me with some clever market gibberish. It took about a week for me to realize that Marty had told me something important. It was months before I learned how profound the words really are: They are the most important words anyone will ever tell you about the markets. Speculators get paid for buying what nobody wants when nobody wants it (that is, when prices are low), and selling what everybody wants when everybody wants it (that is, when prices are high). Buy low, sell high, isn't that what the man said?

And, while we're at it, here are a few things that speculators *never* get paid for: fundamental analysis, technical analysis, overbought/oversold analysis, Elliott waves and other cycles, pattern analysis, oscillators, relative strength, econometric models, seasonal analysis, profile analysis, value analysis, sunspots, and a dozen other vogues, fads, and fantasies, *except*, of course, to the extent (which is usually limited in scope and rare in occurrence) they happen, by luck or design, to cause their proponent to demand the supply or supply the demand.

It wasn't long before I started to demonstrate to Marty that I had an aptitude for what he was teaching and that one way or another I was determined to learn what there is to be learned. Marty has what may very well be the largest personal collection of books on markets and investing. Out of his vast library, he selected seven as being just about all there is worth reading, and over a year's time, we followed his curriculum.

What Marty had to teach was not in any way remarkable for novelty. Most of what needs to be learned has been known for decades. It is firmly grounded on basic economic principles of free markets.

As I stated in Chapter 1, it never fails to amaze me that so many people

and institutions devote so much time and money to the problem of successful speculation without first identifying the activity for which they expect to be rewarded. Imagine your first day on a new job. The boss takes you into a large room and tells you to get to work and that he'll be back at 5:00 p.m. to pay you. You pick up a mop and start scrubbing the floors, working extra hard to impress the boss. By 5:00 p.m., the floors shine like a mirror. You're leaning on the mop handle imagining the praise you'll receive from the boss as he hands you your day's pay. Instead, the boss comes in screaming, "You idiot, I hired you to paint the ceiling!" And all of a sudden you're out on the street looking for a new job.

All the hard work in the world will get you nowhere if you don't know what your job is.

So let's begin at the beginning by trying to figure just what it is that speculators can do to confer a benefit on the economy for which they can expect to be rewarded. An honest day's work for an honest day's pay, that's what this chapter is about. Once we identify the role of the speculator in the economy, we will be in a position to explore in subsequent chapters various strategies for obtaining the rewards for performing it.

THE IMPORTANT ROLE OF THE SPECULATOR

In the last chapter, we learned that the subjective valuations of consumers ultimately dictate how society's scarce productive resources will be allocated. If the markets were comprised of only producers and consumers, the process would be very inefficient. Consumers are concerned with their needs today. They purchase the food, clothing, and other goods they want today. They are rarely concerned with next year's desires, and when they are, they are probably acting in a speculative capacity (which, of course, all of us are free to do). *By looking to the future, speculators assure that society's productive resources will be allocated not only according to the current preferences of consumers, but also taking into account their probable needs for tomorrow.*

The objective of speculators is to profit from anticipated changes in conditions. Unlike those who purchase for consumption, speculators purchase in anticipation of being able to sell later at a higher price, and they sell in anticipation of buying in at a lower price. Accordingly, the valuation process of speculators differs significantly in character from

that of consumers. Consumers are interested only in the *current utility* of a good *to them*. Speculators purchase not for their own consumption and not based on current utility alone. Instead, speculators are interested in what they assess the utility of a good to consumers will be *in the future*.

If conditions were static, the market would cause goods and services to be produced and distributed such that no further action by any individual would be perceived to be advantageous. Sellers would sell all that they were willing to sell at the prevailing price. Buyers would buy all that they were willing to buy. Prices would reach equilibrium and then become final. Trade would cease. Society's utility would be maximized. There would be no reason to speculate, no benefit that speculation might confer on the economy.

But conditions change continually and the needs, valuations, and means of consumers change as well. And it is here that the speculator enters the picture. While it is the preference of consumers that ultimately determines the price of a good, it is the activity of speculators that pushes the market forward. The action of speculators as a class does not cause prices to reflect current utility, but instead moves prices to reflect future utility. As prices are determined in the markets there can be no distinction between the demand of consumers and that of speculators. That is, the speculators compete with consumers based on the speculators' assessment of the consumers' *future* needs. To succeed, speculators must have a keener ability to adjust to changing conditions than producers or consumers.

WHY SPECULATORS GET PAID

I said in Chapter 1 that as a class and over time, speculators can only get paid if they do their job. This is by no means a trivial statement. As I pointed out, it is astonishing how many books propose methods for beating the markets and yet, as far as I know, not one of them shows any understanding of this simple fact of life. There is no such thing as a free lunch.

I also said that the answer to how and why speculators get paid is found in basic textbook economics. What better place to look for our answer than in a basic textbook such as *Economics* by Paul Samuelson and William Nordhaus?

In *Economics*, Samuelson and Nordhaus identify three dimensions in which speculators "link up markets": over time, over space, and over risks.

Markets separated by distance may have different prevailing prices for identical goods. If the difference between prices exceeds the costs associated with transportation, speculators will buy the goods in the market offering the lower price and sell in the market bidding the higher price, realizing the difference in the two prices. Since the goods must be transported to the place of sale, costs of shipping must be subtracted from the trading profit. This activity of the speculators is called *arbitrage*. As the arbitrage continues, prices will tend to fall in the market having the higher price (because speculators are selling there) and rise in the market with the lower price (because of speculative buying). By arbitraging the two markets, speculators cause goods to move from the lower priced market to the higher priced market, until the prices of the two markets come into line. The movement of goods from the lower priced market to the higher priced market is economically optimum, since the higher price reflects higher demand or lower supply. The important point is that speculative profit resulted only from performing an economic service. If the speculators were not conferring a benefit on the system, they would not be rewarded for their activity.

The second category of speculative activity occurs across time.

Assume that the consumer's utility schedule for cotton is constant over two years. (In other words, the demand curve is the same in both periods.) In the first year, there is an unusually large crop of cotton, say five pounds per person, and in the second year, a small crop of only three pounds per person. In year one, since the crop is big, the price will fall to low levels. Low price levels will encourage consumption of the cotton *by marginal consumers*, consumers who would not otherwise use the cotton in year one except for its low price. In year two, the small crop comes in and prices soar. Now only those consumers who desire the cotton badly enough to pay the high price will consume it. What has happened is that marginal consumers in year one displaced higher order consumers in year two. As a result, total utility over the two-year period was not maximized.

We can go a step further and show that if the circumstances of the bumper crop in year one and the shortage in year two *could have been foreseen*, then the total utility for the two years would be maximized only if

the consumption was equal in both years. This results from the fact that the consumer's utility schedule is the same in both years. Figure 3.1 shows why this is so.

Note that there are several key words in the preceding paragraph: "if the circumstances . . . could have been foreseen." Speculators make a living out of foreseeing things. In the example, astute speculators who recognized the unusually large nature of the crop in year one might very well decide to take some cotton into inventory, figuring that higher prices would prevail the following year either because the low prices of year one would discourage cotton growers from planting so much or simply because the odds favor some bad weather sooner or later. The speculative activity in year one would tend to support the price of cotton, preventing marginal consumption. Then, in year two, there would be enough cotton to go around, as speculators made up the shortfall in supply by selling cotton from their inventories.

Once again, you can see that speculators providing a service get paid for doing so.

The third important category of speculative services is the absorbtion of risk.

Imagine that you own a copper mine that produces 100,000 pounds of copper per year. Your production costs amount to $.60 per pound. You are operating your mine with the expectation that the price of copper will be $.75 per pound. But, alas, we live in a risky world. Prices might go as low as $.50 per pound or as high as $1.00. At the low end, you will lose $10,000 per year. At the high end, you will make $40,000. If you are like most rational businesspersons, you would much prefer a sure sale of your production at $.75 cents per pound, which will yield your anticipated profit of $25,000.

Why?

There are two reasons. First, since copper mining is your principal means of income, to the extent possible, you prefer to run it on as certain a basis as possible. What happens if you get unlucky for a couple of years? You are wiped out of your means of making a living. If you wish to assume a high degree of risk, you will do it with capital that you have specifically earmarked for that purpose.

The second reason is that the marginal utility of the windfall profits you might earn if copper goes to $1.00 per pound is less than the marginal disutility if copper declines to $.50 per pound. In other words, the added income means less, perhaps since it only enables you to buy better

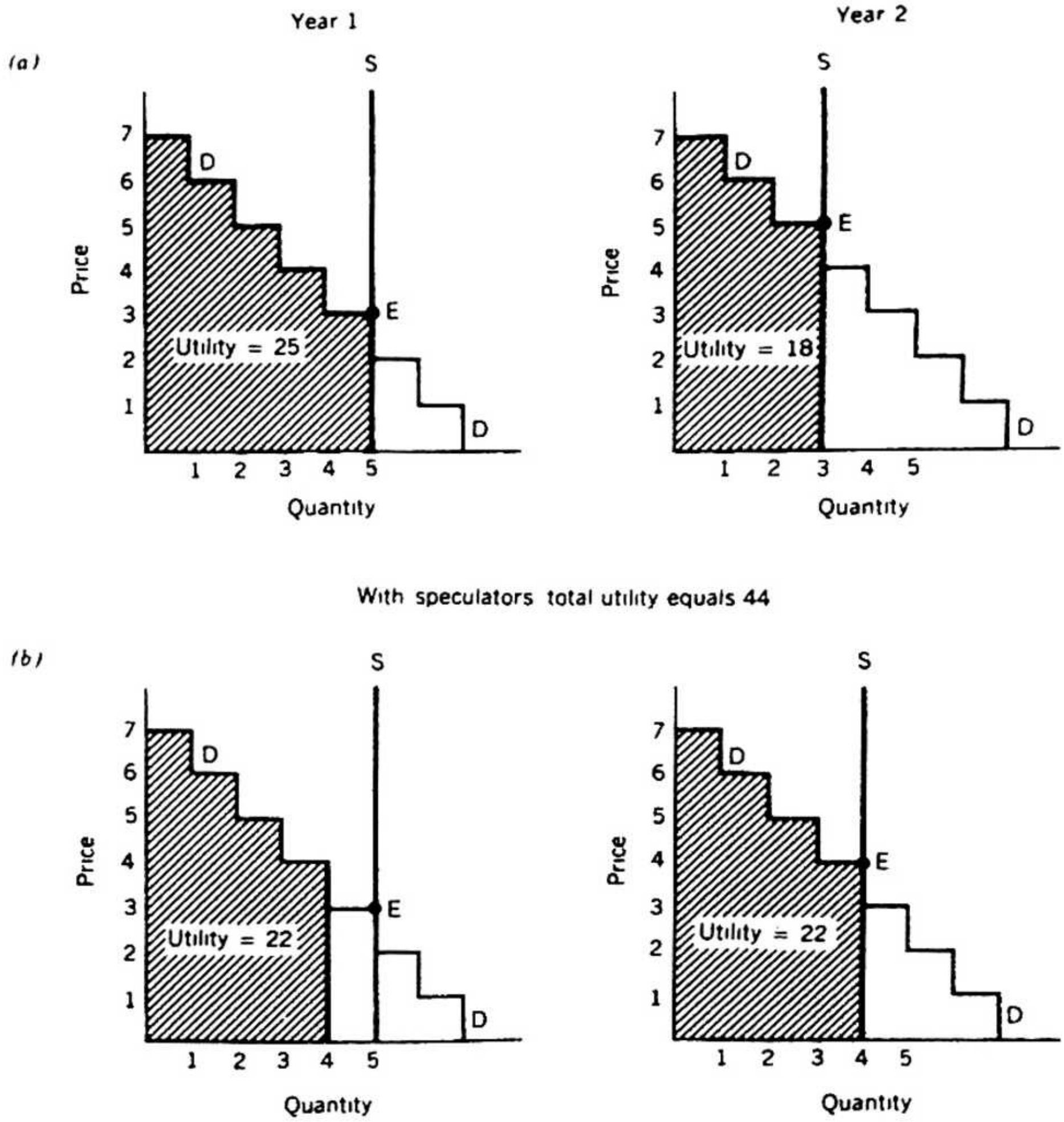


FIGURE 3.1. SPECULATION INCREASES THE TOTAL UTILITY OF CONSUMPTION. **Figure 3.1*(a)* shows what happens to consumers utility over two years when there is a shortfall of production in the second year and no speculative activity is present. In Year 1, five units having a total utility of 25 are produced and consumed. In Year 2, only three units having a utility of 18 are produced and consumed. The total utility for the two-year period is 43. In Figure 3.1*(b)* speculators equalize consumption by buying in Year 1 and selling in Year 2. In Year 1, although producers supply five units, a speculator takes one into inventory so only four units having a utility of 22 are consumed. In Year 2, producers supply only three units but the speculator sells one out of inventory, so a total of four units are sold to consumers. Again, the utility of these four units is 22. The total utility for the two years is 44, one more than occurred in Figure 3.1*(a)* without speculative activity. The speculator realizes a profit of one for providing this important service.**

clothes, than the loss of income, since it might preclude you from buying clothes altogether.

So, we conclude, you are risk-averse. You would jump at the opportunity to sell your next year's production of copper to some speculator right now for $.75 even though prices might be higher later. You might even sell it for $.72 or a little less—after all, you can't expect some speculator to do you such a big favor unless you pay him a little something for taking the risk. We call what you pay him a *risk premium*.

Again, you can see that speculators get paid for performing a valuable economic service, in this case, assuming from producers unwanted risks of fluctuating prices. And we can go one step further and say that the greater the risk assumed by a speculator, the greater the potential rewards that he or she can reap. The relationship can be depicted graphically as shown in Figure 3.2.

Economists say that speculators get paid for reducing variations in consumption and for assuming unwanted risks of ownership. I say that speculators get paid for *demanding supply and supplying demand*. Used in

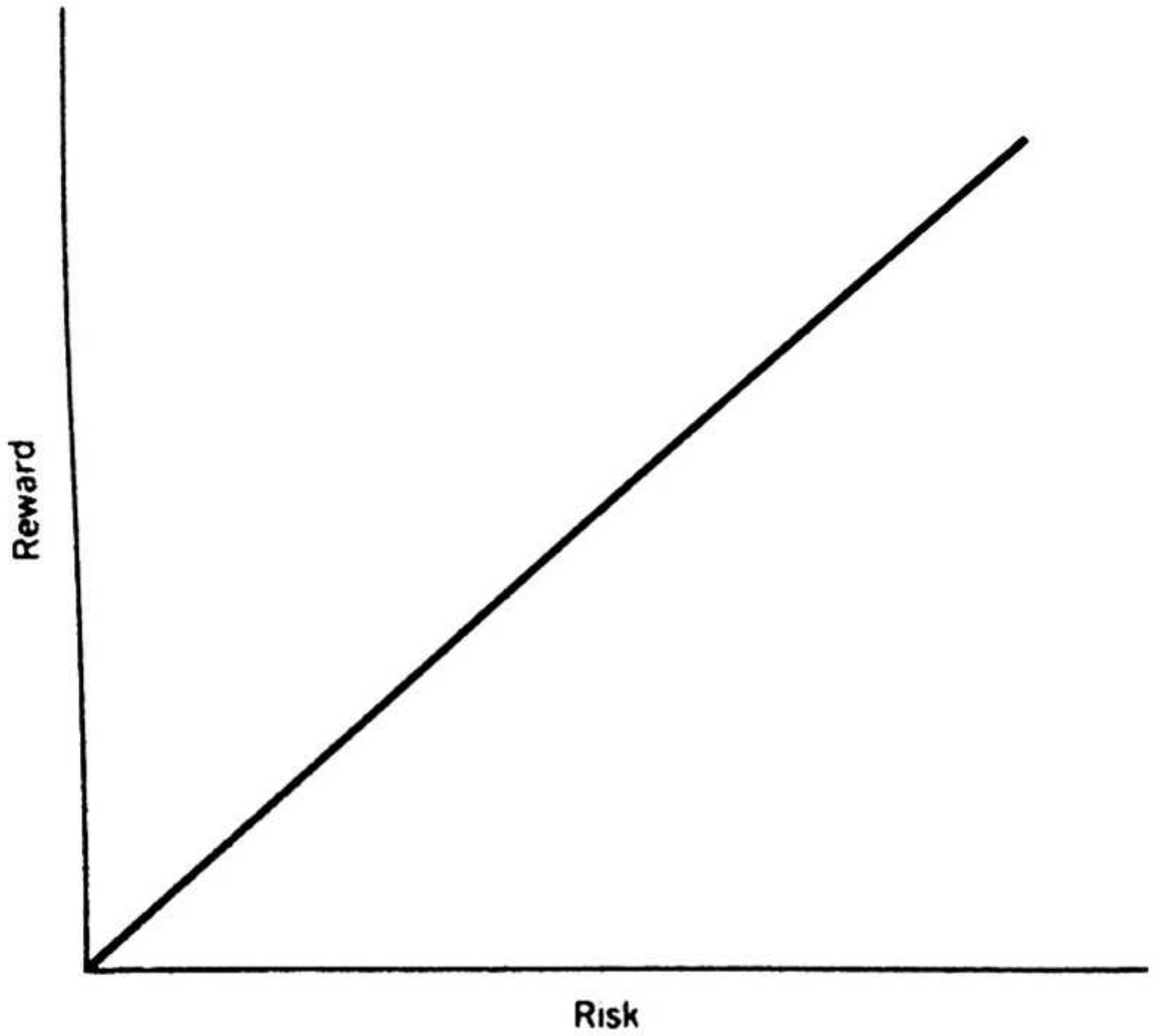


FIGURE 3.2. RISK VERSUS REWARD. **This figure shows that risk and reward are directly proportional—the higher the risk, the higher the reward.**

context, we mean the same thing. My terminology is employed for a simple reason: It reminds me in a practical way of what I must do as a speculator to win. Take another look at the previous examples. In each case, successful speculators as a class were purchasing from producers, taking goods into inventory, and supplying them to consumers as a class. The words "demanding supply and supplying demand" help remind me to do this.

No matter how you say it, this is the key to the whole business of speculation. Your job is to increase the utility of the economy by seeing that the people who want things most get them. If you do your job as a speculator, you will be amply rewarded. If you don't, you won't.

You might also note that speculators who misread economic circumstances are guilty of performing a disservice. By selling when they should be buying and vice versa, they increase dislocations and risk. Fortunately, the markets have a way of dealing with these people: by summarily taking their capital away and giving it to the speculators who are doing their job. Now you know why.

HOW SPECULATORS GET PAID

Once you understand the strategic question of why speculators get paid, you can begin to answer the more tactical question of how. The many different possible answers run the gamut from the rational to the absurd. Today, the most popular approaches include various forms of technical analysis, fundamental analysis, and contrary thinking. These and other approaches are examined in detail in the next three chapters. However, it will be helpful if you understand right now that the proponents of most of these approaches use them to forecast *prices* without regard for the more important question of how they are going to do their job as speculators. For the moment, the important thing to understand is that no matter what the discipline is, it can only work if it enables the speculator to perform the function we describe as demanding supply and supplying demand.

Let's take a moment to review what we've learned about the markets, with the specific intention of developing some criteria that will assist us in assessing approaches to the problem of speculation and perhaps arriving at our own approach.

Here's what we've learned:

1. *The pricing process is a social process.* Prices are the results of subjective valuations of individual members of society and are subject to change at their whim. Ludwig von Mises, an economist of the conservative Austrian school, put it this way:

> But supply and demand are only the links in a chain of phenomena, one end of which has this visible manifestation in the market, while the other is anchored deep in the human mind.[1]

The process is not scientific. It is not mathematical. It is not mystical. It is not astrological. On an individual level it is psychological. On a mass level it is *social*.

2. *All known prices are historical facts.* The notion of *current market prices* is fictional. Prices are neither *current* nor of the *market*. Trades that have occurred are historical facts. They occur only between *individuals*.
3. *There is no such thing as fair value.* Value is in the eye of the beholder. In fact, the law of marginal utility tells us that the value of a good varies even on an individual level, depending on how much of it the individual already has. When a trade occurs, it occurs because the parties to the trade disagree as to the utility of the good traded. For the trade to have occurred, it must have been *subjectively* viewed as advantageous to each party.
4. *All prices are independent of one another.* Each valuation is an individual valuation. It is subject to change at no notice and for no reason. In assessing an uncertain future, a person may use only *experience* and *reason*. Admittedly, past prices are a part of man's experience and as such must play a part in his or her thinking about the future. *But it is the anticipation of future conditions that determines current valuations, not past prices.*
5. *The supply and demand curves are fictional descriptions that never*

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[1]Ludwig von Mises, *The Theory of Money and Credit*, (Indianapolis: Liberty Classics, 1980) p.153.

occur. Specific trades occur. That *ceteris paribus* greater supply would exist at higher prices is a rational conclusion. But *ceteris* are never *paribus*.[2]

6. *While ultimately price depends on current utility to consumers, at any given moment it reflects speculative assessment of future utility*. Consumers determine price. But, it is not merely current consumption that determines price, it is *anticipated consumption as well.*
7. The people doing the anticipating are speculators. *Speculators act as conduits between producers and consumers assuming unwanted risks of production and rationing supply among consumers so as to maximize utility.*

Congratulations! You now know all you need to know to begin to approach the markets as a speculator. You understand what the markets are and how they function. Most importantly, you understand that to win you must do your job as a speculator and you know exactly what that job is. The rest should be easy, right?

Wrong.

You will recall that in Chapter 1 we noted that most economists understand the theory of speculation and yet are unable to profit as speculators. Why should this be so?

Because the market is comprised of some pretty smart people with a lot of money who are trying to do exactly the same thing you are. These people are your competition. Their competition makes the markets pretty darn efficient (i.e., hard to beat), as we shall soon see.

Because it is human nature and the nature of the markets that even if you know what you're supposed to do, you won't want to do what you have to do when the opportunity arises. You won't want to buy when things are bleakest, when blood is in the streets—yet this is precisely the time when there is the most supply for speculators to demand. You won't want to sell when things are brightest, either—but that is when demand is as high as it's ever going to get and your job is to supply it.

Because the markets are a social process, they can do anything at any time.

And because, even when you think you have it all figured out, from time to time it is likely that you are going to be blindsided by some totally

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[2]Nonprice determinants never are the same.

unforeseeable event that drastically disrupts or alters the whole valuation process.

Having said all that, it is possible, rewarding, challenging, and imperative for those who are able and willing to preserve their capital and endeavor to grow. It requires knowledge, the ability to observe, and the ability to act on what you know and observe. And, by the way, it can be incredibly fun—as long as you remember not to let its entertainment value deter you from your purpose.

Now let's evaluate some traditional approaches to the business of speculation. As we do, you will see that, without exception, the traditional approaches are subject to serious difficulties that result from their being aimed at forecasting prices, instead of recognizing current or forecasting future conditions of supply and demand. Since we know better, our goal in reviewing the traditional approaches will be to determine their utility in helping us demand supply and supply demand—that is, helping us do our job as speculators.

4 FOR EVERY SOLUTION THERE IS A PROBLEM

How and why the markets change to defeat all systems

I met my friend Bill in 1970, our freshman year at the University of Pennsylvania. Bill is one of the brightest people around. He comes from a working-class family that lives in Pennsylvania mining country. One early winter day, Bill came by my room and talked me into going into Center City Philadelphia. I don't remember what the pretense was, not that we really needed any, but I do remember being a little scared. I grew up in a suburban Connecticut community, as sheltered as could be, and had never in my life been away from home. Penn was safely nestled in a self-contained campus in West Philadelphia, across the Schuylkill River from Center City, so, as a naive 18 year old, I was comfortable there. Going downtown with Bill seemed to represent as much unknown danger as a journey into the Amazon.

We hadn't gone very far when a slick looking character leaned out from a doorway and hissed "Hey, dudes! Dudes!"

I kept walking but Bill stopped.

"You got the time, Bro?" the man asked.

I looked down at the man's wrist. He was wearing a watch, but he wasn't looking at it.

"C'mon, Bill," I said. "Let's go."

"Just wait a minute," Bill said.

Nothing good was going to come of this.

The man pulled out a little jewelry box and, holding it so only Bill could see, said, "Check it out. Check it out!" He flipped the box open and shut

so fast that Bill couldn't possibly identify its contents. Whatever it was, it must have glittered, because the man had Bill's attention.

"Fifty dollars, Bro," the man said. "This beautiful ring is yours for fifty dollars. Shorty Brown's one low price for cash."

"I'll bet he'll take a credit card if you press him," I said. "Now can we please get out of here?"

Shorty Brown shot a look at me. "Tell your mother to wait a minute," he said to Bill.

Bill stood there in silence trying to figure out what to do.

"C'mon, Bro," Shorty Brown said. "You know this ring's a steal." His wide grin revealed a gold-rimmed front tooth. Bill reached into his back pocket and pulled out his wallet. He moved slowly, still laboring with indecision. He opened his wallet and looked inside.

"Fifty dollars?" Bill asked with a frown. "I've only got twenty."

Bill was not negotiating. He only had 20 dollars. As I'm sure you will recall, 20 dollars was about five dinners' worth back in 1970.

"You got a deal, m' man," Shorty Brown said. His gold-toothed smile faded and a look of mock concern took its place. "I've got to learn to stop being such a soft touch," he chastised himself, "or I'll be out of business in a week."

Then, just as quickly as it had disappeared, Shorty Brown's smile was back. He snatched up Bill's $20 with a magician's dexterity and stuffed the box in Bill's pocket so that Bill wouldn't examine it until Shorty Brown was long gone. As he backed down the street with his hands in the pockets of his trenchcoat, he called out, "Hey, dudes! Y'all remember—when you're in town, deal with Shorty Brown."

It wasn't until we were safely on the bus back to West Philadelphia that Bill took the jewelry box out of his pocket. In it was a ring. Although I couldn't tell an emerald from a green marble, I knew the ring had to be glass.

"How could you do that?" I asked Bill.

Bill stared at the ring, ignoring me.

"Twenty bucks is a lot of money," I said. "Geez, Bill. You know for a fact that ring is a fake."

Bill continued to examine the ring. He raised it up toward West Philadelphia, so that it sparkled in the setting winter sun. Then he turned toward me, finally acknowledging my remarks.

"I know it's a fake," he said.

"You do?" I asked.

"Yes, I do," he said. Then he added a *non sequitur* that would change the way I view the world for the rest of my life. *"But what if it's real?"*

As far as I am concerned, there isn't a human being who ever lived, myself included, that doesn't have a little bit of Bill in him sometime. For that matter, we all have a little bit of Shorty Brown in us as well, but that's not the point.

The point is that we are naturally disposed to dreams of a more perfect world—one in which we can have what we want without working for it.

Now I am going to go one step further and suggest to you that it was probably the Bill in you that whispered in your ear that you should purchase this book. Don't worry about admitting it. I won't tell anyone. And besides, if you've gotten this far into it, you know that I'm not selling you any fake gemstones; to the contrary, my message is that if you want to take real money out of the markets, then you have to work just as hard for it as you would anything else. Even harder. So if you're still here, that's a very encouraging sign.

I'm not needling you about this "Well, I can dream, can't I?" stuff out of sheer perversity. I bring it up because you see it in the markets all the time and it is going to lead us into some pretty important territory. Think about it: Of all the hundreds of millions of stock owners who have ever lived, how many became involved with the markets because of the intellectual challenge? I don't know any. Really. We all got started because it occurred to us that, if we could just figure this thing out, we could achieve fortune and fame *without working*. Didn't we? Of course we did.

And, as you will see, Bill's "But what if it's real?" dream underlies most of the traditional approaches to speculation. These approaches have in common an attempt to reduce speculation to a finite set of rules, patterns, or formulae with the dream of creating a money machine. The problem is that no finite set of rules, patterns, or formulae can lead to better than random results over any extended period of time.

If you doubt me, think about all the millions of minds and trillions of mind hours that have been devoted to this little dream without anyone having solved the puzzle. Sure, fortunes have been made, but most of the people who made them eventually lost them. There's even an old Wall Street saying that, "a speculator who dies rich dies before his time."

Don't get me wrong. If I didn't know that the markets can be beaten, I wouldn't be wasting your time. But there is an important conclusion to be

drawn from the noteworthy absence of a solution (defined as a finite set of objective trading rules) to the problem of the markets. Surprisingly, it is not that there is no solution to the problem. Instead:

> *It is inherent in the nature of the markets that every solution to the problem creates a new problem.*

In other words, as soon as anybody solves the problem, the problem changes and the new problem incorporates the previous solution!

This has to be the case. If it were otherwise, it wouldn't be long before the people who solved the problem had all the money in the world. And, again, we have to ask: Who's gonna pay them?

If you haven't thought about it before, this will probably seem a bit strange. After all, the markets are pretty big, especially compared to you. Do you really have to be concerned with limitations on how much money there is to go around?

You better believe you do.

First, it is one thing to say that we are small relative to the markets, but it is quite another to say that our actions have no effect. The markets and the economy are nothing more than the sum of the actions of the individuals who comprise them. However small, every action by every individual has its impact. Even moderately successful speculators who are at all aggressive about enlarging their wealth find out that it is not long before their orders start to move the market, even if only momentarily. And that is one way the markets adjust to limit or defeat many of the most successful speculators.

The situation is made even more difficult by the competition of the market's participants. With so many people spending so much energy trying to beat them, it would be unreasonable to expect that you are going to see something that other people don't see too. If you truly have identified an opportunity, then so have they. As you all act on it, you will find, most often, *that it has already disappeared.*

To understand why this is so, you have to first understand how the markets discount all the information that is available to them. According to Funk and Wagnall's *Standard College Dictionary*, the term *discount* means "to take into account in advance and so lessen the full intensity or effect of."[1] To see how the markets do this, consider the following

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[1]1968 Edition.

hypothetical example. Suppose there is an orange crop on the trees that will produce 1,000,000 gallons of orange juice if it is harvested in a week's time. Further suppose that the demand schedule is such that if all 1,000,000 gallons are produced, the price per gallon will be $1.00, and if only 500,000 gallons are produced, the price will be $1.50. Now, let's say a storm starts to develop in the north that threatens to destroy half the crop if it reaches Florida. With a week to go, Willard the Weatherman tells us that the odds of the storm traveling that far are 50 percent. What should the price of a gallon of O.J. be? We can express the correct price by the following formula:

$$\text{Price} = (L_1 \times P_1) + (L_2 \times P_2)$$

where L_1 is the likelihood that the storm will miss, P_1 is the price if it misses, L_2 is the likelihood that the storm will hit, and P_2 is the price if it hits.

If Willard is correct, there is a 50 percent chance that 1,000,000 gallons will be produced and that the price will be $1.00 per gallon, and a 50 percent chance that there will be only 500,000 gallons produced and sold at a price of $1.50 per gallon. So the price should be $1.25 ($1.00 times .5 equals $.50; $1.50 times .5 equals $.75; $.50 plus $.75 equals $1.25).

Willard's forecast holds for two days. On the third day he assesses the odds that the storm will hit as two out of three. What happens to the price? It rises to $1.33 ($1.00 times .33 equals $.33; $1.50 times .67 equals $1.00; $.33 plus $1.00 equals $1.33).

This time the forecast holds for three days. On the fifth day Willard says the odds that the storm will hit are up to five out of seven. The price? It rises to $1.36 ($1.00 times .29 equals $.29; $1.50 times .71 equals $1.07; $.29 plus $1.07 equals $1.36).

On the sixth day the storm begins to veer off toward the east and the odds fall back to 50 percent. The price falls back to $1.25 per gallon.

As it turns out the storm blows off to sea. All 1,000,000 gallons are produced and sold for $1.00.

If Willard's forecasts were accurate and the prices rose and fell as described, *then at no time could you have purchased or sold orange juice with an edge*. Take the first day, for example. If you bought the juice at $1.25 per gallon while the odds of the storm hitting were 50 percent, half the time the storm would damage the crop and you would gain $.25 per gallon and half the time the storm would miss and you would lose $.25 per gallon. If

you sold the juice on the fifth day at $1.36 per gallon you would earn $.36 two out of every seven years and lose $.14 five out of seven years. You would have no advantage. (The two cents difference is due to rounding.)

Now that you understand the discounting process, let's return to the question of why the markets continually change so that no formularized solution can beat them. Let's take an example. Suppose you are looking back at your stock charts. You notice that 75 percent of the time, when the Dow Jones Industrials close higher on Tuesday, the stock market is up on Wednesday. All you have to do is is wait for an up Tuesday and buy on the close, right? Wrong.

Let's call our anomaly the Up Tuesday, Up Wednesday rule. Assuming that you are the first person in the world who has noticed it (and you can be sure that you aren't), it won't be long before others notice it too. Now watch what happens. As soon as others notice it, they start buying before the close on days that look like they might be Up Tuesdays. In other words, the market starts to discount the likelihood that Tuesday will be an up day, just the way that the market discounted whether the frost would hit Florida. The price on Tuesday goes higher than it would have been had no one ever noticed the Up Tuesday, Up Wednesday rule, because now the market knows that Up Tuesdays are better than other up days, because Up Tuesdays usually come with an Up Wednesday attached to them. Now you are paying a higher price on Tuesdays than you would have otherwise paid. Before too long you will find that the market is charging you the right price, one that is just high enough to neutralize any advantage you might have had. *The connection between Up Tuesdays and Up Wednesdays will disappear.*

In this example, we assumed that you were the first to notice the Up Tuesday, Up Wednesday rule. The fact is that enough people probably noticed it exactly when you did to invalidate the rule before you make your first trade.

Now that you understand the problem, you are in a position to evaluate the merits of the popular approaches to speculation. Our criteria are twofold. First, does the approach take into account the fact that, as soon as we solve it, the problem changes? Second, can we identify a way in which the approach under consideration will assist us in supplying demand and demanding supply? If the answer to either of these questions is no, then the approach must be rejected.

As was briefly mentioned in the preceding chapter, traditional approaches have a common objective: *to predict the future direction of prices.* Since the object of speculation is to make money, predicting prices would

seem, on the surface, to be a worthwhile goal, if not the only worthwhile goal—after all, if you can tell which way prices are headed, then making money is automatic. But, as we will see, predicting the future course of prices has, for good reason, proven to be among the most difficult of tasks and few people succeed because the markets are so efficient at forecasting events.

There is an alternative objective of market analysis that has been entirely overlooked: *to identify current and predict future conditions of supply and demand*. If we can accomplish this, then we will be in a position to do our job as speculators—demanding supply and supplying demand, to maximize the utility of the economy. And, if we do our job, we can expect to be rewarded, that is, we can expect the profits to take care of themselves.

Let's take a look at the traditional approaches to market analysis to see why it is so difficult for them to achieve their stated purpose. Later, we'll consider whether these approaches might help us achieve our goal.

Traditional price forecasting approaches can be divided into the following categories:

technical analysis
technical systems
econometric models
fundamental analysis

Without further ado, let's take a look at them.

TECHNICAL ANALYSIS

A very long time ago in a stock market far away, there were no technical analysts, fundamental analysts, or portfolio managers. This was because there was very little information to analyze. The market was frequently dominated by insiders who formed syndicates to control prices. Some of these operators are legendary even today—Gould, Keene, and Livermore, to name a few. They operated under a cloak of secrecy and, sometimes, misinformation. They put up stocks when the markets were rising and staged bear raids when the markets were weak.

Although the odds were patently against them, individual speculators were never in short supply. Dreams of fortune brought them into the markets then just as now.

One day, one of the little guys got a very bright idea: If he couldn't penetrate the cliques of stock marketers, then maybe he could chart their footprints, figure out where they were heading, and go along for the ride. So what if he wasn't invited?

So he got some graph paper and that is what he did. What he drew looked something like Figure 4.1.

Of course, what the first chartist saw were not footprints exactly, but undeniable traces of buying and selling pressure. He saw head and shoulder tops and bottoms. He saw wedges. Pennants. Flags. Diamonds. He saw congestion patterns and reversal patterns. He identified these patterns as the imprints of the buying and selling of the people who moved the market.

When they were buying, he bought.

And when they sold, he sold too.

Legend has it that, as the inside syndicates grew in wealth, so did the first chartist.

You know what he did next?

He spawned other chartists.

Nobody really knows whether the early chartists were successful, but the approach was an attractive one. Its practitioners didn't need inside information. In fact, they didn't need any fundamental information at all—just prices and volume—so it opened up speculation to the common man (with a little money). And, there's something just plain fun about charting prices.

The chartists were first regarded with amused skepticism. But they must have had some success (or at least no worse failure than fundamental traders) because, ultimately, they were accepted into the Wall Street establishment.

In 1933, the Securities and Exchange Commission (SEC) was created. At its head, the president placed Joseph P. Kennedy. Kennedy was selected for his practical experience in stock market operations, many of which included the very activities that Congress proscribed to protect the public. In other words, they appointed the wolf Chairman of the SEC and charged him with the task of drafting the regulations that would protect the lambs from the other wolves. After all, who was better qualified?

Kennedy and his successors did a pretty good job. The effect of their efforts was to diminish greatly the importance of inside information by requiring any information that is "material" to be disclosed to the public. "Material" means anything a reasonable investor would consider impor-

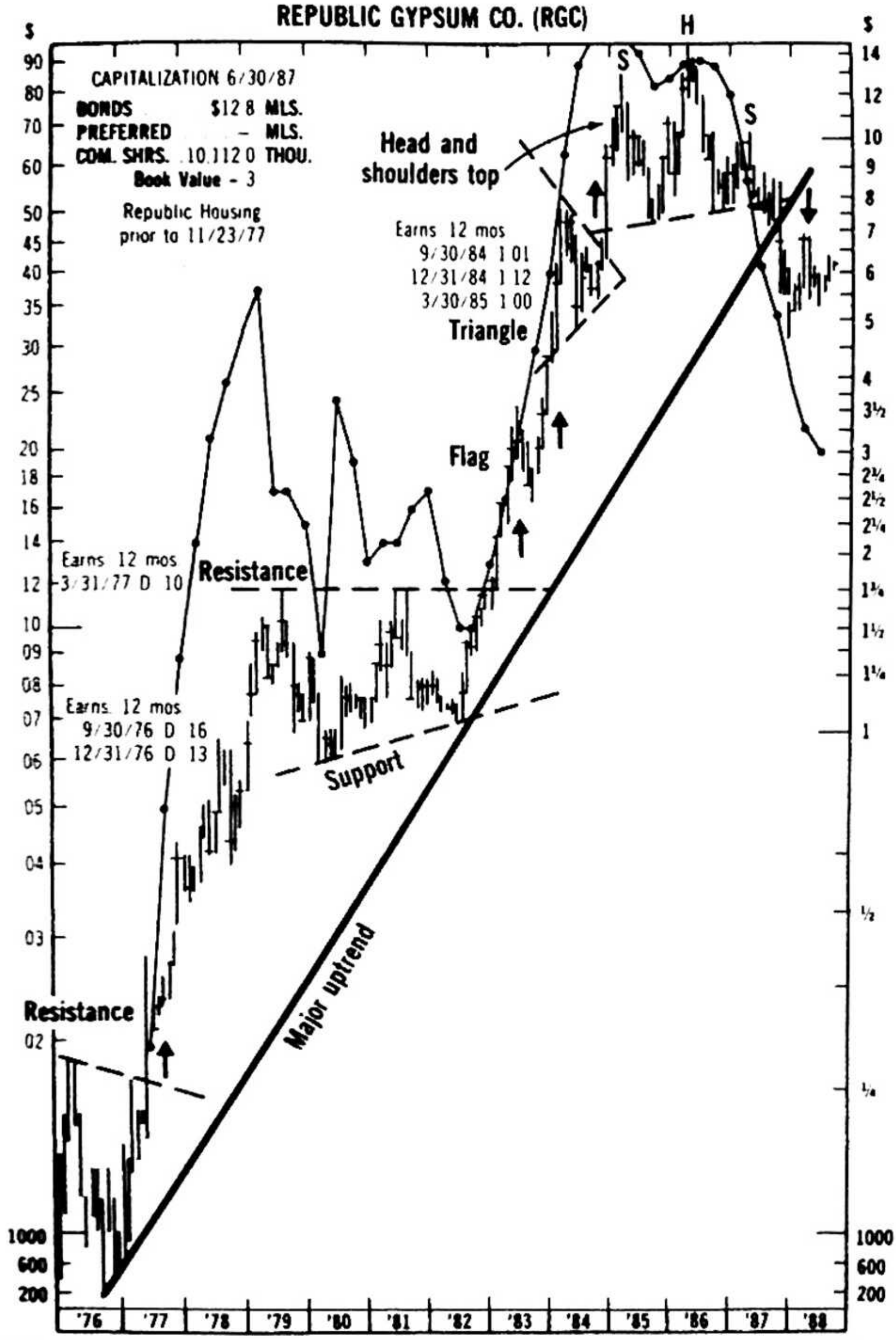


FIGURE 4.1. SAMPLE CHART PATTERNS. **Figure 4.1 depicts price activity in Republic Gypsum Co. common stock from 1976 through third quarter 1988. Some common technical chart patterns are identified. Bullish breakouts are indicated by ↑. Bearish breakouts are indicated by ↓. Courtesy of Securities Research Company, a division of Babson-United Investment Advisers, Inc.**

tant in making a determination whether to buy, sell or hold a security. Fraud, manipulation, and rumormongering were also prohibited.

You might think that eliminating secrecy from the marketplace would eliminate the chartists who were profiting by following the insiders who possessed the secrets. But, of course, it didn't; it merely changed their rationale.

Instead of tracking insiders, the chartists professed to be *following the market itself*. The patterns were there, same as always. They articulated the following tenets of technical analysis:

1. The market value of a security is determined solely by the interaction of supply and demand.
2. Supply and demand are governed at any given moment by many hundreds of factors, some rational and some irrational. Information, opinions, moods, and guesses (shrewd or otherwise) as to the future combine with blind necessities in this equation. No ordinary person can hope to grasp and weigh them all, but the market does this automatically.
3. Disregarding minor fluctuations, prices move in trends that persist for an appreciable length of time.
4. Changes in trend, which represent an important shift in the balance between supply and demand, however caused, are detectable *sooner or later* in the action of the market itself.[2]

So why not continue to go along, same as before?

A more complete, though somewhat stylized summary of basic technical principles appears in Chapter 13.

The underlying premise of all technically based methods, no matter what their proponents tell you, is that the charts or other market-generated information under study are revealing *activity worth following*. If it is worth following, then there must be somebody out there who knows more than you do and he or she must be moving the market.

In the days of the great manipulators and syndicates this was arguably true. But today it is more difficult to accept. Although I've not seen it articulated this way, the assumption seems to be that buyers and sellers

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[2]Robert D. Edwards and John McGee, *Technical Analysis of Stock Trends*, rev. 5th ed. (New York: John McGee Inc., 1966), Chapter 1.

as a whole behave as a single rational buyer and seller and that once you can identify their activity, you can anticipate the future course of prices. The first part, that buyers and sellers can be regarded as single, rational individuals, may be true, at least at times. But the second part, that you can infer from their activity today what they are likely to do tomorrow, requires quite a leap of faith.

Consider as an example the case of "support areas." (An example of a support area is identified in Figure 4.1.) In the early days support levels were identified as prices at which the pools were buying. If you controlled a substantial amount of capital with which you wished to acquire a major holding of stock, it would be rational to attempt to buy without putting the price up on yourself. You might buy until the price rose to a level that you considered too high. Before your presence became obvious, you would back off. When prices declined to a level that you considered advantageous, you would reenter the market. Your renewed purchasing would create what technical analysts call a *support area*. Once the chartists had identified the support, they could purchase too, confident that your purchasing precluded further price decline.

But in a competitive market in which all material information is known to the public, where is the rationale for buying at what appears to be support? Technicians contend that people who missed the opportunity to buy at the level the first time the security traded there will regard themselves as lucky to have a second chance at it and come charging in in droves. So, according to the technically inclined, instead of being supported by insiders with a predetermined plan, the modern market is supported by predictably simple psychological responses to price action.

There are two difficulties with this approach. First, simply because buyers were present yesterday is not reason enough to infer they will be there today. In fact, once they have bought what they came to market for, they own it. Why should we assume they wish to purchase more? Remember, in the last chapter we learned that the market is comprised of independent, individual trades.

The second point is where our "for every solution there is a problem" notion enters the picture. Even if the first approach is true, it won't be long before a sufficient number of speculators recognize its value to neutralize it entirely, just as they destroyed the connection between Up Tuesdays and Up Wednesdays. As a price range appears to have the potential to develop into a significant support area, speculators, recognizing its floorlike nature, will begin to buy, bidding up prices. The action of

these speculators may cause what appears to be support to show on the charts, even though their buying is not true support but merely discounting the probability that true support exists in that range. In other words, the support that appears to exist at a given price level may very well be illusory, due entirely to the buying of chartists. In such a case, the chartists who buy at support will not be likely to be performing their function as speculators. Indeed, *instead of demanding supply these chartists may become a source of demand to be supplied by speculators who recognize what is occurring*.

So, it is difficult to see how technical analysis, by itself, will enable us to solve the speculator's puzzle: how to demand supply and supply demand. It also seems that technical analysis is especially vulnerable to the problem of neutralization; to the extent a given set of technical criteria represent a solution to the puzzle of speculation, we can expect the market to quickly change the problem. While we cannot, as an absolute matter, eliminate technical analysis as an approach, we must regard it with skepticism. We might also note that, in order to be successful, at the very least, technical trading techniques would have to be sufficiently complicated and obscure so as not to be generally known and used or easily observed. *That means anything you read in a book on technical analysis will by itself be worthless to you*. (As we will see in Chapter 13, that doesn't mean that technical analysis shouldn't play a part in formulating strategy.) Recognizing that complexity is a necessary precondition for successful technical analysis, some technically oriented people have sought to solve the problem with computers, which may be able to identify patterns to which human senses are otherwise blind.

TECHNICAL SYSTEMS AND ECONOMETRIC MODELS

Systems approaches to the markets are developed by dreamers of the following dream: Wouldn't it be great if you could develop an automatic system that consistently took real money out of the markets? Why, it would be just like having a little black box on your desk—one in which you insert a dollar into one end and two dollars come out the other.

Now, if a fellow named Shorty Brown offered to sell you such a box for $50, would you buy it? (Don't tell me you only have $20!) Suppose his name were Courtney Brown, IV, and he asked you to "invest" $50,000?

Let's take a closer look at some systems.

As I use the term here, a *system* is an approach to trading in which a finite set of *objective* rules are followed. The key elements are a reasonably limited number of trading rules and an absence of judgment on the part of the operator. In this last respect, technical systems differ from technical analysis, which utilizes the practitioner's *subjective* judgment.

Consider as an example a simple moving average system. A *moving average* is simply a continuous average of the prices a specified number of days preceding the date of the average. For example, to compute a ten-day moving average, you add the preceding ten days' prices and divide by ten. As each day passes, you drop the oldest price and add the latest price. You can see why the average is said to "move" through time, as it follows the current price along.

If you consider it for a moment, I'm sure you'll see that in a rising market, the current price will be higher than the average price of some number of days before it, and that in a declining market the reverse is also true. Some folks think that moving averages can be used to determine the strength of price action. It is true that if you buy things that are above their moving averages you are likely to own the things that go up. It is also true that if you buy things that are above their moving averages many of them will promptly turn right around and go down.

The question is whether you can use a moving average system to outperform the markets.

Figure 4.2 shows how a system that employs simple moving averages to generate trading signals might work.

Figure 4.2 shows how 10- and 40-week moving averages might be used to decide when to buy and sell U.S. Treasury bond futures. Buy signals are generated when the 10-week moving average crosses above the 40-week moving average. Sell signals are generated when the 10-week moving average falls below the 40-week moving average.

Of course, moving average systems are just one common type of system. Regardless of their particular trading criteria, the essential feature of all trading systems is that decisions are based exclusively on market action or other objectively quantifiable data.

In his excellent work, *A Complete Guide to the Futures Markets*, Jack Schwager identifies three "benefits" of systems.[3] First, systems eliminate emotions since they are governed by objective criteria. Second, their

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[3]Jack Schwager, *A Complete Guide to the Futures Markets* (New York: Wiley, 1984), p. 413.

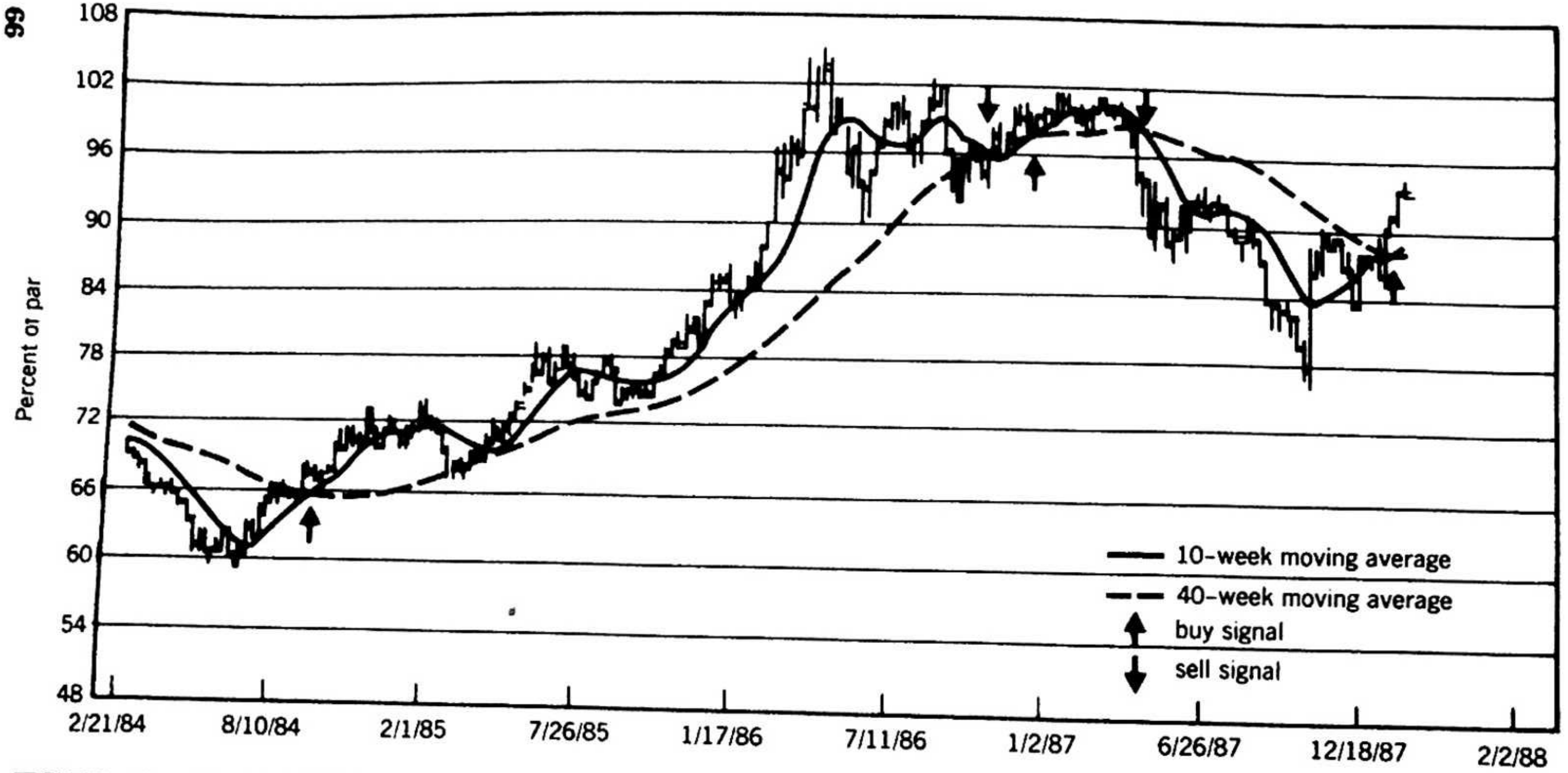


FIGURE 4.2. A SIMPLE MOVING AVERAGE CROSS-OVER SYSTEM. **A four-year weekly chart of March 1988 U.S. Treasury bond futures is shown, together with 10- and 40-week moving averages. Bullish cross-overs occur when the 20-week moving average moves above the 40-week moving average and are indicated by ↑. Bearish cross-overs occur when the 10-week moving average falls below the 40-week moving average and are indicated by ↓.**

approach is consistent; rules are not selectively applied according to the judgment of the trader, but are uniformly applied to common market conditions. Third, they generally include money management rules[4] requiring strict adherence.

It is noteworthy that the benefits of systems *appear to address the weaknesses of the trader*, rather than offering any positive strategic advantage. In other words, the argument isn't that the system will yield smarter decisions, it's that the system won't keep screwing up all the time doing the things it knows it shouldn't do.

Many, although by no means all, systems are more intelligently designed than the black box in our example. They may measure trends or trend absence, or trend acceleration or deceleration. As Schwager points out, in a sense all such systems may be classified as pattern recognition systems insofar as they are premised on a perceived correlation between a repeating phenomenon and subsequent price behavior.[5] Systems are generally designed by a process of formulating proposed trading rules and then testing the rules with reference to historical price action.

There are a few problems with systems.

First, even if prices were random, given a finite history and enough latitude in the number of rules that might be developed, one can always "fit" a system to it. So how do we distinguish sense from nonsense, a reasonable strategy from a trivial one?

Second, systems approaches are perfectly vulnerable to our "for every solution, there is a problem" objection. If there is indeed a temporary correlation between an objectively identifiable pattern or phenomenon and subsequent price action, then it will quickly be reduced as it is exploited—the success of the system will sow the seeds of its own failure. I am not saying that patterns never exist and may never be exploited. I am saying that they cannot exist for long and are likely to be quickly exploited right out of existence; therefore, they are unlikely to be worthy of pursuit or investment.

Third, systems are by nature based on past prices only. They are mechanical. If the nature of the markets is that the solution to one

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[4]Money management rules govern the use of trading capital. Unlike trading rules, the purpose of which is to identify profit opportunities, money management rules are designed to protect capital by controlling risk and to maximize profits that may be achieved once a basic trading decision has been made.

[5]Schwager, *A Complete Guide to the Futures Markets*, p. 414.

problem automatically results in the creation of a new problem, how is a system that is forever looking backwards going to cope? Since the system by definition is objective, the systems people can't even respond that the system will adjust to changing conditions. *At least the technicians have subjectivity going in their favor.*

Fourth, it's difficult to see how these things are going to help us demand supply and supply demand. In fact, the process of neutralizing any apparent set of trading rules involves just the opposite. As with technical analysis, to the extent a pattern persists, its followers become an *anticipated source of supply and demand*. Other speculators see the systems coming and supply their demand or demand their supply. This is precisely the opposite of what we want to accomplish! And it's exactly what happened to the moving average people who were so successful in the 1970s.

Econometric models differ from technical models in the nature of the variables that comprise them. Technical models focus on price, volume, time, and other transactional data. As their name implies, econometric models are based on economic data broadly defined to include just about anything imaginable. Schwager offers an example of a model for frozen concentrated orange juice prices that depends on domestic supply, imports, movement of juice out of the state of Florida, Brazilian production, time trend, and real disposable income.[6] Econometric models are constructed in the same fashion as technical systems: Past relationships are examined and a model is adjusted until a satisfactory fit is achieved.

One superficial advantage econometric models seem to have over technical systems is their economic orientation. In the final analysis, however, all the same criticisms that apply to technical systems apply to econometric systems: their historical orientation, their failure to recognize that markets are a changing social process, and most importantly, the self-defeating nature of all systems. And they have one special problem all their own: The variety of variables that would be required to quantify the world is infinite. If you want to build a good model, then it better have infinitely many variables in it.

Let me know when you're finished.

The true advantages of such systems are twofold:

They offer the dream of riches without work.
They are both modern and dazzling.

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[6]Schwager, *A Complete Guide to the Futures Markets*, p. 56.

There is only one disadvantage:

They don't work.

Lest we be accused of costing any systems people their jobs, let us leave open a tiny window of hope. It is arguable that, while the markets are constantly changing and self-correcting, certain conditions may persist over substantial periods of time and that such conditions, if understood, may offer profit potential. Further, it can be argued that computers can be used to determine complex relationships that would otherwise escape observation; if these relationships are sufficiently complex, then long periods of time can be expected to pass before they are discovered by others—time in which the system can be expected to yield profits.

If you want to pursue this approach, don't mind me. Just don't blame me when you lose your money.

So much for the systems people.

FUNDAMENTAL ANALYSIS

Like econometric models, fundamental analysis is concerned with extra-market information, including economic, financial, and political facts and events. Fundamental analysis holds that changes in these factors will directly affect supply, demand, and price. *Unlike the other types of analysis we've discussed, fundamental analysis is, by nature, forward-looking.* The theory is that if you can anticipate changes in the economy or earnings or whatever fundamental criteria are regarded as significant, then you can achieve significant profits.

Modern fundamental securities analysis has largely been concerned with the search for a model that might explain how stocks are valued. Much of the thinking on this subject has been devoted to attempting to value securities based on *expected* cashflow, earnings, and dividends. Once you are satisfied that you know the value of something, you are in a position to compare it to current market prices. If market prices are under value, it would seem reasonable to buy. Conversely, if prices are over value, selling would seem to be in order.

On the commodities side, most of the attention is devoted to forecasting supply and demand. Typically, tables are constructed showing beginning stocks, production, consumption, and ending stocks, and attempts are made to forecast changes in these factors in the hopes of predicting the course of future prices.

Right off the bat, we can see that *formularized* approaches to fundamental analysis will be subject to the same charge that we have levied against technical and systems approaches, namely that, to the extent they solve the problem, their utility will disappear. Let's take a simple example. Suppose you study past stock market cycles. You observe that if you had purchased a diversified group of securities whose book values were at least twice market value and held those securities for a two-year period, then you would have earned an average rate of return of 20 percent per year. At 20 percent a year, you can turn a little money into a lot of money in a pretty short time. Have you really found the key to unlimited fortune?

Of course you haven't, and for the same reason that your technical pattern analysis isn't likely to make you millions of dollars. Even if you were the first to notice that stocks that sell at one-half book tend to appreciate rapidly, others would notice it too. Soon there would be no stocks selling at one-half book, and the ones that did would be as likely to go down as up.

Casting aside formularized approaches to fundamental analysis, we can see that other, more fluid forms may contain promise that technical analysis does not hold. Since fundamental analysis is forward-looking, it cannot be said categorically that as soon as it solves the speculator's puzzle, the problem changes to defeat it. If we can find an approach that is sufficiently *flexible* to change as the problem of the markets changes, there is obvious potential utility for speculators trying to forecast prices.

Although it is theoretically possible to do so, some people say it cannot be done—people who are far too sharp to be taken in by Shorty Brown. Let's take a look and see why.

5 IF THE MARKETS REALLY WALKED RANDOMLY, HOW WOULD THEY EVER GET WHERE THEY'RE GOING?

How the markets are efficient and how they are not

In 1905, somebody named Karl Pearson and somebody named the Honorable Lord Rayleigh exchanged correspondence that appeared in *Nature*.[1] The correspondence posed and answered the following question: If you leave a drunk in a field and later wish to find him, where should you begin your search? Little did Karl or the Honorable suspect that more than half a century later their correspondence would spark the greatest controversy in the history of modern markets and transform the manner in which the world's largest institutions and mutual funds invest their assets.

Let's take a look at the problem they posed. Personally, if I were looking for a drunk that we had left in a field, I would just go to the nearest bar. (That way, if I couldn't find him, then I could still have a drink.) But that is not the right answer, at least not if you're a teetotaling mathematician. Assuming the drunk wandered about in an aimless and

[1]Quoted in James H. Lorie and Mary T. Hamilton, *The Stock Market–Theories and Evidence* (New York: Irwin, 1972). Much of the summary of the development and meaning of the efficient market theory contained in this chapter is taken from this fine book.

random fashion, the best place to look for him is, in fact, precisely the place where you left him.

Why?

Let's assume for simplicity's sake that our drunk is two dimensional, that is, capable of walking only forwards or backwards. If he is truly walking randomly, each step the drunk takes will be independent of all other steps. On the average, over a large sample size, the sum of all his staggering to and fro will be zero. Were it otherwise, then his walk could not be described as random. So where you left him is where you are most likely to find him. Note that I am not saying that where you left him is where you will find him or even that you will find him there more often than not. I am merely saying that of all the places you could find him, the place where you left him will be the right choice more often than any other choice you could make. It is only the best estimate. *It is not necessarily a very good one.*

Personally, I still think he's back at the bar.

Now, you may be saying to yourself, that's very interesting, but it's not easy to see how knowing this is going to help me take real money out of the markets.

Let me continue, please.

What happened is that the *Nature* correspondence gave name to the *random walk theory*, which in a famous *Forbes* cartoon was depicted as implying that a chimpanzee throwing darts at the stock quotation pages would perform as well as the very best professional money managers.

Still don't get it?

We'd better start again.

In the 1960s, two approaches to stock market investing dominated. The most widely accepted approach was fundamental analysis, which, as we saw in the preceding chapter, endeavors to ascertain the intrinsic or fair value of a security by reference to financial and economic information. The most widely accepted school of fundamental analysis held that a security is worth the sum of the future dividend stream, discounted to present value. Of course, there were (and are) other fundamental approaches emphasizing other criteria, but the basic idea is the same: identify the *value* of a security, buy under it, and sell over it.

The other, less widely accepted approach was technical analysis. As explained in the preceding chapter, technical analysis considers only the market action of the security. In its earliest version, only price and volume were considered, and its practitioners were called chartists. Today there

are few chartists left, but their progeny, called *technicians*, abound. In the modern version, hundreds of indicators are examined; their link with the chartists is that all of the information the technicians analyze relates to transactions that have occurred in the market. By examining market-generated information, technicians claim to be able to predict future price movements. Essential to technical theory is the notion that it is better to know what is happening than to try to guess why.

Until the 1960s, fundamental and technical analysts co-existed in a kind of cold war. While they criticized each others' approach, they had in common a goal and a profession: to outperform the markets.

Until the 1960s, fundamental and technical analysts operated free from significant outside criticism. Few doubted the validity of the ultimate aim. To the extent that practitioners were unable to outperform the markets, the failure was attributed to the practitioners, not the practice.

In the 1960s, a body of important academic work, which seemed to indicate that the goal of outperforming the markets was unattainable, began to develop. In general, results of this work purported to show the validity of what is known as the efficient market or the random walk theory.

There are three different forms of hypothesis concerning the efficiency of our free markets. The first such hypothesis has come to be called the *weak form*, because it is the most limited in scope and implications. The weak form basically says that the markets efficiently discount price history so that no one making decisions based solely on price can consistently achieve better than random results. In other words, price changes occur independently of one another. If the weak form of the efficient market hypothesis is correct, then it goes a long way toward putting Wall Street's finest technicians on the unemployment line. After all, these people base their whole approach on this kind of information. Under the weak form, fundamental analysts may escape.

The second efficient market hypothesis is called the *semistrong* form. (Did you ever hear a wimpier term than that?) What the semistrong form says is that the markets efficiently discount *all known information*. Under this formulation, nobody can consistently outperform the markets by basing decisions on information that is generally known by a significant segment of the market's participants. If the semistrong form is correct, unless your plan is to trade on inside information, your best hope is to match the market, not beat it. If your plan *is* to trade on inside information, then I don't know why you're wasting your time reading this book.

You won't find any inside information here. If true, the semistrong form puts Wall Street's fundamental analysts on the unemployment line, right behind the technicians. It leaves jobs only for Dennis Levine and Ivan Boesky.

Last but not least is the *strong form* of the efficient market hypothesis. The strong form says that the markets discount all information that is not only known but *knowable*. Not only does the strong form not eat quiche, but it makes it impossible for anyone to beat the markets consistently using any tools, including inside information. The strong form says even Ivan Boesky can't win. Presumably, only God has a prayer.

Even I can't believe I just said that.

Obviously, to the extent that these efficient market hypotheses are correct, their implications are of great significance for anyone who is trying to devise and implement a rational trading strategy. If the weak form is true, technical approaches must be excluded. If the semistrong form is true, unless you intend to cheat, you must settle for matching the market. If the strong form is true, you have *no choice* but to match the market.

We'd better take a closer look at who the people doing all this hypothesizing are and why they've been saying all those nasty things about the technicians and fundamental analysts.

According to Lorie and Hamilton, the earliest expression of the thought that ultimately came to be known as the efficient market theory was contained in a paper written by the Frenchman Louis Bachelier, which was published in 1900. Lorie and Hamilton describe Bachelier's work as presenting convincing evidence that commodity speculation in France was a fair game, meaning that the current price is an unbiased estimate of the future price and that, if the *expected* price on each day were subtracted from the *actual* price, the sum of those differences, on the average, would be zero. This explains our interest in the drunk in the field. What Bachelier said, in other words, is that futures prices appear to walk randomly.

According to Lorie and Hamilton, while some attention was paid over the ensuing decades, the modern study of the possibility that markets might in fact be efficient didn't begin in earnest until 1959. In that year, two studies of note were reported. One presented a simulation of a chart of closing stock market prices based on randomly generated numbers that is arguably indistinguishable from actual price charts. Figure 5.1(*a*) shows actual price levels, while Figure 5.1(*b*) shows the simulated prices.

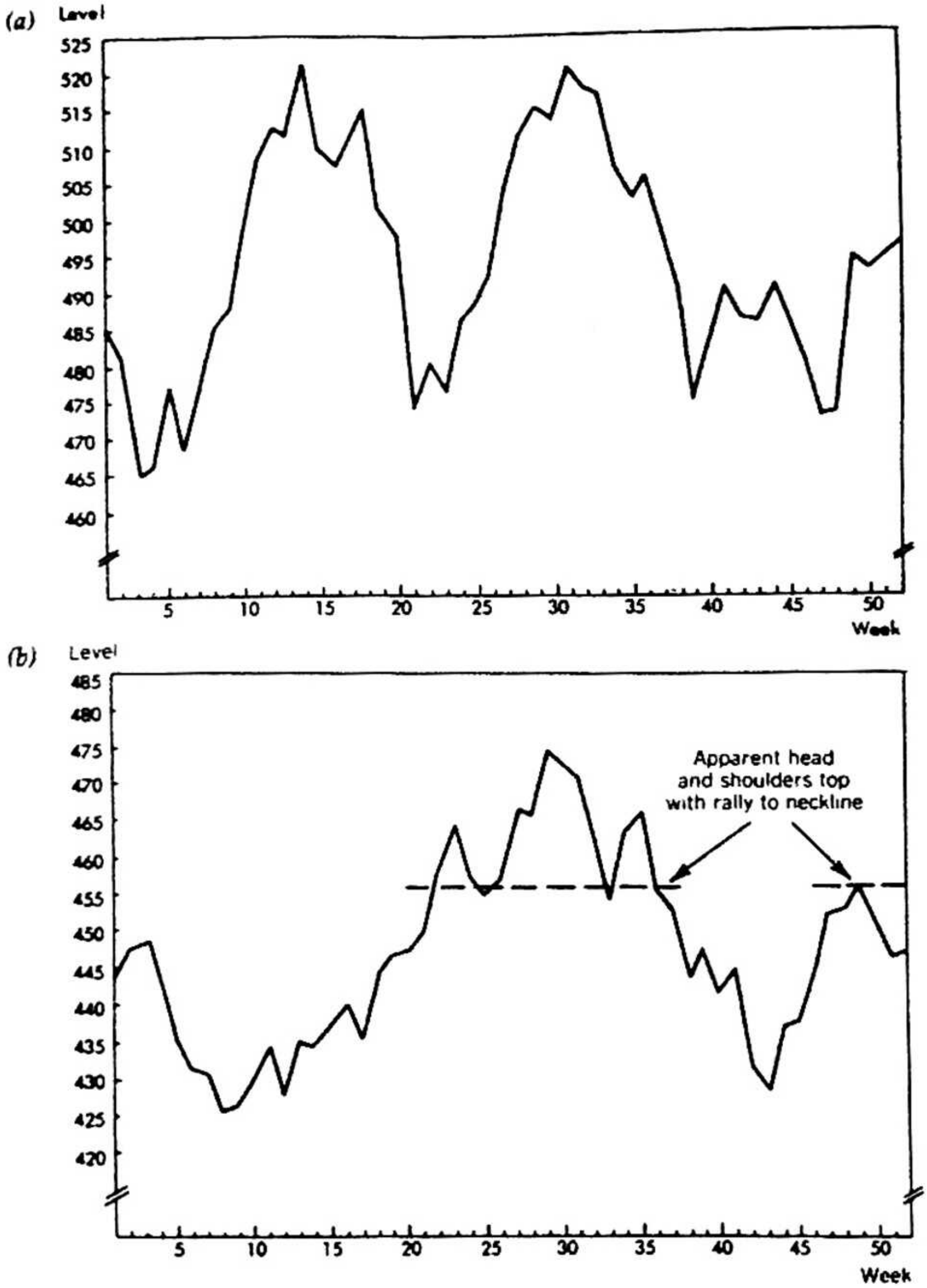


FIGURE 5.1. ACTUAL VERSUS SIMULATED STOCK PRICE ACTIVITY. **Figure 5.1*(a)* shows the Friday closing prices of the Dow Jones Industrial Average from December 30, 1955 through December 28, 1956. Figure 5.1*(b)* shows simulated stock prices for a 52-week period. A common technical pattern associated with market tops has been identified in the simulated stock price chart.**

The simulated chart seems to show common technical patterns that technicians typically depend upon in forecasting price changes. Pretty interesting, isn't it?

Also appearing that year was a study by a distinguished physicist with the Naval Research Laboratory in Washington, D.C. (Today we prefer rocket scientists.) This study concluded that stock price changes conform to something called *Brownian Motion*, a scientific theory that describes the random way in which small particles suspended in a solution move about.

Other highly mathematical studies followed.

In the early 1960s, technical analysts responded. Their argument was that the studies put forth by the efficient market theorists, which appeared to show that prices were independent of each other, were simply too simple. The technical analysts contended that the markets were more complex than that; that in showing the independence of the location of each individual tree, the efficient market theorists failed to see the organization of the forest.

The efficient market theorists made the obvious response. "Okay," they said in unison. "Show us."

Some technical analysts attempted to do just that by designing systems whose goals were to produce better-than-random results. Unfortunately for them, these attempts were unsuccessful.

Score: efficient market theorists, 1; technical analysts, 0.

As the case for the weak form became more compelling, the urgency for an appealing theoretical explanation increased. It was proposed that, if (1) all material information, which of course includes price history, is known to the public and (2) there exist no major impediments to participants acting on such information (i.e., transaction costs are limited), and (3) the participants and potential participants have the *same time horizons* and *"homogenous" expectations with regard to prices*, then the market will efficiently discount the information.

The theory behind efficient markets is really one of the implications of fair competition, one aspect of which was presented in the preceding chapter to show how the markets change as people find solutions to current speculative problems. If the rules make the competition fair, then the best competitors will be most successful. Where success is measured in profits, the process will build on itself because, as the most successful investors acquire more money, their impact on the markets increases and

the markets become more efficient. As we have seen, this is a very appealing theory.

There is a counterargument that, to the extent that the markets depend on competition for their efficiency, they must remain, at least to a certain extent, inefficient. The fact that the markets depend on competition for their efficiency would seem to imply that they must reward the best competitors sufficiently well to keep them competing. If they do not, their efficiency will hold in it the seeds of its own destruction. That is to say, if the markets were too efficient, then they would have to become inefficient.

This problem was recognized by Lorie and Hamilton.[2] Their response is that efficiency does not in fact require that there be consistent winners among participants, only that there be sufficient numbers of investors who disbelieve in the efficiency of the markets. According to Lorie and Hamilton:

> Market prices will promptly and fully reflect what is knowable about the companies whose shares are traded only if investors seek to earn superior returns, make conscientious and competent efforts to learn about the companies whose securities are traded, and analyze relevant information promptly and perceptively.

In other words, as long as the disbelievers keep trying to outperform the markets, the condition of competition will be satisfied and the markets will be efficient. This curious response leads Lorie and Hamilton to conclude, "It is a game worth winning, although it may not be a game worth playing."[3]

Putting aside for the moment the question of the adequacy of Lorie and Hamilton's response and conclusion, it does seem clear that the markets are smarter than any individual participant. And there's a good explanation for this phenomenon that appears to be unknown to the efficient market theorists.

Consider the example of a legislature trying to write a loophole-free law. It retains as its consultant the smartest lawyer in the world. The lawyer considers all the possible ways around the proposed statute.

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[2]Lorie and Hamilton, *The Stock Market*, p. 98.

[3]*Ibid*.

Appropriate changes are suggested and adopted. No single lawyer could have drafted a more airtight piece of legislation.

Is the statute loophole proof?

Not a chance.

There are simply too many minds that are going to devote too much time to finding a way around the law. That each mind has less horsepower than the world's smartest lawyer is of no consequence. Somebody is going to find a way around that statute. In fact, probably a whole bunch of somebodies are going to find a way around that statute.

The markets employ the same collective resources of their participants in discovering the right price. For example, if there is concern that a storm may sweep sufficiently south to damage the orange crop, you can be sure that the market will correctly assess the odds. There isn't a human being alive who can consistently outperform the market at forecasting the weather. (If you could learn to be a better meteorologist than the market, everyone would be going back to school!) For that matter, I don't think anyone can outdiscount the market on any particular, discrete event that the market is focusing on.

If you were to try to quantify how smart the markets are, you would have to say that their I.Q.s are somewhere *between* the I.Q. of the smartest person and the sum of the I.Q.s of all the participants. We are not saying that the "intelligence" of the markets is additive. What we are saying is that the markets are smarter than the smartest person in them.

One interesting objection raised by the technical analysts against the efficient market theory was based on the demonstrable existence of secular trends (i.e., the fact that the market has tended to go up for as long as anyone can remember). If prices are, as the efficient market theorists contended, truly independent of each other, then why has the market trended upward? Isn't the fact that we continually find our drunk friend forward of where we left him proof that there is some pattern in his pacing of which we can take advantage?

Not really.

The efficient market theorists convincingly retorted that the fact that the market has tended to rise signifies nothing more than that there appears to be an *upward bias* to the random sequence of prices. They suggested that the stock market was like a coin toss game where every time heads comes up you get $1.01 and every time tails comes up you pay only $1.00. If you play this game a hundred times, you can expect to win $.50, but your chances of winning anything on any one toss are still 50

percent. There is no strategy you can employ to win more than that $.50 except to be lucky. *While the game is biased upward, you cannot expect to do better than win by the amount of the bias.*

The efficient market theorists went even further. They suggested a very compelling reason for the secular trends that had been the basis of the attack. Since common stocks compete with alternative and less risky forms of investment such as U.S. Treasury bonds, astute investors will demand that they receive a risk premium for the purchase of common stocks.

To see how this works, let's design a second coin toss game. In this game, let's say that just for playing with me I'll let you win no matter what comes up, heads or tails, and every time we toss the coin I'll give you a penny. After a hundred tosses, you've made a dollar. Guaranteed. Now, although this game holds no risk for you, you're likely to get bored long before you get rich. Compare games one and two. In game one, I paid you $1.01 every time you won, but you only won when heads came up, so your expectation of profit was $.50 over a hundred tosses. Not enough to make you want to play the first game, when you can be certain of winning a dollar in game two. But you can see that at some payoff, say $1.03 per win against $1.00 per loss, you would rather play the riskier game, even though you might lose it.

What would you pay me for a risky stock that was expected to return 10 percent on capital, when U.S. Treasury securities also yielded 10 percent? Something less than capital, obviously.

What the efficient market theorists are suggesting is that the stock market should *tend* to go up, or nobody would buy stocks. The amount by which it can be expected to rise is related to its riskiness relative to the investment alternatives.

The Wall Street analysts were sorry they ever brought up this stuff about secular trends.

The implications of attributing the success of the weak form to fair competition among speculators obviously extended beyond the independence of successive prices. And that is where the semistrong hypothesis comes in.

If fair competition rendered past price history useless in forecasting future price history, what about other information of a more fundamental nature? Did the markets efficiently discount that too?

The efficient market theorists designed some pretty clever tests to see if there was evidence to support the hypothesis that the stock market

efficiently discounted fundamental information. For example, they studied price changes in stocks that split. Stock splits are usually accompanied shortly thereafter by dividend increases, so, if the markets were efficient, the price of stocks that split should tend to rise *before* the split to reflect its likelihood of occurrence. The tests confirmed that this was the case.

The efficient market theorists also studied price changes accompanying secondary offerings of securities (sales of stock to the public by insiders and large stockholders), and found that the market appeared to efficiently discount the negative implications (if this deal's so good, how come the insiders aren't buying?) that attend such offerings.

And they studied the stock market's reaction to changes in the discount rate, concluding that such changes too were efficiently anticipated by the stock market.

Score: efficient market theorists, 2; fundamental analysts, 0.

Professional money managers were hiding in their offices, hoping the efficient market theorists wouldn't notice them.

No such luck.

The efficient market theorists decided to test the following hypothesis: If the markets are inefficient, then there must surely be more professional money managers out there consistently outperforming the markets than could be expected by simple, dare I say it, dumb luck. To test the hypothesis, the efficient market theorists studied the performance of dozens of mutual funds and concluded that, on a risk-related basis, there was no evidence of clearly superior performance by money managers.

Then they drew a nice looking chart, which is shown in Figure 5.2.

Note how this chart resembles Figure 3.2, which depicts the theoretical relationship between risk and reward. Figure 5.2 shows that those portfolio managers who achieved higher rates of return *took more risk to get it,* which is just as it should be in an efficient market. The relatively few dots that appear far away from the line represent superior and inferior performance. The key here is that the number of superior and inferior performers is entirely consistent with random outcomes. In other words, *those who appeared to be doing better or worse for a given level of risk were probably lucky or unlucky rather than more or less smart.*

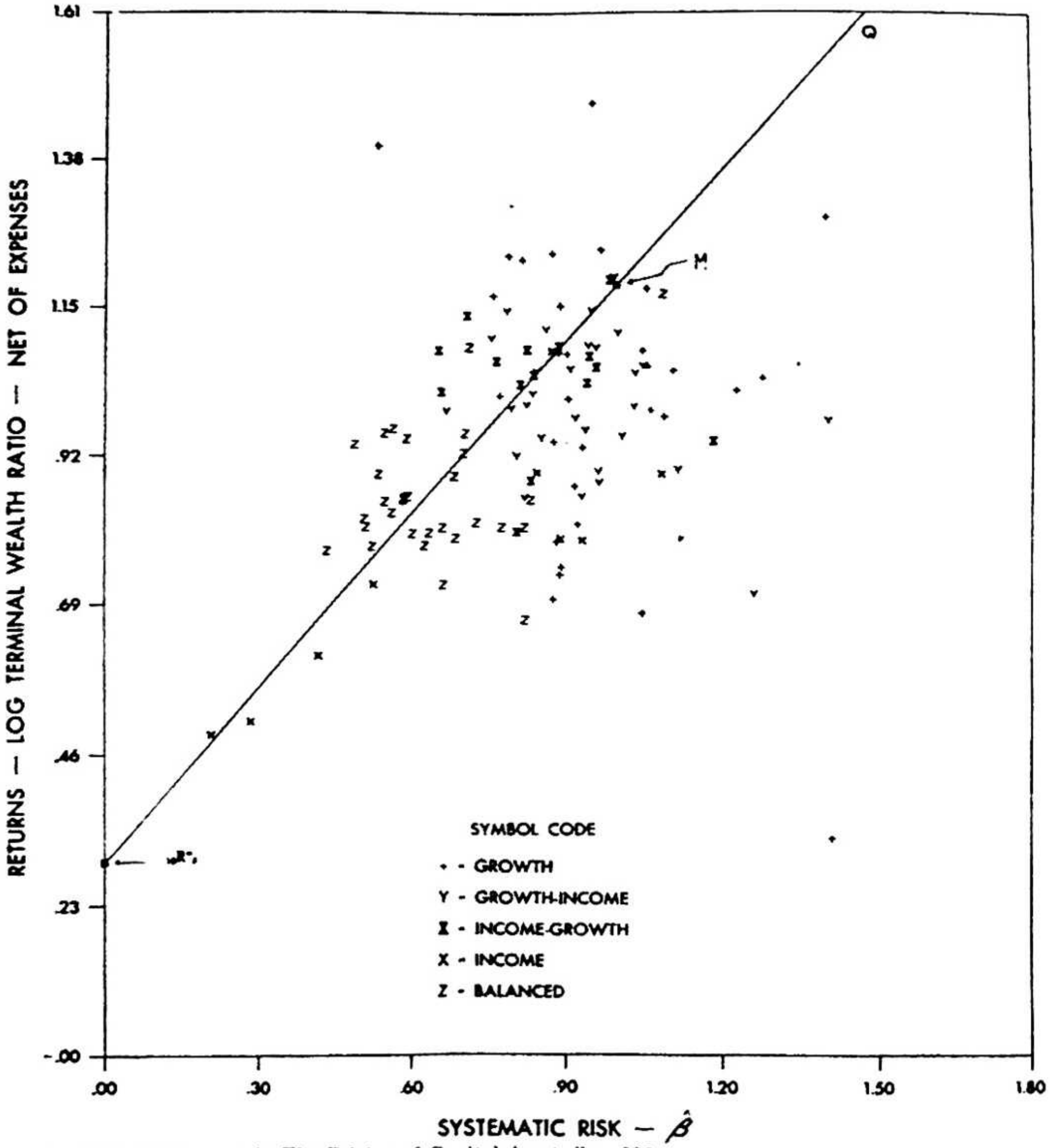
Then the efficient market theorists brought in the chimpanzee.

Efficient market theorists, 3; everybody else, 0.

Wall Street's market professionals were routed.

Could this be the end of the ball game?

As a great speculator once said, "It ain't over 'till it's over."



Source: Jensen, "Risk, The Pricing of Capital Assets," p. 221.

FIGURE 5.2. RISK AND RETURN. **Figure 5.2 contains a scatter diagram of risk and net return for 115 open-end mutual funds in the 10-year period, 1955 through 1964. Note that, as expected, funds taking more risk appeared to achieve higher net returns.**

ASSESSING THE IMPLICATIONS OF THE EFFICIENT MARKET THEORY

Obviously, the work of the efficient market theorists is to be taken very seriously. At a minimum, they provide a logical theory that seems to explain the perplexing difficulty market participants experience in

attempting to outperform the markets. To back up their theory, the efficient market theorists conducted impressive studies that clearly demonstrate the futility of many popular approaches to speculation. But the important question remains: Are the markets efficient within the meaning of the semistrong or strong form of the hypothesis? That is, is it possible for some speculators to outperform the markets without taking extra risk and without the assistance of luck?

To answer the question, let's briefly review exactly what the efficient market theorists have shown. First, they have demonstrated that, over long periods of time, prices are independent of one another. Second, they have shown that the markets are particularly efficient at discounting certain fundamental information that is *commonly* understood to have a bearing on values of securities within the time horizon of the markets.

One can characterize these accomplishments as amounting to proof that the markets are efficient in some ways at least some of the time. *Interestingly, much of what the efficient market theorists have shown confirms and coincides with what you and I knew all along—that for every solution there is a problem.*

The conclusion that prices occur independently of one another is precisely what we would expect given what we know about the markets. Price independence flows neatly from our recognition that the markets consist of individual trades among individual traders. If prices were not independent, any relationship that yielded profitable predictions would be quickly neutralized or its followers would soon acquire all the money in the world. The same analysis applies to stock splits and insider trades. To the extent that these events imply subsequent events, the markets must be expected to neutralize any profit opportunity.

But the efficient market theorists have gone one step further: *They have shown that the probability of future occurrences of events of at least some type is consistently forecast with accuracy by the markets.* It is here that the contribution of the efficient market theorists becomes most meaningful, for it is from this proposition that the specter of the futility of endeavoring to outperform the markets flows.

They also articulated a pretty convincing argument for why we should expect the markets to be efficient: fair competition among a broad and diverse group of participants. The argument that the best competitors will build the most capital is unassailable, although it is predicated on some minimal level of inefficiency to keep the competitors competing. The argument that markets can remain efficient provided there are suffi-

cient disbelievers seems strained—while it is admittedly possible, I am comfortable in rejecting it on its face. Predicating something so sophisticated as an efficient market on the existence of something as diametrically opposed to the result as a sufficiently large pool of fools is simply difficult for me to accept. *In any case, it is plain that the markets are smarter than the individuals who compete in them,* for the reason we articulated.

Should we infer from the foregoing that we cannot outperform the markets?

The answer is no.

While we must recognize both the fact that the markets are efficient in many ways and the theoretical possibility (some might argue probability) that the markets will, at some point in the future, become perfectly efficient, the simple fact is that they are currently inefficient in many identifiable ways. How can this be so?

To begin with, we would do well to keep in mind that the markets are a social process and that they result from human activities. Since humans are indisputably imperfect, healthy skepticism requires that we presume the markets to be imperfect as well, not the other way around. While the efficient market theorists have done us all a great favor by quite convincingly demonstrating that the markets can be extremely efficient in at least some ways, attributing godlike wisdom to the markets is unjustifiable.

The temptation to ascribe such wisdom to the markets derives from the fact that the markets are smarter than the smartest individuals that comprise them. Since no single human being is smarter, we conclude that the process is inhuman. Of course, it is not inhuman and it is far from perfect. It's simply better at doing what it does best than you or me. But that doesn't mean we can't beat it—as long as we don't try to compete against its strength.

What it all boils down to is this: If we are smart enough to know when the markets are wrong, *we don't have to be as smart as the markets to win.* Why? Because we can choose whether or not to participate in a given market at a given time. If we limit our activities to those few instances when we can identify an opportunity—that is, an *inefficiency* in the markets—then we should be able to perform satisfactorily, even in markets that are incredibly efficient most of the time.

Consider the following example: You are the smartest person on the planet; I am one of the dumbest. We are going to play a betting game based on an intelligence test. The test is comprised of the 10,000 most

difficult questions ever devised. The testmaster calls off the questions, asking for our answers. You answer 9,900 correctly. I know the answer to only 100. Knowing that the odds are 99 to 1 against me, you are complacent as can be, right? Oh, I forgot to tell you there's one more rule: To make our game resemble the markets, let's say I have absolute control over the wagering. If I wish to make a bet, you must oblige me; if I pass, we proceed to the next question. Despite the fact that you are a hundred times smarter than I'll ever be, if I am patient enough to refuse all wagering except on those few bets when I know I am right and you are wrong, I have a feeling that I'm going to walk home with just about all of your money.

Now that we've been brought back down to earth, let's put the efficient market theory into proper perspective. As we learned in Chapter 3, speculators get paid for supplying demand and demanding supply. One important result of their activity is to preempt marginal consumption when increased demand is anticipated in the future. When speculators accomplish this task, they are rewarded by consumers whose utility schedule places a higher priority on the goods than the marginal consumers who were preempted by the speculators. *This process is not necessarily affected by the presence or absence of markets that are efficient at forecasting the occurrence of events that are perceived to be important.* As a result, speculators who avoid the trap of trying to outforecast the markets as to the occurrence of such events and who concentrate instead on doing their job of demanding supply and supplying demand can expect to be paid handsomely, regardless of whether the market is efficiently discounting future events. In other words, speculators may be able to use the same information as the market in a different type of analysis to reach different conclusions, outperforming it in the process.

Moreover, we can identify some flaws in the discounting process that cause us to seriously question just how efficient the markets are in the first place. For one thing, the theory is predicated upon similarity of time horizons for the participants, which may imply opportunity for speculators who have a different time horizon. And there is good reason to believe that there are times when the markets are just plain wrong in assessing the impact of events.

So, we are left with a few lines of attack on what we conclude are semi-efficient (not to be confused with semistrong) markets. Let's take a closer look at some examples of how they might work.

SAME INFORMATION, DIFFERENT CONCLUSIONS

As noted, even if we were prepared to admit that the markets were perfectly efficient at discounting certain events, we can in fact outperform the markets by utilizing available information, *not to forecast prices but to identify conditions of demand to be supplied and supply to be demanded.*

Consider the following example. You are looking for a security to buy as a long term play. You consider Dullo Corporation. The economic climate is dismal. We are in the heart of a recession. Dullo is in an unglamorous industry—it makes steel wool. Since business is bad, Dullo's sales are down and the company lost money during the last two quarters. To its credit, Dullo has been around forever, and it has survived cycles like the current one and worse. Its balance sheet remains strong. Despite its current losses, you think that if companies like Dullo ever go out of business, we're going to be in awful trouble.

Today, you read that Dullo announced the suspension of its regular quarterly dividend—for the first time in 40 years. What should you do?

You should do your job as a speculator and buy it.

Note that the market knows everything you do. It knows how bad conditions are. It knows that Dullo is losing money. In fact, the market knew this would happen long ago—probably before you did—and discounted all of this in the price of Dullo. So you say the markets are efficient and I concede. I still want you to buy that Dullo stock. I want you to buy it because there's plenty of it around. The people who sell it to you are thrilled to be rid of it. They can't believe there's a sucker left who will buy it. That's exactly what you want them to think.

In buying Dullo stock when you did, you demanded the supply of it. The guys who sold it to you were responding to news that the market had discounted months ago. The way the market discounted the news was to reduce the price. You are buying at a reduced price. That is just what you want to do.

Now you ask, what good is it to own a stock at a reduced price if conditions are so bleak? That is a very good question. The answer is that, if conditions remain bleak forever, you are right in suspecting the desirability of the trade you made. You will probably only profit if conditions get better. But you can't wait until you see reasons for improvement in the economy before you make your purchase. If you can look forward six months or so and see improvement coming, an efficient market can too,

and it will be reflected in the price you pay for the stock. *You are buying before the light can be seen at the end of the tunnel because the markets are somewhat efficient, at least over the near term.* You know that things will get better eventually. And, if they don't, you've got bigger problems than what happens to the value of your Dullo.

When conditions get better, people are going to want to own stocks again. They are going to value earnings at much higher multiples. When things really get cooking, steel wool will seem to shine like sterling silver. That's when you're going to supply the market with a few shares of Dullo. The people who buy them from you will probably be amazed that some sucker is willing to sell stock in a company with such bright prospects.

We are now in a position to consider one of the major premises of the book, as stated in Chapter 1: While economists have long recognized the important role of the speculator in the economy, they have been notoriously unsuccessful in applying basic theory. Doing so will help to illuminate how speculators can expect to outperform an efficient market.

As indicated in Chapter 1, a truly classic example of the difficulty that economists have is provided in Burton Malkiel's *A Random Walk Down Wall Street*.[4] Malkiel's book is full of common-sense investment strategies that we would all do well to understand and apply. His work entitles him to our respect. But, on this point, he is the paradigm of what is faulty with the thought and literature on speculation.

Malkiel divides the universe of investment strategies into two categories which he refers to as "The Firm-Foundation Theory" and "The Castle-in-the-Air Approach." Under the firm-foundation theory, Malkiel classifies all approaches that seek to identify the intrinsic value of a good as the basis of investment decisions. Fundamental analysis as commonly practiced is included here. The value approach of Benjamin Graham is also an important example of this category.[5] Malkiel's presentation of the difficulties that attend firm-foundation approaches is solid and clear, and since we have already covered this ground, we need not consider them further here.

It is in his characterization and analysis of castle-in-the-air approaches that Malkiel is unwittingly so illuminating. He describes castle-in-the-air

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[4]4th ed. (New York: W. W. Norton, 1985), pp. 22–25.

[5]Benjamin Graham and David L. Dodd, *Security Analysis*, 1st ed. (New York: McGraw-Hill, 1934).

approaches as "concentrat(ing) on psychic values," and includes technical analysis as well as a theory classically described by John Maynard Keynes. Keynes was the exception to the rule: He was both a great economist and a successful speculator.

In *The General Theory of Employment, Interest and Money,* Keynes described the need for shifting emphasis away from earnings forecasts to *forecasting changes in the conventional basis of valuation.*[6] He articulated a famous analogy to a beauty judging contest, in which the winner is the judge whose picks most closely conform to the selections of the group as a whole. Keynes concluded that the best strategy was not to select the faces you like the best, but to select the faces that the other players were most likely to choose, recognizing that the other players are bound to pursue the same course.

Malkiel on Keynes:

> The newspaper-contest analogy represents the ultimate form of the castle-in-the-air theory of price determination. An investment is worth a certain price to a buyer because he expects to sell it to someone else at a higher price. The investment, in other words, holds itself up by its own bootstraps. The new buyer in turn anticipates that future buyers will assign a still-higher value.
>
> In this kind of world, there is a sucker born every minute, and he exists to buy your investments at a higher price than you paid for them. Any price will do as long as others may be willing to pay more. There is no reason, only mass psychology. All the smart investor has to do is to beat the gun—get in at the very beginning. This theory might less charitably be called the "greater-fool" theory. It's perfectly all right to pay three times what something is worth as long as later on you can find some innocent to pay five times what it's worth.[7]

Where does Malkiel go wrong?

Underlying his critique is a vague notion that a thing may be worth more or less than what someone is willing to pay for it. He even says so: "It's perfectly all right to pay three times what something is worth. . .". *But we know that things are only worth what people will pay for them—nothing*

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[6](Orlando, FL: Harcourt Brace Jovanovich, 1964), pp. 156–157.

[7]Malkiel, *A Random Walk Down Wall Street,* p. 24.

more, nothing less. If we are willing to pay a price for goods, then they must be worth more than that price to us. If someone is willing to sell them to us, then he or she must value the money we pay more than the goods he or she gives to us. Now, if we are only willing to pay that price because we think someone else will come along and pay us more, for no reason, then we are certainly fools in search of greater fools and will surely be parted from our money soon. But that is not what Keynes suggested at all.

Keynes knew that value depends on the subjective valuation of the individuals. He knows that current value reflects both current utility and anticipated future demand. So he rightly concluded that, *in order to win, you must anticipate future conditions of demand*. Only when the future demand will be greater than the currently anticipated future demand (what's already in the market) does a speculative opportunity present itself.

Keynes understood this and made a fortune as a speculator. Believe me, he wasn't in the bootstrap business.

Before we go on, there is something else you should know about economists. Most economists are paid to forecast changes in the economy over the fairly near term. These forecasts are utilized by the government and industry in their decision-making processes and are immediately and thoroughly reflected in the markets. In a very real sense, economists *are* the market. As a result, it is very difficult for these people to outperform the markets. So, to advance their careers, the most rational strategy for economists is to make consensus forecasts, which usually means assuming that tomorrow will be about the same as today—only a tad better or worse depending on which way the trend has been going. *Such forecasts are usually correct*. Of course, they are most likely to be incorrect at tops and bottoms, where the greatest profit opportunities lie. As far as economists are concerned, it's okay since they are usually right, and when they're wrong, so are their competitors. As far as we are concerned, it's okay too, since we can use their forecasts to help us identify opportunities to demand supply and supply demand.

MYOPIC MARKETS

Another problem for proponents of the efficient market theory is one of its stated preconditions: similarity of time horizons. Consider Figure 5.3,

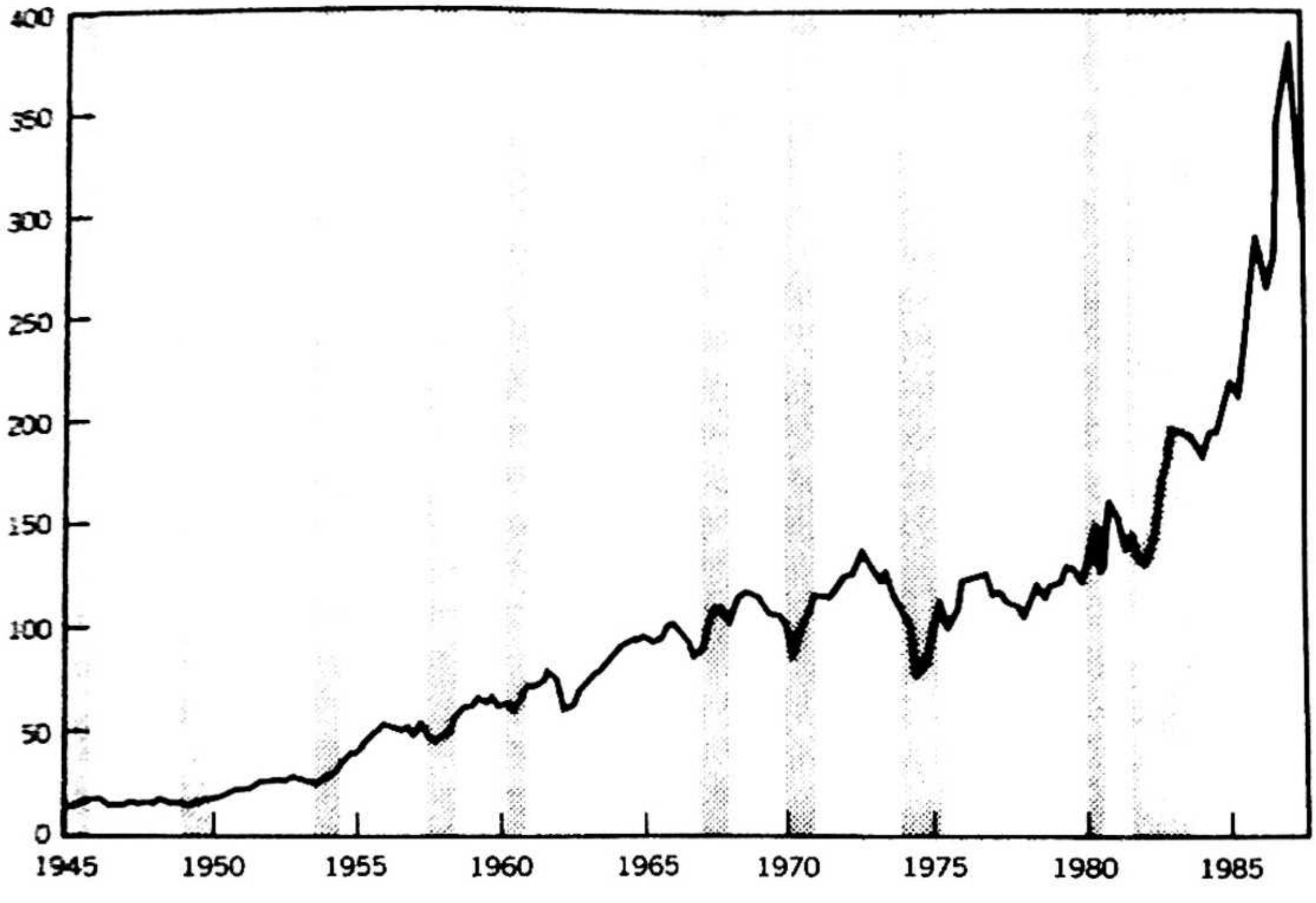


FIGURE 5.3. STOCK PRICES AND RECESSIONS. **Figure 5.3 shows quarterly prices of the Standard & Poor's 500 Composite stock index. Shaded areas indicate recessions. Note that the stock market frequently tops out 6 to 12 months in advance of recessions.**

which charts quarterly stock prices and peaks and troughs in the economic cycle.

Figure 5.3 appears to show that the stock market generally is focused 6 to 12 months out, and not much further. *That means that, for speculators who are capable of extending their time horizons out farther than the markets, outperforming them may be an achievable goal.*

Two factors help explain the limited time horizon of the markets. First, it might be said that the difficulty of forecasting increases geometrically with the distance of the forecast. To the extent that people have long-term views, they are generally not confident in them and are reluctant to express them by action. In the rare instances when people do act on such views, it doesn't take much work on the part of the markets to shake them

out. Second, the riskiness of the conclusion also may be said to increase geometrically with the distance of the forecast. Since most participants are risk-averse, riskiness would also seem to act as a limiting factor.

There is another important, related point: The time horizons of the various markets vary as a result of their composition. For example, the stock market is currently dominated by institutions whose portfolio managers are expected to outperform the markets on a quarterly basis. This makes it difficult for portfolio managers to take a long-term view. It also contributes to the inefficiency of the market. Contrast the stock market with the gold markets. Gold traders include a broad and diverse group of producers, consumers, and speculators with long-term concerns usually relating to political and economic developments.

How can we extend our own horizons beyond those of the markets? One possibility is to identify speculative opportunities (supply that we wish to demand or demand that we wish to supply) by examining charts alone, if we use longer term charts than any significant element of the market. The problems with the technical approaches referred to in the previous chapter may still render this approach subject to doubt, however. While technical analysis cannot be ruled out, in fairness it appears to offer little chance of success if used as the sole basis of trading decisions.

More fertile territory lies in the fundamental arena. As the efficient market theorists make clear, competition effectively makes the markets efficient at discounting *obvious* fundamental criteria anticipated within the time horizons of the markets. Since the time horizons of the markets are clearly limited, sound fundamental analysis, the scope of which extends farther out than such time horizons, can be expected to yield superior results.

Consider, as an example, the effects of accommodative monetary policy after a period of tight credit. Allowing the money supply to grow rapidly might cause interest rates to fall as credit easily expands, but sooner or later the inflationary implications of such policy can be expected to be felt, and interest rates can be expected to turn and rise. If the markets were efficient through the time horizon of the entire cycle, interest rates would not fall and then rise as severely as they often do under such conditions. Instead they would discount both the expansion and the inflation at once. If we know what the long-term consequences of current events are, and we believe that the market is not currently discounting them, then we have a potential trade; the question becomes when to implement it.

JUST PLAIN WRONG

Finally, there is another possibility that causes efficient market theorists to cringe: That sometimes the markets are just plain wrong.

How can the markets be wrong?

The finest articulation of this process that I have read is by Bradbury Thurlow in *Rediscovering the Wheel: Contrary Thinking & Investment Strategy,*[8] one of the few truly outstanding books on investments:

> Broad-based fundamental analysis has two . . . aspects that contribute to market inefficiency, and therefore to its own usefulness: 1) The issue will be frequently too abstract and complex for anyone to understand clearly; therefore, experts will use it selectively and will make errors in their selection. 2) Once the selections have been made and acted upon, *whether they are the right ones or not,* they will be discounted in the price structure and will in many instances give rise to expectations that the inertia of the discounting process will carry beyond reasonable valuations. When this happens, market behavior no longer relates to fundamental factors of any kind, but to derivative psychological forces. . . , which are demonstrably inefficient and which are best dealt with by an approach that gives proper weighting (sic) to irrational elements in the pricing process.[9]

We have two important categories of fundamental information: Information that is fully discounted and information that is not fully discounted. Traders refer to information that is fully discounted as already being "in the market." Information that is not fully discounted is not in the market or only partially in the market.

Determining what is in the market and what is not is probably the most important and difficult task a speculator faces. The difficulty of effectively sifting through virtually infinite quantities of data, determining what is important, and then determining what impact the information has and will have in the future on prices is precisely what makes speculation such hard work. But it can be done.

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[8] (Burlington, VT: Fraser Publishing Company, 1981).

[9] Thurlow, *Rediscovering the Wheel,* p. 104.

LOOSE ENDS AND PARTING SHOTS

So we conclude that the markets are not efficient within the meaning of the semistrong or strong form of the efficient market hypothesis. There remains the problem of the lackluster performance of investment advisers depicted in Figure 5.2.

Consider the constraints under which professional portfolio managers operate. The very size of their portfolios makes it unlikely that they can outperform the market; in fact, as a class, like the economists, portfolio managers practically *are* the market. And who's got enough money to pay them for being right? Look what happens when they do outperform the markets—people give them *more money* to manage. So the most successful advisers quickly arrive at a condition of having too much money to manage.

Professional money managers also operate under marketing constraints. If you could get a professional portfolio manager to tell you the truth about it, she would explain that the most rational strategy to employ is to be solidly in the consensus, and not to try to outperform the markets, at least not by much. If she stays in the consensus, then a professional money manager will do well enough in good times to increase her assets under management, and her poor performance in the difficult periods will be sufficiently inconspicuous to assure continued employment. So why take significant risk? As Keynes observed, "Wordly wisdom teaches that it is better to fail conventionally than to succeed unconventionally."[10] No wonder the efficient market theorists couldn't find too many winners among these guys!

The efficient market theorists have another problem. While few technicians, fundamental analysts, or portfolio managers can boast of outperforming the markets over long periods of time, there are many people who can. Efficient market theorists might argue that the existence of these people is no problem, that they are statistically expected examples of luck. They might make an analogy to a game in which you fill Yankee Stadium with people and have them flip a coin a hundred times. While the vast majority will come within a few tosses of 50-50, some will flip heads 80 percent of the time. But what is the probability that these overachievers will flip heads on the next toss? Of course: 50 percent.

This retort of the efficient market theorists does not fully explain the

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[10]Keynes, *General Theory*, p. 158.

phenomenon of winners, however. While some of them are assuredly lucky, many can clearly articulate how and why they win. (It goes without saying that this book is an example.) Some can even teach others how to win. Luck, last time I checked, could not be taught.

We have covered a lot of important ground in this chapter so a brief review is worthwhile. The efficient market theorists have correctly attributed the lackluster performance of traditional approaches to speculation to the competitive nature of free markets. Their weakest formulation, that the markets efficiently discount past price behavior, is beyond contradiction as we saw in Chapter 4. Their boldest assertion, that the markets discount all that may be known, is manifestly wrong. The markets are comprised of humans, not gods. Their semistrong hypothesis, that markets efficiently discount all that is known, is right much of the time, but not absolutely right all of time. While it is difficult, if not impossible, to consistently outforecast the markets with regard to the probable occurrence of fundamental events (such as future earnings), substantial opportunities for speculative profit exist for those who understand the role successful speculators play. In one way or another, such opportunities occur when the markets can be expected to change their bases of valuation: when there is supply for us to demand or demand for us to supply. In more concrete terms, current pockets of inefficiency routinely appear when the consumption is relatively marginal (conditions appear obviously bleak), when the time horizon of the anticipated valuation changes is relatively long (usually more than 6 to 12 months out), or when the markets fall into the trap of unanimous opinion.

We can summarize our new understanding of the markets in terms of the efficient market theorists. Consider a new version of the coin toss game that the efficient market theorists proposed to show how secular bull markets could occur in an efficient market. In this version, the payoffs are even money for much of the time, but *for significant periods* the payoffs get stacked in favor of one side or another. If we could identify on which side of the market the payoffs are stacked, it would seem we could profit handsomely *during these periods of time and only during these periods of time*.

We should, however, keep in mind that the theoretical underpinnings of the efficient market theory are sound and that, as a result, the markets may develop into efficient ones over time—as information is better identified and more effectively communicated and as we learn more about the markets and become better speculators.

Oh, and one more thing before we go on. Please don't worry about those poor technical and fundamental analysts and portfolio managers. There are more of them employed on Wall Street today than ever before (at least there were before October 19, 1987) and most of them make more money than the efficient market theorists do (at least they did). And don't worry about your friend the drunk in the field, either. We know where he went after you left him, even if the efficient market theorists don't. Cheers!

6 CONTRARY THINKING ABOUT CONTRARY THINKING

The utility of contrary thinking is contrary to what you think

The obvious disutility of information that's already in the market and the difficulty of getting out in front of the market are in large measure responsible for the current vogue of an approach called contrary thinking, a sort of antifundamental fundamental approach.

Contrary thinking was popularized by Humphrey Neill, aka the Vermont Ruminator. Neill summarized his contrary thinking as follows:

When everyone thinks alike, everyone is likely to be wrong.

Bradbury Thurlow, a modern proponent of Neill's, has restated the proposition:

Consensus conclusions lead to worse than random results.

In reviewing contrary thinking, we will refer to Thurlow's restatement, since its focus is on the issues as framed since the efficient market theorists moved to center stage in the 1960s. Drawing upon LeBon (*The Crowd*) and MacKay (*Extraordinary Delusions and the Madness of Crowds*), Neill distinguished between the masses who comprise the markets at all times, and the crowds that occasionally dominate the markets. According to these authorities, crowds think with their hearts and individuals think with their brains. If this is true, then individuals would seem to have an edge.

Neill based his thinking on the following "laws" of sociology and psychology:

- A crowd yields to instincts that an individual, acting alone, represses.
- People are gregarious; instinctively they follow the impulses of the herd.
- Contagion and imitation of the minority (follow the leader) make people susceptible to suggestions, commands, customs, and emotional motivations.
- A crowd never reasons; it accepts suggestions without proof.

Neill proposed that crowds are usually wrong at least to their timing of events. Thurlow describes Neill's market model as follows:

> A "psychological" model showing typical popular attitudes toward the market at various points in the cycle would show major price rises beginning in an atmosphere of almost total public speculative apathy, signalled by low trading volume and featureless price action. Speculative interest rises with prices, reaching minor peaks just prior to selloffs and cooling off as prices settle. As prices continue to rise their movement speeds up and speculative interest becomes increasingly active. Optimism and expectation of even faster improvement become widespread. Volume becomes heavy.
>
> At major turning points price behavior becomes increasingly erratic as volume increases and optimism grows unabated. A sharp break in prices occurs on very high volume and frightens some investors, but does not significantly diminish optimism. The public continues to buy on declines and buys even more on the ensuing rallies. But the trend is now clearly down. Rallies become weaker as declines become longer. Aggressive optimism gives way to passive optimism as "locked in" holders wait for a future rally to recoup their losses and leave the scene. With further declines this passive optimism weakens into a growing fear. Investors begin to take their losses without waiting for a recovery. The movement feeds on itself as the decline accelerates. Short-term pessimism becomes epidemic and stock prices reach a selling climax, from which they may enjoy a considerable recovery.
>
> The process is repeated, with less optimism and more pessimism

> shown in every succeeding secondary mini-cycle until optimism is finally extinguished, long-term pessimism—expressed as apathy—reigns supreme, and the major cycle is ready to begin again.[1]

Neill's model is particularly interesting if we view it in light of what we know to be our job as speculators. As indicated, according to Neill's model, the public is likely to be right during the major trends but wrong at both ends. Translated into our terms, the greatest opportunities to supply demand and demand supply will occur at the ends and beginnings of cycles, right where we would expect to find them. The most obvious sources of supply available for our demanding will occur at the turning point from a major bear market to a major bull market, when the consensus is bearish and no good reason for optimism can be found. Conversely, the most obvious sources of demand that we will want to supply will occur at the top when optimism peaks, and conditions seem brightest.

Note also how neatly Neill's psychological characterization fits our understanding of our job as speculators. At the bottom of cycles, disinterest prevails. *We would expect disinterest to prevail in markets in which marginal consumption is dominant*. Since our job as speculators is to purchase what nobody wants in order to preclude consumption by marginal consumers, markets overwhelmed with disinterest fit the bill nicely. Similarly, optimism is supreme at cycle tops. If everyone is optimistic, then everyone who is ever likely to want to own what we have will be bidding for it. And it's our job to supply their demand.

So the theory seems to fit nicely. But how useful is contrary thinking for identifying trading opportunities? Put in Thurlow's terms, do consensus conclusions lead to worse than random results? Can we reach conclusions that are not in the consensus that will yield better than random results?

In considering this important question, it must be kept in mind that the subject is an amorphous concept, not susceptible to scientific testing in a laboratory. We can use only our reason and experience to form an opinion.

Since, according to Neill's model, the consensus is, for the most part, correct in the middle and wrong on both ends, fading (taking the opposite side of) the consensus at all three stages can be expected to result in losses

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[1]Thurlow, *Rediscovering the Wheel*, p. 124.

in the middle and wins at the ends. Note that there is no law that says each "segment" (i.e., bottom, middle, top) is equal in price or time, and, in fact, reason and experience tell us that such symmetrical market cycles are unlikely. So, even if you are right at the top and the bottom, you might net out a loser if you are wrong in the middle. *If the model is correct, the efficacy of the approach would depend on being able to tell where you are in the cycle.* So we must conclude that identifying the consensus will tell you what's in the market, but it won't tell you what to do about it.

To better understand why fading the consensus is more desirable at some times than others, let's consider some possibilities. Suppose, for example, we are near the end of an expansion. The stock market has broken from its highs and has been trading lower for a number of months. The economic data has remained strong, in fact, surprisingly so. Inflation has ticked up, but the Federal Reserve has been quick to raise rates, restraining monetary growth in the name of fending off inflation before it gets more difficult to control. From your reading and talking to people active in the markets, you conclude that the consensus is that some further restraint will be required to cool the economy and to slow the demand for money and, accordingly, that short-term interest rates should trend a little higher over the coming months. What should you do?

If your assessment of the consensus is correct, then it is clear that market prices already reflect further tightening by the Federal Reserve. At the very least, you know that, should such tightening occur, it will have relatively little effect on market prices. The market has focused on the question of probable further strength in the economy, weighed the odds of it occurring and the most likely Federal Reserve response, and priced itself based on the consensus. Accordingly, if the expected events should come to pass, they should have the least effect on prices of the various alternatives.

What are the alternatives? Of course, there are many. One possibility is a surprisingly strong economy—one that requires substantially more tightening than the market expects. Another is surprising weakness accompanied by a collapse in the demand for money. Either of these occurrences will result in profits that are superior to those achieved by following the consensus. Probably, the one that is most opposed to the consensus, in this case surprising weakness, will yield the greatest profit. In our terms, the selling conducted by those participants who hold the consensus view constitutes supply that can be demanded by speculators.

Alternatively, if unexpected strength develops, selling in spite of the

consensus selling that is occurring will also be profitable. But, since the consensus has already driven prices down, it will take truly exceptional growth that has been underestimated by the markets to produce satisfactory profits.

Note that I am not saying that either of our alternatives is more likely to transpire than the consensus view. What I am saying is that the rewards of correctly acting on either alternative will be far greater than the rewards of trading with the consensus, after factoring in their likelihood of occurrence.

It is of paramount importance to note that identifying the consensus is, therefore, just the starting point in the analysis. Once you have identified the consensus, you must determine whether it presents a speculative opportunity. The critical question is whether the consensus is producing supply for you to demand or demand for you to supply or both. *Then you still have to determine what you think is going to happen.*

In Thurlow's terms, the goal of investment strategy is to anticipate what others will be doing at a future point in time when one will be doing the opposite. In our terms, the goal is to purchase in anticipation of future demand and to sell in anticipation of future supply. To the extent that we can employ contrary thinking to do our job, the ideas are compatible.

It should also be noted that the important thing is the concept, not the actuality. According to Thurlow:

> An investment thesis, to be acceptable in forming strategy, does not need to be factually proven; it needs only the potential for popular acceptance and the reasonable assurance that it has not already been discounted in the market. If it has not already been discounted, it follows that its possible failure has not been discounted either, so that even though its uncertainty may be high, the rewards it offers its followers outweigh the risks.[2]

As an added insight, it seems that if we keep our objective in mind (to anticipate future themes that will win a consensus), then we will achieve best results if we keep our ideas as general as possible. Generality carries two advantages. First, since we are trying to determine present and future consensus, the concept must be such that it can be easily understood by a group that is large enough to assemble into a consensus, i.e., it

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[2]Thurlow, *Rediscovering the Wheel*, p. 124.

must be simple and general. Examples are inflation, disinflation, deflation, boom, recession, slow growth, no growth, strong dollar, weak dollar, balanced budget, budget deficit, and so on. If the concept cannot be reduced to a slogan, it is probably too complicated to become a consensus.

The second important advantage of generality is that general concepts are not too easily shaken by the temporary short term influences that are certainly bound to enter the picture along the way. If the concept is too particular, the failure of any one of its elements to materialize renders it incorrect and, therefore, of no value.

To avoid confusion, it should be noted that boundless surveys and systems purport to show whether the consensus is *bullish* or *bearish*, as if this were possible, and then entice you to take a contrary stance. The false implication in such an approach is that fading the imagined consensus is an action of contrary thinking that carries a rational expectation of profitability. Of course, such is not the case. In *Winner Takes All*, a book that is much better than its title, William Gallacher succinctly identifies the problem in a passage that merits quoting at length:

> . . .we have the bullish consensus, psychological prediction in its purest form. The bullish consensus is a widely followed advisory service which purports to measure which side of a market is favored by the majority of traders. Brokerage firms are surveyed each week for their opinions on each commodity. When more than half are bullish, the Bullish Consensus Index (BCI) for that commodity will be greater than 50 per cent. The more united the brokerage views, the higher will be the BCI, approaching 100 per cent with unanimity. Likewise, as everyone wants to go short, the index will approach zero.
>
> When the BCI is high, the commodity is deemed to be "overbought" (whatever that means) and should be sold, according to the principles of contrary opinion.
>
> The contrarian viewpoint is particularly attractive to the macho trader. He feels smart and brave—me against the world, so to speak. Additionally, the bullish index is very easy to follow—just one number per week per commodity. The trader is always encouraged to sell into rising markets, and buy into falling markets, because, inexplicably, the bullish consensus is always high in bull markets.
>
> A little reflection, however, and it should be incandescently clear

> that the true bullish consensus must always be 50 per cent, no more, no less. Longs and shorts must balance at all times; these are the rules of the game. *A BCI greater than 50 per cent can only mean that the shorts have not been interviewed*. (Emphasis added.)[3]

Gallacher's indictment of the survey approach to contrary thinking and of the notion that the market could ever be bullish or bearish is revealing. Limited to the argument that the surveyed consensus is always already in the market, balanced by an equal but opposite well of opinions, it is beyond criticism. The market is never bullish or bearish. It is equally balanced by buyers and sellers. But that doesn't mean that a consensus never exists with regard to future events, only that people may differ as to the implications of their occurrence. And it certainly doesn't mean that the probability of occurrence of significant events as discounted by the market is 50 percent.

The problem with survey-type approaches (even assuming that a meaningful survey could be designed and conducted) is that they tend to confuse means and ends. Contrary thinking is predicated on the notion that sound investment opportunities may arise where there exists a consensus concept that is moving the market today and where another concept can be expected to supplant it. As we have seen, such opportunities arise, but only where the supplanting concept or event is foreseen by the speculator.

In sum, it is by no means clear that the premise of the contrary thinkers—that consensus conclusions lead to worse-than-random results—is correct. It *is* clear, however, that consensus conclusions cannot lead to better than random results, so it is important to know what the consensus is. We cannot agree with Neill that when everyone thinks alike, everyone is likely to be wrong. While we might agree with Thurlow that consensus conclusions lead to worse-than-random results, we must quickly note that the number of nonconsensus alternative outcomes is so great that fading the consensus automatically will not yield satisfactory results either.

We conclude that there is great usefulness in identifying the consensus when it exists for the purpose of exploring what, if any, opportunities it presents us to demand supply or supply demand. Contrary thinking is most helpful insofar as it emphasizes the necessity of knowing what is in

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[3] (Midway Publications, 1983) pp. 52–53.

the market and where you are in the market. Neill himself was careful to emphasize that contrary thinking was an art that, when well practiced, served as an antidote for the general fundamental forecasting that produced such unsatisfactory results. As practiced by Neill, contrary thinking was not a system, but a method of avoiding the pitfalls of falling into the consensus at the wrong times. It is a qualitative approach to market analysis.

Contrary opinion, as a form of fundamental analysis, has promise provided it is practiced in the context of the purpose of the speculator: to supply demand and demand supply. However, no matter how distasteful the conclusion is, we must face up to it:

In the end, you still have to decide where you are and where you are going.

7 MARSHA'S $12,000 RAINCOAT

One speculator's approach to the problem of speculation

Remember my friend Charlie from Chapter 1? Well, my girlfriend Marsha says if I put Charlie in the book, I have to put her in too.

In September 1984, Marsha returned from a trip to England with a gift for me: a British military raincoat. The raincoat would have sold here for about $65.00, but Marsha had paid only 10 British pounds for it, which at that time could be translated into about $12.00. I couldn't believe it.

How could Marsha spend only $12.00 dollars on me?

Just kidding, Marsha.

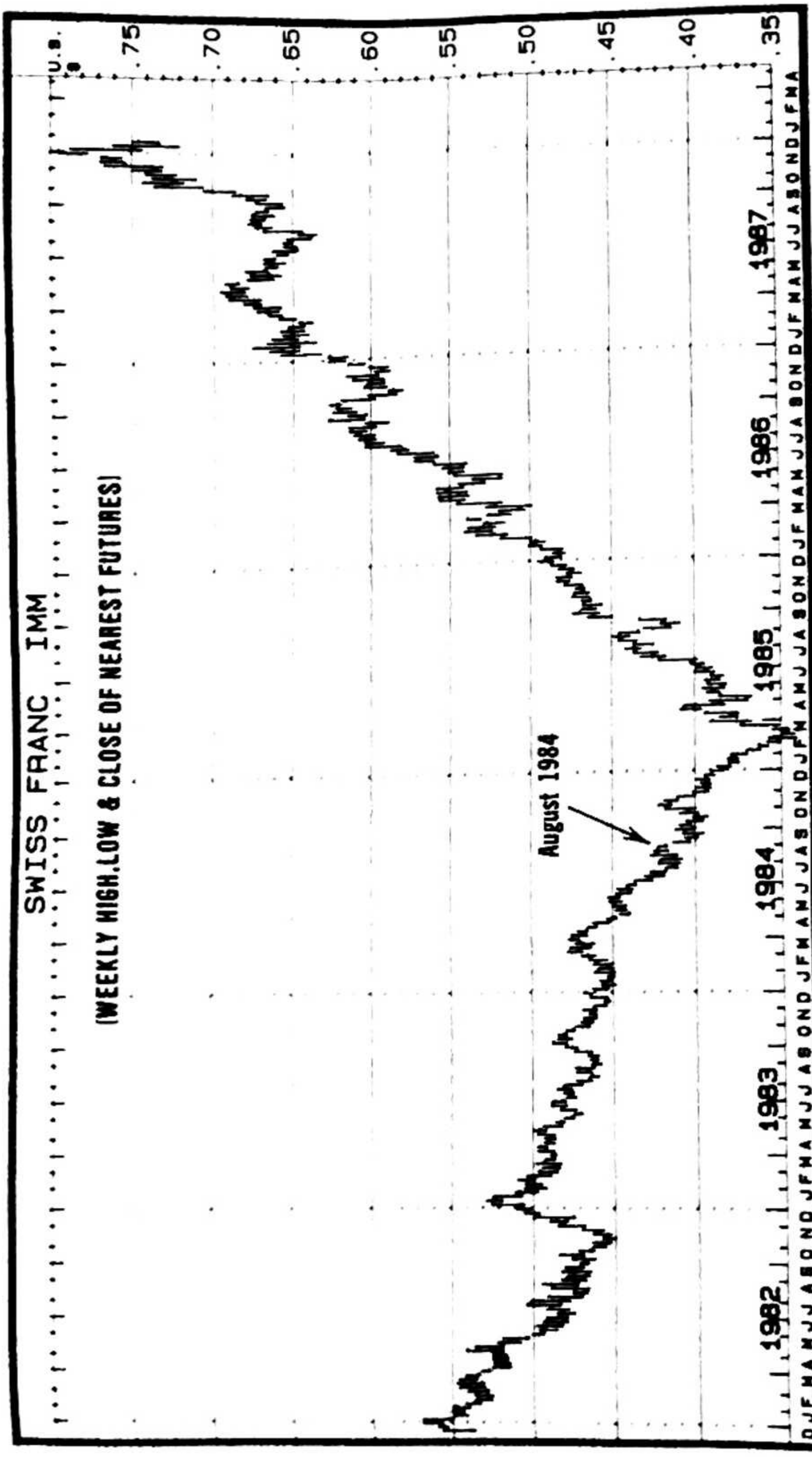
What really surprised me was that such a fine and beautiful coat could be purchased for only $12.00. Could the dollar be so strong?

Figure 7.1 compares the dollar to the Swiss franc.

At the time the dollar was at a five-year high.

Of course, there were reasons abounding.

Real interest rates in the United States were substantially higher than in other western industrialized nations, primarily because of the tight monetary policy that Volcker implemented to rein in the inflation that had run wild in the late seventies and early eighties. Higher real rates meant that foreigners who acquired dollars could obtain higher real interest (after adjusting for inflation) on their dollar investments than they could by holding their own currency. Of course, the demand for dollars caused the value of dollars to rise, so holders of dollars not only earned higher interest but also realized substantial capital appreciation. The unusually high total return on dollar-denominated assets in turn further increased demand in a process that began to feed on itself.


SWISS FRANC IMM
(WEEKLY HIGH,LOW & CLOSE OF NEAREST FUTURES)
U.S.
.75
.70
.65
.60
.55
.50
.45
.40
.35
August 1984
1982
1983
1984
1985
1986
1987
DJFMAMJJASONDJFMAMJJASONDJFMAMJJASOND

Even very sophisticated foreign nationals were saying that the United States capital markets were "the only game in town," and that wealthy foreigners could never feel truly safe holding excess capital in anything but dollars. (Seems kind of silly in retrospect, doesn't it?) An all-news radio station in New York was airing a commercial that began with, "The dollar made another new high last night. . .". For two years running, Harrod's, the famous London department store, was advertising special charter flights for New York Christmas shoppers: It was cheaper to fly to London and buy your presents there than to purchase them in New York!

Fueled by our budget deficit and the high dollar, our trade deficit grew to unprecedented heights. Only laziness prevented me from adding to it by importing carloads of those raincoats for resale here. (It didn't stop some other more enterprising soul—I began to see the same coats in New York stores about six months later.)

It occurred to me that if the dollar didn't sell off soon, the trade deficit that we were running was going to throw the earth out of orbit. After all, the Japanese were throwing stereos and cars at us like there was no tomorrow. What they got in return was little green pieces of paper with a deceased president's picture on it.

Although its orbit remained intact, the world's economic picture was out of whack. In fact, the circumstances were so far out of whack that it seemed to violate the law—the law of one price, that is. The *law of one price* holds that, excluding transportation costs, where there are no barriers to trade, like goods must sell for the same price everywhere. If they don't, some enterprising *speculator* is going to buy the cheap goods, cart them over to where people are paying more for them, and sell them there.

Consider the raincoat example. The dollar is too high, relative to the British pound. British goods are inexpensive to Americans. Americans get on planes and fly to England where they sell dollars and buy British pounds to purchase raincoats. The English do not purchase a like amount of American goods because the American goods are too expensive. Trade is one way. Dollars go out to England, raincoats come into the United States. Dollars go down under the selling pressure, while the increased demand raises the British pound. When equilibrium is reached, the British goods will cost about the same as American goods. Trade balances.

The dollar had to stop going up and start going down.

I decided to sell dollars against the Swiss franc. I selected the Swiss franc instead of the British pound because the British pound seemed to be

fluctuating with oil prices and I didn't have a view on them. The important point was that I wanted to sell the dollar against a major currency that had a large trade surplus with us.

I would have picked what looked like a good spot on the charts to buy my Swiss francs anyway, but the markets were even more cooperative. Recognizing that my job as a speculator is to sell (in this case dollars) into demand, I was looking for an event that would cause the last dollar buyers to come rushing into the market. I thought I had one: Right before the August refinancing, the United States changed its withholding regulations so that foreigners owning U.S. Treasury bonds were no longer subject to withholding tax. Such an event would even further increase the attractiveness of dollars since they could now be used to purchase U.S. Treasury bonds on a more favorable basis. *I was selling what everybody wanted. I was supplying demand.* I would buy those dollars back cheaper, when nobody wanted them anymore, if I could. It seemed like a very good trade, indeed.

Only one little problem. Foreign demand for dollars was seemingly endless. The change in withholding laws didn't flush out the last of it. The dollar continued to rise.

I took my loss and waited.

One day, about six months later, after I finished working out, I decided to buy an apple at one of those Korean fruit and vegetable stands that seem to be on every corner in New York City. I paid what appeared to be a normal price (I don't remember what the price was.) I polished the apple on the sleeve of my flannel shirt. (I hope my mother isn't reading this.) I was about to bite into the apple when I noticed a little sticker on it. The sticker said "France."

The sticker didn't say "I love New York." The sticker didn't say "Big Apple." The sticker said "France."

Now you may or may not know this, but we have, right here in the New York, New Jersey, and Connecticut area, about the best apples you can buy. This is Johnny Appleseed country. All you have to do is get in a car and drive about 30 minutes and you can pick your own. You don't have to drive to France.

The dollar had to come down.

I sold dollars again.

The dollar went up and I took another loss.

It took one more try before I got one that stuck. When I finally did it

was a good one. I owned Swiss francs long before the Group of Five[1] decided to make life much easier by pushing the dollar down. A $12 raincoat turned into $12,000 per contract.

Nice raincoat, honey.

A METHOD OF SUPPLYING DEMAND AND DEMANDING SUPPLY

There is a very specific method to the Swiss franc trade, one that reflects my own preferred approach to taking money out of the markets. I will explain what that method is and why it works in a moment. First, we need to draw together the elements we analyzed in Chapters 3 through 6, so we can detail a framework for successful speculation.

In Chapters 2 and 3, we identified the important role of the speculator in a free market economy: to demand supply and supply demand. We noted the importance of identifying where the demand you were supplying and the supply you were going to demand are going to come from. These simple concepts are the cornerstone of speculation; everything else must flow from them. We even went so far as to conclude that no speculative approach can succeed over the long run (except by pure luck) unless it addresses these two criteria. And we noted with amusement in Chapter 1 that it was not necessary for successful speculators to understand why they succeed so long as they do their job.

In Chapter 4 we discovered that every solution to the problem of the markets creates a new problem requiring a new solution. We saw that many approaches to market analysis failed to take this into account. On the other extreme, we saw in Chapter 5 how the efficient market theorists wrongly concluded that no approach to the markets could succeed. Then we drew the correct conclusion: *Whatever method is used to supply demand and demand supply must be sufficiently flexible to address the essential, self-correcting element of the markets.* While we stopped short of ruling out

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[1]The Group of Five is the affiliation of the United States, Japan, West Germany, England, and France for the purpose of coordinating economic policies to meet common objectives. In September 1985, the G-5 nations agreed to work more closely than before and to coordinate efforts to achieve a lower dollar. Immediately after the September 1985 meeting, the dollar, which had begun to decline several months earlier, fell rapidly against most major currencies.

technical approaches as an absolute matter, we noted the difficulties inherent to looking backwards for the solution to today's problem, as do technical approaches. We identified fundamental analysis as being preferable because of its forward-looking nature, but noted that using information that was already in the market would get us nowhere. We considered contrary thinking and concluded that its utility was other than as popularly practiced: We doubt the efficacy of acting contrarily for contrary's sake, but recognized how it could help us identify what's in the market and what's not. Ultimately, we decided, you still have to decide where you are and where you are going.

Now, let's take another look at the Swiss franc trade, this time breaking it down into a few essentials, to see how it fits into an approach that is based on the foregoing.

1. *How was I doing my job as speculator?* My belief was that *demand* for dollars, which was mainly based on high real rates of return on dollar-denominated assets, *was at unsustainably high levels*. My objective was to supply this demand by selling dollars.
2. *What change in supply/demand was I anticipating?* My thesis was that the U.S. trade deficit would overwhelm the investment demand for dollars by supplying the world with more dollars than it could hold. The self-feeding process of purchasing dollars to buy bonds and other dollar-denominated assets which buy more dollars would necessarily come to an end. The result would be a reverse cycle of dollar selling that would cause dollar-denominated bonds and other dollar-denominated assets to yield negative returns when calculated in appreciating foreign currencies, which in turn would cause further dollar selling. In the end, the demand for dollars would shift from one dominated by investment utility to one dominated by trade utility.
3. *From whom was I going to earn my speculative rewards?* I was supplying dollars to foreign governments (who wanted a high dollar to fuel their export-based economies), giant multinational corporations (who sold us the consumer goods in return for dollars), and individual speculators. As it turns out these are very beatable categories of opponents. (Why this is so will be explained in Chapter 10.)

Many other questions need to be asked and answered before a trade is considered, but those will be discussed later in the chapters on trading tactics. For the purposes of arriving at an understanding of speculative theory, these are the big three:

How am I demanding supply?
How am I supplying demand?
Who is going to pay me for the service I am providing?

Let's take another look at the silver trade my good friend Charlie made way back in Chapter 1 and see how it fits the structure.

Figure 7.2 shows what a long-term chart of silver looked like in March of 1987.

In 1970 dollars, silver was at $1.50 when it traded for $4.90 in 1986! Anybody can see that prices were very, very low.

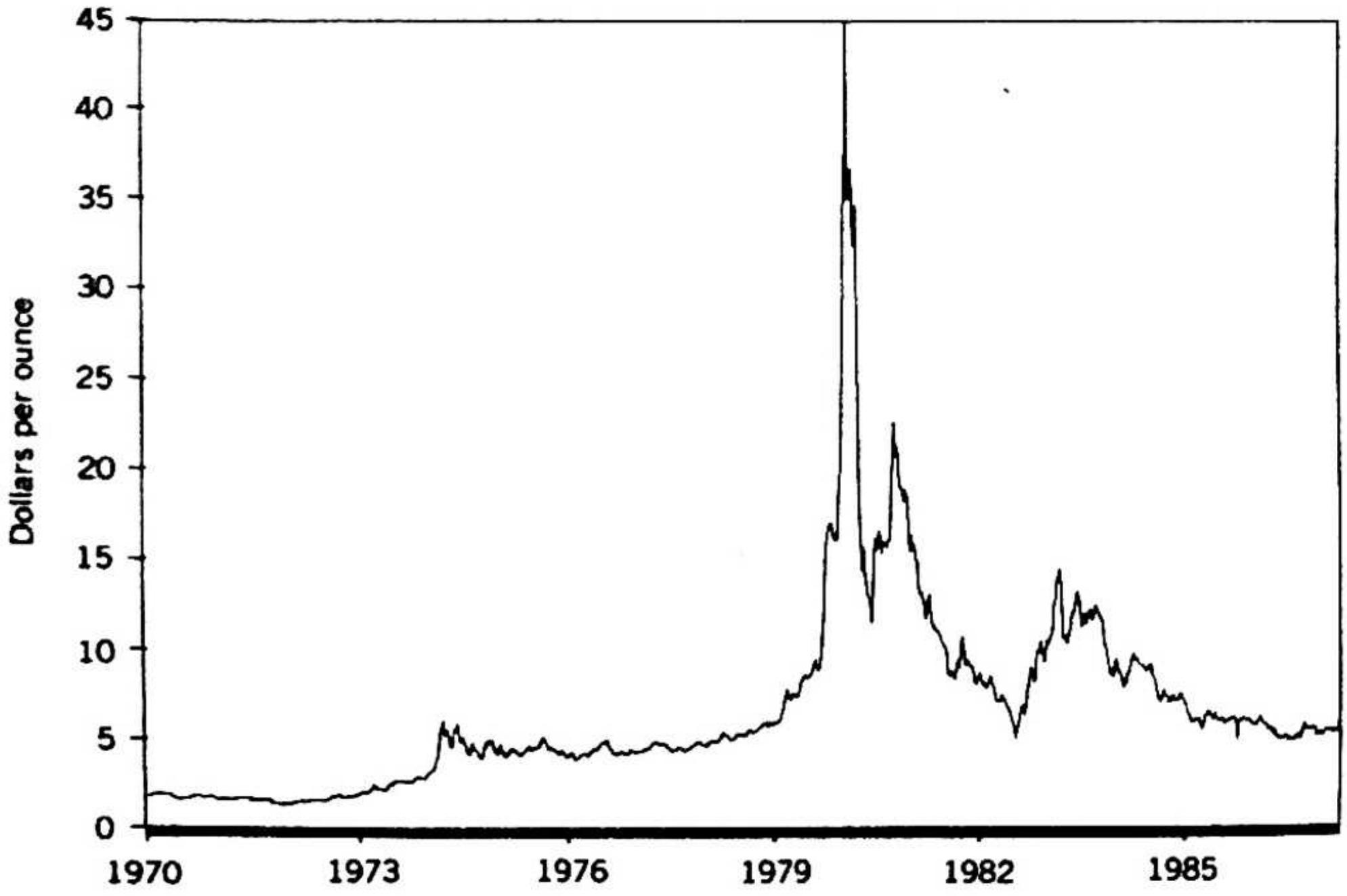


FIGURE 7.2. GOLD/SILVER FUTURES (COMEX, NEAREST MONTH) JANUARY 1970 THROUGH MARCH 1987.

This is the first clue that silver may represent a buying opportunity. But we need a lot more information than this to reach that conclusion.

Let's take a look at a five year balance table on silver:

SILVER WORLD SUPPLY AND DEMAND[1]

	1986	*1985*	*1984*	*1983*	*1982*
Supply					
New production	305.3	312.8	317.4	314.7	304.9
Secondary sources	76.8	108.7	87.3	119.8	113.1
Total supplies	382.1	421.5	404.7	434.5	418.0
Demand					
Consumption	403.5	369.9	362.0	360.3	358.2
Change in Stocks					
Change in stocks	(21.4)	51.6	42.7	75.6	59.8

[1]Source: Handy & Harman. (Excluding communist-dominated areas. In Millions of Troy Ounces.)

The table gives us our second good indication. Look at the additions to silver stocks during the period from 1982 to 1985. The total additions amounted to 229.7 more than six months' consumption—and that doesn't count the addition to stocks in 1981. Also, according to the Bureau of Mines, total world reserves are estimated at around 11 billion troy ounces. So you can see that there's plenty of it around. That depresses silver, but makes us happy.

Now let's review what people were saying about silver at the time. If you did your homework (which you must do if you want to trade) or if you eavesdropped on my conversation with Charlie, you know that there were lots of reasons for the depressed prices silver was bringing in the market. Production was increasing, while consumption declined. This condition was so aggravated and obvious that it resulted in an article in a world-wide business newspaper on the theme that silver was no longer a precious metal. Silver's lost preciousness can be seen in Figure 7.3.

This chart appeared in virtually every research piece on precious metals. As you can see, throughout the 1970s, which were generally inflationary times, gold traded at 30 to 35 times the price of silver. But, at the bottom of the disinflationary 1980s, around the time of the *Financial Times* article, the gold/silver ratio was nearly 80. The most likely inter-

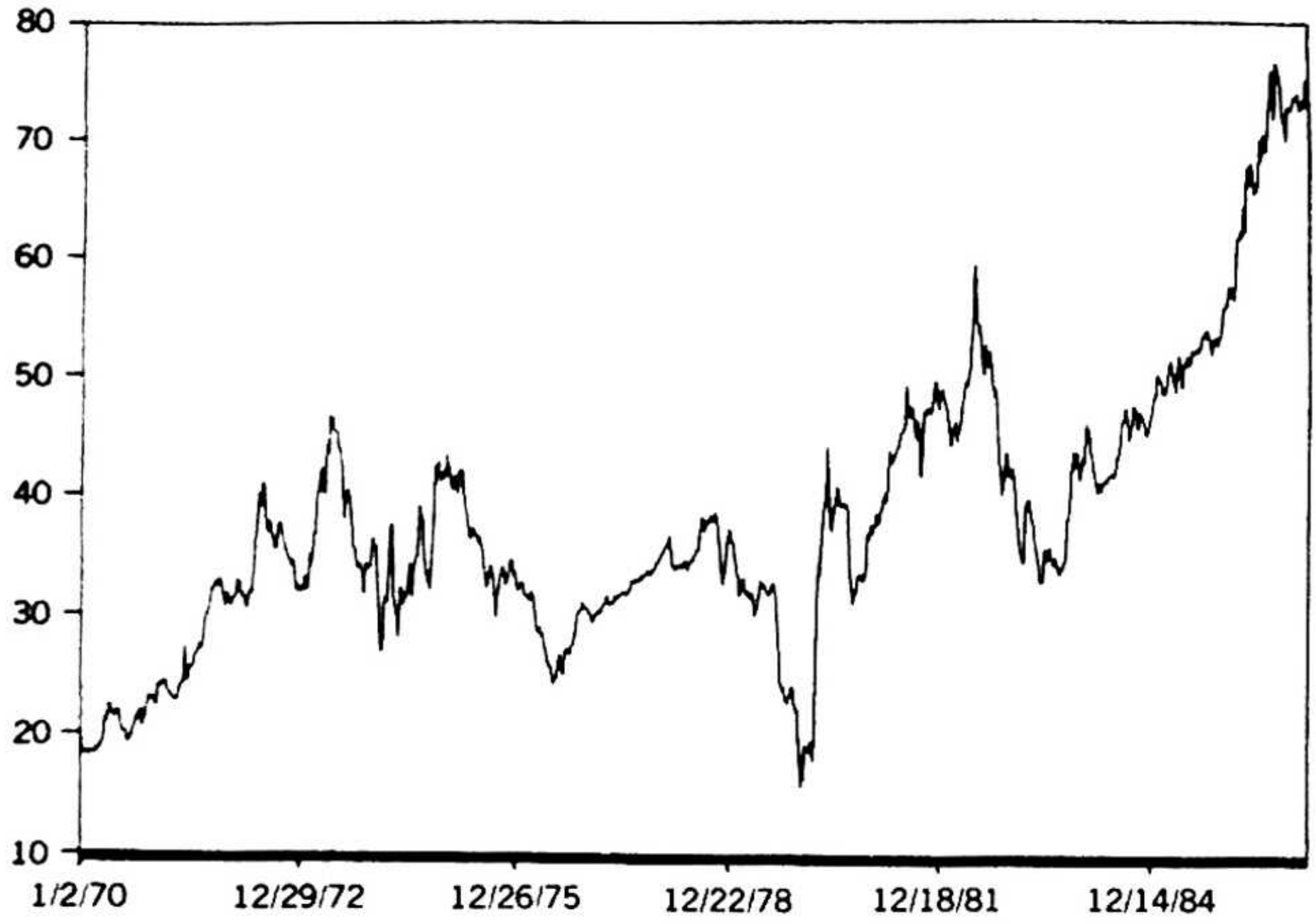


FIGURE 7.3. GOLD/SILVER FUTURES RATIO (COMEX, NEAREST MONTH) JANUARY 1970 THROUGH MARCH 1987.

pretation of this state of affairs is that, in the inflationary 1970s silver was considered to be a precious metal worth about 1/35th of the price of gold, but in the 1980s it was considered to be an industrial metal worth only a much smaller fraction of forever-precious gold.

If silver was really no longer a precious metal, then somebody forgot to tell Tiffany & Company.

There was another clue. As silver languished, volume declined dramatically. The following table shows volume in silver futures traded on the Comex during the relevant period:

1984	6,698
1985	4,821
1986	3,850

The low volume tells you that there is no trade occurring. It probably means nobody wants the stuff, which means that we probably do.

So all the ingredients were there: low price, plenty of supply, total lack of demand, bearish news, bearish consensus.

Conclusion: Nobody wanted to own silver.

What do we get paid for? Buying what nobody wants, when nobody wants it.

Now, please understand a few very important things.

The fact that we identify these factors and do our job by demanding the supply doesn't mean that prices are going to turn around immediately. In fact, bottoms usually seem to take forever to end and are given to many false starts. To make these trades successfully you have to be extremely patient. You have to buy it and forget you own it.

And here is something even more important to keep in mind. The fact that all the bearish news is in the market doesn't mean prices can't go significantly lower. I first bought silver at about $6.20 an ounce in December 1985. Apparently, price had not declined far enough and stayed low long enough to reduce production and encourage new demand from consumers. I had to suffer through a decline to just under $5.00 (I bought some more) and wait more than a year before the trade worked. But where could silver go at that point, really? $4.00? $3.00? And what is the up side? Silver traded as high as $50 per ounce in 1979.

You know what happened with this trade. If you don't remember, go back to page 3 and read it again.

Now let's review the trade in light of the three big questions.

1. *How was I doing my job as speculator?* Unlike the dollar trade, which I initiated by *supplying demand*, I initiated the silver trade by *demanding the supply*.
2. *What change in supply/demand was I anticipating?* The silver trade was cyclical. Purchases were made during a time of high production and low consumption in anticipation of a change in the cycle to reduced production (mines are closed at or near the bottom) and high demand. Possible causes of a turnaround included an economic boom (which, at the time the trade was initiated appeared to be forecast by the stock market for 1988) and/or a period of higher inflation which causes people to devalue dollars and favor precious metals.
3. *From whom was I going to earn my speculative rewards?* This is another way of asking: Since you bought what nobody wanted

when nobody wanted it, to whom do you anticipate selling it later on? In this case, the answer involves two categories of potential future buyers: speculators and consumers. Silver has a strong speculative following—when it goes up, speculators come out of the woodwork to buy it. Speculators and consumers will pay pretty much any price for silver once they decide they want it.

Remember an observation that we made in Chapter 5. The best trades will occur when there is no good reason to buy other than prices are low and there's too much supply around. If you can look out there and see some specific fundamental reason for future demand, then chances are near to perfect that the market can see it too. If it does, then it is reflected in the purchase price that you are paying.

Note too that there is an important difference between buying supply and selling demand.

Buying supply is not all that hard. When you pick bottoms, you are frequently initiating your trade when interest is low and prices are drifting listlessly. Patience is critical. Mostly, you buy it and forget about it. How much money this requires is extremely important and will be discussed in Chapter 11 on money management. But the point is that buy-and-hold strategies at bottoms are the easiest to implement provided you are disciplined and patient. In the silver trade, I had to wait 15 months for it to go up; then it doubled in half as many weeks.

What about selling demand?

Selling demand is much harder for a very simple reason. Supply is quantifiable. As we saw in Chapter 3, demand is a psychological phenomenon. When the bulls get to buying, all reason can easily go out the window. Small misjudgments as to price or time can cost a fortune. If you are looking for a place to take a profit on a trade you initiated by buying supply, it's not so bad. You had an objective that included price and time and you are happy to achieve it. (The necessity for having these objectives is covered in Chapter 11.)

If you are trying to initiate a trade—that is, to go short into demand—then you have to recognize the nature of the strategy you are trying to employ. In this case, you are endeavoring to pick a top, the location of which is difficult if not impossible to identify with precision. The best you can do is look for specific news or events that will bring out (cause everyone who is thinking about buying to buy) the demand in a rush so

you can supply it. Alternatively, you can pick your spots based on chart points. In these trades, patience can kill you. You have to give the trade enough room (since you don't know exactly where the top is), but you have to be nimble enough to get out of the way of what may essentially be a runaway train.

It is important to note that the approach to supplying demand and demanding supply described in this chapter is just one of many possibilities. It is not being offered as the one and only way of beating the markets. And, if it were easy to learn, the markets would become efficient at it, and some other way to do your job as a speculator would have to be identified.

8 MONEY, THE ONLY COMMODITY THAT COUNTS

The role of money in formulating speculative strategy

In *Economics*, Samuelson and Nordhaus recount a story originally told by Stanley Jevons:

> Some years since, Mademoiselle Zelie, a singer of the Theatre Lyrique at Paris, gave a concert in the Society Islands. In exchange for an air from *Norma* and a few other songs, she was to receive a third part of the receipts. When counted, her share was found to consist of three pigs, twenty-three turkeys, forty-four chickens, five thousand cocoa-nuts, besides considerable quantities of bananas, lemons, and oranges. . . . [I]n Paris . . . this amount of live stock and vegetables might have brought four thousand francs, which would have been good remuneration for five songs. In the Society Islands, however, pieces of money were scarce; and as Mademoiselle could not consume any considerable portion of the receipts herself, it became necessary in the mean time to feed the pigs and poultry with the fruit.[1]

Aren't you glad they invented money?

Certainly, its invention made life easier for those of us who do not wish to eat our entire income for dinner on the day we earn it. But, as you shall see, there is a dark side as well—the invention of money has complicated somewhat the business of speculation.

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[1]Samuelson and Nordhaus, *Economics*, pp. 266–267.

You will recall that, in Chapter 2, we discussed briefly the concept of money as a commodity valued for its utility in exchange. We made the point that money is a commodity and that, like all other commodities, its value depends exclusively on the importance people attribute to it. We identified the essential difference between money and other commodities: Money has *exchange value*, while all other commodities have only consumption value. And we saw how money evolved from brontosaurus burgers to gold to fiat money, the most common type of money in use today.

The discussion in Chapter 2 was a limited one, intended to introduce the role of money as the most common measure of price. The fact that, as speculators, we measure our success in money terms will profoundly affect our strategy. So, now that we have an understanding of what our speculative role must be, we need to return to a discussion of money, to examine its speculative implications.

The function of money in a free market society is a subject that requires volumes to explore fully. That is not the intention here. Our purpose in this chapter is to ensure that you understand the impact money has on speculative strategies. To do that we need to examine some of the factors that affect the supply and demand for money. Topics such as the role of money and monetary policy in the business cycle are not covered, not because they are unimportant, but because they are outside the scope of this book.

Let's take another look at money as a *measuring* medium. The following table sets forth the prices of a group of commodities on December 31, 1979 and 1984:

Commodity	*1979*	*1984*	*% Change*
Copper	107¢/lb	65¢/lb	−39.3
Cotton	67¢/lb	60¢/lb	−10.4
Gold	$461/oz	$319/oz	−30.8
Oats	187¢/bu	159¢/bu	−15.0
Soybeans	653¢/bu	607¢/bu	− 7.0
Sugar	14.9¢/lb	3.55¢/lb	−76.2
Tin	831¢/lb	566¢/lb	−31.9

A quick look at the table tells us that prices generally declined during the period; in fact, none of the commodities shown appreciated. You may

recall that 1979 was near the height of a long period of high inflation that followed the Vietnam War. By the end of 1984, the Federal Reserve's tight money policies had done their job of bringing inflation down from the double-digit levels that had prevailed in the late 1970s.

In the table, the commodities are priced in units customarily used. For comparison purposes, it is useful to convert all prices to the same unit, for example, cents per pound. So our table looks like this:

Commodity	*1979*	*1984*	*% Change*
Copper	107¢/lb	65¢/lb	−39.3
Cotton	67¢/lb	60¢/lb	−10.4
Gold	553,200¢/lb	382,800¢/lb	−30.8
Oats	5¢/lb	5.8¢/lb	−15.0
Soybeans	10.9¢/lb	10.1¢/lb	− 7.0
Sugar	14.9¢/lb	3.55¢/lb	−76.2
Tin	831¢/lb	566¢/lb	−31.9

Nothing has changed from the preceding table other than the fact that we have standardized our unit of price measurement. Of course, we can see that prices fell during the period. Right? Er, well, the answer is, *it depends on how you look at it.*

Suppose we lived on an island that didn't use dollars as money. Suppose we used one pound bags of sugar, instead. What would we say about prices on our island? Let's take another look at our table, this time using as our standard,"sugs," a new money equal to one pound of sugar:

Commodity	*1979*	*1984*	*% Change*
Copper	7.2 sugs	18.3 sugs	154.2
Cotton	4.5 sugs	16.9 sugs	275.6
Gold	37,128 sugs	107,831 sugs	190.4
Oats	.34 sugs	1.6 sugs	370.6
Soybeans	.73 sugs	2.8 sugs	383.6
Sugar	1 sug	1 sug	N/A
Tin	55.8 sugs	159 sugs	284.9

While prices were falling in the United States, where they use dollars as money, *prices rose across the board on our little island*. Why? Because our

sugs went in the tub. More formally, *because the supply of sugar, our unit of measurement, was outstripping demand for it at a faster clip than supply outpaced demand for other commodities*. Specifically, we can say that, in 1984, people placed a higher value on the commodities in the table relative to sugar, so, in sugar terms, prices rose. If we go back to our dollar table, we can see that people placed a higher value on dollars at the end of 1984 than they did at the end of 1979, relative to the commodities listed in the table.

Obviously, since dollars are our medium of exchange, we consider valuations relative to the dollar to be far more important than valuations relative to sugar, or anything else for that matter.

There are two important implications of our analysis. First, you can see that it does little good to consider the supply-and-demand picture of a particular good or instrument, independent of the supply and demand picture for money. Obvious as this might appear, it is no exaggeration to state that most investment professionals are consistently guilty of this error. Second, you can see that the concept of inflation is so vague as to merit avoidance. (Yes, I know that I used the term a couple of pages ago, but I promise not to do it again.) *Most of the time, money is rising in value against some things and falling in value against others.*

There is probably no more complicated subject in economics or trading than the supply and demand for money.

So far, we have used the term *money* in a very narrow sense. We have included commodity money and fiat money in our definition, but nothing more. *An absolute precondition for the retention of the value of money is the control of its supply*. When money is limited to commodity money—for example, gold—its supply is limited by nature. Gold is particularly valuable because there is not too much of it around. If, tomorrow, we discover a low cost way to remove gold from seawater, the value of gold will decline. If the supply of gold multiplies too much, then it may lose its money value altogether.

The same is true for paper or fiat money. The value of fiat money depends on the government preventing too much of it from being printed, legally and by counterfeiters. In societies that print up too much paper money, the value of money declines sharply and, after a while, the money ceases to be worth the paper it's printed on. Governments know this, and, as a result, try to keep very strict controls over the amount of money that is printed.

There is another category of medium that is not money in this strict sense, but has every bit as much impact on prices. It is called *bank money*,

because it is literally created by banks. Bank money includes various forms of credits issued by banks including checking and savings accounts.

How do banks create money?

Suppose you go to the bank and deposit $1,000. The bank has an asset, the $1,000 that you deposited, and a liability, the $1,000 that the bank owes you. Now I come along and tell the bank that I want to borrow $1,000 to buy a home. The bank lends me the money, taking back a mortgage for $1,000. Now the bank has an asset, my mortgage of $1,000, and a liability, the $1,000 that it owes to you. Then I take the $1,000 that I borrowed from the bank and buy my house. The guy from whom I buy the house takes the $1,000 and goes to his bank and deposits it. His bank now has an asset of $1,000 (the $1,000 he deposited) and a liability of $1,000 (the $1,000 the bank owes him).

Let's stop right here and count up everyone's money. You have $1,000 on deposit at your bank. The guy who sold me my house has the $1,000 I paid him on deposit at his bank. I don't have any money, since I spent the money I borrowed on my house. So the total money in our little economy is $2,000, consisting of $1,000 of fiat money that you deposited and $1,000 of bank money that was created when I borrowed to buy my home. Your $1,000 turned into $2,000 at the bank!

Note that the banks did not create commodity money or paper money. They didn't create capital, goods, or services. They created credits that are used as substitutes for money in the narrow sense. The economic effect of the bank's action was to *transfer* capital from you to me. The monetary impact was almost the same as if the government created money by printing up paper. I say "almost" because, unlike fiat money, bank money can be destroyed just as fast as it is created by reversing the credit process. In other words, when people pay back their debts, they eliminate bank money.

Of course, this set of circumstances has not gone unnoticed by the government. It would be unusual for a government to be willing to permit private institutions to enjoy unlimited control over so important a commodity as money in view of the possible consequences. In the United States, the method we use to control the creation of bank money is called the *reserve requirement* system. In our system, member banks are required to hold a percentage of each deposit "on reserve," which means that it may not be lent. If the reserve requirement is 10 percent, then a bank can only lend $900 for each $1,000 it receives on deposit. You can see that, in

this system, each deposit can result in the creation of bank money only in the amount of a portion of the deposit. For example, with a reserve requirement of 10 percent, a $1,000 deposit can yield a loan of $900 which, when deposited in another bank, can yield a second loan of $810, which in turn can support a loan of $729, and so on, until no more money may be created. If the reserve requirement is raised, the amount of money that can be created declines.[2]

Most people, economists included, consider various forms of the pool of money in the broad sense as part of the supply of money. For example, M1, the basic money supply, is defined as coins and currency held outside banks plus checking account balances. M1 purports to measure the supply of money that people use for the purpose of making transactions. M2, the broad money supply, includes M1 plus savings accounts, small-time deposits, and money market funds. Some economists consider even broader measures to be most relevant for *monetary policy considerations and forecasting* and would include all credit regardless of the type of financial instrument embodying it. Depending on the subject of your inquiry, it might make sense to regard all *liquid* forms of investment, including stocks and commodities, as a type of money or, at least, as having the potential to affect business cycles the way money does, since they can be used for credit purposes or quickly converted into money.[3]

The existence of bank money distinguishes money from other goods and services in another important way: Within certain limits, consumers of money (including producers of goods and services) can *create their own supply* by going to the bank and borrowing. So the supply of money is intimately connected with the demand for it in a way that supply and demand for other goods and services are not. Of course, the factor that limits how much money we can demand is our credit.

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[2]There is an equation that tells you how much money can be created for a given reserve requirement:

$$B \times 1/R = M$$

where B = the amount of base money to be multiplied
R = the reserve requirement
M = the maximum amount of money that can be created

In our example, with a 10 percent reserve requirement, ten dollars of money can be created for each one dollar of base money:

$$\$1 \times 1/.1 = \$10$$

[3]In this regard, it is interesting to note that stock market declines may *contribute* to (as well as discount) recession in the same way that a contraction in the money supply does.

The factors that affect the demand for money are more difficult to analyze. Demand for money differs from demand for other goods and services because money is valued for its use as a medium of exchange. A corollary use of money, which we have not hitherto mentioned, is its use as a store of value. Remember the problems poor Mademoiselle Zelie faced when her compensation began to consume itself? If she could have converted the pigs, poultry, and hogs into francs, she could have saved her compensation indefinitely. So people will hold money for use in transactions and as a store of value.

There is a cost of holding money that dramatically affects the demand for money. If you put your money under your pillow and come back a year later, you can expect to find the same numerical amount there. If, instead, you buy a U.S. Treasury bill that matures in a year, you will receive the amount of your purchase plus interest. So the cost of holding money is the opportunity you lose by refraining from investing it. The higher the rate of interest, the greater the lost opportunity and the more you will be inclined to invest your money rather than hold it. Note also that high interest rates increase your reluctance to borrow money for investment or consumption. So high interest rates tend to cause the demand for money to decrease. While interest rates affect demand, they do not determine it entirely. Other factors such as confidence in the continued exchange value of money and the business outlook are important.

We said that the term *inflation* was so vague as to be without significant meaning and was to be avoided wherever possible. Samuelson and Nordhaus define *inflation* as follows:

> The inflation rate is the percentage annual increase in a general price level, commonly measured by the Consumer Price Index (CPI) or some comparable price index. Hyperinflation is inflation so severe—1000, 1 million, or even 1 billion percent a year—that people try to get rid of their currency before prices have risen further and rendered the money worthless. Galloping inflation is a rate of 50 or 100 or 200 percent annually. Moderate inflation is a price level rise that does not distort relative prices or incomes severely.[4]

The rather loose descriptive nature of the definition underlines the amorphous nature of the concept. Perhaps a more accurate definition

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[4] Samuelson and Nordhaus, *Economics*, p. 907.

would be that *inflation is an increase in the supply of money relative to the demand for it*. Obviously, such a definition is not especially useful from the standpoint of policy or speculation. But it does serve to help focus on the real issues, which, for the speculator, are the supply and demand of the object of speculation relative to the supply and demand for money. The importance of this perspective is obvious when you consider that, in a nonbarter society, every trade involves a purchase of a good or instrument *and a sale of money*.

As you can see, making up your mind that, due to a particular set of monetary conditions, there will be a lot of inflation does not in itself have much significance in formulating speculative strategy. You have to decide that conditions are such that people will value the good you are considering more or less than they will value money.

A glaring example of the importance of this distinction is the trap that the monetarists fell into early in this decade. Reviewing the national debt, budget deficits, and growth of money supply from 1982 on, the monetarists forecast a resurgence of inflation early in the decade, and when it did not materialize, the monetarists were discredited. The irony is that they were not really wrong about the decline of the value of money. They just misjudged what it was going to decline against. The money that was created didn't go into raw commodities. It didn't go into consumer goods. It didn't go into wages. Instead, it went into stocks and bonds in such large quantities that the greatest bull markets in stock and bond history resulted. The Dow Jones Industrials rose nearly 400 percent in six years, a stock market inflation rate of more than 25 percent per year. Compared to the stock and bond markets, the CPI hardly budged. You can see how misleading the term *inflation* can be.

The example of the monetarists illustrates one of the most important problems the speculator faces. There will be times when you can foresee that the supply of money will increase relative to the demand for it, and, as a result, you will conclude that prices can be expected to rise. As a speculator, you may decide that under the circumstances your job is to sell money while the demand for it is relatively high, in anticipation of future increases in supply. So far so good. But what are you going to sell it against? Sometimes, the answer is not too difficult—it may be obvious to you that gold or foreign currencies represent a desirable trade. But, often the answer cannot be anticipated with accuracy. *In such cases, you will have no recourse other than to watch the markets carefully and to make sure that you own the things that are going up.*

As a speculator, you cannot afford to make the mistake that the monetarists made—that of asking the wrong questions. Instead of asking whether there will be inflation or deflation, ask where the money is going to come from and where it is going.

Here is the important conclusion for you to reach about money: Since goods are priced in monetary terms, doing your job as a speculator requires that you not only demand the supply and supply the demand of the goods in question, but that you consider the monetary environment as well. Buying copper because there's plenty of it around and nobody wants it is generally a good idea. But, if you expect the monetary environment to be hostile because we are late in an expansion, your copper may not go up much or may decline in money terms (although it may outperform other goods). Remember, as long as there is law and order, money is the only commodity that counts.

While this is by no means easy, it's not quite as hard as it sounds. Important clues to monetary conditions appear in the business cycle. These are explored in the next chapter.

And there's one more thing you should remember. The next time your boss hands you your paycheck, be glad he didn't give you 3 pigs and 23 turkeys.

9

A PREVIOUSLY OVERLOOKED USE FOR SHIRT CARDBOARD

The importance of business and other cycles

Several years ago, I was riding the train to Connecticut and, as I often do when I have downtime, I found myself thinking about the markets. That morning I wasn't focusing on any particular problem; instead I was trying to think in as broad terms as possible. At the time, U.S. Treasury bonds were well into what would prove to be the greatest bull market, buoyed by accommodative monetary and fiscal policy. The dollar was still rising, though I had begun to suspect that the end of its bull market was near. Even back then I was not alone in recognizing the problematic nature of our so-called twin deficits, although it might have been the minority view to consider them to be the dominant influence on our economy for the foreseeable future.

Thinking out as far as I could, it was clear to me that we were unlikely to balance our budget within the foreseeable future (if ever). At that time, I was not so smart as to fully appreciate the intractable nature of our trade deficit. In any case, the one thing that seemed then and continues to seem most probable to me today is that our attempted solution to these enormous problems will be to practice inflationism. If we devalue the dollar, then the real value of all our debts is also devalued. This is probably politically more acceptable than balancing the budget, with the required reduction of entitlements.

As my ideas coalesced, my mind began to race so fast that I became concerned that I wouldn't be able to retrace my thinking. Since I didn't

have any paper with me, I did what any rational speculator would do: I yanked the cardboard out of a shirt I had in my bag. I drew a chart on the cardboard. Parallel to the width was the axis that represented price. Parallel to the length was the axis that represented time. I sketched in lines representing bonds, the dollar, stocks, precious metals, and agricultural commodities. *There were no numbers on either axis*. I was concerned with identifying price direction and sequence, not specific price and time objectives.

The basic premise was simple: Inflationism would yield to bull markets in everything but the dollar; as the dollar declined in value, the price of everything else would go up. First to rise were bonds, and, as I said, they were well on their way at the time I drew the chart, riding the wave of easy money. About a third of the way across the chart I had the bonds topping out and declining as they recognized the inflationary aspects of the accommodative money policy that caused them to rise in the first place. Also starting up before the time of the chart was the stock market. On the chart, the stock market rose about halfway across the page—some time longer than the bonds—then sold off and then fluctuated with a slight upward bias the rest of the way. The dollar was represented by a line that started at the upper left-hand corner and declined relentlessly to the lower right-hand corner. In other words, I had the dollar topping out pretty early and entering into a bear market that extended across the chart as far as it would go. Precious metals bottomed about one-third of the way in, near the place where the bonds made their top, and then rose the rest of the way. Industrial commodities traced the same pattern as the precious metals but began their ascent a little later. Last but not least, the agricultural commodities followed suit.

My chart looked something like Figure 9.1.

As it has developed so far, that shirt cardboard was pretty prophetic, but don't underestimate the amount of luck involved—it is by far the most important element when making forecasts that extend out more than a few months. Also keep in mind that it doesn't take a genius to recognize that, in a democracy of fiat money, the most likely secular price trend is up. *And recognize that there were no price and time objectives in that chart, so it's a lot easier to look smart than it is to be smart*. It's one thing to have a general idea about what is likely to happen, but it's quite another to profit from it.

If the chart was really no big deal, then why am I telling you this story?

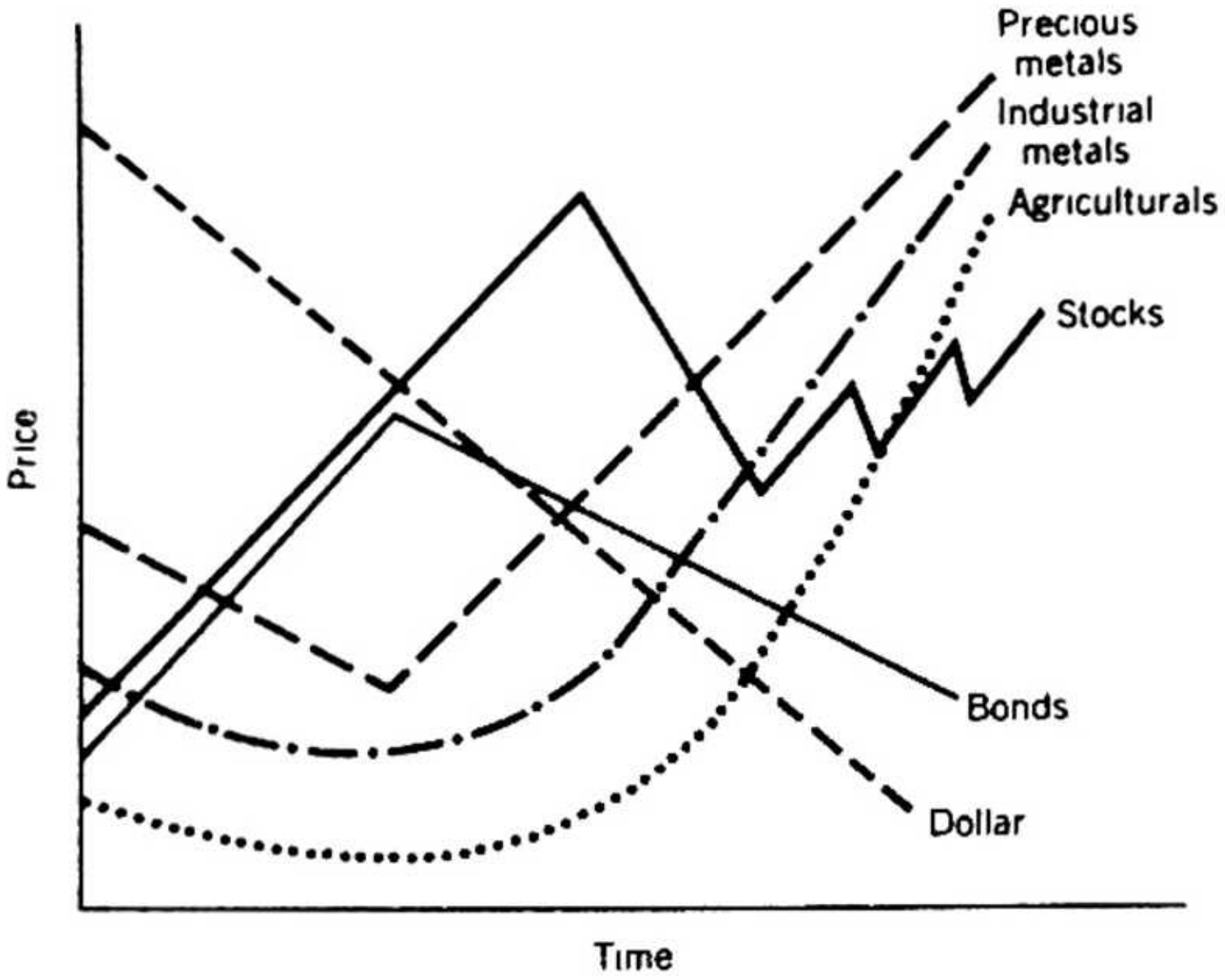


FIGURE 9.1. SHIRT CARDBOARD.

To make the point that markets move in fairly predictable cycles over the long run that frequently provide significant opportunities for astute speculators. Since this is the case, you will find it much easier to identify opportunities to demand supply and supply demand if you have a basic understanding of market cycles. It should be emphasized at the outset that every cycle is unique in both its economic determinants and its psychological aspects. Also remember that individual goods, whether they are stocks, bonds, commodities, or whatever, have their own cycles, which may or may not be synchronized with the market as a whole. And, just to make matters a little more challenging, you will find that these cycles are frequently so broad that you may be prone to forget that they are operative or be unable to decide where you are in them even when you don't. (One good way to minimize these last effects is to make a habit of frequently reviewing long-term charts—charts that cover three, five, ten years, and more.)

So, with all those caveats, we can propose a generic sort of model, recognizing at all times that things are never quite this way or this obvious.

BUSINESS CYCLES

Let's start with a model for the business cycle as a whole.

Imagine an economy that is operating at an optimum level. Employment is strong, so workers have ample amounts of money with which to purchase the things they want most. Demand for products is strong. Sellers are selling a lot of their products and are making good money at it. Producers, confident about the future, are reinvesting earnings in capital equipment. The wealth of the participants in the economy is increasing at a healthy pace.

As confidence increases, producers and consumers become more ambitious in their goals. Consumers want more goods than they can afford today, and since they have confidence in the way things are going, *they are willing to borrow to make purchases*. They begin to make increasing purchases of goods having marginal utility to them. Businesses are looking for opportunities to expand, and *they too are willing to borrow capital for their purposes*. To keep up with the growing demand of consumers, businesses increasingly produce marginal goods. Of course, these conditions are subtle.

Perhaps most important of all, banks are growing more confident too. Loan demand has been strong while debtors have been punctually repaying debts. The banks begin to grow more aggressive. They extend more loans to producers and consumers who, flushed with confidence that their success has wrought, demand increasing capital. (Of course, capital is not being increased nearly as fast as it is being transferred around.) The economy continues to grow. New factories are built. New wells are drilled and new mines are dug. Shopping centers appear where meadows used to be. Unemployment is at the lowest level in years. All things considered, conditions are pretty good.

The economy is booming.

There is only one little problem.

A lot of these new projects are not really very sound, because they are predicated on marginal consumption, which is in turn based on the naive assumption that the current favorable environment will continue indefinitely. The error begins with consumers who have borrowed, for consumption purposes, more than they can hope to repay unless conditions continue to expand. In increasing their loan portfolios beyond their cash deposits, the banks have effectively been creating money. They have

been injecting money into the system. But the money is created out of thin air. It is not true capital. It is more like Monopoly money.

The effect of the creation of so much bank money is to enable marginal businesses to compete with sound ones for scarce resources. As we saw in the last chapter, the effect of money creation is to reallocate capital resources. In this stage of the cycle, capital resources are increasingly *misallocated*. They are no longer deployed optimally to ration scarce resources among the competing needs of society, but instead go where the money is entering the system in the form of new loans—*much of which are extended to marginal suppliers of marginal demand*.

As marginal firms continue to compete with the sounder firms for raw materials, labor, and market share, prices rise. Suppliers recognize the heightened demand and increase their prices accordingly. Commodity prices rise. Suppliers hire more people and unemployment continues to decline. Laborers also recognize the demand for their services and require higher wages. Higher wages at first enable the laborers to purchase more goods. Higher wages also make laborers appear more credit worthy to the banks and credit card companies. Consumption increases even as prices are rising. The demand for money is at its peak—consumers want it, producers want it, and amateur speculators want it too. Things couldn't *appear* better for anyone, except, maybe, that the economy seems a bit overheated. But everybody is making a lot of money. The people are happy.

Then something bad happens.

New sources of supply, drawn out by higher prices, seem to hit the markets all at once. The new supply puts downward pressure on commodity prices, which reduces their collateral value. *Banks become unwilling to continue to fuel growth by extending loans,* since they now fear that they have extended too much credit on too little collateral. There is pressure on producers to reduce prices. Laborers are unwilling to accept pay cuts so profit margins shrink and employers are forced to lay off employees. Increasing unemployment causes demand for goods to shrink rapidly. Marginal businesses fail. Banks that have made large loans to marginal businesses are in danger and many of these fail too. Stronger businesses continue to produce, hoping the condition is temporary and that things will turn around soon. But an economy that just a few months ago seemed to be so sound is now revealed to have been a house of cards. *The economy cannot return to a condition of expansion because the expansion was*

based on the premise of continued expansion, a self-feeding bubble that has been burst. Many are forced to sell their products at less than the cost of production. Unemployment rises. Real wages are reduced. Supplies abound but there is no demand for them. Bankruptcies are common. The demand for money falls precipitously. Things couldn't appear worse. Gloom and doom are in the headlines. The people are unhappy.

Boom has turned to bust.

Then, after a while, something good happens.

Marginal consumption has been eliminated. The weaker companies and banks are gone from the marketplace. Production is low but it is conducted by sound firms. Prices are low too and so, little by little, demand picks up. But the demand is based on current affordability. *Although the cycle is at a trough, capital has been reallocated to optimally ration supply among demand.*

Interest rates, the cost of capital, are low so a few intrepid souls begin to open new ventures. These ventures cater to demand of consumers who can afford the product. The new businesses employ people who were out of work. The newly hired can now afford to buy goods that were previously out of reach. The condition of oversupply is gradually relieved. Prices rise above the costs of production so margins improve. More businesses open, employing more people who consume more. After a period of time, which may or may not be substantial, we reenter a period of sound growth. The cycle is complete.

We can summarize our model as follows:

Phase	*Description; Trade Level*	*Prices*	*Psychological State*	*Direction of Change*	*Credit Policy*
Phase 1	Sound growth, strong volume	Firm, well off lows	Confidence levels good	Up	Expansion of credit by banks
Phase 2	Prosperity, volume high	Higher	Confidence unequivocally strong	Up	Expansion of credit by banks

Phase	*Description; Trade Level*	*Prices*	*Psychological State*	*Direction of Change*	*Credit Policy*
Phase 3	**Boom, volume unsustainably high**	**Historically high**	**Euphoria**	**Down**	**Refusal of banks to extend credit further**
Phase 4	**Bust, panic, volume succumbs to quiet activity**	**Broken badly, lower**	**Hope turns into despair**	**Basing**	**Credit policy remains conservative**
Phase 5	**Rebuilding, volume slowly grows**	**Low, moving up after a while**	**Despair turns into skepticism**	**Up**	**Moderate credit policies**

Our job as speculators is to demand the supply and supply the demand. Obviously, in the context of our model of economic cycles, that means that our goal is to buy at the end of Phase 4 or the beginning of Phase 5 and to sell in Phase 3. If we can pick our spots carefully, we may have opportunities to buy on the way up, during Phases 1 and 2, but these trades require a very different approach from those made earlier in the cycle. The technical aspects of making trades in the different phases will be fully developed in Part Two.

As noted, it is frequently difficult to determine where you are in the economic cycle. And, even when you are able to do so, you may find that you are unwilling to take advantage of the opportunities that are presented. If you doubt me, take a couple of minutes and look at the chart. Focus on the psychological aspects of each phase. Think about how it *feels* deep into a recession, when the outlook is truly bleak. Remember your *job* is to be a buyer here, even a little earlier than here. Are you really going to want to do that? If you're human, then the answer probably is no. But if you are to carry out your noble function as a speculator, you must,

whether you like it or not. That is what makes your function so noble. If you want to get paid, you have to do your job. *In fact, in a general way, you will find that you get paid the most for doing the things that you least like to do.* If you want to be comfortable about it, then you'd better find a different job.

Think also about how things *feel* at the top. The economy is booming. Everybody's making a lot of money in their jobs and in the markets. Euphoria is the operative word. Your very human *greed* has been nurtured and stimulated into something almost beyond control. *You are going to be kicking yourself because you didn't buy more at precisely the time you should be selling.* You're going to be counting the money you could have made. You're going to be counting the money you are going to have next week, when the market is higher still.

The trouble is there are *hundreds of thousands* of people thinking and doing exactly the same thing you are. And, right here at the top, they are doing all the buying they are going to do for the rest of the cycle.

The truth is that, if you don't sell right now, you're not going to have any money at all.

If you find greed to be irresistible, I suggest that you go down to the nearest novelty store and buy one of those pigs' noses that all those Washington Redskins fans wear. Keep it handy for the times when you feel like you should have really loaded up because anybody could have seen that the markets were going to the moon. Put it on. Look in the mirror. Then go sell your stocks or bonds or futures to the other pigs.

Take your money out of your account and count it.

Nice isn't it?

Nobody said this was going to be easy.

And it's actually even a little bit harder than that, because, not only do you have to overcome the emotions you are guaranteed to be sharing with the crowd, but you have to be looking farther out than they are too. The process, when practiced at its best, involves an extraordinary amount of creativity. While the model we described is a good general description of things as they are, it is not sufficiently accurate to be useful for the measurement of current conditions. Consider how many times you have heard the lament, "The old rules don't apply anymore." Of course they apply. The problem is that they describe tendencies based on our old friend *ceteris paribus*. And, as we know all too well, *ceteris* never are *paribus*.

You can compensate for the ambiguities with a lot of hard work and creativity.

COMMODITY PRICE CYCLES

The same general structure described in connection with business or market cycles can be utilized in connection with individual commodities or other markets. When you use it, you should keep in mind that you are moving from the general to the particular, from the all-encompassing economy to a particular segment of it. The result is that the condition of the individual market may appear to present a particular opportunity that, in fact, is overwhelmed by circumstances that prevail in the economy as a whole.

Also, in assessing the opportunities provided by an individual market, some study must be made of the structure that governs that market. Every market has unique characteristics. In the case of commodities, whether they are perishable or storable, whether they have large speculative appeal or small, whether they are subject to government subsidies or supported by cartels, and a host of other factors are extremely important for their effect on the supply/demand structure.

INVENTORY CYCLES

Another important source of potential opportunities is the cyclical nature of inventories. To some degree or other, all economic units, you and I included as consumers or speculators, play an inventorying function. As we have seen, the business of speculation is the business of inventorying goods—buying goods from producers and later supplying them to consumers. If the business of speculation is inventorying, then the business of inventorying must be speculation. And it is. Businesses must continually monitor their inventories to assure that adequate production goods are on hand to keep them operating without interruption. Once the immediate needs of production are assured, businesses must determine whether to carry excess inventories and, if so, in what quantities. Two of the most important factors that govern these decisions are the perceived rate of inflation and the cost of carrying the inventory.

Ceteris paribus, when inflation is generally anticipated, businesses tend to carry large inventories. The idea is to buy production goods today, while they are relatively inexpensive, rather than pay the inflated price that is expected to prevail at the time the goods are actually needed for production. As indicated, consumers frequently make similar decisions.

Conversely, when inflation expectations are low, businesses and consumers tend to carry much smaller inventories. At such times, it appears rational to avoid the risk and other costs of carrying inventories that exceed immediate requirements because the anticipation is that goods can easily be purchased at reasonable prices when actually required.

Costs of carrying inventories include storage, risk of loss to the extent that the goods are not covered by insurance, insurance, and most important, *the cost of the capital that is tied up in the inventory*. Obviously, where a business can obtain a return by utilizing its capital in an alternative manner, it must consider as a cost the return it forgoes by using the capital to purchase inventory. Since businesses can always lend their money to the government at no risk, the risk-free interest rate can be assumed to be the minimal opportunity cost of carrying the inventory.

When *real* interest rates are high, businesses tend to reduce inventories to minimum levels. Conversely, when real interest rates are low or negative, inventories are most likely to be built.

The impact that a change in inventory psychology can have on price levels in an economy is nothing less than dramatic.

Consider the following model.

We are at the end of Phase 4 of our model of the business cycle. Supply is high. Prices of raw materials are declining. Inflation is low or nonexistent. Real interest rates are high. Dealers reduce inventories to minimal levels. Their selling (or where they merely work their inventories off, their refusal to buy) puts further pressure on prices. The decline in prices further heightens the desire to reduce stocks. *Inventory psychology is negative, resulting in destocking*. Note that this is precisely the time speculators begin to build their inventories.

Phase 5: Prices bottom and stabilize, but they are so low that they force marginal sources of supply out of business. Supplies are at record levels, but new supply slows to a trickle; only the best capitalized and most efficient suppliers remain in business. Real interest rates decline. The destocking process ends with inventories low. *Inventory psychology remains negative*. Again, speculators are buying.

The decline in interest rates that frequently coincides with this stage of the cycle ultimately stimulates activity. If liquidity is added to the system (as it is likely to be), activity picks up. We are now in Phase 1. Record supplies are worked off, slowly at first but then much more quickly than expected. Prices begin to rise in earnest as demand picks up and money is injected into the system. *Inventory psychology becomes less negative, but*

attitudes remain conservative and businesses are in no rush to increase their inventories.

Phases 2 and 3: The economy is in high gear. Businesses are expanding rapidly. Prices are skyrocketing. New supply can't keep pace with the increase in demand. Interest rates rise, but they are still low on a *real* basis. Now businesses fear inflation and shortages so they begin to increase their inventories. *Inventory psychology has turned suddenly more positive*. Since new supply is not added quickly enough, businesses compete with each other for existing supply, causing prices to rise and shortages to develop. This only heightens their need to increase inventories. Prices are at or near their cycle highs. Note that this is precisely the time speculators begin destocking.

The economy is at an unsustainable boom. Inventories fill up as the new supply that finally catches up with demand is absorbed as fast as it hits the market. Prices reach the top. *Inventory psychology is at its highest levels, but inventories are full so further additions are not possible*. At this stage, speculators who wish to do their job must be selling.

The waterfall of new supply that has been stimulated by high prices doesn't shut off simply because inventories are full. Mines that took years to open and factories that took years to build aren't closed overnight. Supply overwhelms demand. The price structure collapses. The inventory destocking process begins, culminating in panic destocking, and the cycle is complete.

As is the case with our model of business cycles, our inventory model is merely a heuristic device. Movement from stage to stage in inventory cycles is never so clear in reality. But the point to be made and remembered is that inventory capacity is large enough to dramatically affect price and, therefore, *anticipating changes in inventory psychology represents an important source of speculative opportunity.*

How large is inventory capacity?

Nobody really knows for sure. But in 1980, inventories were at 90 days forward usage while commodity prices were peaking. Of course, 90 days is 25 percent of a year's consumption. By 1986, commodity prices had fallen by 30 percent in real terms, and inventories were down to 30 days forward usage.[1]

If you still have doubts about whether inventory cycles can affect

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[1]See "Friedberg's Monthly Commodity and Currency Comments" (May 24, 1987).

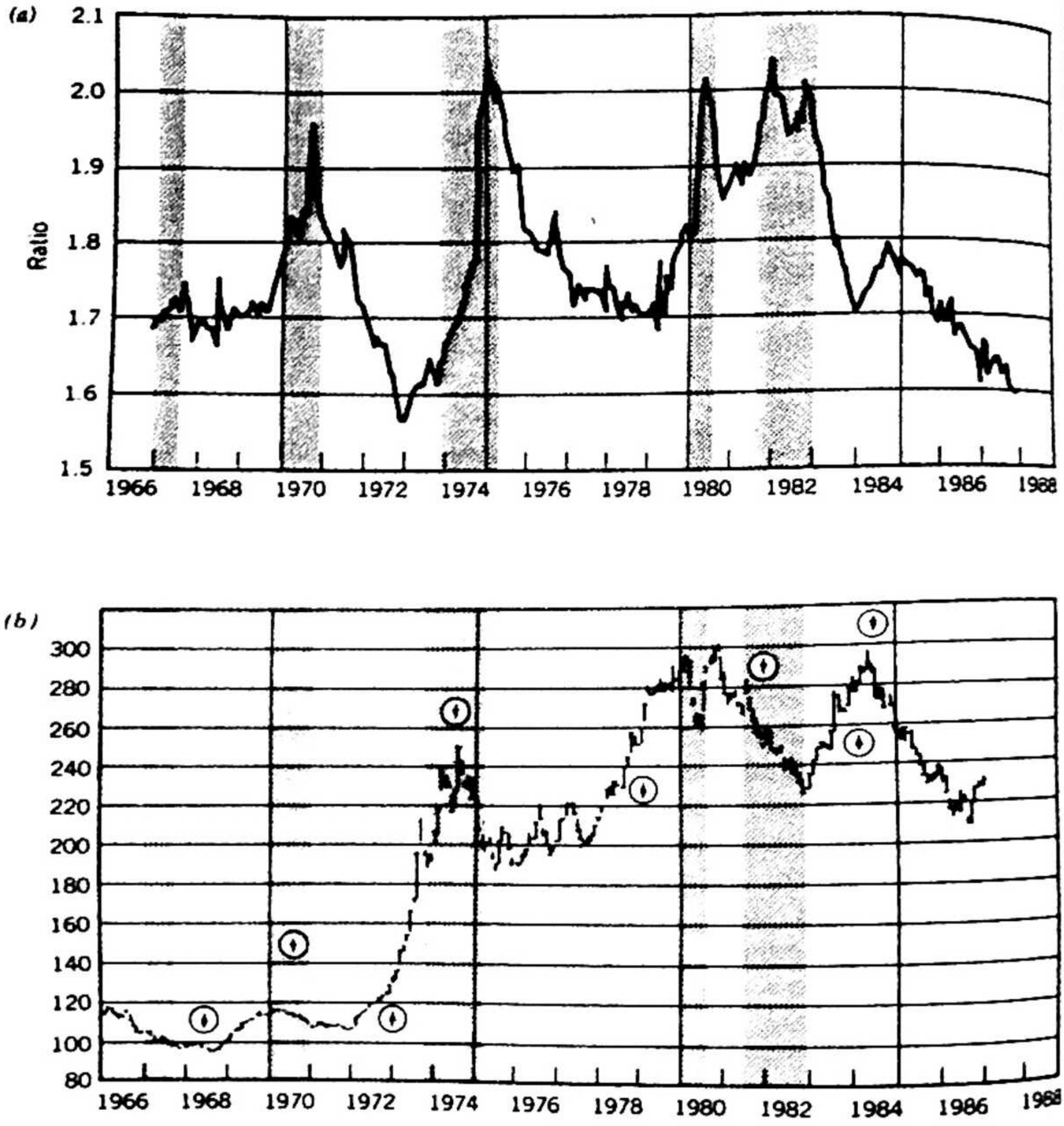


FIGURE 9.2. COMMODITY PRICES AND INVENTORIES. **Figure 9.2*(a)* shows the ratio of manufacturing inventories to total sales from 1967 through 1987. Figure 9.2*(b)* shows the CRB Spot (BLS) all-commodities price index from 1965 through 1986. In Figure 9.2*(b)*, the tops (↑) and bottoms (↓) of the inventories/sales ratio are indicated. Taken together, these figures show the important relationship between inventories and commodity prices. Figure 9.2*(b)* reprinted courtesy of CRB Futures Chart Service.**

commodity prices, consider the charts in Figure 9.2, which compare manufacturing inventories with commodity prices. Note that the last three commodity bull markets were accompanied by increases from relatively low inventory levels to very high levels.

How do changes in inventory psychology affect prices?

Since inventory psychology is especially sensitive to interest rates and inflation perceptions, it can change literally overnight. *Relative to inventory psychology, changes in production and consumption generally occur slowly.* The result is that the decision to reduce inventories from 90 to 30 days, for example, if made all at once, means that 60 days of additional supply is suddenly added to the market. Unless there is some countervailing factor, prices must come under pressure. In fact, what happens during these important changes in price structure is that dealers can effectively only sell their inventories to each other *or to speculators*, since demand from consumers is relatively slow to change. So, in the early stages of such a change, inventories are offered at successively lower prices without significantly reducing aggregate inventories. Of course, it is possible that declining prices will heighten the desire to reduce inventories in a self-feeding process. In any case, price must finally move low enough to encourage new sources of demand.

Where is this demand going to come from?

You guessed it—speculators.

In this case, speculators serve an obviously important purpose. As we know, the ultimate economic decision maker is the consumer. Since we are proposing a scenario in which the consumer is relatively slow to adjust to a change in prices, then the speculator is demanding the supply as a proxy for the consumer who, it is anticipated, will be showing up later with money in his pockets. The supply is moved from the dealers reducing their inventories into the hands of the speculators who now hold it in their inventories at a much lower price. *Ceteris paribus*, this lower price will either cause consumers to increase their consumption over time or will cause suppliers to reduce their production, or both. As either or both of these events occur, prices will rise and speculators will liquidate their inventories at a profit.

Note that, while speculators hold the goods in their inventories, they are subject to all the risks of ownership and adverse price change. The market should pay them for taking this risk, just as the market offers stockholders a risk premium over bondholders. And it does.

Keep in mind that, in the above description when we say speculators demand the supply at a low price and supply the demand at a higher price, we are referring to those speculators who have successfully solved the particular economic puzzle being presented by the markets in the particular case. In reality, in any given scenario there will be many speculators who buy too early, too late, or not at all. And there will be many who sell too early, too late, or not at all. These speculators will not profit as much as they could have or will lose money. *The reason is they failed to do their job as speculators.*

In sum, the markets follow cycles that reflect the cyclical nature of our free market economy. While each cycle is unique with regard to its economic, monetary, political, and psychological factors, cycles do have common characteristics that are worthy of note by speculators. Cycles provide major speculative opportunities. The key is to decide, first and foremost, *where we are*. Of course, the other important decision is *where we are going*.

And, the next time anyone asks you why you save all those shirt cardboards, just tell them you're a speculator. I'll bet they won't bother you again.

10 NEVER PLAY POKER WITH CANNIBALS

The necessity of determining the source of anticipated profits

It's Friday night and you're invited to your friend Jack's to play a little seven-card stud.

Jack has a poker room in his house. He owns a green felt poker table and casino chips. The room is full of memorabilia from his many trips to Vegas, Atlantic City, and other gambling centers. Photographs with gamblers, organized crime figures, entertainers, and athletes cover the walls. In the past, Jack has made a living playing poker, but he is now officially retired. He plays in the World Series of Poker from time to time and usually does pretty well. In short, he is a pro.

You are no slouch either. You have read the good books on poker and understand many of the finer points. You can hold your own with almost anybody. But you play infrequently. At best, you are a competent amateur. You are definitely not a pro.

The stakes are high enough for you to take the game seriously, but not too high to frighten you away.

You are faced with a question. Should you play the game?

Obviously, if the other players around the table are as good as the guy running the game, then you had better not play. There is no source of capital for you to win. *You are the source of capital*, like the guy who was invited to dinner by a bunch of cannibals and found out he was it.

On the other hand, suppose there are a couple of players with a lot of money who like to play for fun. They play a loose game. One of them is your friend Bill. Bill knows how to play better, but he just doesn't have

the discipline. He stays in pots when he knows he should fold. He is always seeing just one more card. It astonishes you that someone so smart could hand his money away so carelessly. As he loses, he repeatedly reminds everyone around the table, "Hey, it's just a game. Right?"

The pros at the table readily agree, but their play says they know better. "Guess tonight's just not your night, Bill," Jack says as he rakes in another pot that he wins in a showdown with Bill. "Your luck's bound to change soon."

Warren Buffet, one of the greatest of all investor/speculators, once noted: "If you're in a poker game for thirty minutes and you don't know who the patsy is, then you're the patsy."

You can beat the Bills of the world, but not the Jacks. The question is, should you play the game?

The answer depends on how much capital there is for you to win, keeping in mind that you are competing with some pros. Not only are they going to get the lion's share of the easy money, but they are going to get a piece of you too. Still, *if there is enough easy money to go around the table,* this is a game you want to be in.

Next, consider your strategy. You want to go head to head with the loose money players. You want to avoid showdowns with the pros, unless you know you have an unbeatable hand. Then you'll play against anyone. Of course, when you do have an unbeatable hand, you'll usually find that the pros have recognized that you have them beat and have exited early.

Although virtually no one recognizes it, speculation presents exactly the same issue. Before you enter into a trade, you must know from whom you expect payment when you win. Obviously, the answer has to be either the people who supplied the supply that you are demanding or the people who are demanding the demand that you are supplying. But that's no different from saying you're going to win money from the people you beat at the poker table. When you're playing poker, the question is whether your opponents *can be beaten* by you. In speculating, you must answer that question and another one: Is there an adequate source of capital in the markets that you can reasonably expect to acquire through your operations? If you cannot identify who possesses that capital or cannot articulate why he or she will be willing to give it to you, then you are probably better off doing something you understand.

Let's take a look at the participants that make up markets and see what implications the makeup of the markets has on the development of our strategy.

MARKET MAKERS

If we start on the exchange floors, we will find that, among the community of members who operate there are market makers, called *specialists*, in the case of the securities exchanges, and *scalpers*, in the case of the commodities exchanges. In the various over-the-counter markets, there are people located on trading desks who provide the same service: making a market in the instrument being traded.

Market makers are different from all other participants in the markets because it is in the nature of their service that they must be willing *to buy or to sell* at all times. Of course, if we are going to insist that they continually stand ready to make a two-sided market, then we will have to pay them for their services, and we do. In making such a market, market makers simultaneously offer to buy at one price and sell at a higher price. The difference between the bid and the offer is called the *spread*, and is usually small except in illiquid markets or when conditions are volatile. You decide whether you want to buy or sell; it makes no difference to the market makers. If there is an imbalance of buy orders or sell orders, the market makers quickly adjust the bid and offer to equalize the order flow. On a net basis over time, market makers are neither buyers nor sellers (except to the extent they require inventory to assure that they always have the security or commodity to sell). They make a living by earning the spread. The more transactions that they facilitate, the more money they make.

Take U.S. Treasury bond futures, for example. Bond futures are traded on the Chicago Board of Trade by a method called *open outcry*. This means that during market hours there is a continual market open to all floor members who trade freely with one another, subject to the condition that all offers to buy or sell must be made generally to the pit or ring where trading occurs. The open outcry system assures that anyone who wishes to trade with the person making the bid or offer is afforded the opportunity to do so. In the case of bond futures, the spread in the front month[1] is usually 1/32nd of a point, which is one tick, which amounts to $31.25, the minimum permissible price fluctuation. The market might be "92 02 bid, at 03," meaning that anyone wishing to buy must pay 92 and 3/32nds, and anyone wishing to sell will receive 92 and 2/32nds. If you bought one contract and immediately sold it before prices changed *you would not break*

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[1]The *front month* is the futures contract having the nearest delivery and is usually the most actively traded contract.

even but would instead have a loss equal to the spread, in this example, 1/32nd of a point.[2]

The same is true in the case of listed stocks, although they are traded in a different system, called the *specialist system*. In a specialist system, there is one or a small number of designated specialists through whom trading must be conducted. The specialists make a market at a spread. All transactions are made pursuant to a set of rules that assures that they will be fairly handled and are recorded so that they may be reviewed by the exchange or regulatory body having jurisdiction.

Keep in mind that the market makers are performing an extremely important function: They provide liquidity to the markets by always being willing to buy and sell. The only reason you can expect to get promptly filled on your orders is that someone is making a market in what you are trading. If there were no market makers, then orders might languish for some time or, more likely, until you lowered your asking price or raised your bid substantially. That is why you are willing to pay to market makers a spread.

It is revealing to note that the literature on market makers correctly attributes the willingness of participants to pay spreads to the fact that market makers provide liquidity, but that it has gone without notice that the nature of the liquidity function is one of *continually demanding supply and supplying demand*.

In fact, it is helpful to note that market makers are speculators just like anyone else. It is a misconception that market makers trade continually without regard for the future direction of price moves. Each time a market maker buys, he hopes to find a buyer to sell to at a higher price. Each time he sells short, he hopes for a seller to buy from at a lower price. In liquid markets, there are plenty of buyers and sellers around and only minor price changes are required to balance conditions, so market makers usually have no trouble offsetting their positions. As a result, the fact that market makers are speculators is often forgotten, and they are generally regarded as being a functionally different class of market participant. But the truth is that the distinction is quantitative rather than qualitative. Market makers get paid for demanding supply and supplying demand. They carry inventories that result from their activities. Their inventories

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[2]By its terms, a U.S. Treasury bond futures contract calls for delivery of $100,000 face amount of certain bonds. A price of 92 and 2/32nds means 92 and 2/32nds percent of $100,000, or $92,062.50. In the example, you can see that a purchase at 92 and 3/32nds and a sale at 92 and 2/32nds yields a loss of $31.25 ($92,093.75 minus $92,062.50).

are subject to the risks of the marketplace. The only real distinctions between market makers and other speculators are the frequency with which market makers trade, the short duration of their positions, and the small size of profit per trade that is acceptable.

Consider what happens when a large buy order comes into a balanced market. Market makers will supply this new demand, but they must raise their offer to reflect the size of the buy order. *From the time they fill the large buy order to the time they buy their position back in, market makers carry a short inventory position subject to the risk of the marketplace.* The larger the inventory (i.e., the size of the order), the greater the risk to the market maker. The greater the risk, the wider the spread that the market maker must charge the quantity buyer. The same is true when a large sell order enters the market, although the process is reversed.

Once the demand represented by the large buy order has been supplied by the market makers, the spread returns to normal. The market makers will even out their short inventory position by buying back an amount equal to the quantity sold. If they have priced their service correctly, they will be able to purchase their offsetting position at a price that is less than the price at which they filled the large buy order. In the final analysis, the market makers supplied the demand at an increased price in anticipation that sufficient supply exists for them to demand at lower prices.

If market makers are really speculators who get paid for supplying demand and demanding supply, then are speculators in some sense market makers? Yup.

Speculators act as conduits between producers and consumers. Even the longest term speculator who supplies demand and demands supply provides liquidity, not only to the market, but to the economy as a whole. *Without speculators, the feast or famine tendencies that dominate market cycles from time to time would be greatly exaggerated.* Speculators enable the economy to eliminate excess capacity or to meet excess demand in an orderly fashion. When they do so, they have a right to be paid. And they are. *It will not hurt your speculating a bit if you consider your trades in this light.*

LOCALS

In addition to the market makers, you will also find on the exchange floors another category of speculator called a *local*. The name refers to the fact that locals speculate locally, on the exchange floor.

There is an important misconception about locals. Because they are the speculators (remember, market makers are not generally acknowledged to be speculators) closest to the action, it is assumed that locals have a tremendous informational advantage over those of us who are off the exchange floors. In fact, this informational advantage is of a limited nature and is greatly overestimated, and may very well be more than counterbalanced by an informational *disadvantage*.

Standing in the pit or ring or crowd, locals know exactly where the market is at all times. Those of us off the floor, without direct telephone lines to the floor, receive this information second hand via electronic quotation devices. The best of these services is maybe 15 seconds behind the market during times of normal activity, and significantly farther behind when fast market conditions prevail. Except when conditions are extremely hectic, the advantage of being on the floor is minimal, unless you are trying to make a market from upstairs. Then it is overwhelming.

Locals can also see, to some extent, which locals and houses are buying or selling and the size of their orders. This may or may not be important to you depending on your approach to the markets. It doesn't mean anything to me, so I do not regard it as an advantage at all. These are the two advantages that many people wrongly consider to give the local an insurmountable edge over the rest of us.

As indicated, locals are subject to a great informational disadvantage that upstairs traders do not possess. Being located on the exchange floors, they are often the last to hear of important news events. In addition, each individual local is pretty much limited to trading in whatever pit he or she is physically located in at the time. Off the floor, we have access to all the markets.

Ironically, the locals have one tremendous advantage over the rest of us that is greatly underestimated, except by smart locals: They can compete with the market makers for the incoming order flow. In other words, *locals can buy at the bid and sell at the offer*—most of the time. Consider the difference: If a local puts on a position and then decides to liquidate it while the market remains the same, she exits with a profit equal to the spread. Remember, if you make the same trade off the floor, you exit with a loss equal to the spread. We refer to the locals' advantage as that of having *negative transaction costs*. It may not seem like much to you now, but this edge is of tremendous significance—so much so that it will preclude you from a whole area of short-term speculative activity.

Although they frequently take positions home,[3] locals are, for the most part, day traders. The majority of locals try to identify as early in the day as possible where the high and the low will occur. Then they trade accordingly, selling near the anticipated high and buying near the anticipated low. A small number of locals are very good at it and make enormous sums of money. If you think about what the successful locals are doing, I'm sure you will see that in buying near the low and selling near the high they are demanding the day's supply and supplying the day's demand. *Contrary to popular belief, most locals are not particularly good at it but make a decent living anyway, simply because they have the edge of negative transaction costs.*

ARBITRAGERS

There are arbitragers who seek to take advantage of aberrations in prices between the same or similar markets. For example, gold arbitragers might work the Chicago, New York, and London markets. If the gold market in Chicago slips below the market in London, arbitragers will buy Chicago gold and sell London, locking in the difference in price as their profits, bringing the prices in line in the process. This is yet another example of supplying demand and demanding supply.

INSTITUTIONS

There are institutions in the stock market. Most people think they have little chance of successfully competing with institutions because of the vastly greater resources institutions have. Nothing could be further from the truth. The reason is that institutions must operate subject to several constraints caused by their size and purpose which are so disadvantageous that any resource edge they might have is completely overwhelmed.

For example, take a look at their transaction costs. Any time an institution decides to make a move, it moves the market. The market makers

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[3]By failing to offset a position established during the day, a local may turn what originally started out as a day trade (a trade that is established and offset in the same day) into a trade of longer duration.

adjust the price against the institution to fairly reflect the size of the institution's supply or demand. When you or I trade, we are so minuscule as to have no apparent impact.

There is an even larger cost that is much less apparent. If the manager of a $2 billion portfolio decides that the bull market has come to an end, what can he do about it, liquidate his portfolio? His selling will prompt a quick markdown in prices, one which will frequently be so dramatic that it will cause the market to make its lows, at least in the near term. There may not be enough speculators out there to absorb that kind of supply, and if there are, their price will be high. In a very real sense, *the institutions are the market*. This fact has resulted in increasing volatility as the share of the market controlled by institutions has grown. Indeed, it was the domination of the stock market by institutions that was responsible for the precipitous nature of the collapse of the stock market on October 19, 1987.[4]

Other factors place institutions at a competitive disadvantage. For one thing, many of them, mutual funds in particular, are in the business of *buying* securities. They do get paid to be all in cash (i.e., to have their portfolios consist of cash and short-term obligations of the United States Treasury). And many are precluded by law from short selling.[5]

The dominance of institutions creates still another important problem for them. Suppose the goal of a $2 billion mutual fund manager were to realize a 15 percent return on its assets. In the first year it would have to win $30 million dollars. The amount would be continually *compounding* at 15 percent. Where is all that money going to come from?

Institutions can't sell when they want to. They can't buy without

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[4]Understand that I do not suggest that institutions caused the Crash. To the contrary, as is more fully explained in Chapters 16 and 18, both the bull market (which no one seemed to complain about) and its dramatic demise were the predictable outcome of the fiscal and monetary policies that unleashed a flood of liquidity on the markets during the 1980s. Sizable as the stock market correction has been to date (approximately 35 percent, measured on the Dow Jones Industrials through September 2, 1988), it is, so far, remarkable only for the fact that a little more than half of the decline occurred in a single session. It is this last fact that I attribute *without value judgment* to the institutional domination of the markets.

[5]In the case of securities, *short selling* describes a transaction in which a security is borrowed and sold by the short seller. The short seller hopes to be able to purchase the security at a lower price than she sold it for, thereby realizing a profit. Since the short seller has sold something she doesn't own, she is obligated to purchase and return it at a future date.

paying a large price. And there isn't enough money to pay them no matter how smart they are.

What are they supposed to do?

About as well as the other institutions with which they compete for customers. In other words, the nature of the markets forces institutions to be satisfied with mediocre or even poor results provided that others aren't doing any better. If they attain that goal, they get more customers, not less.

So you can see that institutions may be a fruitful source of profits for individual speculators.

And you thought that *you* couldn't beat *them*?

HEDGERS

Then there are the hedgers. *Hedging* refers to activity in which a person, who in a trade or business has a position in a good or instrument, executes an offsetting position in a different market. The purpose of hedge transactions must be to reduce the risk of the hedger's original position. For example, a portfolio manager whose portfolio is indexed to the S + P 500 might decide to sell an S + P 500 stock index futures contract against it to reduce his risk of a downward movement in prices. If the stock market declines, his portfolio declines too, but it is hoped that his loss will be offset by the increase in value of his short position in the futures market. True hedgers are market neutral, that is, they do not care in which direction the market moves. They are merely trying to offset the risk of their position.

CORPORATIONS AND GOVERNMENTS

There are other market users too. Corporations may use the futures markets as a place to purchase requirements. For example, if IBM needs $10 million worth of Japanese yen, it might purchase an appropriate number of Japanese yen futures contracts on the International Monetary Market[6] and take delivery on them. Governments use the debt and

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[6]A futures contract market that is a division of the Chicago Mercantile Exchange.

currency markets to effectuate their monetary policies, intervening in those markets for the purpose of affecting prices.

SPECULATORS

And, last but not least, there are other speculators. Some of them are small with no greater resources than you or me. Others are enormous with resources that compete with or exceed those of governments. For example, I heard of one very large speculator who, a few years ago when drought conditions damaged the soybean crops here and in Brazil and sent prices soaring, dispatched a staff of 150 people to Brazil to comb the landscape and survey the crops.

SO, WHO'S GONNA PAY YOU?

Now that you have a complete picture of who is in the markets, let me repeat the question with which we began: *Who's going to pay you when you win?*

You are certainly not going to take the market makers' money. *They are supplying your demand and demanding your supply.* They get your money. You don't get theirs.

You are not very likely to get the locals' money either. Unless you have an approach that is so effective at identifying intraday supply and demand that it can overcome your transaction costs. And even if you do, how much money do you think the locals have to give you? There can't be more than a few thousand of these people on all the exchange floors in the United States. The pool of capital that they have to offer you is pretty small. I think you can forget about taking their money. You are free to think otherwise.

Hedgers are a good potential source of money for you. They are trying to reduce their risk. As a speculator, you are assuming it. They should pay you for this service. Their trades are long term and, as a group, they have enormous amounts of capital. The only problem is that hedgers are not quite neutral. Most only hedge when they think it will work to their advantage; in other words, there is a significant element of speculation in the decision on whether to hedge. Since they are in the trade or business,

they may from time to time have an informational advantage over you. So taking their money isn't going to be so easy. But it is by no means impossible.

As we saw, institutions are an excellent source.

Governments and large corporations are also an excellent source. This is because their decisions are made slowly and change relatively infrequently. They start projects slowly. They withdraw from projects slowly. Their size renders them sluggish compared to you, the nimble individual speculator. Governments may be a particularly fruitful source of revenues since their trades are frequently made wholly without profit motives. Consider, for example, a scenario in which a government is intervening to prop up a flagging currency. As it buys in the face of what you as an astute speculator assess as inevitably overwhelming market conditions, the government is demanding a supply that you know must overwhelm it in the end. Supply it. You'll probably be glad you did.

Other speculators represent a mixed bag. Most of them don't know as much about the markets as you do, but the ones that do have the most capital and, therefore, the most votes. You are certainly going to find it hard to take money away from the guy with the army counting soybeans in Brazil. But there are plenty of speculators who aren't as good as you are—especially the ones who haven't read this book.

Just as the participant mix affects your decision whether to play and your strategy when you play in Jack's poker game, so will the makeup of the markets affect your choice of markets and trading strategies. The markets that have the greatest government, institutional, large corporate, and general (as opposed to professional) involvement are to be favored. Examples are the stock, bond, foreign currency, and precious metals markets. Soybeans have a large general speculative interest and may be good for that reason. Markets dominated by commercial interests and professional speculators with superior information are to be avoided except when you are so sure about the trade that you don't care who you are in against. The cocoa market is an outstanding example of this type of market. Who really knows how much cocoa there is out there? I sure don't.

As for strategies, you are going to favor the ones that enable you to demand the supply and supply the demand of the categories of participants you think you can beat. You are going to avoid playing against the people with the edge over you. In general, this means you should favor longer term over short term, except when you can take advantage of an

obvious short-term supply or demand situation involving favored participants.

If you wish to day trade, be aware that you are in direct competition with market makers and locals. They have an edge over you, since you are the supply that they demand and the demand that they supply, not the other way around. If you are going to compete with them successfully, you must have an approach that provides you with an edge that is sufficiently large to overcome the natural advantage they have over you. Good luck!

You are now equipped to begin to develop your own personal approach to taking money out of the markets. You will find that it is helpful if you think about it within the following framework:

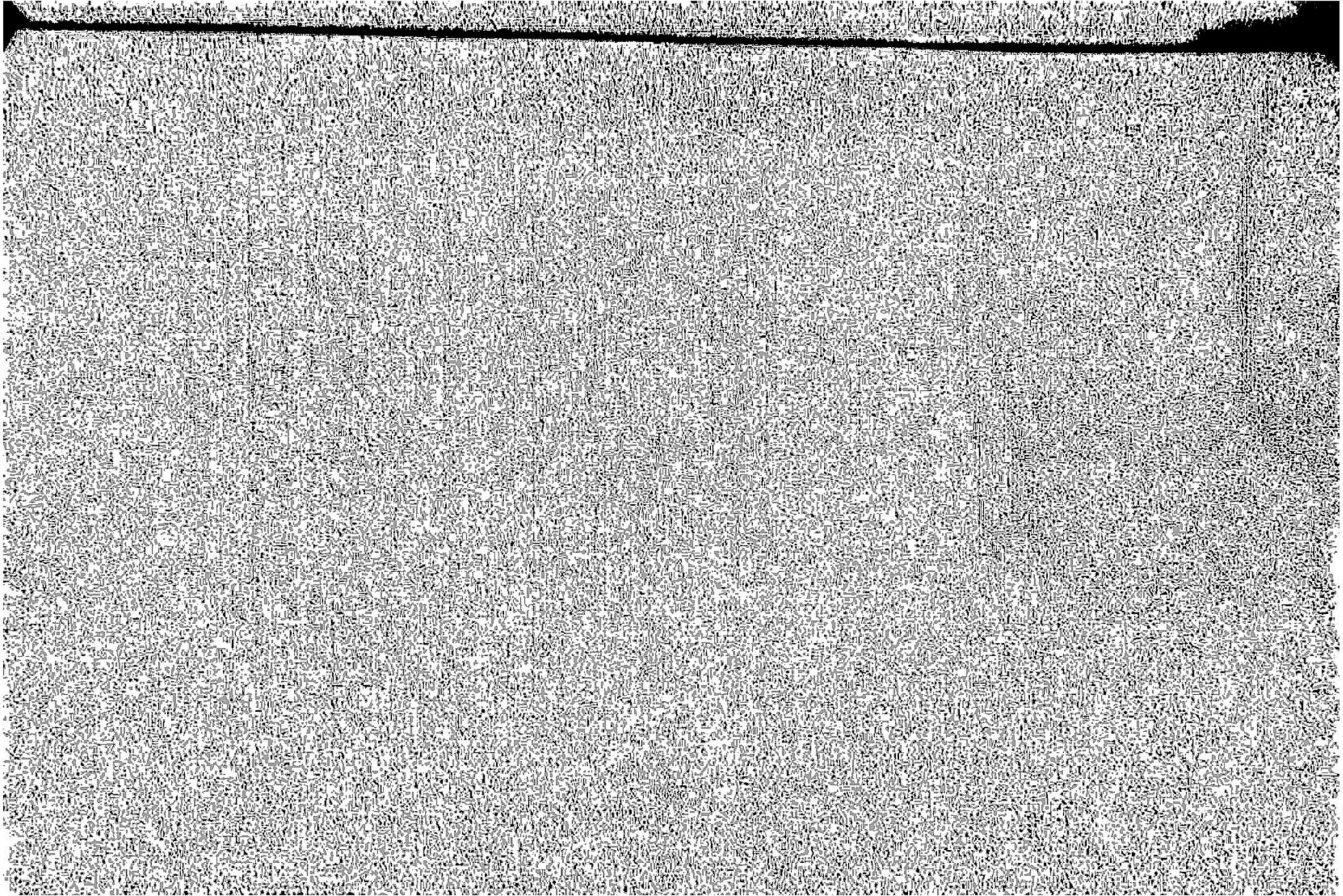
- Trades should not be made unless it is determined that they are on advantageous terms. In other words, if you don't have an edge, don't trade.
- Regardless of the particular method of analysis, the edge must have as its root the demanding of supply or the supplying of demand.
- The source of the demand that you intend to supply or of the supply that you intend to demand must be identifiable and must be a rational source of expected profit. If you don't know who is going to pay you when you win, then don't trade. Of course, not only must you be able to identify your target, but you must also reasonably believe that you have the ability to beat it.

Once you have a clear understanding of your overall objective in these terms, you can begin to think about rational strategies for achieving it. Unless your edge is 100 percent (which, of course, it can never be), you are faced with the problem of utilizing it in such a way that it will be allowed to do its work for you. That is what Part Two is all about.

And, by the way, the next time Jack invites you over for a game of stud, don't forget to ask who else is coming. Otherwise, you may find that they intend to have you for dinner. Personally, I never play poker with cannibals.

PART TWO

PUTTING THE EDGE TO WORK



11 LISTEN TO YOUR AUNT GERTRUDE

Fashioning a winning approach from the mistakes of losers

Wanna have some fun?

It is generally recognized that 80 to 90 percent of all speculators lose money. Although I don't know the source of this statistic, it is repeated frequently enough to have become incontrovertible and, coincidentally, I happen to think it's accurate to within, maybe, 10 percent. If so, it is probably true that if you know someone who has speculated, then you know someone who has lost money speculating.

Give him a call.

Tell him you have been considering speculating or that you just read this new book that seemed to make a little sense on the subject and you were curious why he wasn't quite as successful as he would have liked to be. Tell him the answer will help you to better develop your own ideas.

Now, before you tell me what he said, let me guess.

I am going to assume that you called a friend you can count on to tell you what he believes to be the truth. Otherwise, he probably told you he won.

Here's what he said: "Well, (insert your name here), I guess that in the end I just wasn't very good at forecasting the markets."

How'd I know?

Try it as many times as you have *honest* friends to call.

All done?

Okay, now I'll tell you why I'm making such a big fuss about this. These people didn't lose because they couldn't forecast the markets. They

just think that's why they lost. *The truth is, they never got far enough into the endeavor to find out whether they could forecast the markets.* Instead, they made some terrible mistakes that defeated their efforts. They were doomed to lose before they started because of the way they approached the business of speculation.

We have repeatedly stated that speculation is a business like anything else, and a noble and important one at that. Yet it is astonishing how many people approach this business as though it were some form of recreation. They decide to speculate on impulse, they jump right in without a clue as to what speculation is or means, they completely underestimate the likelihood that they are going to fail, they have totally unrealistic expectations of profit, and they bring to the enterprise some amount of capital that they "can afford to lose" without regard for whether it is sufficient to the task or even how one might decide whether it is sufficient to the task.

It's not that they can't forecast the markets, it's that they don't even know what they are doing. And they certainly don't appreciate that they are about to enter into *the most competitive business in the world.*

The same people who devote years of study to professions or who carefully consider all the elements before entering into whatever business they happen to be in just throw money at the markets and *hope.* Well, here's a little poem I just made up:

Markets

If you hope,
then you're a dope.

As you will see, hoping is one of the deadliest of all speculative errors. It is to be guarded against at all costs. This is just one of the ways hoping can get you.

Understanding precisely why your friends lose when they speculate is the first step toward achieving a fair chance at winning. If ultimate success depends on forecasting future supply and demand, then it is paramount that we survive long enough to make a few forecasts. Why is it your friends never got that far?

Here's my list of *general* errors:

1. *Unrealistic expectations.* I am ashamed to admit that I once knew a

commodities broker who, when asked what he did for a living, responded, "I sell dreams." The sad thing was that people bought them. And that's all they got. If you want to make millions of dollars *without working*, then buy a lottery ticket. *This is not a gambling game*. Only the losers think it is. There is not one successful speculator who ever lived who thought he or she was gambling. This is a business in which those who are successful at anticipating future conditions of supply and demand are paid fairly for doing so.

2. *Failure to understand the nature of the business they are in*. Few people understand what speculators are and, more importantly, what speculators get paid for.
3. *Poor planning*. As we will see shortly, planning in this business is everything. Ask your friends what their plans were. I am sure they weren't planning on losing money.

If you've gotten this far into the book, then I am confident that you are not going to make the first or second error. The remainder of Part Two is devoted to helping you plan your new business.

The reason these three mistakes are repeated continually is that, while they are obvious in theory, in practice they are quite subtle and, as we shall see in a moment, even counterintuitive.

Your friend brings $50,000 to a broker. Why is your friend there? Probably for the wrong reasons. Maybe she has been hearing about how the market has been going up every day. Maybe she met someone whose uncle works for a listed company who gave her a hot tip. Maybe she just plain thinks she's smarter than the rest of us. Almost certainly, she's there because she thinks the markets offer the opportunity to get rich without working. The wrong reasons are endless. There is only one right reason: Because, after many months of thinking, she has worked out a plan designed to achieve *reasonable* capital appreciation *over an extended period of time*.

Your friend starts trading. She buys Hi-Flier, Inc., stock because it is moving up and she thinks it is headed higher. Why? Maybe it is because the broker told her so. Maybe it is because her friend with the uncle told her so. Maybe it is because H-F's earnings (long ago discounted by the market) are up or because it is coming out with a new product (that the market knew about last year). The wrong reasons are endless. There is only one right reason: Because she has good reason to believe that there

will be future demand for the security that is not presently discounted by the market.

H-F goes up and your friend takes a profit. Several questions occur to her: Isn't this easy? Aren't I smart? Where has this been all my life?

Your friend starts looking around for other trades. She takes more risk. She trades more frequently without regard for transaction costs. If she loses, she regards the losses as temporary, isolated, unlucky. If she doubles up, she'll surely catch up. If she wins she grows more aggressive. She trades bigger and faster until she busts out, her husband leaves her, or both.

Then she concludes, "I guess I just couldn't forecast the markets."

The three general errors described manifest themselves in four specific ways. That is, there are four ways to lose your money speculating before you find out whether you are any good at forecasting the markets. They are:

1. *Taking too little risk.* People are risk-averse. They want to make a lot of money without working. They don't really want to risk losing any, either. So they pick what look like easy trades and they enter stop loss orders close to where they enter the market. The result is that, without fail, insignificant wiggles in price shake them out of the market. Their stock or commodity may go up, but it is certainly not going to take them along.

   One of the two things speculators get paid for is taking risk. The people who pay them include the ones who don't.

2. *Taking too much risk.* Although speculators get paid for taking risk, they don't get paid for taking more risk than they can afford. The level of acceptable risk is largely a function of capital. Having insufficient capital for a trade virtually assures (unless you are extremely lucky) that you will be summarily relieved of your position and your capital before you have the opportunity to fulfill your economic function. In other words, pigs get slaughtered.

3. *Trading too much.* Unfortunately, the markets are challenging and *entertaining*. They move around a lot. The temptation may be to try to profit from every wiggle. Or, alternatively, the temptation may be to reduce risk by trading with smaller objectives. Whether it is fear or greed, the result is that the method causes prohibitive transaction costs. Your friend doesn't lose her money to the market. She loses it to the market makers. This is the

source of the cynicism of the popular investment guides of the second kind. It is true that brokers get paid whether you win or lose, and they should. After all, they're providing a service. If you do stupid things that result in them getting paid too much, who's fault is that?

4. *Hoping*. They say that hope springs eternal. It is probably this eternal springing that eliminates more speculators than anything else. They enter the business based on hope. And whenever they make any of the other three mistakes, they respond to the inevitable difficulties by hoping something will happen to bail them out. You know what? They don't have a hope.

It is one of the true ironies of the business of speculation that, contrary to the popular wisdom, many individuals are quite good at forecasting the markets, but few ever get the chance to prove it.

One of the most glaring examples of the validity of the common persons' instincts is the silver debacle of 1979–81, which culminated in a bunch of little old ladies (LOLs) taking a Texas oil billionaire (TOB) to the cleaners. Here's how it happened.

In the late 1970s, inflation in the United States was at unprecedented levels. Prices were rising as a result of many factors, the most important of which included the aftermath of the Vietnam War, the success of OPEC, and generally excessive government spending. The money that was being created to solve these budgetary problems was flowing into many areas, but perhaps the most dramatic beneficiaries were the precious metals. The psychological damage done by U.S. defeat in Vietnam domestically and internationally reduced the desire of investors to hold dollars. Precious metals are considered an alternative to dollars (or any other fiat money), so demand for dollars declined relative to gold, silver, and other metals. Also, for whatever reason, metals were a favorite of Arab investors whose coffers were suddenly overflowing with petrodollars.

As any manipulator will tell you, for a manipulation to succeed, conditions must be perfect. You cannot bull the market if conditions are bearish, and bear raids in bull markets are doomed to failure.[1] So, in the

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[1]The markets are bigger than most manipulators under most circumstances. In a declining market, it is difficult, if not impossible, to manipulate a security or commodity upward regardless of the manipulator's resources because, even if the manipulator controls the supply, he or she will find it difficult to inspire much demand. The reverse is true in bear markets.

late 1970s if you were, say, a Texas oil billionaire looking to corner the silver market, conditions were optimum. Only thing was you couldn't.

Why?

Because the biggest, richest TOB doesn't have enough money to beat the LOLs of the world.

From 1978 to early 1980, silver began one of the most spectacular vertical climbs in commodities history. Here are the numbers for cash silver:

1978	*Price*
May	$5.12
June	5.31
July	5.33
August	5.50
September	5.58
October	5.91
November	5.87
December	5.93

1979	*Price*
January	6.26
February	7.42
March	7.45
April	7.49
May	8.37
June	8.54
July	9.14
August	9.33
September	13.96
October	16.78
November	16.55
December	21.79

1989	*Price*
January	38.27

In January 1980, December silver futures traded on the COMEX as high as $44.37 per ounce.

As was mentioned, the rise in silver prices was particularly swift because general market conditions were so favorable. It is interesting to

note that, since silver is mined, there must inevitably be a substantial lag between such a sudden major price increase and countervailing new sources of production; that is, they simply cannot open new mines fast enough to meet the sudden increase in demand. In fact, estimated world mine production actually increased by only 1 percent during 1979, from 345.0 to 348.1 million troy ounces, and actually fell by 2 percent in 1980 to 342.8 million troy ounces. Consumption is, of course, more flexible in the case of silver; in 1979, estimated world consumption declined by 4 percent from 478.9 to 462 million troy ounces, and by 20 percent to 368.2 million troy ounces in 1980. The decline in demand that occurred in 1980 might have been sufficient to bring an end to the episode, and is certainly worthy of note. But, most important to the discussion at hand is the following: *From September to December 1979, while world mine production was essentially static, U.S. production of refined silver from all sources nearly doubled from 9.1 million troy ounces to 17 million troy ounces per month.* The following month, which was the month before silver collapsed, it peaked at 18 million troy ounces per month. On an annualized basis, the increase in U.S. silver production amounted to nearly 108 million troy ounces, about 30 percent of world mine production. Where did this sudden rush of silver come from? Who got the TOB?

It was all the LOLs.

Take your Aunt Gertrude, for example. When silver climbed to over $40 per ounce, she unlocked the door on the china closet, took out the sterling silver set that *her* Aunt Gertrude gave to her, and spread it out on the dining room table. She looked at her reflection in the spoons. She thought warmly about all the wonderful family occasions that silverware had helped celebrate over the years. All the Christmases. All the Easters. The time when your dad came home from World War II. The silver was an heirloom with a wonderful tradition. It was priceless.

But it sure wasn't worth $40 per ounce.

Your Aunt Gertrude kept the memories.

She sold the silver to some guy who smelted it into bullion and delivered it to the TOB.

So your Aunt Gertrude and all the other LOLs got the TOB. *And they did it by doing their jobs as speculators.* The TOB created this sudden demand for all the silver in the world. Aunt Gertrude supplied it.

Note that Aunt Gertrude wasn't forecasting GNP or counting Elliott Waves. She was responding to demand that was so compelling it sucked the silverware right out of her china closet.

And here's what happened to silver. It promptly underwent one of the great collapses of all time. By May 1980, just three months after silver peaked, it was trading around $12.50, a decline of more than two-thirds from the high. In January 1982, silver was trading around $8.25. The final low was not achieved until 1986 when spot silver traded at $4.90 per troy ounce. It is particularly interesting to note that, by May 1980, only three months after the top, U.S. production from all sources had returned to "normal" levels; in other words, the LOLs had stopped selling silver.

So next time you read that the small-timers don't have a chance against the big investors, forget it. Remember your Aunt Gertrude.

As we have seen, the small-timers assume that their losses are due to their inability to forecast the markets; but, in fact, they never get the chance to forecast the markets because the methods by which they seek to implement their forecasts are so faulty. So let's construct an approach that at least gives us the opportunity to find out whether we have an edge.

GAME THEORY AND SPECULATION

Speculation is not a game. But, in some respects, it is like a game. There is a goal, there are rules, and there is a way to tell whether or not you succeed. And, as we shall see, there are strategies for success that come right out of Parker Brothers.

Here is the game:

1. The name of the game is speculation.
2. The object of the game is to win as much money as possible without suffering material adverse effects on your standard of living.
3. Players start with limited amounts of capital, making decisions to buy and sell goods.
4. Players who lose their money are eliminated.

Here are the considerations that will form the basis of our strategy:

1. *In playing the game, we will employ our experience and ability to reason. If we utilize them well, we expect to have an edge, that is, an advantage in playing the game.*

Our edge exists only to the extent that we do our job as speculators. We are going to do our job by *utilizing our limited capital* to demand supply and supply demand. We recognize that the markets are efficient at many things and, therefore, it is difficult to obtain an edge larger than, say, 20 percent. But if we are good at the business of speculation we can achieve that much, and perhaps a little more.

2. *The nature of the game is such that our edge notwithstanding, the outcome of any particular move is highly uncertain.*

   Our edge is based on our ability to forecast conditions of supply and demand some time into the future. The markets are a social process and, therefore, we are dealing with a largely imponderable phenomenon. We also recognize that the world is full of surprises and that anything can happen to us at any time. Any number of random occurrences may intervene to disrupt the outcome within the time horizon of our forecast. We can lose because we were wrong. We can lose because we were unlucky. However, the uncertainty that creates aversion is the same that creates opportunity.

3. *There is a direct relationship between the risk we take and the amount of reward we receive when events go in our favor. There is also a direct relationship between the risk we take and the likelihood that we will be eliminated.*

   We can manipulate our risk by adjusting the amount of capital we place at risk on a particular trade or series of trades and by adjusting our strategies, i.e., choosing among those that have a higher probability of success but provide a smaller reward and those which have a more remote likelihood of developing in our favor but that reward us most handsomely when they do.

4. *In addition, there are impediments that we must cope with, the most important of which is that there are transaction costs associated with each move that we make.* Every time we make a trade, we incur these costs, so we cannot make any decisions without including them in the deliberation process.

Let's develop our strategy.
We'll start by focusing on our edge.
Precisely what our edge is depends on the nature of our strategy and

our competence in implementing it. It is personal to each trader. Obviously, many participants don't have any edge at all. Among those who do, the variety will be great. The only way to find out what your edge is is by trading.

As a mathematical matter, our edge is equal to the amount by which our judgment is superior to the markets *minus* transaction costs. I do not believe my edge is ever likely to be much more than 20 percent.

Since the game involves seeking a statistically significant number of opportunities in which we can bring our edge to bear on the markets, we must do everything in our power to assure that we are not eliminated from the business before our edge can work to our favor. We can identify a prime directive:

> Prime Directive: Never do anything that is attended by the risk of elimination (i.e., don't let them kick you out of the game!).

To illustrate the relationship between our edge and our risk of ruin, let's revisit our coin toss game from Chapter 5. In this example, I will pay you $1.40 for every dollar you bet when you win. When you lose, you need only pay me $1.00. If we do 100 coin tosses, betting a dollar each time, you will win about 50 times. If you win 50 times, I will have paid you $70. You will also have lost 50 times, paying me a total of $50. So your net profit will be $20 ($70 minus $50) on total wagers of $100 (100 $1 bets). We say your edge is 20 percent ($20 divided by $100).

Now let's say your stake is $100 and you control the amount of the betting. You may bet $100 on the first toss or you may bet only $1.00. If you bet $100 and win I pay you $140. If you lose you pay me the $100 dollars and the game is over. So we can say that you have a 50 percent chance of winning $140 on your first bet. But you also have a 50 percent chance of being eliminated from the game forever. A very risky strategy—indeed, it would seem that such a strategy would be silly since you have such a great advantage over me. If you routinely approach the game with such a high risk strategy, you are virtually certain to be eliminated before too long, *even though you have the edge*. Note also that since I have a disadvantage, assuming we are going to play the game until one of us is eliminated, if I controlled the betting, my best strategy would be to make one big bet *and hope I'm lucky*.

If you adopt the most conservative strategy, betting only a dollar (let's say that's the minimum) at a time, you will surely have many wins and

losses. The odds of your losing all of your money are so small as to approach zero. Given a sufficient number of coin tosses, you will be virtually certain to win. But many tosses will be required for you to win any *real* money. Since we don't have forever to play this game, making your bets too small isn't very satisfactory either.

What, then, is the optimum approach?

The answer depends on you, what you want out of life, and what you are willing to do to get it. Let me speak for myself, then, and only for myself. I would like to take a significant amount of money out of the markets over my lifetime. I believe that, in today's dollars, the amount of money that I can expect to take out of the markets—without significant risk of ruin, if I am really good, and without relying too much on luck—is in the low millions of dollars. I am limited by what I started with and the amount of risk I can tolerate without losing sleep. So betting my whole wad on the first trade is out of the question. In fact, betting my whole wad on any trade, ever, is out of the question.

Does that mean that making a lot of little trades is the solution?

Not for me.

There are two reasons. First, it is my opinion, based on the considerations we discussed in Chapter 5, that, in general, the shorter the time horizon, the higher the efficiency of the markets. Most traders are focusing on price changes that are expected to occur anywhere from the same day to six months out. That is where 95 percent of the competition is. Remember, competition is what causes the markets to tend toward efficiency. If this is so, then my edge is going to be much greater as I get farther out in my forecasts.[2]

So the choice I have is really much more like making an unlimited number of small bets with little or no edge (and maybe the worst of it) or a limited number of bets with an edge that may be as high as 20 percent or maybe even a little more. Keep in mind that these numbers are based on my approach and ability. Others may do better or worse.

Second, there is the effect of transaction costs. Every time you make a trade you incur transaction costs. You must pay your broker for executing the trade and you must pay the spread between the bid and the offer to the person who is making the market. It does you no good to have a 3 percent edge if your transaction costs are 4 percent. On the other hand, if

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[2]Of course, there are severe limitations to this as well. Practically, it is usually impossible to forecast events much farther than 12 months out.

your edge were 50 percent, then transaction costs of 25 percent would be quite tolerable. Obvious as this appears, inattention to transaction costs is the single greatest reason for failure among speculators.

If you are thinking this through with me, then you may be confused by now. On the one hand, I've identified the one overriding never-to-be-disregarded prime directive:

> Prime Directive: Never do anything that is attended by the risk of elimination (i.e., don't let them kick you out of the game!).

On the other hand, I've said I don't want small profits and losses because, personally, my edge is too small to overcome a relatively high level of transaction costs. How are these criteria compatible?

The answer is money.

I can have large wins and losses relative to my transaction costs if I dampen the risk with money. There are two elements to risk of ruin. One is how much risk you take on a particular trade. The other is how much capital you have to lose before you are ruined.

You are going to be surprised to hear this, but most speculators do just the opposite of what they should be doing. They take large positions relative to their capital so their risk of ruin is high if not absolute. Then they try to dampen the risk by taking small losses. Since they know it is hard to take small losses and still have large profits, they take small profits too. The result is that, as a percentage of their mean profit or loss, their transaction costs are extremely high, and are certainly higher than their edge, if they have one. So, if they don't get blown out right away by taking one big hit, they just grind themselves into oblivion by taking small profits and losses. The result is the same in both cases.

DETERMINING YOUR EDGE

If arriving at the right balance is hard, determining what your edge is is easy, provided that you have enough information.

To determine your edge, calculate your mean result per trade by summing all your profits and losses and dividing the sum by the number of trades. For example, if you have made 15 winning trades totaling $12,000 and 25 losing trades totaling $8,000, then your mean result per trade (not per winning trade) is $100 ($12,000 minus $8,000 equals $4,000; $4,000 divided by 40 equals $100). Since the result is a profit, you have an

edge. (We'll assume for the moment that 40 trades is a statistically significant sampling.) To quantify your edge, we have to weigh your mean result per trade against the amount of capital you placed at risk to achieve it. The best way to arrive at the latter amount is to add up the absolute value of your profits and losses and divide the total by the number of trades. We'll call this your *mean variability per trade*. In the example, the mean variability per trade is $500 ($12,000 *plus* $8,000 equals $20,000; $20,000 divided by 40 equals $500). Your edge is equal to your mean result per trade (or loss) divided by your mean variability per trade. In the example, your edge is a healthy 20 percent ($100 divided by $500).

In the example, we assumed that 40 trades constituted a statistically significant sample. Whether such an assumption is valid depends on the nature of the method of trading. In general, the bigger your mean variability per trade, the more trades you require to be confident about the conclusions you draw.

Perhaps the greatest single misconception about the nature of investing concerns the effect on your chances of success of having or not having an edge. Let me show you what I mean. Let's play our coin toss game again with modified rules. Let's say we each have $100 with which to play. We bet on the outcome of the toss of a fair coin, that is a 50–50 proposition, only you give me a little edge—you bet $.51 against my $.49, so if I win I get $.02 more than you do if you win. My edge is 2 percent. There is one other rule: The game continues until one of us is eliminated. The question under consideration is this: If we play this game 100 times, how many times will you be *sufficiently lucky* to overcome my little 2 percent edge?

I'll bet you don't come within 20 percent of the correct answer.

What'd you guess? 48 percent? 40? 25?

The answer is that you will win a little *less* than 2 times out of 100.

To explain why requires a little understanding of basic probability theory, which is beyond the scope of this book. But you should understand that the outcome of our game is determined by the number of betting units both players have at the start and their respective advantage or disadvantage. The more betting units, the more bets it takes and the greater the certainty that the player with the edge will win. If that doesn't sound right, imagine that the World Series were only one game. Of course, if it were a one-game series, then it wouldn't be a series. It would be a championship, but that's not the point. If it were one game, then a team having a 50 percent edge (edges this big rarely occur) still loses a third of the time. Since the World Series is the best of seven games, the

team with the edge has a much better chance of having its skill determine the outcome and it will lose much less frequently.

Compute your edge both before and after transaction costs. This will help you determine how important a role your transaction costs are playing in the outcome of your trading. If your edge is negative, this is especially important.

You might also determine your transaction costs as a percentage of the mean variability of your account. Simply total your transaction costs and divide by the mean variability of your account. Remember to include an approximation of spreads paid to market makers as well as brokerage commissions. The resulting number is the edge you need just to break even. Anything less results in slow death.

If you have a reasonably positive edge before transaction costs but a negative edge after them, consider ways to shift the balance in your favor. The most obvious way to do so is to lower your transaction costs. If this is not possible (or undesirable), you can also shift the balance in your favor by increasing the variability of your account. Of course, to the extent that you increase the variability of your trading, you must decrease the size of your positions, otherwise you will increase your risk of ruin.

DETERMINING YOUR RISK OF RUIN

For those of us who have managed to wind our way through the maze of disasters that await would-be speculators, there remains one ever-present danger that can strike at any time: the danger of taking too great a risk of ruin. Success doesn't lessen the danger, it increases it. The psychology is simple. If I can grind out X percent rate of return at this level of risk, why don't I go for 2X or 3X?

Or broke?

Let's consider how to measure our risk of ruin. As you will see, doing so requires the ability to perform some basic statistical measurements. A Hewlett-Packard HP 12C pocket calculator or similar device is all you need.

As we said a while ago, your risk of ruin is a function of two variables: how much risk you take (the variability of your account) and the amount of capital you have to risk. You are seeking to determine the probability that you will lose all of your capital as a result of the risk you are assuming in your trading. Before we go any further, you should know that *there is no absolutely certain way to measure what your risk of ruin is at any time*. This is

not so much a failure of the statistical devices that we are about to employ as it is a reflection of the fact that the markets are a social process and can do anything to us at any time. The best we can hope to accomplish is to get an idea of what our risk of ruin has been over our trading history. We will always have to contend with the fact that, in the future, the markets may present a substantially greater level of risk to some or all participants even though they do not vary their methods.

As we will see in greater detail in the next chapter, risk can be described as the chance of disappointment. If we assume that the daily positive and negative changes in equity are about the same, then a measurement that will show how those changes are dispersed will help us quantify risk.

It just so happens that statisticians have some tools to help us. *Variance* is defined as the average squared deviation of result from its expected result. The *standard deviation* is defined as the square root of the variance. There is no real magic to these terms, but they are helpful because of the magic we can do with them. Most important for our purposes, statisticians tell us that, about two-thirds of the time, a result will fall within one standard deviation of the mean. They also tell us that, about 95 percent of the time, a result will fall within two standard deviations of the mean. In fact, with the help of a basic statistics textbook, we can create a table that sets forth the probability of results at various multiples of the standard deviation away from the mean:

Number of standard deviations away from the mean	*Probability of occurrence within specified number of standard deviations away from the mean*	*Probability of occurrence beyond specified number of standard deviations away from the mean*	*Mean number of days that will elapse before result occurs beyond specified number of standard deviations away from the mean*
1.0	.6826	.3174	3.2
2.0	.9544	.0456	21.9
3.0	.9876	.0124	80.6
3.5	.9978	.0022	454.6 (1.25 years)
4.0	.99994	.00006	16,666.7 (45.7 years)

The first three columns are self-explanatory. Since we will be dealing with daily price fluctuations for the purpose of calculating our risk of ruin, we are interested in determining how many days can be expected to pass without our suffering ruin. The final column gives us the answer.

Let's take an example. Suppose I have $25,000 capital in my account. Here are the daily swings:

$1,000
500
4,000
−2,000
−1,000
5,000
200
750
−1,300
−1,750
400
0
3,300
−2,000
−400

The net change in equity during the 15-day period amounts to a gain of $6,700. The mean change per day is a positive $446.70 ($6,700 divided by 15). The mean variability per day is $1,573.33 (total gains equal $15,150; total declines equal $8,450; their sum equals $23,600; $23,600 divided by 15 equals $1,573.33). Now if we plug the daily fluctuations into our calculator, we find that the standard deviation is $2,151. Referring to the table above, we know that our account will fluctuate $2,151 or less 68.26 percent of the time (column 2, line 1). A quick check tells us that on 11 of the 15 days the changes in equity were less than that amount, and it just so happens that 11 divided by 15 is .73, only a little more than our expected result. (The deviation can be explained by the fact that we are dealing with a small amount of data.) Referring to the table, we can also see that our account will fluctuate *more than $2,151 on 31.74 percent of the days (column 3, line 1) or once every 3.15 days (column 4, line 1) or so.*

The table gives us the same information for various multiples of the standard deviation. For example, it tells us that on 98.76 percent of the days, our account will fluctuate by three standard deviations or less (column 2, line 3). In the example, since one standard deviation is $2,151, three standard deviations is $6,453 (3 times $2,151). The table also tells us

that 1.24 percent of the time, or once every 80.6 days, our account will fluctuate by more than $6,453 (columns 4 and 5, line 3).

The critical question is: How often can we expect our account to fluctuate by $25,000—enough to eliminate us in a single day? If we divide $25,000 by $2,151 we discover that our capital equals about 11 standard deviations. Checking our table, we see that a result more than four standard deviations away from the mean occurs only once every 45.7 years, so we know that a result more than 11 standard deviations away from the mean is not likely to occur in our lifetime.

So far, all we've been able to determine is our risk of ruin *under market conditions presenting identical levels of risk to those in the 15-day sample under examination*. If those 15 days were extremely volatile, then we are operating at pretty safe levels. If they were quiet days, then our risk is substantially greater. How can we tell? Of course, we could construct all sorts of statistical measures to determine how risky the markets were during the period of our sample. But the markets are a social process. They may not be quantified to a certainty. The best way is to use your own judgment and experience.

So we are not operating at such a low degree of risk as might appear from the numbers. If I had asked you before October 19, 1987, what the odds were that the Dow could fall 508 points in one session, what would you have responded?

Let's assume that you feel the markets may be four times as volatile as they were during the sample. That means that, if conditions change suddenly and you don't adjust by reducing your risk, you would experience the following outcomes:

$4,000
2,000
16,000
−8,000
−4,000
20,000
800
3,000
−5,200
−7,000
1,600
0
13,200
−8,000
−1,600

The standard deviation of this series will be four times the standard deviation of the original series on which it is based, or $8,608. With such a high standard deviation relative to our capital, our risk of ruin is now $25,000 divided by $8,608, *less than three standard deviations*. For simplicity's sake, if we use three standard deviations as our measure, that means that it will only take an average of 80.6 days before we experience a one-day swing in our account that equals or exceeds all of our capital! That's too much risk for me and should be too much risk for you too.

There is an easier, although less elegant and precise, way to reach the same conclusion. The largest daily change in equity actually experienced in the first series was $5,000, or *20 percent of capital*. When your account starts swinging around like that you had better lighten up, even if the markets are exceptionally volatile, because a couple of bad down days are going to deplete your capital even if they don't ruin you.

It's as simple as that.

HOPING AGAINST HOPE

Even after you've established your edge and controlled your risk of ruin, you still have to fight against hope. Hope will dog you like a bad cold. It's always there, waiting to pounce on any mistake you make.

Don't even let yourself hope you don't hope.

STOP USING STOPS

In all the literature on trading, perhaps no concept is so overwhelmingly accepted as the desirability of utilizing stop orders[3] to protect against loss. In fact, I know of a single exception, that of J. Peter Steidlmayer and Kevin Koy in *Markets and Markets Logic*.[4] While I am in agreement with these

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[3]A *stop loss order* is an order at a specified price that becomes executable at the market when the stop price is touched. A *sell stop loss order* would be placed below the current market price to protect against loss on a long position. A *buy stop loss order* would be placed above the market to protect against loss on a short position. For example, a speculator purchasing 100 shares of IBM while the market was at 120 might enter a sell stop loss order at 115. If the market declines to 115, the stop loss order becomes executable at the market, meaning that the IBM shares will be sold at the market price which may be higher or lower than 115 at the time of sale.

[4](Chicago: Porcupine Press, 1986).

authors that stop loss orders should be avoided, my approach leads me to different reasoning on the subject.

Proponents of the use of stops argue that they follow naturally from the generally recognized concept that traders should aspire to have small losses and large profits. The argument is basic: Stops assure discipline. If you enter a close stop loss order at the time you establish your position, you are assured (except in disorderly markets) of no more than a small loss.

Steidlmayer and Koy's main criticism is that stop loss orders are elected by price without regard to time. Since their approach is based on a unique monitoring of price and time, stop loss orders based on price alone are unacceptable.[5]

My criticism is more general. When you are stopped out of a position, you have allowed the market to dictate your exit. The problem with permitting the market to dictate to you is that the nature of markets is that competition will cause as many correctly positioned participants as possible to be eliminated. Traders who use stops are often dismayed at being stopped out at the bottom immediately prior to the market turning and roaring off in the anticipated direction. Some conclude that the markets are mystically able to do this. Others conclude that the markets are rigged. Neither are correct. It is the rationally expected outcome of competitive markets. In other words, when the markets stop you out right at the low, they are simply doing their job!

It is important to note that, in general, stops tend to be clumped around certain obvious reference points, such as new highs or lows. *The implication is that stop orders become an obvious source of supply to be demanded or demand to be supplied*. Of course, the markets will perform this function with virtual certainty, so you are sure to be eliminated if you have stop loss orders in where other speculators do. And being eliminated when you're right is one of the very worst things that can happen to you. It's like folding the winning hand in a poker game.

The best alternative is to plan your trade so that your exit can only occur under conditions that cause you to conclude that the trade was wrong from the start. If the market acts badly, you can get out. If the price is moving against you, you may be better off selling the first rally than

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[5]Of course, such a simple summary is not intended to do full justice to Steidlmayer and Koy's approach or analysis, so if you are interested in further thought on the subject you should consult the original source.

simply letting the market stop you out. How can you withstand the urge to bail out at the first sign of trouble? By trading with enough money from the start.

You will note that our basic approach to trading differs from the generally accepted approaches insofar as we are endeavoring to have large profits and losses. Since we do not recognize the desirability of small losses, we will usually have plenty of time to decide whether we wish to exit a trade, and can consider all the factors we deem relevant in making our decision. But remember, trading without stops increases the likelihood that you will hold on to losses too long, so you have to be especially careful. Otherwise, you'll find yourself sitting all alone in a dark room slugging down Martinis and *hoping*.

To the extent that stops are to be used, it seems plain that stops based on money loss are preferable to stops based on price, if only because the risk of placing your stop where everybody else does will be lower.

ADDING TO POSITIONS

Another important concept that requires consideration is the desirability of adding to positions.

There are several different possibilities:

Put on your maximum position at the outset.
Add to positions that are moving in your favor.
Add to positions that are going against you.

If the markets were truly efficient, then no adding strategy could be expected to improve results, because the profitability of a trade or lack of it prior to adding would have no predictive implications. Of course, we do not believe that the markets are efficient in all ways all of the time, so our inquiry does not end here.

If you have an edge, then it is arguable that trades that have begun to work in your favor have a higher probability of success than those that have not. Recall the conclusion of Chapter 5 where we compared trading to a coin toss game in which the outcomes were biased in our favor at the times we made our trades. If you have identified opportunities to do your job, and are on your way to doing that job, and do in fact have an edge on the trade in question, some adding to positions may improve your per-

formance. If you further adopt the view that open trade profits are not real until realized, then you may feel that adding enables you to make larger trades than you would be willing to make at a time when you were risking realized capital. Of course, this cannot be anything more than a psychological advantage, *since open trade gains and losses are every bit as real as ones that have been closed out.*

Obviously, adding to trades that are going against you cannot be justified on these bases. To the extent an inference may be drawn about trades that are going against you, it must be that you have misjudged the opportunity as to price or time at the very least. Since there are open-trade losses, they do not afford you the opportunity to take greater risk. So we will reject the last possibility, adding to losers, as not having much appeal.

If you choose to add to positions it is imperative that you do so in a way that will not cause you to be shaken out of trades before you otherwise determine that they are unattractive. In other words, trades should not be added if normal corrections that would not otherwise cause you to exit the market will cause you to do so because your position is too large. The best way to achieve this result is by some form of ascending pyramid, with the base larger than the higher floors.

Of course, adding is not necessary to achieve success. If you have an edge and have planned your trading so that you are giving it sufficient opportunity to work, putting on your entire position at the outset should be effective.

Whatever your strategy, it is imperative that you recognize that, as markets progress through their bull or bear cycles, volatility frequently increases. A three-contract position of COMEX silver (15,000 ozs) at $5 is not the same thing as a three-contract position at $15 especially if silver has risen from $5 to $15 in six months. If three contracts were all you could handle at $5, one may be all you can handle at $15. When you have a position that is moving rapidly in your favor, it may be difficult to think about lightening up, but you must take the increasing volatility into account.

GETTING STARTED

Unfortunately, *no amount of planning can avoid the necessity of gaining experience*. No matter how smart you are and how well thought out your

plan is, the odds are strongly against your succeeding from the start. Human nature is too formidable an obstacle. If you succeed at the beginning, you will surely conclude that the difficulty was overstated, that we just didn't appreciate how special you are, and that you don't need to be shackled by the same rules of reason that the rest of us must observe merely to survive. I know. It happened to me.

The best thing that can happen to you is that you lose a little for a little while. If you are determined to stay with it, you will find that the amount of effort you devote to getting over the getting started hump is directly proportional to how much difficulty you experience at first. And this business is like all others; the harder you work at it, the better you will do.

So, to get started, it is wise to plan to lose for a while. Note that planning to lose and trying to lose are two different things. You must try to win. Just don't plan on it, at first.

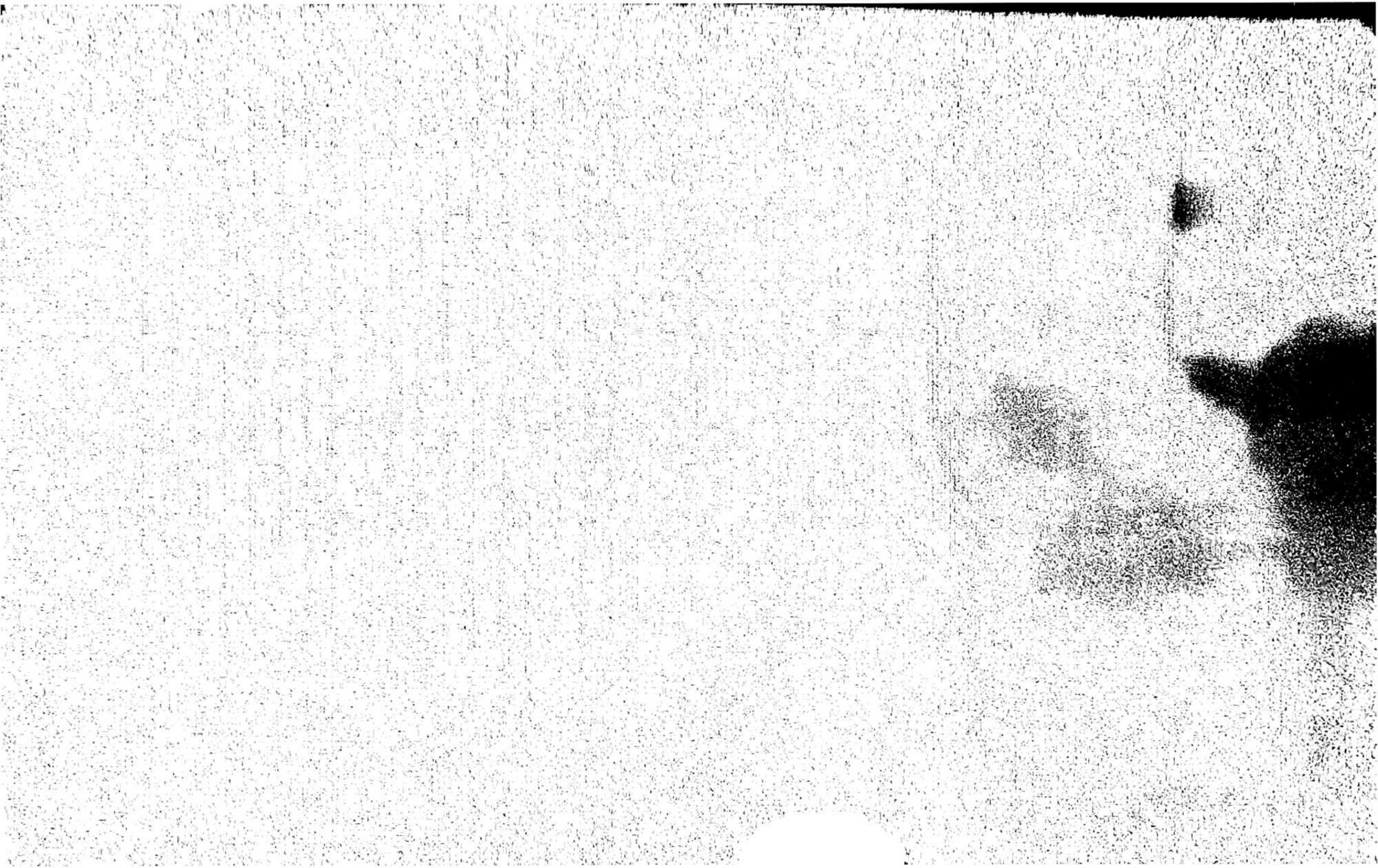
I suggest the following:

1. *Select a single market.* What you select is up to you, but remember what we said about knowing where the money you plan to win is going to come from. The stock market may be more desirable than the futures markets insofar as it is biased upward as a result of secular growth. Trading in the stock market also offers a wider variety of smaller trading opportunities and, therefore, requires less initial capital. The disadvantages of the stock market include the fact that sideways and bear markets, which can occur for substantial periods, may eliminate any advantage due to secular growth. Because the futures markets offer such a diverse group of underlying instruments, it is rare that some trading opportunity is not present.
2. *Start with as small a position as you can,* but make sure you bring enough capital to the project and that your average wins and losses are sufficiently large so that your transaction costs do not eliminate any edge that you might otherwise have.
3. *Be patient about your first trade.* Don't do anything until you are satisfied that reasons for doing it exist and the timing is right.
4. *Plan your trade out thoroughly as to price and time.* Where is the trade going? By when? Where do you exit with a profit? A loss?
5. *Never, never, never, never, never do anything that is attended by the risk of elimination.*

Don't be discouraged if you don't do too well in the beginning. Actually, it's the best thing that can happen to you. The worst thing that can happen is to have a big win. No matter how smart you are, a big win will cause you to draw many erroneous conclusions about trading, and it will take a long time and a lot of losses for you to identify and correct them. There is an emotional cost to too much success too early as well. If you win big before you're ready, it is likely that you will spend the rest of your speculating career chasing that feeling, hoping that it will return with each trade you make. And you know about people who hope.

Most people who enter the markets are willing to listen to anyone, including friends, brokers, and even people they never met before. *It is a good thing to watch what these people are doing, not because they know more than you do, but because they know less, so you can avoid their mistakes.* When it comes to fashioning a trading strategy, you must develop your own, sound methods—ones that are based on your own inimitable strengths, skills, and perceptions. You should listen to no one.

Except, of course, your Aunt Gertrude. You should listen to her. She knows what's good for you.



12 BUYING THE APOCALYPSE, NOW

Risk and reward

There is a famous scene in the movie *Apocalypse Now*. Captain Willard (played by Martin Sheen) and his crew are being flown by helicopter, boat and all, into the mouth of a river that will take them into Cambodia, the Heart of Darkness. The Colonel (played by Robert Duvall) in charge of the cavalry unit that is transporting Willard is a surfing nut. It just so happens that Lance, a member of Willard's crew, is a bona fide, blond-haired, blue-eyed, suntanned surfing champion from Southern California. The Colonel is so excited to meet Lance that he decides to take the more perilous of two possible entry points to the river because it has great surf. One of the Colonel's cavalrymen thinks that the point is too hot and that it can't be taken from the Viet Cong. "But Colonel," he protests, "that's Charlie's point."

"Charlie don't surf," the Colonel replies.

Chef, another one of Willard's crew members, is a saucier from New Orleans who, in Willard's words, "is wired too tight for Vietnam" and maybe "too tight for New Orleans." As the helicopters approach the point and prepare for attack, the cavalrymen, obviously used to this type of operation, take their helmets off and sit on them, like football players on the sidelines. Chef has his helmet strapped on so tight that all you can see of his face is his handlebar mustache. He looks around at the others who are all sitting on their helmets. After hesitating a moment, he summons up the courage to ask them why they are sitting on their helmets instead of wearing them on their heads.

"So our buns don't get shot off," is the reply.

Chef lets out a nervous laugh. At first he thinks they are putting him on. You can see him picturing the flak coming up from the ground as they swoop to the attack. Chef makes his decision.

He rips his helmet off his head and sits on it.

The point of the story is that, except for a few visionaries and eccentrics like the Colonel, people are like Chef—risk-averse.

If Chef could have paid you a risk premium to take his place, do you think he would have?

Compare Chef to Colonel Kurtz (played by Marlon Brando), the renegade officer who Willard is assigned to terminate with extreme prejudice. When we finally meet him, he is lying in a room lit only by dim candles. As he moves slowly about in the darkness, the candlelight flickers off his bald head, which is bloated with disease. He tells Willard a story that goes something like this. Kurtz's unit entered a Vietnamese village, inoculated all the little children, and left. When they returned later they found a pile of little arms. The enemy had entered the village after Kurtz's unit left and amputated all the arms that had been inoculated. Kurtz wept with horror at the incomprehensibly wicked act. But, on reflection, Kurtz recognized that horrifying as it was, the mass amputation was an act of military genius. The message was clear: The enemy was prepared to do whatever appeared necessary to prevail. The mass amputation was the perfect act of an army that completely understood the horror of war. The genius lay in the ability to perceive what had to be done and to do it regardless of how distasteful.

It is not coincidental that books on speculation and speculators are frequently couched in military terms. The Chefs of the world are risk-averse. They create opportunity for the Kurtzes. In the context of war, the Chefs are followers for the leaders. In the context of the markets, they are people who will pay for the services of a speculator, one who has the ability to see what must be done and the willingness to do it, precisely at a time when no one else wants to. As we have seen, doing your job as a speculator sometimes requires buying when there's blood in the streets or under other circumstances when all but the bravest are selling. Indeed, the best trade imaginable would be buying stocks at the Apocalypse. You'd get them for nothing and, if it turns out that there's a stock market in heaven, you'll be the richest one there. Okay, the second richest one.

But let's think in terms of some trades that may materialize before the

end of the world. If riskless investments such as U.S. Treasury bills are guaranteed to appreciate, then why would people own riskier investments unless they were able to purchase them at a discount to expected cash flow that reflects the greater risk they assume?

You will recall from the discussion accompanying Figure 3.2 that risk and reward are directly related. That is, the greater the level of risk, the greater the expected reward. In Chapter 3, we covered the economic description for this phenomenon, namely, that the marginal utility of the possibility of additional gain from price volatility is less than the marginal disutility of incurring the equally probable loss. We took the example of the owner of a copper mine who would prefer steady income to wildly variable income, and we showed how he would be willing to pay something to speculators for taking that risk off his hands. If you don't understand this concept, you should review the discussion in Chapter 3.

As noted in Chapter 5, our old friends the efficient market theorists were able, for a time, to shift emphasis away from security selection to risk management. With the new emphasis on risk management came increased urgency for risk measurement. As the academics created needed tools and further studied the relationship between risk and reward in the marketplace, controversies arose concerning the extent to which the market in fact rewards risk. What no one doubted in theory became subject to doubt in the real world.

As we saw in Chapter 5, the efficient market theorists argue that competition among speculators makes the markets efficient with the result that no human being can expect to outperform the markets except by taking more risk or by being lucky. Obviously, there are plenty of people who are very publicly outperforming the markets. And, if you don't know any individuals who are doing so, you can simply note that over a long period of time the stock market has outperformed the U.S. Treasury bill market. Why do some of these people win? Why does the stock market go up more than the risk-free rate over the long run? We know that there are three answers: (1) people win because they are lucky; (2) people win (and the stock market outperforms the bill market) because they take (or, in the case of the stock market, entail) greater risk and must, therefore, offer greater reward; and, (3) people win because they do their job as speculators. As we saw in Chapter 5, the efficient market theorists satisfied themselves (not us) that only the first two explanations are true. Obviously, luck is beyond our control. So, they concluded, if the only

way to outperform the markets is to take greater risk, then we better learn all we can about what risk is, how to measure it, and whether there are differences between some risks and others.

Let's take a quick look at some of the things they did.

The proposition under examination is that the riskiest investments appreciate most over the long run. Perhaps the most famous study of this proposition was done by Roger Ibbotson and Rex Sinquefield. Ibbotson and Sinquefield studied the stock, corporate bond, and U.S. Treasury bond markets and the Consumer Price Index during the period from 1926 to 1983. As expected, their study showed that common stocks, the riskiest vehicle, appreciated the most. Second were corporate bonds, which are the second riskiest. Third was the Consumer Price Index, the third riskiest. And last were the riskless U.S. Treasury bills. Here is a table showing their results:

SELECTED PERFORMANCE STATISTICS, 1926–1983

Series	*Annual Mean Geometric Rate of Return*	*Standard Deviatior.*
Common stocks	9.6%	21.4
Long-term corporate bonds	4.2	7.6
U.S. Treasury bills	3.1	3.2
Consumer Price Index	3.0	5.0

In the paragraph preceding the table, I described common stocks as being the riskiest of the group of instruments studied, and you probably didn't give it a second thought—everybody knows it's true. But the concept of risk is of paramount importance to speculators. How do we know stocks are riskier than bonds or bills? More important, what do we mean by the term *risky*?

Modern portfolio theorists asked the same question and came up with the following. As we briefly mentioned in the preceding chapter, risk is related to the expected frequency of adverse variations from the expected rate of return. If we can create a measure of adverse variability of returns, we can compare the historical riskiness of any two securities or other instruments and see which performed better. Instead of creating a mea-

sure of adverse variability, the academics looked around and found ready-made statistical measures of total variability, including both adverse and happy surprises. These measures were called, not surprisingly, *variance* and *standard deviation*. While these same tools could be used to measure only adverse surprises, the academics, in a fit of laziness, decided that total variance was good enough, since, in general, variance appeared to be symmetrical, meaning that the amount and frequency of happy and unhappy surprises were about the same. As we speculators know, this is a particularly shaky foundation upon which to rest such an important inquiry. However, since the people conducting the inquiry did so to further the conclusions reached by people who believe the markets are efficient, they were quite willing to proceed on this basis.

If you return to Ibbotson and Sinquefield's table and focus on the "Standard Deviation" column, you will see that performance was found to be directly related to the standard deviation of the individual annual returns. This is the academic way of saying that the riskiest things outperformed the safest things.

So far so good.

The academics reached a couple of other important conclusions. Since, as far as they were concerned, the markets are efficient, portfolio managers could not be expected to outperform the markets except by taking greater risk than the markets as a whole. Portfolio managers could, however, be expected to achieve a level of performance consistent with a given level of risk and be graded on that basis. Some further measuring tools were required. The academics came up with the concept of *beta*.

Beta measures the riskiness of a security, instrument, or portfolio relative to a broad-based index. For example, a security that on average moves up or down twice as much on a percentage basis as the Standard and Poor's 500 composite stock index may be said to have a beta of 2. A diversified portfolio of stocks that moved up and down twice as much as that index would also be said to have a beta of 2.

Armed with this new tool, the academics could test for the expected relationship between risk and reward. Although the earliest tests conformed closely to the theory, *subsequent tests showed that, under many circumstances, higher beta stocks and portfolios failed to do as well as expected.* These studies caused some academics to question the utility of beta, or any quantitative analyses, in portfolio theory.

There are many possible reasons for the suspicious performance of beta. One extremely obvious one is that *there is no good reason to assume that*

past variability is necessarily going to be a reliable predictor of future variability. Indeed, some tests have shown that, at least in the case of individual stocks, past variability is not a reliable indicator of future variability. When you recognize that the markets are forward looking in nature, it seems obvious that risk must be a function of expected future variability, not historical variability.

The important point is that, regardless of the success or failure of beta, it is true that the market rewards risk takers. Speculators and portfolio managers can enhance results by taking greater risk, *provided that they have an edge to begin with.* And, of course, the risk assumed must not overwhelm their edge. (Remember the discussion in the previous chapter of the importance of structuring your plan to give your edge the best chance of working in your favor.) As was the case with market forecasting, mechanical approaches based exclusively on historical data cannot be expected to yield effective measurements of risk. Such information can at best comprise only one part of the picture.

For most of us, statistical measurements of riskiness are unnecessary in making our decisions. We don't need a rocket scientist to tell us that Genentech is riskier than AT&T. Although history can be a useful tool in assessing relative risk, it is no substitute for a little, *forward-looking* common sense.

In the next two chapters, which discuss technical considerations, we'll cover other ways of identifying risky opportunities for speculators to capitalize on. But the best test may be to apply the Chef Rule:

> *The best trades to make will be the ones that make you most want to sit on your helmet.*

13 MONDAY IS A BAD DAY

Technical aspects of trading

A recent interview of noted, 79-year-old, economist John Kenneth Galbraith that appeared in *Barron's*[1] began as follows:

BARRON'S: The world is falling apart.

GALBRAITH: Oh? What's the stock market doing today?

Q: The last time we looked, it was down 100 points, but that's not the half of it. Would-be Haitian voters have been massacred by thugs. A Korean jetliner crashed under suspicious circumstances near Bangkok. There's been a massive earthquake in Alaska, and California is bracing for a tidal wave.

A: Well, the one thing I've learned in all my years, that's been replicated again and again, is that Monday is a bad day.

Why is this funny? Ask any trader who's been around for a few Mondays and he'll tell you why—because, silly as it sounds, it seems to be true. When things are going badly, Mondays, especially Monday mornings, seem to have a special propensity to be brutal. This phenomenon is so well known that there is even a book titled *Never Sell Stocks on Monday*.

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[1]December 7, 1987, p.8.

Here's another example of the Monday-is-a-bad-day phenomenon. Not too long ago, gold was making its last leg down in a bear market that extended from 1980 until 1985. Some very successful floor traders I know from the COMEX, the exchange on which the most actively traded gold futures are traded, were making very good money selling gold futures short at the close on Friday and buying them back in at the open on Monday morning—week in, week out.

Then there is my compatriot, Steve Chronowitz. Steve is the finest technician I know, and one of the main reasons that I can't quite bring myself to reject the possibility that you can outperform the markets by technical analysis alone. One of Steve's favorite observations is reflected in what he calls the Thursday-Friday-Monday rule. Simply stated, the rule says that in a down market, if the market is down on Thursday and Friday, it is likely to be lower on Monday, often quite a bit lower. The Thursday-Friday-Monday rule is accompanied by the Tuesday Reversal rule. The Tuesday Reversal rule says that a little extra weight should be given to reversals that occur on Tuesdays. Sound odd? Well, maybe so. But, as any trader who's been around for more than a few Mondays knows, there's a lot of truth to it.

Why are Mondays such bad days? If I had to guess, and I guess I have to since I asked the question, I would say that a substantial segment of the market makes its investment decisions over the weekend and implements them on Monday mornings. If Thursday and Friday have been down badly, the crowd is likely to be discouraged, and its discouragement will be reflected by selling on Monday morning. But shouldn't an efficient market, or even a semi-efficient market, know about the Monday-is-a-bad-day phenomenon and discount it in the price structure on Friday night?

Yes, it should. Sometimes it seems to; sometimes it doesn't. I'm not suggesting you should try to trade on the phenomenon—I certainly wouldn't. But I bring it up by way of introducing the important subject of using technical phenomena in your trading.

The Monday-is-a-bad-day phenomenon and the other rules described are three examples of what might be considered technical observations, unusual as they are. Among the many conclusions reached in Part One was that, while technical analysis cannot be absolutely ruled out as the sole basis for making successful trading decisions, it is subject to certain conceptual shortcomings that do not plague forward-looking fun-

damental analysis. But even those of us with a fundamental orientation must readily recognize that trading on fundamentals alone, if not impossible, certainly leaves much to be desired. Critical questions of entry and exit in price and time are only insufficiently addressed by fundamental approaches. In my opinion, there is a better way and that is to consider technical factors as a guide to implementing fundamental decisions.

As was the case in Chapter 7, this chapter describes my personal solution to the subject problems. In it, I ask and answer questions about what to buy and sell, and where and when to buy and sell it. (Why you should be buying or selling was answered in Part One.) To the extent that these questions can be answered by reference to fundamental considerations, they have already been answered. But, as you will see, more often than not the answers to these questions will depend on the action of the market itself.

As we said in an earlier chapter, although this is a book about economic decisions, it is not a book about economics. Likewise, although this chapter expounds on technical considerations important to making trading decisions, it is by no means a book on technical analysis. Nor is this chapter a substitute for a sound understanding of technical principles. If you are serious about trading, you are encouraged to read one of the several fine texts on technical analysis *before* you begin trading. The one I favor is generally regarded as the great grandaddy of them all—*Technical Analysis of Stock Trends* by Robert D. Edwards and John Magee.[2]

In a sense, this chapter is a companion to Chapter 7, in which I presented my personal approach to identifying opportunities to demand supply and supply demand, since it describes the technical considerations that I employ. As a result, this chapter is particularly subjective. I do not present it as being representative of the truth but only the truth as seen through my eyes and experienced by me. Beginners, having little or no experience to draw upon in considering the material, are likely to find much of it to be incomprehensible or otherwise beyond their ability to evaluate. To them, I repeat, read and study a good text on technical analysis—and trade a little, too. Then I hope you will find the observations contained in this chapter to be most helpful.

We'll begin by making a limited number of observations about the

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[2]5th ed. (New York: John Magee Inc., 1966).

nature and structure of the markets. Next I'll describe how I use charts to generate ideas and monitor the markets. Then we'll conclude by discussing trading tactics based on technical considerations.

TECHNICAL OBSERVATIONS

The market is comprised of individuals who act or who have the potential for acting in one of a number of different roles. While categorization may differ according to purpose, we will focus on the following groups: consumers, producers, governments, market makers and arbitragers, scalpers and long-term-oriented speculators, and other speculators.

While their importance in determining *price in money terms* at any given moment will vary, they might be ranked according to long-term effect as follows:

Governments (fiscal and monetary policy makers)

Consumers

Producers

Speculators oriented to the long term

Other speculators

Market makers and arbitragers

Of course, governments may act as producers and consumers, but they are listed here to reflect the overriding impact they have on *money* prices by virtue of their control over monetary policy, fiscal policy, and the currency. Their impact is significantly less, although still substantial, if prices are measured in nonmonetary terms. In that case, it is ultimately the consumer who dominates. (Don't forget that the government is an increasingly large consumer too.)

For purposes of this discussion, speculators include all participants purchasing or selling for the purpose of profiting from anticipated changes in price, regardless of whether they belong to other categories as well.

Consumers dominate over the long run by purchasing and consuming what they choose—by making their selections among scarce goods. As long as they are acting solely in their capacity as consumers, their demand

reflects demand for current consumption and may be overwhelmed *for short periods of time* by speculative or other influences.

Producers produce what consumers want them to produce.

Speculators direct producers to produce what consumers will demand in the future. Under certain conditions, speculative participation can become so large that it overwhelms the importance of the consumers.

Market makers and arbitragers principally play a liquidity role and, except in the shortest time horizon, are not a major price-determining factor.

The prevailing price at any moment reflects the peculiar mix of all of the market participants.

The prevailing price at any moment also reflects the peculiar concerns and motivations of all of the market participants, including price itself.

In general, the price that prevails at any given moment is the price that will encourage the most trade. As we saw in Chapter 2, this is the necessary result of the law of market equilibrium.

The shorter the time horizon, the greater the impact of short-term-oriented participants.

The longer the time horizon, the greater the impact of the consumer and the government.

Speculators drive the market by demanding supply and supplying demand.

The markets are substantially efficient within the time horizons of the major participants or participant groups.

There is a limited amount of funds available for speculative profit. Major sources of such funds include governments, institutions, corporations, producers and consumers, and weaker speculators. Such funds are continually being reapportioned among speculators in an ongoing competition. Weaker or less competitive speculators are continually being weeded out, and better speculators are reinforced with more capital in a Darwinian process of natural selection. *The markets will do whatever they have to do to ensure that scarce funds available for speculative profit are properly allocated among speculators,* including sharp and unexpected breaks and rallies designed to shake out weaker participants who happen to be positioned on the right side of the market at the time.

The markets change continually. As with Heraclitus's river, the market changes with each instant, as the concerns and motivations of the participants change. While we can make useful technical observations about

markets, we must remember that *technical rules are only useful while they work* and they are subject to the adjustment of the markets over time.

As a class, speculators play what may be described as an inventorying function. Speculators buy goods from producers and distribute them to consumers, maximizing the utility of the economy in the process. When supplies are high and demand and prices are low, speculators take goods into inventory for distribution when demand and prices are high and supplies are low.

Technicians refer to the process as one of accumulation, mark-up, distribution, and markdown. When market prices are moving in one direction, the market is said to be *trending*.

Significant market moves rarely occur in a straight line. As a trend develops, the price action causes consumers, producers, and speculators to respond. The peculiar mix of participant response may cause the trend to accelerate, pause, or reverse. As a result, most price movements occur in waves of varying regularity. By convention, an *up trend* is usually defined as a series of generally higher prices in which the successive crests and troughs of the price waves reach higher levels than their respective predecessors. (The conventional way to describe this action is to say that the market is making higher highs and higher lows.) A *down trend* is the reverse—generally declining prices in which the advances, if any, result in a wavelike pattern of successively lower highs and lower lows.

Figure 13.1 shows how these phenomena might appear on a long-term chart of the S&P 500 Composite Index.

Trends may be measured by the nature and extent of their counter-trend movements and the time it takes for them to make new highs in the case of an up trend and new lows in the case of a down trend. Stronger moves tend to correct less sharply and to require less time consolidating or correcting before new highs are made. Depending on the stock or commodity, if an advance is good it can be expected to hold from 20 to 65 percent of its move and require little rest time before it renews its advance. Failure to do so is a sign of weakness and often portends a longer period of consolidation or even a reversal that is marked by new lows.

Note that these general observations will vary across time and markets. And remember, to the extent that they reflect predictable market behavior, *all technical rules are subject to change as speculators observe them and begin to act in anticipation of them*. From a trading standpoint, technical criteria must be regarded as temporary in nature; the tools are useful only

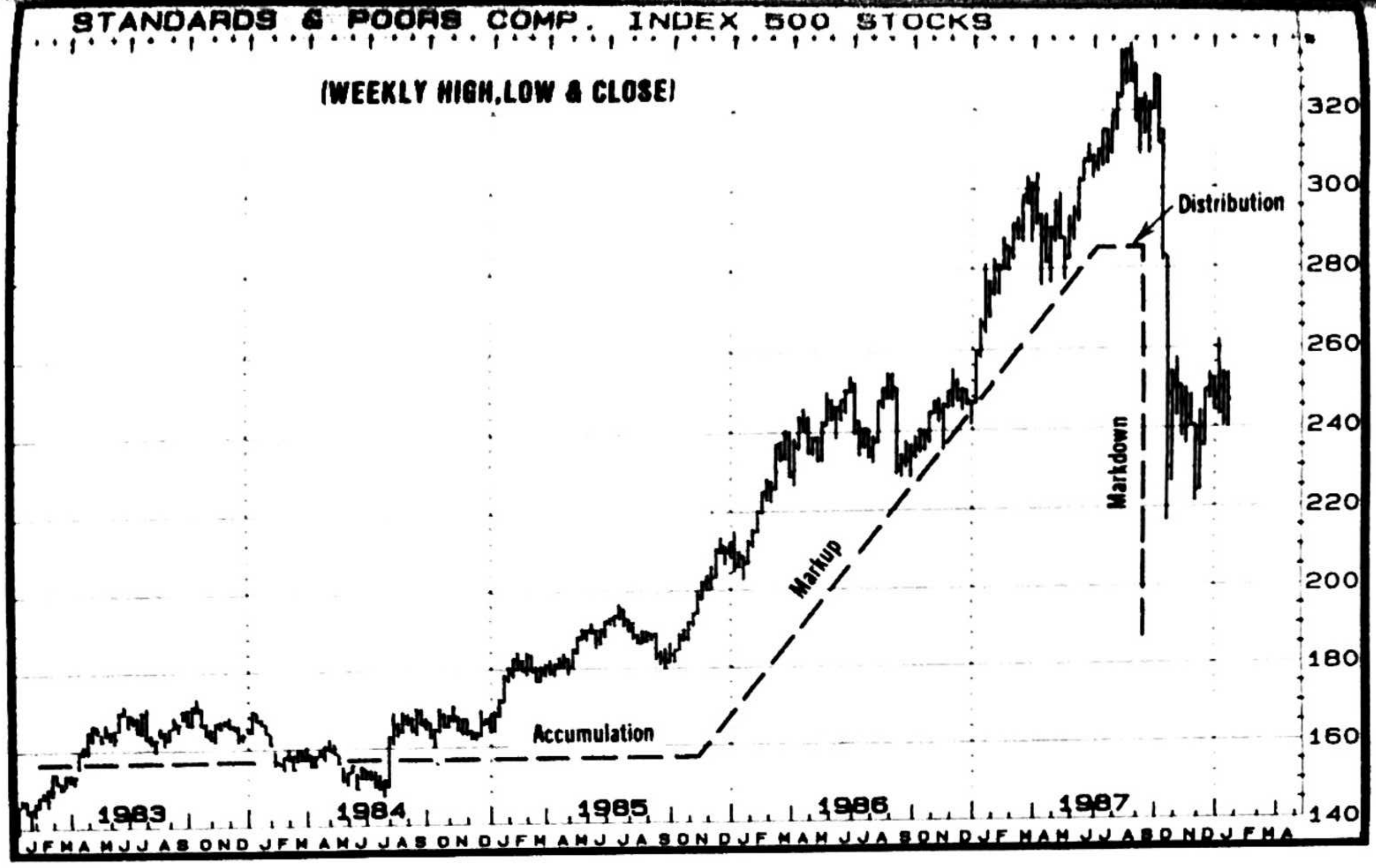


FIGURE 13.1. TECHNICAL PHASES OF MARKET ACTIVITY. **Figure 13.1 shows the four major technical phases of market activity (accumulation, markup, distribution and markdown) as they might have applied to the stock market during the period January 1983 through January 1987. For illustration, the Standard & Poor's 500 Composite stock index is used. Courtesy of CRB Futures Chart Service.**

for so long as they work, and they can be expected to work only for so long.

USING TECHNICAL INFORMATION

Since I have adamantly insisted that I am unable to obtain a speculative edge solely by using technical analysis, it might come as a surprise when I tell you that I so willingly allow technical considerations to play any role at all in my trading. But the thinking is really quite clear. If I have decided on what I expect to unfold in the markets, then I know what I am looking for. The principle advantage of charts is that they organize and convey virtually infinite amounts of information in a readily understandable format. Charts are the best way of determining whether what you expect to happen is happening. If it is, you can decide what to do about it and when to do it.

Consider the following analogy. You live in Topeka, Kansas. You decide to go to Frostbite Falls, Minnesota. You know it lies somewhere to the north, but you don't know how to get there. You need a map. The map is useless to you if you don't know where you want to go. Once you do, you are helpless in getting there without it. This is the principal utility of technical analysis to me.

There are two other important ways the charts can help implement decisions.

One is as a source of ideas. In other words, price or other technical action that surprises should cause reflection that may result in the formulation of a fundamental thesis.

Let me give you a recent example. In January 1987, the Federal Reserve had been accommodative for about five years, with a brief interruption in 1984. The Fed's easy money policies were designed to bring our economy back from the severe recession of 1981–82, which Chairman Volcker's tight money policy had induced to break the spiraling inflationary cycle of the previous decade. The stock market was well on its way to an historic rise. The dollar had fallen from its 1985 highs to levels that appeared near purchasing power parity with our major trading partners. Interest rates were substantially lower than they were when the Federal Reserve began easing, but they were still relatively high on an historical basis. While the economy was growing slowly, important sectors, notably the "oil patch" and the farm belt, were depressed.

There were several major problems.

For two years, the declining dollar had failed to put a meaningful dent in the trade deficit, and protectionist pressures were mounting as a result. The unusual Gramm-Rudman initiative, which aimed at getting at the real cause of the problem by requiring a balanced budget, was degenerating into a bad joke. The dollar, which had declined in an orderly manner under the watchful eyes of the Group of Five, was suddenly threatening to go into a free fall. The dangers of an uncontrolled decline in the dollar included our inability to finance our budget deficit with foreign funds on acceptable terms, higher interest rates which would threaten our banking system and world growth, and runaway inflation. Still, the consensus appeared to be that further accommodation would be forthcoming, based on the notion that the policy was to accommodate the growth of money until inflation or growth became too rapid, and that the objective remained to attempt to grow our way out of the twin deficits.

In March, Eurodollar futures, which are a good indication of short-term credit conditions, broke sharply from a narrow range after their two- (or five- depending on how you measure it) year advance. Figure 13.2 is a long-term chart of Eurodollar futures prices.

The subtle message was that the Federal Reserve had probably reversed (or at least interrupted) its accommodative policy and was drawing dollars out of the market in an effort to slow the decline of the dollar and avoid a resurgence of inflation. At the time, the Federal Reserve was not prepared to admit that its policy had changed, although Chairman Volcker repeatedly indicated that the Federal Reserve was prepared to tighten credit if it became necessary. It was not until May that Volcker admitted that credit had been tightened. *The important point for our purposes is that Eurodollars told us what was happening nearly five months earlier.*

To take the example further, the unexpected decline in Eurodollar futures might have helped spawn the following fundamental thesis in spring of 1987:

1. The fundamental economic problem facing the United States is its enormous budget deficit.
2. Our insistence on living beyond our means (i.e., consuming more than we produce) is causing downward pressure on the dollar and upward pressure on interest rates, and will ultimately lead to unacceptable levels of inflation and perhaps worse structural problems.

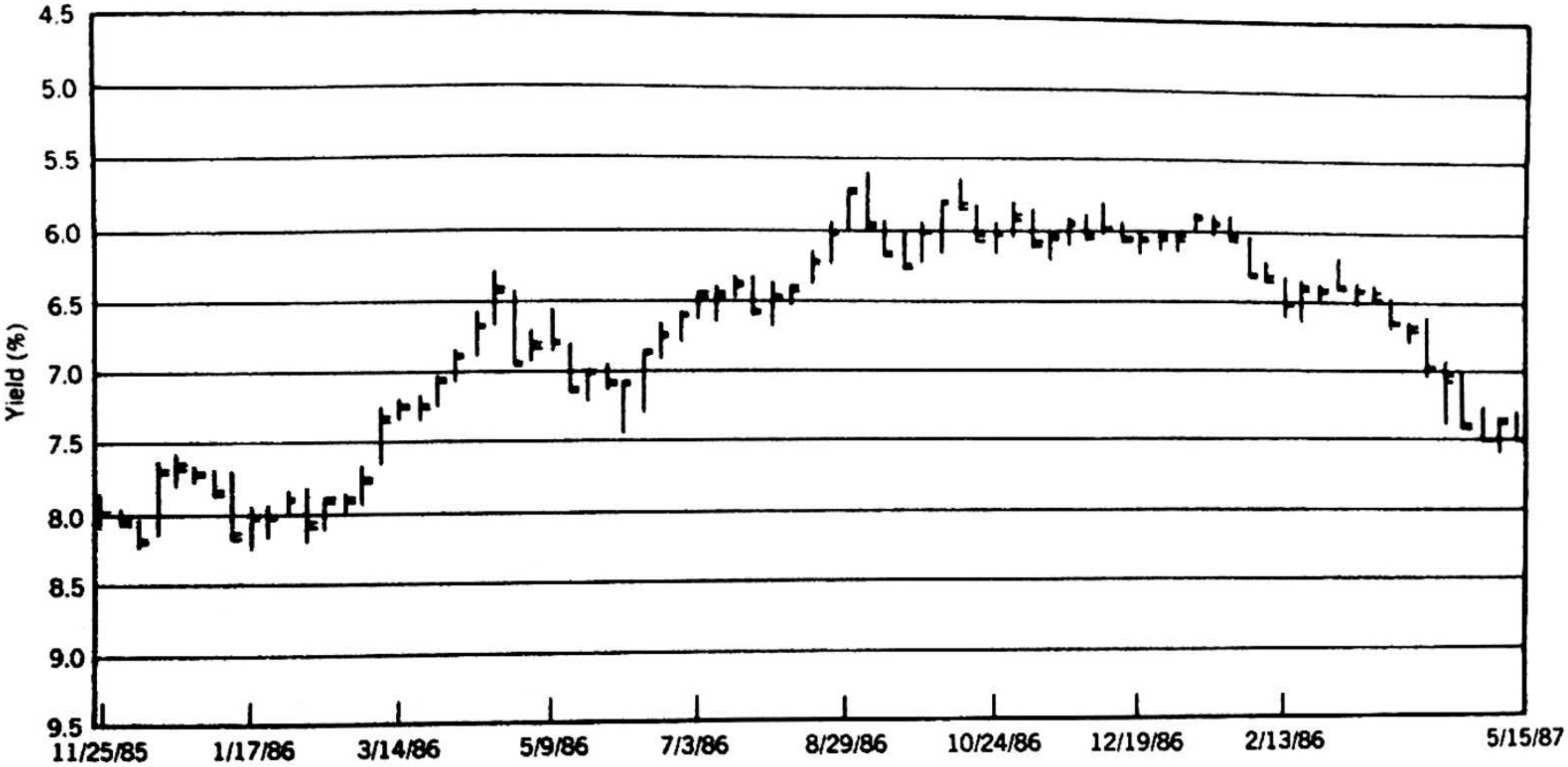


FIGURE 13.2. WEEKLY BAR CHART OF JUNE 1987 EURODOLLAR FUTURES FROM NOVEMBER 25, 1985 TO MAY 15, 1987.

3. One short-term solution available to the Federal Reserve would be *to induce deliberately a recession in 1987 or early 1988*[3]. A recession would substantially reduce consumption, stabilize the dollar, and cleanse the system of marginal businesses that arose during the expansion. If shallow, such a recession could be terminated prior to the 1988 elections by timely return to more accommodative credit policies.

Thesis: Tighter Fed policy will cause a slowdown or shallow recession in late 1987 or early 1988.

The important point is not whether the thesis ultimately proved to be correct, but that the technical behavior of the Eurodollar market could prove useful in formulating a thesis. It is interesting to note that the thesis did in fact appear to be working out in April when the dollar stabilized, the stock market paused, and precious metals broke sharply.

The first sign that the thesis was not materializing came in an unexpected way. And that brings us to another important use of technical information: to tell us something may be amiss with our thesis. Maybe we want to go to Frostbite Falls. But if we don't see any roads on the map that might lead us there, or if the road we're on suddenly reverses its course away from our destination, then it's plain that we aren't going to get there. So the charts can serve as an early warning that our decision is ill timed or incorrect. In other words, the charts can tell us that what we're looking for isn't happening.

Let's return to our example. When we left off it was late April. Short rates had declined by about two points in a single month, long rates by about one and one-third. The dollar had stabilized. The unprecedented stock market advance that occurred virtually without interruption during January-April finally halted. Silver and gold, which had exploded, topped and sold off sharply. And then, no surprise, Chairman Volcker announced that the Federal Reserve had "snugged."

If the thesis continued to unfold as foreseen in January, the trading strategy was simple: Watch for further signs that the economy was rolling into a shallow recession and begin to purchase stocks and commodities as

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[3]I hope you're not sitting there thinking that the Federal Reserve would *never* deliberately induce a recession. Of course it would! It probably would never admit to it (at least not until afterward, anyway).

the recession became generally recognized (and fully discounted)—when there was plenty of supply and little demand for it.

The thesis failed to materialize. *The first important signal was sent by the copper market*. In May, about the same time that Volcker announced that the Federal Reserve was snugging and while the stock market and the precious metals market were still correcting, copper ended its correction and then began to rally sharply. Figure 13.3 charts copper futures.

Significantly, the rally was *contraseasonal*. (Copper tends to rise in the spring in anticipation of the home-building season and to sell off in the summer.) At first, I thought that copper's rise was the result of where it was—that is, on an inflation-adjusted basis copper was so low that it was appreciating merely because it had been sold out. But as the move gathered momentum, the message was clear. *Copper was giving us our first clue that there would be no recession in 1987 or early 1988, or, at the very least, that further tightening would be required to bring it about.*

Soon lumber followed copper's advance. Then gold and silver and the stock market ended their corrections and renewed their upward paths, confirming what copper had told us. *The issue then became how far the Federal Reserve would be willing to go to slow things down*. As it turned out, they went farther than expected and the results became well advertised on October 19, 1987.

So far, we've identified several important uses for charts. They (1) tell us that what we expect to happen is in fact happening, (2) help us generate ideas, and, (3) tell us that what we expect to happen is not happening, but that something else is occurring instead.

In addition, there are at least two categories of technical trades that may be made on their own, without fundamental justification. The first is trades based on certain *types of activity that are unexpected and cannot be explained*. One of the best categories of trades are things that go up when they should be going down, or vice versa. The example just mentioned is a good one. As you saw in Figure 13.3, in May 1987, copper began to rise at a time of seasonal weakness. Figure 13.4 shows what happened subsequently.

This category of uses for charts may be viewed as a subset of chart-generated ideas. It should be emphasized that the inexplicability of this trade in fundamental terms was precisely what made it so good. If you could have readily identified a reason for copper's aberrant behavior, then there would be no edge to the trade.

The second category of exclusively technical trades might be called

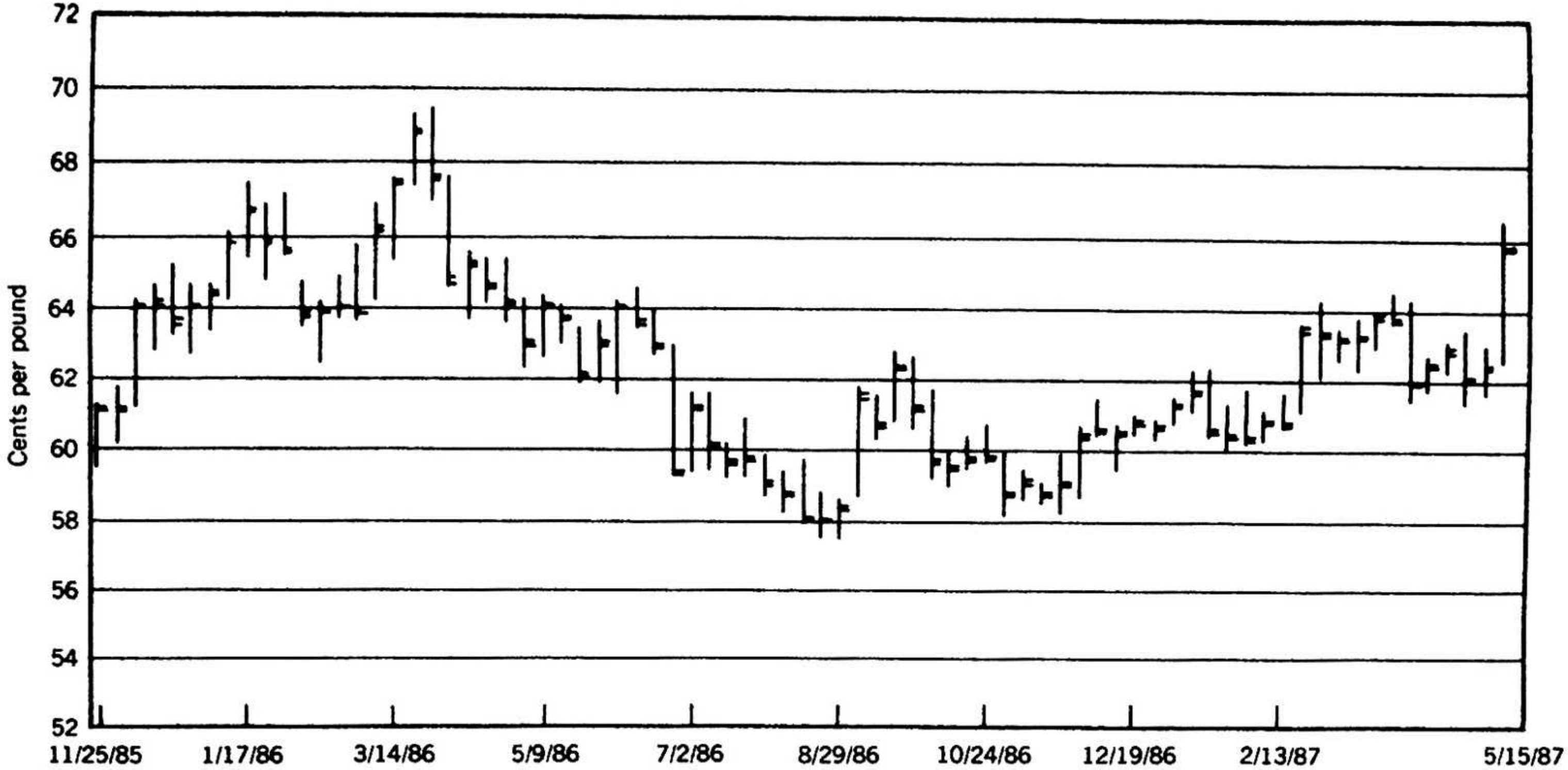


FIGURE 13.3. WEEKLY BAR CHART OF JULY 1987 COPPER FUTURES FROM NOVEMBER 25, 1985 TO MAY 15, 1987.

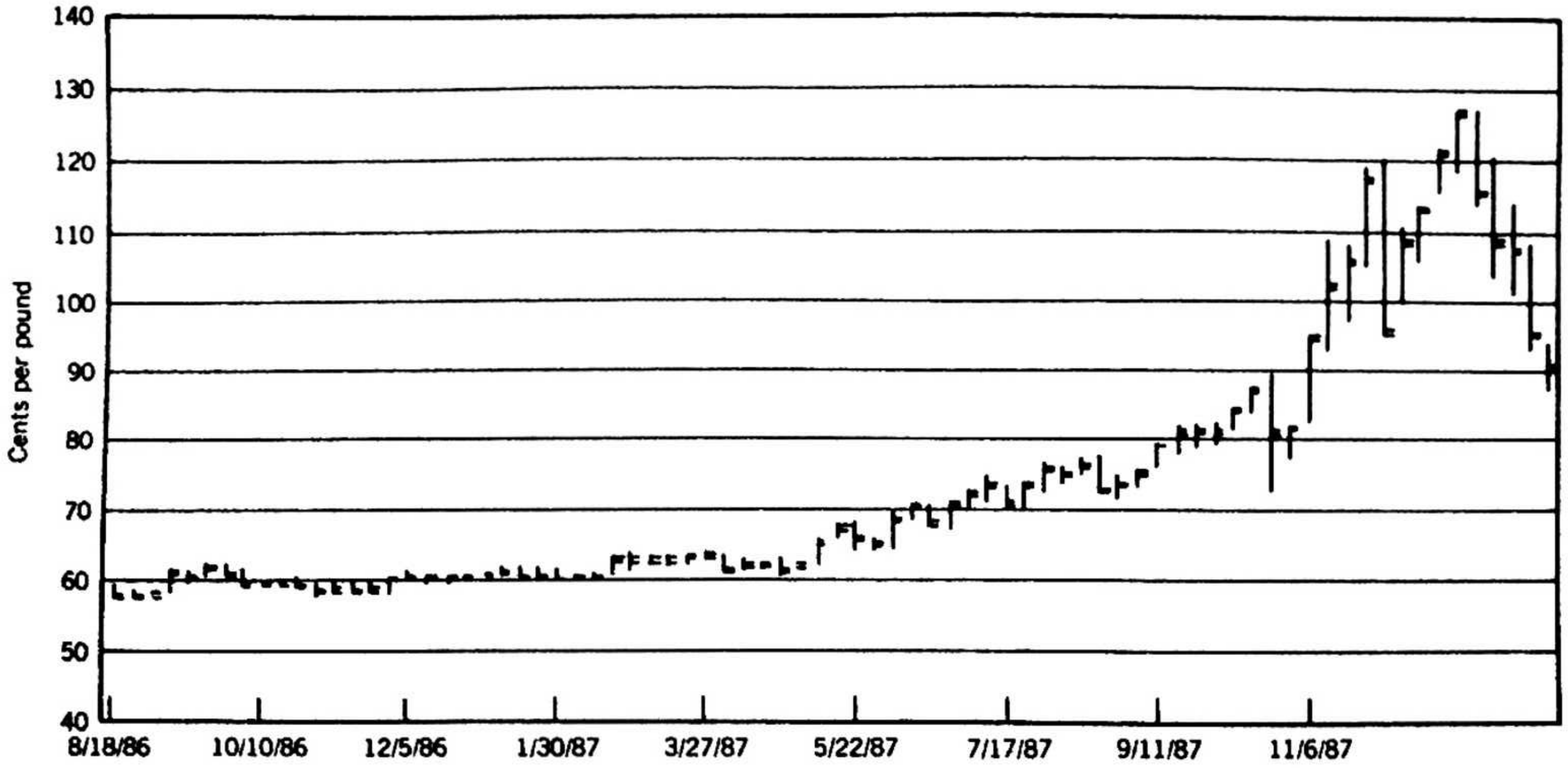


FIGURE 13.4. WEEKLY BAR CHART OF MARCH 1988 COPPER FUTURES FROM AUGUST 18, 1986 TO FEBRUARY 3, 1988.

structural trades. Structural trades are easy to manage but hard to make. Let's break this category down into its two parts.

Trades may be ranked according to the certainty of their entry and exit points. Each trade has an entry point, a perceived potential for profit, and a set of conditions that will cause the trader to conclude that his or her trade was wrong and, therefore, should be exited. The most manageable trades are ones in which entry can be accomplished sufficiently near the loss exit point so that monetary harm is minimal. Under certain conditions, where the potential is great and the trade is manageable, trades may be made on the technical structure alone.

The second criteria is that the trade may be hard to make. This is one of the most difficult concepts to describe because the category is sufficiently general to encompass a broad range of occurrences that may have little else in common. The best way to show you what I mean is to discuss hard trades in the context of where you are in the markets and what is moving when.

THE WHERE OF IT

Just as what's in the market is the starting point for fundamental analysis, where you are in the market is the overriding technical consideration. Before you can make any other decision, you must first decide where you are. Everything follows from that. To use the road map analogy again, if you are handed a map and told to drive to New York, what's the first thing you do? Figure out where you are *starting from*.

It should come as no surprise by now that one effective way to categorize market cycles is to break them up into three segments: bottoms, middles, and tops. Here's what Edwards and Magee have to say about stock market cycles:

> Primary up trends are usually (but not invariably) divisible into three phases. The first is the phase of accumulation during which far-sighted investors, sensing that business although now depressed is due to turn up, are willing to pick up all the shares offered by discouraged and distressed sellers, and to raise their bids gradually as such selling diminishes in volume. Financial reports are still bad—in fact, often at their worst—during this phase. The "public" is completely disgusted with the stock market—out of it entirely.

Activity is only moderate but beginning to increase on the rallies (minor advances). The second phase is one of fairly steady advance and increasing activity as the improved tone of business and a rising trend in corporate earnings begin to attract attention. It is during this phase that the "technical trader" normally is able to reap his best harvest of profits. Finally comes the third phase when the market boils with activity as the "public" flocks to the boardrooms. All the financial news is good; price advances are spectacular and frequently "make the front page" of the daily papers; new issues are brought out in increasing numbers. It is during this phase that one of your friends will call up and blithely remark, "Say, I see the market is going up. What's a good buy?"—all oblivious of the fact that it has been going up for perhaps two years, has already gone up a long ways and is now reaching the stage where it might be more appropriate to ask "What's a good thing to sell?" In the last stage of this phase, with speculation rampant, volume continues to rise but "air pockets" appear with increasing frequency; the "cats and dogs" (low-priced stocks of no investment value) are whirled up but more and more of the top-grade issues refuse to follow.

Primary down trends are also usually (but again not invariably) characterized by three phases. The first is the distribution period (which really starts in the later stages of the preceding Bull Market). During this phase far-sighted investors sense the fact that business earnings have reached an abnormal height and unload their holdings at an increasing pace. Trading volume is still high though tending to diminish on rallies and the "public" is still active but beginning to show signs of frustration as hoped-for profits fade away. The second phase is the *panic* phase. Buyers begin to thin out and sellers become more urgent; the downward trend of prices suddenly accelerates into an almost vertical drop while volume mounts to climactic proportions. After the panic phase (which usually runs too far relative to then existing business conditions), there may be a fairly long secondary recovery or a sidewise movement and then the third phase begins. This is characterized by discouraged selling on the part of those investors who held on through the panic or, perhaps, bought during it because stocks looked cheap in comparison with prices which had ruled a few months earlier. The business news now begins to deteriorate. As the third phase proceeds the downward movement is less rapid but is maintained by more and distress selling from those who have to

raise cash for other needs. The "cats" and "dogs" may lose practically all their previous Bull advance in the first two phases. Better grade stocks decline more gradually, because their owners cling to them to the last, and the final stage of a Bear Market in consequence is frequently concentrated in such issues. The Bear Market ends when everything in the way of possible bad news, the worst to be expected, has been discounted, and it is usually over before all the bad news is "out."[4]

In addition to its relevance to the basic decision of how to demand supply and supply demand, assessing where you are in the markets helps define three other important elements: riskiness, profit expectation, and trading strategy.

Regardless of where you are, your objective is to position your trades so that adverse moves will not require exit unless you conclude from the move that you were wrong to begin with. In other words, you don't want minor adverse moves that might occur within the framework of your decision to drive you out. It is difficult enough to be right. It is a terrible mistake to be right and not be there at the end of the trade to take the profit.

One of the biggest problems many traders have is keeping in mind their overall approach. When you make a trade, it must be because you believe that you have an advantage. If you are correct, you expect to win. If you are wrong, you expect to lose. If your approach truly affords you an edge, then, provided you avoid the other mistakes discussed in Chapter 11, you will come out a winner in the end. If you do not have an edge, you will not win unless you are extremely lucky. All of this is fine—it is the nature of the business. *It is not fine to lose when you are correct.* One of the very worst errors that you can make as a trader is to let the market knock you out of trades that you made with an advantage. And, remember, that is exactly what the market is going to try to do.

When a *long, protracted bottom* is being made, at low prices and with bad news well exposed, the risk of substantial further decline may be relatively low. Moreover, if such declines occur, they are unlikely to affect the conclusion that caused the trade to be made: that supply exists which should be absorbed in anticipation of future demand. Instead, such adverse moves are more likely to be perceived as negations of your timing: You were just a little early in entering the trade. So, you don't want further declines to knock you out (although you might view them as

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[4]Edwards and Magee, *Technical Analysis of Stock Trends*, pp. 15–17.

opportunities to accumulate a little more provided that it is within your plan). *At bottoms, the strategy is to buy and hold, provided that sufficient capital is allocated to the trade to withstand any adverse movements.*

Middles and tops require altogether different approaches. Here moves are well under way or even nearly over, swings are generally much more volatile, and time is short. While you have entered your trade on a general concept, it is imperative that your trade be specific as to price objective and time objective. *If either of these objectives are met, your trade should be exited.* Should conditions warrant you can always reenter the trade, but the operative words are "be nimble." Careful planning is essential to avoid the error of having to exit a trade when you really would prefer to be entering it. Patience is required to be sure of not forcing trades that you are late on.

THE WHAT OF IT

Many trading ideas contain the answer to the question of what to buy or sell. For example, if you believe that we will be returning to the gold standard, and that, as a result, there will be future demand for gold not currently discounted by the market, then the answer is simple: Buy gold. If, however, you believe that stocks are undervalued or the energy complex is headed for a fall because OPEC has lost its grip or if you're just generally looking for inflation, the question of what to buy or sell is not so obvious. In fact, the answer is not only not obvious, but it is one that can only be finally answered in retrospect: This is what I should have done.

If we reconsider what we know about our jobs as speculators, some important clues emerge. You know that you want to buy what nobody wants when nobody wants it and sell what everybody wants when everybody wants it. You also know that the markets can be expected to pay you for taking risk. From this we can draw a few conclusions.

In general, *the hardest thing to buy or sell will be the best thing to buy or sell.* If it looks obvious and not too risky, then it is easy to buy and everybody is buying it. If people are buying it at the bottom, it is not likely to be going very far. If people are buying it at the top, you should be selling what you long ago took into inventory just for this purpose.

Determining whether something is hard to buy will depend on the particular facts and circumstances. At bottoms and in middle stages *it*

means paying up for leaders, not bargain hunting laggards. If the choice is between heating oil and crude oil in the summer, heating oil (nobody wants heating oil in the summer, they want gasoline for their cars) is the choice. Whether something is hard to buy or sell can also depend on the technical picture: When something is moving up sharply, purchasing it may give you the feeling you are diving off a cliff. In such cases it is imperative to distinguish reaching after easy-to-buy trades at the height of speculative frenzy and making truly difficult purchases of strong stocks or commodities. *Hard-to-make trades occur when there are plenty of reasons not to make them*. Speculative frenzy occurs when there are nothing but reasons to make the trade and the reasons are known by everyone.

Unfortunately, not much more can be said on this subject because the cases are so individualized. Experience will assist you in identifying opportunities.

Closely related to buying what's hardest to buy is the concept of *making the riskiest choice*. There are two reasons for opting for risk over safety. First, the markets, as we know, reward us for assuming risk. Second, risky trades make it easier to have large profits and losses relative to transaction costs. Of course, as was emphasized in the preceding chapters, the risk assumed must not be so great as to overwhelm your edge.

Underlying the question of what to buy or sell is the broader issue of diversification. Most investment guides preach the virtues of diversification as the most prudent means to minimize risk. Indeed, much institutionally owned money is managed pursuant to the ultimate diversification strategy: indexing.

At the individual level, diversification is a prudent alternative to decision making for those who are unable to make good decisions. (This will be expanded upon in Chapter 17.) Diversification offers only one significant advantage to successful traders, however. Where it is difficult to determine what to buy or sell, diversifying will assure participation if the anticipated move develops. There is an important adverse side effect: Diversification will also assure a smaller profit than concentration in the leader (and, maybe, a substantial number of alternative choices).

If the market rewards us for taking risk, then measures such as diversification, which reduce risk, should be adopted only after much consideration. Early in their careers, traders may wish to diversify somewhat, but as they gain experience, concentration in the riskiest, hardest to buy instrument will be the most desirable alternative, provided that appropriate money management principles are followed.

THE WHEN OF IT

Timing may or may not be everything in life, but it sure is in trading, at least in the second and third stages of a bull market and throughout the entire course of a bear market. Its importance is evident from the way we describe one of our objectives: to buy what nobody wants *when nobody wants it* and sell what everybody wants *when everybody wants it*.

If you doubt the importance of timing, remember the silver story related in the previous chapter. It took silver futures three short months to fall from $45 to $13. For those who failed to get out in time, it was small consolation to know that they had the right idea on silver. Believe me, I know some of those people.

While there can never be hard and fast rules to govern all situations, the key point to remember is that the technical rules you follow must relate to your purpose: to demand supply and supply demand. If you keep your purpose in mind, you will find that technical signals become more easily understood and incorporated into your overall strategy.

Let's start with "when nobody wants it." At bottoms, the time for purchasing is usually pretty easy to identify. The overall background must be favorable; that is, it must appear to the uninitiated to be miserable. In the case of the stock market, the economy should be sluggish or in a recession or depression. In the case of the futures markets, the main thing is that there be plenty of supply. Other factors are low inventories and low factory capacity utilization. Markets that are washed out typically build extended bases on low volume. Speculative interest should be at a low ebb.

It is important to note that, at bottoms, the time element operates in favor of the purchaser, provided that he or she is patient. Markets that are in such bases are given to many false starts; *if they can't eliminate you by declining against you, they will try to wear you out by raising and lowering your expectations until you simply can't stand being long any more*. If you can adopt a "buy it and forget about it" attitude (that doesn't mean you shouldn't carefully monitor your position), then you are not likely to be under time pressure to make a decision. You did your job. Sooner or later the market will respond. When it does, you can send it your bill.

"V" bottoms pose a different problem. In theory, a "V" bottom is no different than a protracted bottom. What has occurred is that price has declined sufficiently to eliminate marginal producers and other sources of supply and to encourage new demand. Your optimum trade is, of course,

to absorb the supply that is surrendered at the bottom, which is a relatively easy thing to do when you have months or years to think about it. In a "V" bottom, time is not on your side; in fact it is virtually prohibitive. A "V" bottom can be put in place in a couple of hours. The price decline leading into it is likely to be so severe that it will be impossible to buy into it. The price rise exiting from the bottom is likely to be so steep that you will have difficulty buying it without putting yourself in the untenable position of having to get out of the trade on any break—precisely when you would want to enter the position. If you know in advance what you are looking for, "V" bottoms are not impossible and can be quite profitable. The best advice I can offer is either to buy early and give the market plenty of room or to buy the reaction off of the first rally.

In the middle stages, time gets shorter and decisions must be made. If you plan your trades properly, the middle stages can be the most profitable, because the markets are moving. Middle trades require far less patience than bottoms and are much easier and less exasperating than tops.

Trades may be initiated on strength or weakness, with only two criteria determining your course of action. First, you should remember that your job as a speculator requires that you demand supply and supply demand. Even major bull markets will provide pockets of supply. They may occur on bad news or on violent price action. The market will assure that only the smartest, strongest longs make it to the summit. Second, your entry points must be well planned. The entry point must provide you with an acceptable exit in the event you are wrong. You can assume that the market is going to test you. *So if you cannot hold the trade until the market has either provided you with your anticipated profit or given you a clear indication that you are wrong, then you should not make the trade.*

Tops are made "when everybody wants it." Tops are the hardest. In fact, tops are so hard that the temptation would be to sit them out except for one little thing: In the best trades, the greatest profit potential is going to come at the top, when greed brings would-be speculators out of the woodwork, driving the price up sharply. The problem is timing. If you get out just a little too early, you may miss an enormous piece of the move. If you don't get out in time, you may be in for a precipitous ride down. And, keep in mind that the market may provide you with several sharp breaks on the way up, just to soften you up so that when the real decline occurs you'll be left waiting for the rally that never comes.

The psychology at tops is difficult too. You are operating in a volatile

environment. If you bought low, you are likely to be surprised by how far a move might run before it is over. This will be the case if you underestimate how sold out the market was when you bought it or how ebullient the market might become. Alternatively, if the market has treated you well, the temptation is to become friends with it, be greedy, or both. In either case, substantial profits may slip away.

Of course, it isn't always this bad. Frequently, prices rise and hold at the new level. Sharp reversals at the top are caused by an excess of weak speculative activity or by the arrival of overwhelming new sources of production. Understanding the conditions that are likely to halt the advance can help you determine the type of top to expect.

If you entered your trade with an objective that included price and time and that objective has been reached, you may simply want to exit and observe from the sidelines.

It will also be helpful to remember that your job at the top is to supply the demand. Once you put the trade on, you will be looking for obvious sources of demand that you can fill from your inventory. If you are fortunate to be presented with one, then, if you are at the top, you must do your job *whether you want to or not*. It is important to distinguish tops from bottoms and middle stages in this regard. In the case of bottoms and, to a lesser extent in middle stages, you may determine to ride through corrections, ignoring events or other indications of demand. At the top, such a decision is one of the worst mistakes a trader can make, since the effect of the decision is to negate a winning trade. In a sense, it is like the poker player who holds the winning hand but gets bluffed out of a large pot on the last round of betting. Folding early is a small mistake that, unless chronic, won't kill you. Staying in when you should fold is worse. But folding a winning hand at the end is the shortest way home. For a speculator, the only worse mistake is taking too much risk, where the consequence is elimination altogether. If you stay in past the top, the best thing you can do is to sell the rally. You will feel better if you resign yourself from the very beginning to the notion that you are going to leave something on the table.

There is an interesting corollary to this problem. Occasionally, trades will present themselves where the conditions that will govern at the top can be foreseen with some specificity. Weather trades in agricultural commodities are a good example. If you are fortunate to be long *before* weather becomes an issue, you are sitting in the driver's seat on a trade that is going to culminate in either the weather condition alleviating or

materializing. If it alleviates, your trade fails to develop—nothing wrong with that. If it materializes, you are at the top, and must supply the demand. There is a tremendous advantage to these trades provided that you have entered them sufficiently early: *You know more or less where the top is when it comes.*

Why is this so important?

Remember, you are trading for an edge. Your edge is your ability to anticipate future demand, nothing more. Your edge is greatest where you can identify with precision the point of maximum demand. To the extent you are guessing, your edge is reduced. So when the markets give you such a clear signal, you should consider yourself fortunate and take advantage of it.

You will do well to remember that, no matter what you do, the market is probably going to make you look a little silly at the top. So resign yourself to it. Just remember to do your job and you will be okay.

SUPPLY MARKETS VERSUS DEMAND MARKETS

Any experienced trader will tell you there is a qualitative difference between markets that are rising because of a shortage of supply, called *supply markets*, and those that rise due to an increase in demand, called *demand markets*. The most significant difference between the two markets is that demand markets hold substantially more potential for increase than supply markets. While this may seem surprising at first, a little analysis will explain the reason. In markets that develop due to shortages, prices must rise to weed out marginal demand. As prices rise, demand is decreased until there is sufficient supply to fill it. Frequently, consumers turn to substitutes and reduce consumption. In demand markets, the problem is similar, but not identical; prices must rise to shut off demand, but *frequently demand increases as prices rise*. Once the demand for something gets going, there is no telling where it will end. That is not to say that rising prices in supply markets cannot also stimulate demand. It simply seems to happen less often.

If you doubt that the foregoing is true, think about the buying panics that have developed over the years. One of the most famous examples is the Tulip Bubble that occurred in Holland in the seventeenth century. The mania that carried tulip prices into high six figures in today's terms was certainly not based on a shortage of tulips. It was based on an

insatiable demand that seemed to soar faster than prices—until it evaporated totally. The same was true in the case of the South Sea Bubble, the Louisiana Bubble, and the stock market of the Roaring Twenties. These are dramatic examples of demand markets gone mad. They do not occur frequently. On a lesser scale, demand markets happen all the time, and they afford astute speculators who do their job of anticipating demand outstanding profit opportunities.

There is another advantage to demand markets. It is often far easier to anticipate future demand than a shortage of supply. Shortages frequently occur as a result of weather conditions or other phenomena the market is particularly efficient at discounting, so it is hard to establish a position with any kind of an edge. To profit from such conditions, it is usually necessary to have been long already. If you make a habit of demanding supply, though, you will be surprised at how often you are.

For the foregoing two reasons, demand markets are generally considered to provide better trading opportunities than supply markets.

There is one considerable advantage to supply markets, however; they are usually far easier to exit correctly. The very advantage of demand markets—that there is no telling how far they can go—poses a problem in determining where to get out. If you are fortunate to be provided with an event of some kind that can be counted on to bring out all the demand, you have a chance at getting out well. But such events are infrequent, and, if the demand is really great, they may only add fuel to the fire. Supply markets are usually much easier because there is usually a point at which the shortage becomes well advertised and the market has no further to go.

COMMODITIES OF LIMITED SUPPLY

Closely related to the issues of supply and demand markets is the question of whether there is any advantage to trading commodities that are limited in supply. Some commodities, like soybeans, palladium, and even gold, are in relatively short supply when compared to the potential demand that may arise for them. Such commodities are also much more vulnerable to sudden disappearance due to weather or other supply-interrupting phenomena. Of course, it is possible that such vulnerability is continually discounted into the price, and to some extent this is probably the case.

Consider the case of soybeans, which undergo quite demonstrable seasonal declines throughout summer months as the danger of weather-related crop damage fades. If you compare such declines to the advances that occur when there is actual damage to the crop, it is not clear whether the discounting is adequate—and there is good reason to expect that it might not be. Such crop interruptions occur infrequently and, from a trader's time perspective, far apart; that is, if you buy soybeans every year looking for a weather trade, you may have to wait six or seven years to catch one, taking losses in the intervening years. Second, since the crop is so small, it is difficult to assess the effect of damage. It appears that there may be an advantage to trading markets that are vulnerable to sudden and substantial disappearance, *provided that such disappearance occurs relatively infrequently*.

LONG VERSUS SHORT

We have repeatedly noted that trading is personal in nature and that, as a result, there are relatively few hard and fast rules that apply across the board. The question of whether there is any advantage to trading from the long or the short side of the market lies in one of the many gray areas. It is best decided by the individual trader according to his or her ability, temperament, and style. However, a few considerations should be identified.

In economies in which inflationism is practiced (that applies to every economy that ever existed, as far as I know), *prices can be expected to rise over time*. In the case of the stock market, there is an additional price-increasing element that we have already discussed—*secular growth*. Within the time horizon of the significant participants of the markets, these factors will be pretty much discounted and, therefore, little if any advantage may be gained by trading from the long side. To the extent trades are made that will extend beyond the time horizon of the significant participants, the clear advantage goes to those who are long.

Keep in mind that if conditions occur which eliminate the policies of inflationism or secular growth, then this advantage of being long also will be eliminated. When money supply contracts, as the result of monetary policy or overexpansion, prices can be expected to decline and growth may be eliminated or even reversed. During such periods, there is no advantage to being long. There would seem to be an advantage to being

short; however, the extent to which this is true or not depends on another important factor.

Within modern times, downward movements have occurred much more rapidly than upward movements, and are sometimes subject to sharper countertrend moves. This may be the result of two factors. First, of the two principal emotions governing market psychology, fear, which can turn quickly to panic, is by far more powerful than greed. Second, once money supply shrinkage is underway, it can occur more rapidly than expansion. The result is that downward movements are much more difficult to capitalize on.

It bears repeating one last time that the markets can be counted on to successfully adjust to and neutralize technical trading opportunities of a mechanical nature. Over time, new patterns of price behavior will emerge or existing patterns will be discovered. Except in rare instances, the principal utility of these considerations will be in assisting speculators to do their job of supplying demand and demanding supply. Like beauty, technical considerations are largely in the eye of the beholder. One speculator's guidepost may be nothing more than a meaningless blip on the charts to another speculator. In the end, technical factors are only as good as the trader using them to do his or her job. But, no matter what your style is or what kinds of technical considerations you follow, you will do better if you remember one very important rule: Monday is a bad day.

14 DINOSAURS VERSUS COCKROACHES

Considerations particular to the stock market

Just slightly more than a month before the Crash of 1987, *The Wall Street Journal* ran an article under the title "Recent Market Rally Saw Failure of Proven Stock Pricing Methods."[1]

During the stock market's terrific run-up of the past year, one might have expected that any sensible stock-picking technique would be a winner.

In fact, it turns out that all of the dozen or so known and respected selection techniques backfired.

"This is so rare that it has never happened in the 19-year history of our backtests," says Robert Jones, a Goldman Sachs & Co. analyst who has published a recent study of the phenomenon. The twelve strategies he tested included time-honored approaches to value, yield, momentum, growth, risk and liquidity. Usually, these strategies will show a mixed performance: In any given period, some work and others don't. Over time, each of them has been shown to produce average annual returns that beat the market by 1.3 to 9.3 percentage points.

But the stocks that did well over the 12 months ended in June, Mr. Jones's study shows, flew in the face of accepted investment logic. They were overvalued, large capitalization stocks with high

[1]September 15, 1987, p. 35.

price-earnings ratios, low growth, low yields and a high degree of analyst coverage.

Indeed, in 10 of the study's 12 models, the worst- and best-ranked issues performed about equally, indicating that the strategies failed as a means of differentiation.

Figure 14.1, which shows the poor performance of the "proven" methods, appeared next to the article.

It is interesting that the analyst who conducted the study noted that, while the methods had worked over the 19-year period of the study, they seemed to perform well at some times but not at others. This was the first time they all seemed to fail.

So what happened?

I hope that by now you know the answer to the question. Actually, there are at least two possible explanations. The most important answer is: For every solution (read "proven stock pricing method"), there is a problem. To the credit of the article, it quotes another analyst from another investment bank who explains that the methods detailed in the study are all widely followed and, therefore, of dubious value.

A second answer is that 19 years in the history of the human race is not a statistically significant sample. Even if the techniques were not widely followed, there is substantial doubt about their efficacy simply because

	Returns		
Strategy	*Historically Vs. S&P 500*	*For the Year Vs. S&P 500*	*For the Year Vs. Bottom 20%*
Dividend discount model	+7.0%	− 6.8%	−16.3%
Low price-earnings	+4.7	− 8.6	−19.8
Price momentum	+7.6	− 5.0	− 6.7
Historical earnings growth	+4.7	−12.0	−29.3
Low earnings uncertainty	+1.3	− 6.4	−20.5
Low analyst coverage	+7.0	− 1.0	− 3.8
Small capitalization	+9.3	− 1.7	− 2.4

FIGURE 14.1. PERFORMANCES OF A SAMPLING OF DIFFERENT STRATEGIES FOR THE YEAR ENDED JUNE 30. **Returns for the top 20% of stocks ranked by each model are measured three ways: compared with returns for the Standard & Poor's 500 index for approximately the two decades ended June 30; compared with the S&P 500 index for the year ended June 30; and compared with the stocks ranked in the bottom 20% by each model for the year ended June 30. Courtesy of The Wall Street Journal.**

the period under study is so short in the grand scheme of things. Note that, to some extent or other, this criticism applies to all methods and approaches without exception, including the ones discussed in this book. It is quite possible that all the observations that any of us ever make relate to a market that is a one-time event, never to be repeated in the history of the universe. There is always the possibility that today's markets will behave according to an entirely different set of rules. If that is the case, then trying to beat the markets is, of course, futile. Since the markets appear to conform to rational guidelines explained in this book, it seems reasonable to assume that this is not the case; that is, that speculation is, in fact, a worthwhile activity.

Well, if the stock market refuses to behave according to proven methods of stock selection, to what rules will it conform? Let's begin by making a few brief observations about what makes the stock market unique. Then we'll take a long-term look at some factors that appear to affect stock valuation. After that, we'll make some observations about technical aspects of speculation in the securities markets. Finally, we'll discuss an approach that seems to make the most sense.

THE UNIQUENESS OF THE STOCK MARKET

Unlike commodities or fixed income instruments, common stocks represent a share in a going concern. Stock owners are business owners. They have an interest in the sales and other revenues as well as the costs of the company. The company is made up of people who work together to fulfill its goals—to provide the goods or services the company is in business to provide. The success of the venture, and hence its desirability as an investment, may depend as much on such amorphous assets as good will or the special skills of a few key people as on the assets that are listed on the balance sheet. On the other end of the investment spectrum are commodities, whose value at any time depends entirely on their utility to consumers.

A second unique aspect of the stock market is the composition of its participants. Today, the majority of shares are owned by institutions, including pension and mutual funds. Individuals control a historically small percentage of publicly traded stocks. The shift in ownership occurred in part as a response to increased pension requirements under ERISA, the federal statute that was enacted in 1974 and that augmented the

responsibilities of companies to provide pension benefits to workers. Another factor was the inevitable disillusionment of individuals as the go-go bull market of the 1960s came to an end. Of course, individuals have participated in the last bull market (which began in 1974 and ended in August 1987), but a great portion elected to invest in mutual funds in the hopes that professionals might do better than they did in the previous market.

Another important change in the composition of the stock market occurred with the increased participation of foreigners. The enormous trade deficits that characterized the 1980s resulted in corresponding huge net outflows of dollars. Many of the dollars that left the country in exchange for consumer goods returned to be invested by foreigners in our stock market.

Compare the composition of the stock market with the composition of the gold market, which includes governments and reserve banks, commercial producers and users, and individuals. Or compare the stock market with the live cattle futures market, which is dominated by commercial interests.

How important are these two unique aspects of the stock market? Few would argue with the statement that the myriad fundamental factors that influence the health of a company are important. Of course, fundamental analysts regard such factors as being paramount. Technicians generally do not dispute the importance of fundamental factors, but they argue that such factors have been discounted by the market long before they can be known or foreseen by fundamental analysts. Even efficient market theorists recognize their importance in the valuation process. They simply say that such factors cannot be used to outperform the markets.

On the other hand, few people seem to appreciate the significance of the shift in composition from individuals to institutions. Nowhere was this more apparent than in the disbelief that attended the 508 point decline in the Dow on October 19, 1987. *While the timing may have been difficult to foresee, the severity of the decline was a predictable result of the fact that such a large portion of the market is in the control of a small, homogenous group of professional money managers.*

Most people conclude incorrectly that the little guy doesn't have a chance to compete against institutions with practically unlimited resources of time and money. This might have been the case when individuals dominated the markets, but it is not so now.

The first consequence of institutions' domination of the stock market is

that trading decisions affecting a majority of shares are now made by a very small portion of people—professional money decision makers tend to be artificially short because most of them are expected to outperform the markets on a quarterly basis. That is how they get assets under management. Since their power and prestige come from how big their funds are, that is the name of their game.

The only rational thing for the portfolio managers to do is to take more risk when they think the markets are going up and to take less risk when they think the markets are going down. Since they comprise so much of the market, they are constantly putting the markets up and down on themselves. *Most of them wind up selling when they should be buying and buying when they should be selling.*

And there is another problem. The very best managers soon get more money than they can manage practically—no matter how smart they are. Remember, somebody has to pay these people when they win. There simply isn't enough money in the world to continually pay a trader managing a couple of billion dollars worth of stocks, no matter how smart he or she is. If you don't understand this, go back to the table in Chapter 1 and figure out what happens to $2 billion dollars compounded annually for 20 years at 20 percent.

Please appreciate that the foregoing is not a criticism of professional money managers. Some of them are among the smartest people in the world. The problem is that, *by the nature of the markets,* these people are like dinosaurs—victims of their own size and power.

Compared to the mutual funds and other institutions, individuals are like cockroaches: little, quick, and impossible to eliminate. Measured by their ability to survive foreseeable disaster, including nuclear holocaust, cockroaches are Mother Nature's crowning achievement. If you live in New York (where, coincidently, the largest stock exchanges and many cockroaches are located), then you know what I'm talking about. So, next time one of the little devils scurries out of your cornflakes, squash him with a little more respect. After all, in matters pertaining to the stock market, your goal is to emulate him.

WHAT MAKES THE STOCK MARKET TICK?

You will recall from our discussion of fundamental analysis in earlier chapters that a controversy surrounded the fundamental analysts' search

for a conceptual model that would accurately describe the valuation of individual securities. Some argued that a stock should sell for the future stream of earnings, discounted to present value. Others argued that the salient factor is the expected dividend stream. Still others said that cash flow is what is important. Fortunately, we do not need to solve the puzzle, since we can see from Figure 14.2 that, *for the stock market as a whole*, there has been a pretty good correlation between earnings and stock prices for about as far back as anyone can remember.

Another way of examining the correlation a little more closely is to take a look at the historical price/earnings ratio, which, as its name implies, is the ratio of prices over earnings (see Figure 14.3).

Note that, during years when earnings are zero or negative, price/earnings ratios are infinitely high. If we ignore these anomalies, which fortunately have been few, we can see that for the Dow Jones Industrials, a valuation of 25 times earnings has been high and 6 times earnings has been low. Comparing Figures 14.2 and 14.3, we can see that there appears to be a pretty certain relationship over time, but that the relationship itself is subject to significant fluctuation. *To profitably forecast the market, you would not only have to forecast earnings, but you must also forecast the valuation that earnings will be given*. This was the message of John Maynard Lord Keynes. This is what you must do to effectively demand supply and supply demand in the stock market. Forecasting changes in the value of shares based on changes in earnings, without regard for possible changes in the future valuation of earnings, is the greatest and most frequently repeated error in research prepared by professional advisers and investment banking firms.

Forecasting changes in valuation, by the way, is no small task, since it depends on myriad factors, including interest rates, business cycles, wars, and political and social factors—anything that might affect how willing people are to own securities. These factors and others affect the market as a whole by influencing our demand for stocks. But, difficult as it can be, the importance of forecasting changes in valuation is made clear in Figure 14.3.

One of the most important factors affecting valuations is monetary policy. Early on in a cycle, easy money conditions are usually extremely bullish and may far overshadow earnings. Frequently, the bond and stock markets move in tandem. Later in an expansion, earnings are expected to catch up to valuations and bonds may fall in anticipation of inflation. After the top, bonds may again begin to rally and the stock

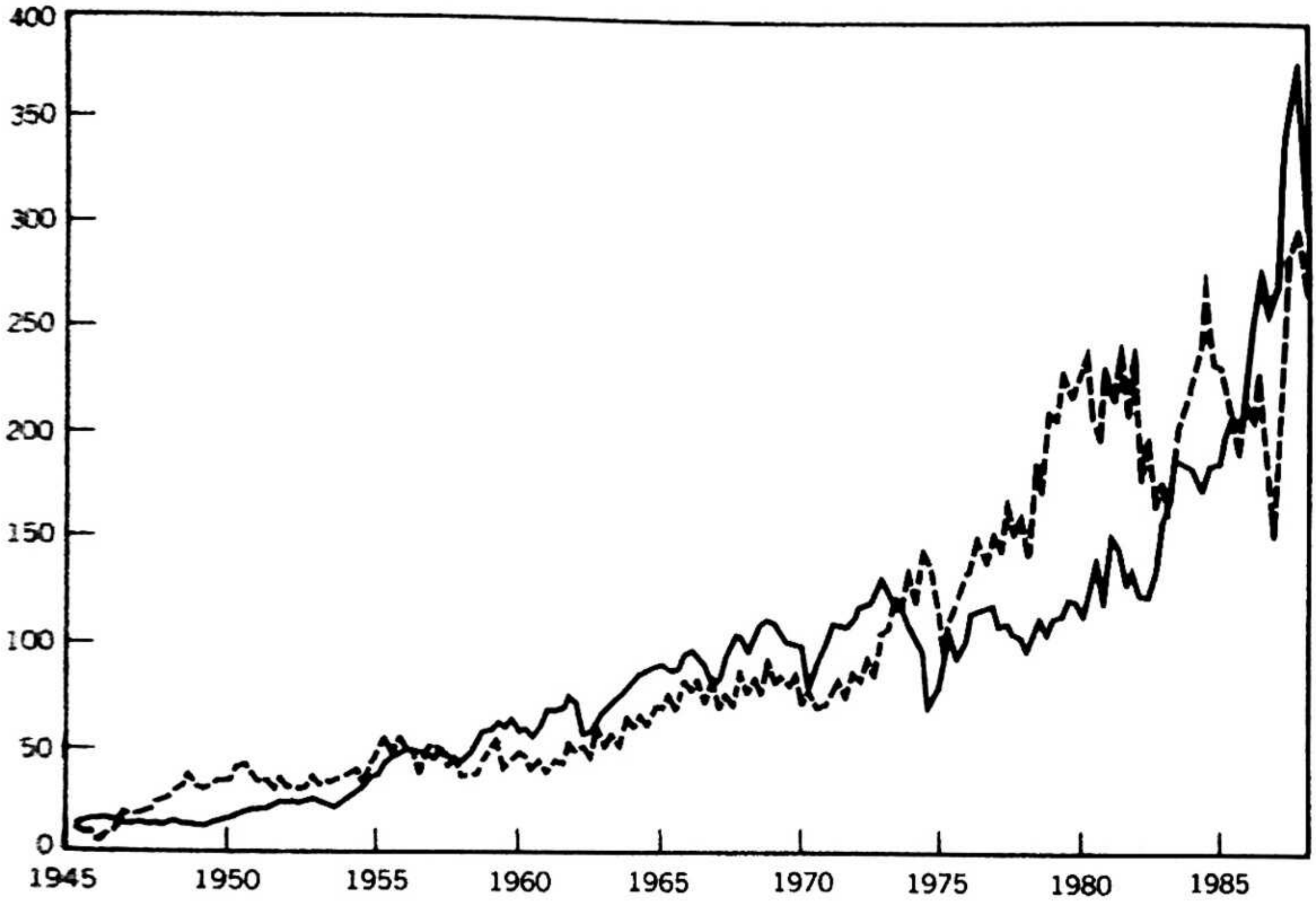


FIGURE 14.2. STOCK PRICES VERSUS EARNINGS. **Figure 14.2 compares the quarterly prices of the Standard & Poor's 500 Composite stock index (solid line) with its earnings during the period 1945 to 1987. The dotted line represents annualized quarterly earnings times 13.7.**

market may begin to fall as they both discount recession. At these stages, earnings may be the dominant factor.

TECHNICAL ASPECTS OF THE STOCK MARKET

Since the swings in price/earnings ratios are so large and tend to occur more or less simultaneously, it is clear that of the two factors, individual earnings or the perceived desirability of owning securities in general, it is the latter that are frequently the more significant influence. In general, people want to own common stocks when times are good, businesses are showing record earnings, and the future looks rosy. They tend not to want to own common stocks near the bottom of the business cycle, when unemployment is high, earnings are low, and things look grim. As you

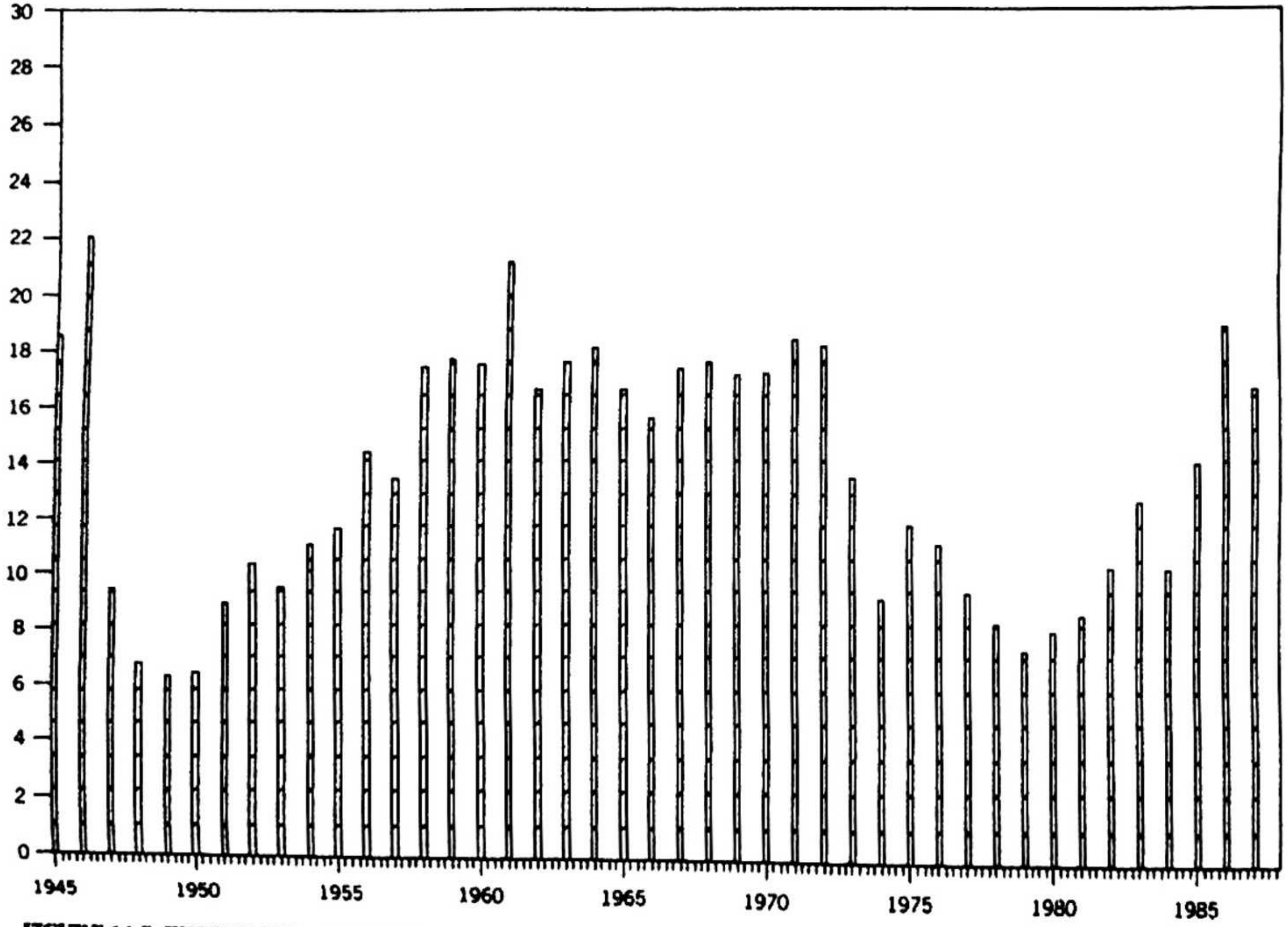


FIGURE 14.3. PRICE/EARNINGS RATIOS OF COMMON STOCKS. Figure 14.3 shown the ratios of price to annual earnings of the Standard & Poor's 500 Composite stock Index.

well know, your job as a speculator is to demand supply and supply demand. As a stock market cockroach, you want to crawl out of the cupboard and buy stocks when conditions are darkest (remember, cockroaches love the dark)—near the beginning or middle of a recession. You want to hold these securities in your inventory so you will have them to sell to everyone when they want them—during periods of prosperity, when conditions seem so bright. (You know how much cockroaches hate the light.)

There is one very important caveat: If you are buying stocks fairly early on in a recession, you have to recognize the possibility of depression as well. Consider what happened to those intrepid souls who bought stocks late in 1930. So you have to make up your mind that the end of the world is not coming before you plunge in. Of course, depending on conditions and what you think the end of the world is likely to look like, you may decide that it is an irrelevant risk. That is to say, if your assessment is that there is no strategy that will work if the worst happens, then you don't have to factor it into your trading: If it doesn't happen, you win; if it does, you are no worse off than you otherwise would have been.

You can use various valuation criteria as a guide. If you are trying to buy what nobody wants when nobody wants it, then you want to buy when earnings are low (note that low earnings may make the price/earnings ratio higher than it otherwise might be) or even negative. Another important guidepost is the relationship of price to book or liquidation value. Figure 14.4 shows the historical relationship.

When the stock market is selling at a substantial discount to book value, the indication is that people do not want to own stocks, which is when you want to buy them.

We can apply the same analysis that we used on the market as a whole to individual securities. The best long-term investments will be those that are made when (1) market conditions are bad, (2) industry conditions are bad, (3) earnings are low or negative, and (4) volume has faded to relatively low levels. Frequently, when the foregoing conditions occur, major firm research departments will have ceased following the company because there is a lack of interest in it among investors. That is terrific! As with the market as a whole, there is a caveat: You should select companies that have been around for a long time and that are well capitalized. Obviously, if you think that bankruptcy is imminent, it is probably better to pass, although you can be sure it's already in the market.

At this point, a word on Benjamin Graham's famous value approach is

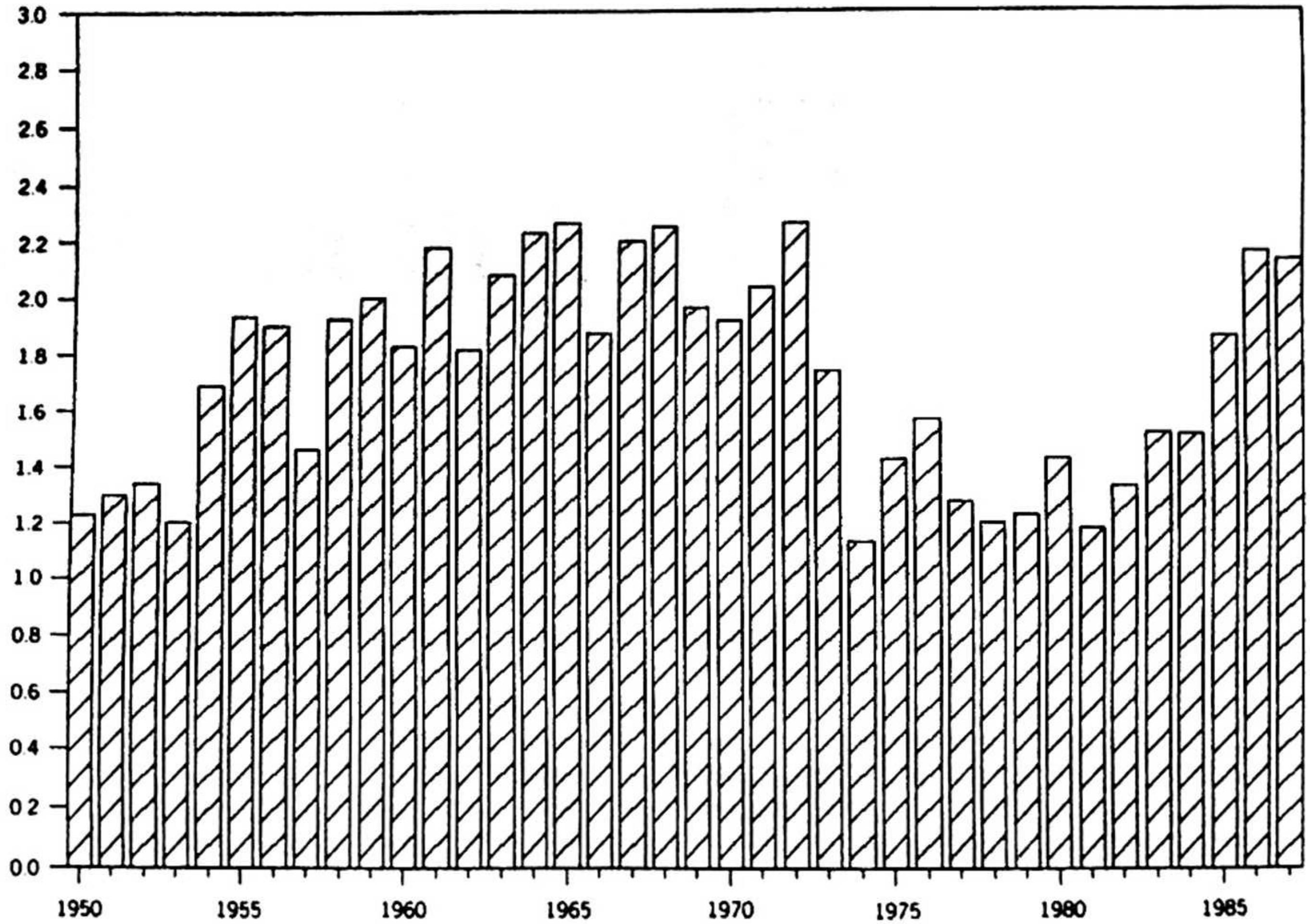


FIGURE 14.4. PRICE/BOOK VALUE RATIOS OF COMMON STOCKS. **Figure 14.4 shows the relationship between the Standard & Poor's 500 Composite stock index and its book value from 1950 to 1987. Note that a valuation of 1.2 times book value appears low and a valuation of 2.2 times book value appears high.**

warranted. In *Securities Analysis*, Graham proposed a set of criteria aimed at determining when securities were undervalued and recommended a buy-and-hold strategy of undervalued securities. This approach was so well received that it earned Graham the title of Father of Modern Securities Analysis. (I always wondered who confers these titles.) While I don't deny that there is substantial merit to Graham's approach, I believe that, to the extent it works, it works for reasons wholly unknown to the author and, with all due respect, that the approach described in this book has more merit.

Here's why. For the reasons described in Chapter 2, it seems to me that a security is worth whatever someone is willing to pay for it. That is its value. I don't think it is possible to buy securities *under value* because I don't think they ever are *undervalued*. If a security is selling at 50 percent of book value with a price/earnings ratio of 2, it may represent a very good investment, but who am I to suggest that it is undervalued? If I want to own it at the offer, then obviously I value it more than the person offering it to me does—but so what? On Friday, October 16, the market value of the stocks in the Wilshire 5000 Index was about $2.8 trillion. On the following Monday, it was about $2.3 trillion. Does that mean the market was overvalued on Friday? Why? Just because it went down? Or perhaps it was undervalued on Monday? And suppose it turns around and makes a new high next week, what will we conclude then? Suppose it takes a month to make a new high? A year? Fifty years?

It makes far more sense to say that, on the Friday preceding the most recent Black Monday, there was a greater demand for securities relative to the supply than there was on Monday and that something happened that affected peoples' willingness to own common stocks.

This is not just semantics. How you think about the markets is sure to affect how well you do as a speculator. If you're worrying about value instead of supply and demand, you are not going to do as well as you could. Value approaches like Graham's work to the extent that periods of "undervaluation" coincide with the periods that people don't want to own stocks. This will frequently occur at or near the bottoms of cycles. But, many of the best opportunities occur in the middle and near the end of a bull market—when there are no "undervalued" securities around. And as value approaches come into wider use, you can anticipate that they will be neutralized in a semi-efficient market. So forget about "value." Just do your job as a speculator.

Let's take a look at some opportunities that occur when there are no "undervalued" securities around.

As we discussed in the preceding chapter, best results are likely to occur in vehicles that are hardest to buy and that carry the greatest risk. In the middle and *at the beginning* of the final stage of a bull market, that means that you want to own the leaders not the laggards. You want to own what goes up the most as the markets surge and what goes down the least in corrections or consolidations. You want to buy breakouts especially if they are too frightening to buy. In the final stages, it is probable, though not necessary, that the dogs will catch up to the leaders. This is a sign that the end may be near.

Getting out is, of course, the hardest part. This is because once the demand for stocks gets going, it is difficult to say where or when it will stop. In the best bull markets, the prospects will be bright. Futuristic themes will justify the dizzying heights. In the 1920s it was automobiles, radios, and movies with sound. In the 1960s it was computers and space. In the 1990s you can expect genetic engineering, robotics, space travel, and artificial intelligence to capture the hearts and stimulate the fantasies of stockholders at the top. Unfortunately, bull markets can be terminated before the themes are developed, and it becomes obvious that the end is near *in time*. Factors that might bring an early end to the party include tight monetary policy or exogenous shock. And, even if you know that the end is near in time, you may be far from the end *in price*. That makes it especially difficult to exit without looking like a bumbler.

Also, it is important to remember that, as you get higher and higher in price, the market will grow increasingly more volatile, so your positions should be getting smaller in absolute terms.

If the market starts going down, get out.

Volume also has significance. Strong volume as prices advance is a healthy sign, provided that it is not excessive or churning, which would indicate that a turning point may be near. Distinguishing healthy from unhealthy volume and action requires experience and judgment.

Getting short on the down side is also easier said than done. As indicated in the preceding chapter, down moves tend to occur much more quickly and, except in the case of "V" bottoms, picking a top (figuring out when the demand will be supplied) is usually much more difficult than picking a bottom (when there is plenty of supply). If you are too early in picking the top, you have no good reference point for taking a loss. If you are too early in picking a bottom, you can wait it out. The rewards of getting short after a major top can be incredible and realized quickly, so trying to get short is frequently worth the probable aggrava-

tion. Usually, the best way is to sell the rally after the top has been made.

As you reflect on the foregoing, it will be obvious that your course of action depends entirely on deciding first where you are in the markets.

INFLATION AND THE STOCK MARKET

With the increasingly wide practice of inflationism, one important question on the minds of many investors is whether the stock market is a viable hedge against inflation. I believe that it is, but the overriding determinant of the question over anything but extremely long time horizons will be timing.

As a currency is devalued, the prices of goods and services rise. Costs, revenues, and asset values are no exception. Usually, consumer price inflation is identified with the latter part of the business cycle, while the stock market has stopped rising and while it may be in a period of consolidation or decline. As a result, inflation is frequently thought to be harmful to stock prices. However, the increase in the supply of money in the broad sense, which is ultimately responsible for the inflation of goods and services, is usually first responsible for the *decline of interest rates and the rise in securities prices at the early part of the cycle*. Once the economy heats up, the liquidity that caused bull markets in bonds and stocks can be expected to exert a negative influence as investors flee paper in preference for hard assets.

An investor's views about the impact of inflation on the stock market is likely to depend on whether he or she bought early enough in the cycle to benefit. As we saw in Figure 14.3, price/earnings ratios appear to fluctuate within a wide band of 5 or 6 on the low end and 20 to 25 on the high side. As earnings inflate, so must prices over the long run. What makes inflation appear so harmful to stock prices is that inflated earnings are discounted by the market well before they are earned.

Keep in mind that caution and common sense must be exercised in reaching conclusions as to the future validity of past observations. That this band of price/earnings ratios has prevailed in the past is no guarantee that future valuations will conform. Indeed, it is possible that, if our budgetary crisis escapes control, lower (probable) or higher (improbable) valuations may occur. Also bear in mind that our experience with inflation in this country has been mild. Should more serious inflation occur, conventional valuations might be affected, as the dislocations caused by inflation begin to adversely affect *real* performance.

PART THREE

SPECULATORS

"R" US

15 CLIFF DIVING IN ACAPULCO

Speculation is personal to the speculator

When I was ten years old, I finally learned to swim. One of the privileges of the accomplishment was to be allowed to enter the deep end of the pool and to dive off the board without an adult treading water below. For weeks before, I had yearned to jump off the high board, which stood three very tall meters from the ground. Since all of my friends had learned to swim before I did, I would watch them doing cannonballs and screwdrivers while I waited in frustrated silence for them to come out, feeling as lonely and left out as a ten year old can be. They sure looked like they were having fun.

The test to determine swimming competency was to swim unassisted across the length of the 25-yard pool. The first thing I did when I finally passed was go over to the high board and climb up the ladder.

I learned a couple of things.

First, the high board looks a lot higher when you are standing on the end of it, contemplating jumping off. This is because when you stand on the ground, you subtract your height—the board is only a little more than a meter over your head; but when you are on the board, you must add your height. Simply by climbing that three-meter ladder, you turn a one meter board into a five-meter board.

Second, in scaling the ladder I had made a commitment to myself, and a quite public one at that. I stood, hesitating on the end of the board, wondering what I was doing up there in the first place, unable to remember what that board had meant to me. I thought of chickening out—

climbing back down the ladder to the safety of Mother Earth—but as I looked longingly over my shoulder at the ladder I saw that a line had begun to form. There was no turning back. The fear of the board, however great, was nowhere near the fear of the humiliation of retreat.

So I jumped in. As I was falling I leaned forward to watch the approaching water. That was a mistake. What should have been a painless jump turned instead into an excruciating belly flop. When I came up, tears streamed from my eyes—not from crying but from the sting of the water that had slapped my face. The other kids were laughing at me. It was then that I learned the third thing: I didn't like going off the high board very much. Although I swam competitively for eight years after that, I doubt that I went off that board more than two or three times more. When I did, you can be sure that there was a girl involved.

A fourth thing came out of the experience, but not until many years later. What I didn't really understand at the time was that going off that three-meter board was a self-discovery process. Certainly, I learned more about myself in just that couple of minutes standing up there than I usually do in weeks or months. In retrospect, that was the fun part and the important part.

Imagine how much more I could have learned cliff diving in Acapulco!

It would be a while, but eventually I would get to do the next best thing.

Before I made my first futures trade, I had read, thought, and talked about the markets for two years, and I don't mean on a casual basis. I wanted to understand what I was doing. The money involved was too significant for me to be cavalier about the effort, and my competitive nature would have made losing painful.

In fact, I didn't even make my first trade; Marty, my trading mentor, did. I had talked about the reasons underlying the trade for so long that, one morning, he stopped listening, took out an order ticket, and wrote it out.

"What are you doing?" I asked.

"I'm making a trade for you."

"I'm not sure about this."

"Don't worry, it's good for you."

He took the ticket into the order room. I followed, glumly contemplating all the terrible things that might happen to me. The order was called to the floor and promptly filled. The clerk wrote the price on the ticket and handed me the duplicate copy. I took the ticket and returned to my office. The feeling was like cliff diving in Acapulco. I felt myself falling helplessly

into the green sea of the Quotron screen, the quotes oscillating below like rhythmic waves. My heart rose with each up tic and fell with each decline. By the end of the day, I realized that I had learned more about myself and the markets in one trading session than I did during the entire two years of thinking that led up to it.

Up until now, this book has been about the markets. There is really no more I can tell you about them. You will pursue your own course, make your own observations, and learn what you will learn about the speculator in you. Although I can't tell you about you, I can tell you a little about the self-discovery process, and I can identify some characteristics that seem to have a bearing on trading success.

EGO VERSUS HUMILITY

One of the striking features of virtually all great traders is the combination of a fiercely individualistic ego and a sense of humility about their accomplishments, at least insofar as the markets are concerned. Although this combination is rare in the public at large, it is quite common, if not absolutely necessary, among successful traders. If you are going to demand supply and supply demand, then your sense of self must be strong enough to endure being apart from the crowd. If you need to talk about your trades to everyone, to get their agreement, to reassure yourself, then you simply cannot win. It's not possible. The people whose comfort you seek are the very people you want on the opposite side of your trades. It is *their* demand that you want to supply. It is *their* supply that you want to demand.

As we have repeatedly noted, the markets can do anything at any time to anyone, no matter how smart he or she is. Those of us who recognize this are humble about it. Those of us who fail to recognize it are quickly eliminated from the competition. Remember, in the grand scheme of things, at our best we are just cockroaches. When you're a cockroach, it's hard to be anything but humble.

THE HEART OF A WARRIOR

There is a Far Eastern saying that a warrior knows no desire. As a speculator, it is imperative that you know no desire either. As a civilian, you are free to wish for prosperity and bull markets. As a speculator, you

must be totally objective. You must be committed to doing your job. You must be cheerful about supplying demand and demanding supply. You must not prefer doing one over the other, at least as far as formulating ideas is concerned. You must not prefer bull markets over bear markets. If you do, you'll soon be seeing horns and leather where there are fur and claws waiting to embrace you. You must be willing to take what the markets will give you.

Like a great warrior, you must be gracious in victory and humble in defeat. The futures pits in Chicago are full of stories of traders who stake fellow traders who have busted out—the same traders with whom they fight tooth and nail every day in the pits. The spirit is both one of competition and generosity.

The importance of generosity lies mainly in avoiding its opposite—jealousy. If your goal is to win more money than your brother-in-law, then you are in deep trouble. It is hard enough competing with yourself. Rejoice in his success. Be humble about your own.

The opportunity to win must be more important than the fear of losing. If you trade to avoid losing, you will not win. It may take longer for you to lose, but lose you will.

You must have the discipline of a warrior too. Making a plan is worthless if you don't execute it. As we discussed in Chapter 13, most often the right thing to do is the hardest thing.

EYES LIKE AN EAGLE

Without exception, successful traders have keen powers of observation. They filter the infinite bits of information according to their own finite set of criteria, noting whether conditions are confirming their analyses. Their observations can be as complex in conception as Pete Steidlmayer's market profiles or a simple set of do's and don't's. Speaking of Pete Steidlmayer, an example of a simple observation by another trader I know (who, by the way also happens to be one of the most successful traders alive today) was that the other trader didn't want Steidlmayer on his trading card (meaning he didn't want to be on the side of the market opposite to Steidlmayer). There was no deep thinking behind the concept—only a simple observation that, if you were facilitating Steidlmayer's trades, you were likely to be sorry. And that brings us neatly to the subject of success.

SUCCESS

In *Markets and Market Logic,* Steidlmayer and Koy make the following observation, which is so eloquent that I quote it at length:

> Your "net worth" really is your ability to function, nothing more. Once a person has the ability to function, faith in himself and his ability to handle all situations, and finally the discipline to do what he has decided he must do, financial statements no longer hold so great a meaning. Man moves into a mode where he is self-sufficient. At this point, nothing material is of importance, simply because any goal worth working toward will not be out of reach for long. Each of us must integrate this into our thinking if we are to approach any market from a nonemotional, consistently logical manner.
>
> This reflection is mentioned and addressed to the many individuals who are attracted to financial markets because they believe that making money as an independent trader or investor is relatively easy and they equate money with success. Both of these beliefs are false. Making money in business almost always entails substantial struggle. Further, producing positive results in any business does not necessarily yield success. Success is being happy; it results when you do what you want to do, because you want to do it. When you are glad to be you, and you have freedom and happiness, then and only then are you successful. Success is especially not found by making more money than the next person, and it is a rare person with such an attitude who is able to both make money and be happy. The participant who trades to make money as a means of proving his worth to himself and others can expect many problems along his journey.[1]

If you have gotten this far along, my guess is that you intend to try your hand at speculating, if you are not already doing so. As I noted in Chapter 1, because we live in an era of inflationism, we are all speculators, whether we like it or not. So the question is not whether you wish to speculate but rather *how actively* you wish to speculate. Unfortunate as

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[1]P. 160.

this set of circumstances may be, there is no need for despair. If you have been successful without making speculation your second job, there are alternative strategies you can follow to deploy your assets. So don't worry. Be happy. Things could be worse. The government could be forcing you to dive off cliffs in Acapulco.

For my views on the alternatives to make sense to you, first I need to present a thesis about what the future may look like. That is the subject of the next chapter.

16 THE GREAT ATTRACTER

The national debt and other factors that may dominate world economic events

Since the 1920s, astronomers have known that the universe is expanding. There has been ongoing debate over whether the universe will continue to expand indefinitely or whether there exist forces that will reverse the process, ultimately causing a great contraction that will end existence as we know it.

In "The Great Attracter," which appeared in the October 1, 1987, issue of *American Way*, Isaac Asimov notes that current estimates of the size of the universe are that it is comprised of 100 billion or more galaxies having, on the average, 100 billion stars. He then describes the local group of galaxies, of which our Milky Way is a part, as follows:

> For instance, our Milky Way is part of the "local group," which is made up of nearly 20 galaxies. Most of these are dwarf galaxies, each containing 20 billion stars or less. Included, however, are three large ones: our own, with perhaps 250 billion stars (90 percent of them smaller than our sun); the Maffei galaxy, which is more than three million light-years away and contains 400 billion stars; and the Andromeda galaxy, which is more than two million light-years away and contains perhaps 600 billion stars.
>
> All of these galaxies, stretching over several million light-years and made up of nearly 1½ trillion stars, are held together by their gravitational pulls. The galaxies of the local group are not moving away from each other but are clinging and rotating around a com-

mon center of gravity—as they may have been doing for billions of years.

Asimov then relates that there is another cluster of galaxies that appears to be comprised of between 50,000 to 70,000 galaxies, called the "Great Attracter." Apparently, the Great Attracter is so large that its gravitational pull slows the expansion of the universe for hundreds of millions of light-years around it. (One light-year is approximately 6 trillion miles, the distance that light travels in a year.) But the space affected by the Great Attracter represents only a tiny portion of the universe and, at present, poses no threat to continued expansion.

It does present us with a theory of how the expansion of the universe might ultimately come to an end, however. Over time, the Great Attracter will probably grow larger as more and more stars are drawn into the cluster. Whether the Great Attracter will ever be large enough to pull the rest of the universe into it is unknown. And space is still too large for us to know whether other "greater" attracters exist.

I think you will agree that the universe is a pretty big place. As you can see, it is so big that it is hard to get your hands around it when speculating on problems such as its size or whether it will continue to expand or will end in a giant implosion. The world's economy is not nearly as big as the universe, but it is still pretty big. And operating in it is a Great Attracter of its own—the United States debt.

Before I go any further with this line of thought, we need to get a couple of things clear between us. Since I am about to make, in print, some statements about the possible course of events, it is imperative that we agree on the context in which these statements are made.

Public forecasting is a perilous activity even when conducted by the most insightful individuals. Indeed, public forecasting is so dangerous that speaking as one who is about to take the plunge, I feel compelled to warn the reader that it should not be attempted in your own home. I should note, too, an important difference between forecasting for speculative profit and forecasting for public consumption. In the former case, the speculator is free to abandon or modify the forecast the minute it is conceived. In the latter, unless the speculator is able to transmit his retraction to each and every reader of the original forecast, he is stuck with it. In the former case, he can make a lot of money if he is correct. In the latter, the speculator is virtually certain to look like an idiot, and not

likely to make much money even if he is right, which is, perhaps, proof positive of his intellectual shortcomings.

Oddly, the fact that insightful individuals fully appreciate the magnitude of the perils of forecasting rarely stops them from going ahead anyway. This is especially peculiar when you weigh the virtually certain risks of public humiliation against the dubious rewards of being able to say, "I told you so." The situation reminds me of the old joke about the guy who went to the doctor, raised his arm over head, and said, "Doctor, my shoulder hurts when I go like this."

"So don't go like that," the Doctor advised.

But recognizing that the advice is better than the joke is not sufficient to prevent me from disregarding it.

The following discussion of our national "Great Attracter" is not so much a forecast as it is a thesis, and I want it understood as such. This is an important distinction, one that runs to the very heart of the nature of both social sciences and speculation. In the case of natural science, scientists have at their command the tools of scientific method, including, most importantly, the controlled experiment. Social scientists have no such luxury. They can only theorize and observe, and in the end they are always far more uncertain about whether the theoretical cause resulted in the observed effect. Scientific method makes reproduction a precondition of proof; in the social sciences, reproduction is impossible since conditions never repeat.

Stated as a prediction, an idea either comes about or it does not, unless the prediction was hedged to the point of triviality. A thesis, on the other hand, is a tentative explanation, that is subject to confirmation or modification. If you predict the end of a recession, you may have no choice but to buy the stock market; if you are wrong, you will inevitably lose money. If your thesis is that a recession will end in six months, you can take your position and monitor it, looking for confirming signs or modifying your thesis as required by actual events.

As you consider the following thesis, I insist that you keep this distinction in mind. The thesis has serious implications for speculators and the rest of us. But the thesis is not a prediction. *I do not know what is going to happen*. I know only which of the infinitely many facts that one might consider I believe are most important in shaping the existing structure of prices, and I have a thesis about which factors might have significant influence in shaping the future price structure. Armed with the thesis, I

can and will make rational decisions about deploying my capital. As other events and conditions that I do not currently foresee unfold, I will consider their possible implications for my thesis. In addition, if the markets show no signs of confirming my thesis, I will have to consider modifying it or abandoning it altogether. Should that happen, it is unlikely that I'm going to have the opportunity to tell you about it!

Only if you agree to accept my thesis on this basis, will I share it with you. *Okay?*

THE WORLD ECONOMY'S GREAT ATTRACTER

The world has a problem and a large one at that. The problem is that the United States, for many years the unparalleled leader in the world's economy, has been consuming substantially more than it produces. This idea is neither new nor controvertible.[1]

In the government sector, the principal culprits are social programs, military spending, and interest on indebtedness, which is becoming increasingly important. In the private sector, this generation is saving less money than previous ones and spending more of their future income on consumer goods.

In the ideal capitalist system, the role of the government would be restricted to matters of national defense, maintenance of law and order, and administration of necessary social programs. In the case of social programs, what is necessary is, of course, a matter of morality and is, therefore, subject to debate—a debate that is irrelevant to the discussion here. To the extent that the criterion by which we judge things is optimization of consumers' wishes, government expenditures beyond the minimum amounts necessary to accomplish these aims are inefficient uses of society's capital, the ultimate consequences of which must be the production of fewer goods desired by society than would be produced if the free market were left to resolve the matter.

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[1]The first draft of this chapter was written prior to the stock market crash of October 19, 1987. At that time, many more people doubted the importance of our budget deficit than do today. Yet, in December 1988 as the final draft of this book is being proofread before typesetting, there exists substantial disagreement about the importance of our national debt and chronic budget deficit. For an example of opinion that such are beneficial, see Milton Friedman's article "Why the Twin Deficits Are a Blessing," in *The Wall Street Journal* (December 14, 1988 at p. A18.)

Putting aside the question of the necessity of defense expenditures for the moment, it must be recognized that the expenditures themselves are largely a waste of society's capital. What I am saying here is that a society identical to ours in a world where peace was not an issue would be vastly wealthier than ours. Even giving full weight to technological advances that spin off of military production, it cannot be seriously argued that such expenditures are not a drain on the productive capacity and wealth of a society. I note in passing that there was a school of cynical economists who argued most vociferously at the height of the Vietnam War that wars occur because they are good for the economy. It is possible that wars occur because they are good for the defense industry. Anyone with even the most rudimentary understanding of economics must understand that society wastes scarce resources by producing things that are meant to be destroyed rather than enjoyed. It is also noteworthy that military expenditures necessarily occur in an environment of closed information and in the absence of free competition, two conditions that surely substantially increase the inefficiency involved in such programs.

Reduced to their economic essence, social programs result in the diversion of capital from the market to the beneficiaries of such programs through a process of centralized decision making. No moral human being will deny the necessity for social programs aimed at caring for those members of society who cannot care for themselves or who need assistance in order to become productive. Other programs aimed at less universally recognized beneficiaries entail controversy. Again, the purpose here is not to debate the merits of such programs. It is merely to note their existence and magnitude and to point out that they result in a less efficient allocation of capital than would occur in their absence.

When a nation consumes more than it produces, it goes into debt. To reach that conclusion requires little more than first-grade arithmetic. If the debt is small, it will have little impact. If, on the other hand, the debt becomes too large, it can be expected to have substantial impact on the nation's economy, and, if we are talking about a nation as important as the United States, the economy of the world.

Unfortunately, critical questions such as whether a nation's debt is large enough to really matter are not easily answered. In the case of the United States, the numbers are as huge as the ones we mentioned in connection with the Great Attracter. They are patently incomprehensible. Here are some numbers that might help you decide just how big you think our national debt is:

U.S. national debt (December 1988)	$2,676,200,000,000
Number of stars in the Milky Way	250,000,000,000
1986 budget deficit	221,200,000,000[2]
1987 trade deficit	170,000,000,000
Value of world gold supply (December 1988)	1,500,000,000,000[3]
Wilshire 5000 Stock Index (December 9, 1988)	2,720,340,000,000
Number of seconds since birth of Christ (1987)	62,662,030,000
U.S. net interest paid (1987)	438,700,000,000
M1 (November 28, 1988)	787,800,000,000

I will assume you are convinced that our national debt is big and growing, just like the universe. But the questions remain: Is our debt really big enough to matter? If it is, what effect is it likely to have on the future course of events? What does this all mean?

Those who argue that our national debt is a problem of less-than-crisis proportions like to measure it against our gross national product or a hypothetical national balance sheet. They point out that, at $2.7 trillion, our national debt represents a mere 60 percent of our 1987 GNP of $4.5 trillion. They compare that figure with the fact that our national debt represented as much as 120 percent of 1946 GNP, just after the end of World War II. Or they point out that our nation's parks and other "assets" far exceed the national debt in value.

These people may very well be right.

The reason I think that these measures are fallacious are as follows. First, underlying comparison of our national debt against GNP is the notion that, if we wanted, we could simply use our GNP to pay off our debt, the way an individual uses disposable personal income to pay off his or her obligations. This is simply not so. While our GNP is the source of government revenues, it is not analogous to disposable personal income; it is analogous to total income. How many people could cavalierly part with 60 percent of their total income this year?

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[2]The Federal budget deficit shrank to a mere $150.2 billion in 1987, and was $155 billion in 1988. The progress may be more apparent than real, for two reasons. First, 1987 receipts included windfall taxes resulting from capital gains taken before the phasing out of preferential treatment of such gains. Second, both 1987 and 1988 were very good years for the American economy, which has been expanding without significant interruption since 1982. Whether the expansion can continue to produce such a strong revenue base remains to be seen and is, in my opinion, unlikely.

[3]My estimate.

Second, the argument is that our national debt has been substantially higher in the past without dire consequences. Again, careful review of history offers little comfort. While it is true that our debt was 120 percent of our GNP in 1946, it is also true that wholesale prices doubled from 1940 to 1948, rising nearly 60 percent in the final two years of that period. Third, the debt/GNP ratio being used for comparison occurred in wartime; our national debt as a percentage of GNP has been growing dramatically since 1974, which is supposed to be peacetime. The point is that the current growth of our national debt has become an ongoing, normal course of business phenomena—to be contrasted with a discrete and extraordinary shock to the economy, such as war or crop failure—that can be expected to be paid down over time as conditions return to normal. Fourth, the fact that interest rates are at high real levels means that our debt grows rapidly; at 9 percent, money doubles in eight years. Of course, the gravity of the debt exerts upward pressure on real interest rates which in turn causes the debt to grow.

STRUCTURAL OR TEMPORARY?

Recognizing the size of our debt and deficits and the economic nature of the dislocations they entail, the next question that arises is: To what extent are they structural or temporary?

Before we invented military technology capable of destroying the world with the push of a button, it was possible to view defense needs as being only intermittently large. During peacetime, the need for defense was relatively minimal. Our geographical isolation was an asset that eliminated the need for large standing armies. As a result, the U.S. economy evolved without the substantial interference of military appropriations during peacetime. During times of war, the economy became dominated by wartime needs, which the government predictably paid for by inflation and recession. But wars were discrete events with discrete economic consequences.

The situation changed for the worse with the creation of atomic-age weapons and delivery technology during World War II. The second war to end all wars was, from the standpoint of defense expenditures, the war that never ended; the Cold War that followed on its heels rages to this day, draining the resources of our nation and, indirectly, the rest of the free world. *Glasnost* notwithstanding, as long as there exist two or more

competing political regimes, the world will remain at war, at least insofar as military expenditures and their economic consequences are concerned. In this regard, it is interesting to acknowledge the observation by some commentators on the Reagan-Gorbachev nuclear disarmament treaty that, in the past, similar treaties have served as an excuse to increase expenditures on other military items by amounts exceeding the savings on the arms that were reduced.

Figure 16.1 shows the relationship between inflation and war in the United States during the period 1749 to 1980.

You can see that, until World War II, the periods of inflation that inevitably accompanied war were discrete and relatively brief in duration. Of course, the relentless inflation that we have experienced since the end of the Great Depression cannot be blamed entirely on wars, hot or cold. From Roosevelt onward, social programs have played an increasingly important role in our economy and society.

I am not the first to observe that, in a one-person, one-vote democracy, the relatively unproductive majority can always vote to take away the money of the more enterprising minority.[4] Although I shouldn't have to belabor these points, do not misconstrue the remark as a condemnation of social programs as a whole or of our democratic form of government. The observation is that democracy, as it has evolved in this nation, has in fact resulted in increasing social welfare expenditures, which appear to have reached a point where they soon will exceed the capacity of our economy.

You might wonder how such a situation can develop to such an extreme before natural economic forces operate to restrain implementation of the policies creating the problem. The answer is through the magic of fiat money.

As we saw in Chapters 2 and 8, money evolved with civilized society through various forms of exchange. Over a long period of time, alternative media were used and discarded, and the preeminance of gold was established. In modern times, paper money developed. Initially, paper money was backed by gold or silver; that is, the owner of the paper was entitled to present it to the treasury and to receive specified amounts of

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[4]For example, the Scottish historian of the 1700s, Alexander Tytler, noted that grave economic problems arise when the "majority of the people discover they can vote themselves benefits from the public treasury."

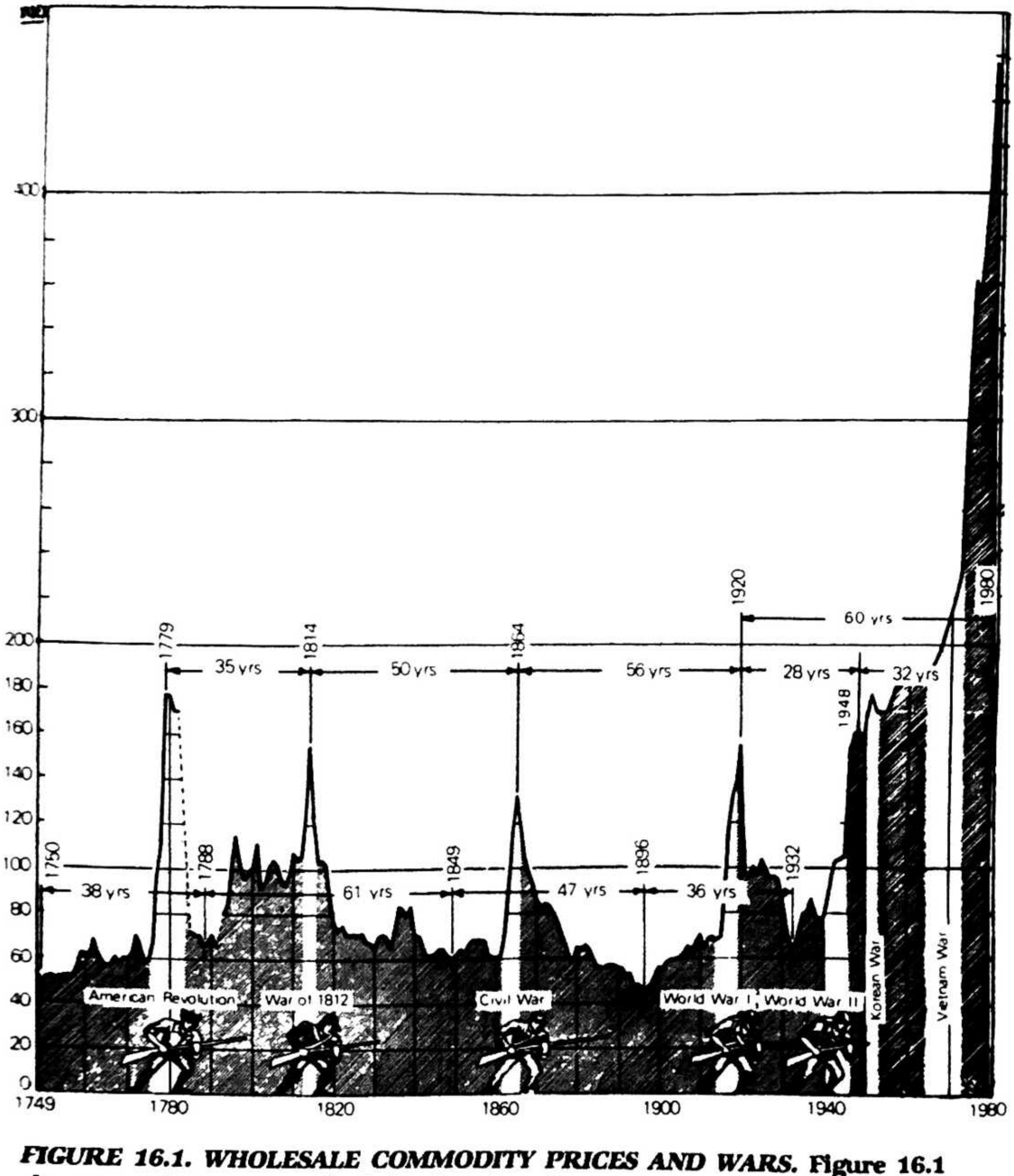


FIGURE 16.1. WHOLESALE COMMODITY PRICES AND WARS. **Figure 16.1 shows yearly averages of wholesale prices from 1749 to 1980. Lighter areas indicate war years. Copyright © 1981 by Foundation for the Study of Cycles, Inc.**

the metal that backed it in exchange. At first, tying paper money to an accepted metallic medium was necessary to establish paper money as a medium of exchange. As people gained confidence in the utility of metal-backed paper money, it became apparent that, as long as the supply of the paper money was strictly controlled, it could function successfully as a medium of exchange without its metal backing. This is how fiat money came into being.

A move to fiat money can only serve one purpose: *to pave the way for substantial increases in the money supply*. As long as the paper money is redeemable in metal, the amount of paper that can be printed is limited by the metal reserves. Once freed from its metal backing, there is no limit on the amount of money that can be created. Of course, creating paper money does not increase the wealth of society by an iota. Printing up paper does not increase the amount of capital, goods, or services in a society.

Some economists argue that by increasing the money supply, people are made to feel wealthier, even if they are in fact no better off. If they feel wealthier, they will be more active, the theory goes, buying more goods and creating more goods and services in the process. What occurs, however, is that the paper enters the system unevenly, enriching some members of society at the expense of others. The goods and services purchased by those who are enriched are purchased with the wealth that once belonged to others, and, as a result, the demand created by supplying money to certain individuals must be regarded as marginal. Two outcomes result. The first is that society's resources are no longer most efficiently allocated. Second, the flow of paper money into the system results in inflation.

If inflationism is practiced with restraint, little *visible* permanent damage is likely to result. Human nature being what it is, however, such restraint is unlikely to be exercised, at least not for long. *The availability of fiat money enables government officials to preserve their political power by redistributing wealth without having to take it directly away from anyone*. Prior to the advent of price indexes, the effects of inflationism may have been difficult to detect immediately, but that is not the case now. One irony that illustrates the intractability of the problem is that, instead of eliminating inflationism as one might expect, the advent of such indexes exacerbated it by enabling beneficiaries to insist that their benefits be tied to advances in the indexes. In other words, the beneficiaries of inflationism have seen to it that their benefits will not be inflated out from under them!

This phenomenon threatens to speed up the process of inflation as increases beget further increases. Once it becomes apparent to the people that paper money is continually and inexorably being devalued, repudiation of the currency becomes a question of time.

In the United States, the dollar was liberated from its gold backing in the 1930s, under the Roosevelt administration.

Take another look at Figure 16.1. Look what has happened to the price of wholesale goods since we went off the gold standard.

While I am mindful of the shortcomings of straight-line extrapolation, human nature being what it is, it is difficult to see why the trend of increasing deficits would stop *of its own accord*. Of course, one of the beautiful things about the economics of scarcity is that an economy as a whole plainly cannot spend what it doesn't have and cannot be expected to produce in the reasonably foreseeable future, at least not for long. So, if we do not take our fate into our own hands, the laws of economics will.

WHAT DOES IT ALL MEAN?

Our economy has much in common with the universe. The universe is very large and has been expanding since its creation. Our economy is also large and has been expanding for a period which, although considerably shorter than that of the universe, is still a significant one, at least as far as those of us whose horizons are so short term as to actually care what happens to us are concerned. In the case of the universe, the issue is whether it will continue to expand indefinitely or will end in a violent contraction, perhaps through the operation of a Great Attracter. For those of us alive in the late 1980s, the issue is whether our economy will continue to grow with the budget or whether the economy will contract in some sort of violent fashion.

The greatest economic problem the free world faces in the late 1980s is the impact of the growing U.S. debt, our manmade Great Attracter. The debt must be paid off or rolled over. It can be paid off only by transferring capital to the nation's creditors. The capital transferred to creditors must be raised somehow. The method used must be either direct taxation or taxation via inflation. In the former case, tax revenues can be increased by raising taxes or by achieving growth, which in turn raises tax revenues while keeping the tax rates constant. In the case of inflation, the government simply prints up the money it needs to pay off the debt. By increas-

ing the money in the system without increasing the level of goods and services, all the money in the system is worth less. The amount by which the money has been devalued is equal to the rate of inflation.

There are those who argue that, unlike personal debts, government debts can be continually rolled over and never have to be paid back. This approximates the truth where the government involved is deemed to be creditworthy and the amount of the debt is relatively small. As the debt grows, however, creditworthiness deteriorates, the prospects of inflation become increasingly obvious, and debtors demand more onerous terms to roll the debt over. How big the debt must become before it becomes an issue is subjective and particular to the case.

It appears that we have already reached that point in the United States. To show why requires a brief review of some of the salient economic events of the last 15 or so years.

As has been the case with every war the nation has waged, the Vietnam War years witnessed substantial inflation. The situation was exacerbated as OPEC became a cartel with which to reckon, siphoning off large amounts of dollars just as the United States had siphoned off OPEC's oil and by the pursuit of loose monetary policy aimed at stabilizing interest rates despite money growth. The result was an unprecedented recession with inflation, a condition that was dubbed *stagflation*.

The stagflation of the 1970s became the unacceptable inflation of 1980, as the country exited recession. The policy of the Federal Reserve was to tighten credit conditions in an attempt to obliterate the inflationary psychology that prevailed and to banish inflation altogether. The result was sharply rising interest rates in the United States, and the beginning of the era of disinflation in the 1980s.[5]

Higher interest rates brought on a particularly severe recession. When inflation appeared under control, the Federal Reserve changed its policy to one of accommodation. Interest rates fell, but remained high on a real basis. Dollar-denominated assets looked extremely attractive and the dollar soared to new heights. At this point, Americans had a choice: to save their money and lend it to Uncle Sam or to take advantage of attractive exchange rates by buying consumer goods at bargain-basement prices. We chose the latter course, perhaps to recapture a little of our accustomed standard of living which had diminished during the 1970s

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[5]It is not insignificant that we now experience cycles of inflation and disinflation, rather than the more traditional ones of inflation and deflation.

and because we doubted the resolve of the government to avoid devaluing the dollars we might save and lend it.

Most commentators have criticized American consumers for making such a choice, but it seems to me that the behavior of the American consumer falls within the same category as that of the little old ladies who sold their silver to the Texas oil billionaire for $45 per ounce. In other words, when the governments and multinational corporations of the world responded to the interest rate increases by bidding up the price of dollars, the American consumer recognized that the green paper was not worth the value of the foreign goods so willingly exchanged for it. We opted for consumption over saving, a rational choice in an environment characterized by the practice of inflationism (temporary disinflation notwithstanding).

Had the private sector elected to save more instead of consuming imports, the budget deficit would not have produced record trade deficits. The willingness of foreigners to finance our budget deficit by trading consumer goods for greenbacks enabled disinflation to continue. It also caused the United States economy to grow more sluggishly than might have been expected based on the accommodative policies of the Federal Reserve. In other words, because the dollar remained strong for so long, the effect of our fiscal profligacy was to stimulate foreign economies as much or more than our own.

Sooner or later our consumption of foreign goods, with the attendant record trade deficits, had to shoot the soaring dollar down from the stratosphere, like an eagle shot from the sky. The dollar plummeted. To protect it from free fall, the Federal Reserve tightened up. The dollar stabilized, but the whole interest rate structure in the United States began to rise. Rising rates finally had the effect of dragging down the super bull stock market, and in spectacular fashion.

The Federal Reserve responded to the Crash of 1987 by flooding the system with money. In so doing, it gave up the ghost on defending the dollar and probably on defending against inflation too.

Here's where I think we are. In a normal business cycle, money creation, such as that which prevailed during the period from 1981 to the present, can be counted on to stimulate economic activity. It can also be counted on to cause significant economic dislocations as marginal businesses find credit so attractive that they are able to operate even though they rest on an unsound footing. Eventually, too much money has been loaned for marginal uses and, as soon as the inevitable tighten-

ing begins, marginal businesses fail. This is how recessions purge the economy of excesses of expansion.

Where the biggest debtor is the government, and the dimensions of the government's debt are as large as ours, no ordinary recession will accomplish the necessary result. In other words, a structural problem has been created that will not self-correct, at least, not without substantially affecting the distribution of goods and services within the world economy.

The Crash of October 19, 1987, followed dramatically rising interest rates. Both of these developments may be regarded as confirming the proposition that the national debt and budget deficits of the United States have become the central problem to the world's economy.

There are those who continue to believe that the Crash had nothing to do with the national debt or budget and trade deficits. They argue that the stock market knew about these problems long before October 19 and that nothing happened over the weekend of October 16 that would justify writing down the value of our corporations by nearly 25 percent. The argument is superficially appealing but incorrect. The bull market in securities resulted from the mix of fiscal and monetary pressures that created the liquidity that became its theme. *In the course of the bull market, securities were being allocated among those holders who wanted them most and who were accordingly willing to pay the most for them.*

As just described, the same factors that caused the bull market also caused a decline in the dollar which threatened to turn into a free fall in early 1987 and a sudden jump in the prices of various commodities including gold and silver. These latter factors caused the Federal Reserve to change its policy from accommodation to restraint. The sudden change in policy transformed the likely economic scenario from the boom that the market was forecasting to sluggish growth, recession, or worse. It also caused government obligations, which yielded increasingly higher returns, to become relatively more attractive than stocks.

In a rough metaphor, on October 19 it became apparent to everyone that the liquidity driven auction of stocks had ended (in August, when the stock market topped, not October), with stocks having been allocated among the people who wanted them badly enough to pay the highest prices. Because of the dramatic nature in which the stock market "auction" ended, a hastily called "flight-to-quality auction" of U.S. government obligations was held in its place, with the same result—the allocation of bills, notes, and bonds among those with the willingness and wherewithal to pay the highest prices for them.

If the thesis is correct—that the deficits and debt are finally being acknowledged by the markets as problematic—then it is nearing time[6] for some kind of attempted resolution of the problem. As stated above, there are really only a few possible ways out: higher taxes, inflation, growth, or a sale of assets. There's also one terrible way for it to end—a deflationary depression that will cause the U.S. debt to become so large on real terms that the system collapses.

THE SCENARIOS

Obviously, the best solution to this very difficult problem is to grow our way out of it. Interestingly, before it deflated under the tight money policies of the Federal Reserve, the booming stock market had been forecasting high growth—growth that might be sufficient to result in a temporarily balanced budget. But, if the thesis that the budget deficit is structural is correct, then the kind of growth that would be necessary to work out of a national debt of $2.7 trillion is extraordinary. Is such growth possible in the foreseeable future? It is, but it must be admitted it is unlikely to materialize soon enough to solve the current problem.

Where might such dramatic growth come from?

Advances in information technology, robotics, genetic engineering, and superconductivity can be expected to result in a revolution that might be many times more important than the industrial revolution. Today, IBM is assembling personal computers exclusively using robots. Automobiles are increasingly built the same way. New laser disk technology will enable whole libraries to be stored and accessed on a couple of compact disks. New software will enable rapid and efficient access to our body of knowledge, speeding innovation and growth. Possible applications of discoveries of superconductive materials include building trains that travel at 400 mph without touching the ground, super personal computers, and power transmission without loss. Advances such as these *make us all vastly more wealthy* by facilitating production, increasing efficiency, and enhancing our ability to discover and invent. They have the potential to

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[6]It cannot be overemphasized that we are dealing with events of such magnitude and duration that, when I say we are "nearing time," I mean only that we are within several economic cycles of a conclusion. To attempt to refine the timing of social processes such as economics is probably beyond anyone's ability and is certainly beyond mine.

be so productive as to overwhelm any economic difficulties that may be present when they become a reality.

But my *guess* is that the problem we are considering is a little more immediate than this technological utopia.

That leaves taxation and inflation.

While taxes may be raised, the kind of program required to solve the debt problem is probably too onerous to be politically acceptable. At $150 billion plus, our budget deficit represents more than $600 for every man, woman, and child in the United States. At $2.7 trillion, our national debt represents about $11,200 per capita. Even if such taxation were politically acceptable on some kind of reasonable schedule, the economic consequences would probably not be. They would include deep recession and, probably, depression.

Inflation is the more likely vehicle because nobody has to vote for it and because its effects are subtle. Prices rise but so do incomes. Many people benefit. Frequently, the ones most injured are the poor, whose loss of real marginal income gravely affects their standard of living, and the wealthy, who are not agile enough to prevent their wealth from being inflated out from under them.

It should be noted that choosing inflation does not necessarily eliminate deep recession or depression as possible outcomes, but merely changes the form of the retrenchment and the ultimate distribution of goods and services in the economy.

The most rational strategy would be to try to reduce the budget deficit as much as possible so that the growth in debt slows. At an inflation rate of 9 percent, the real national debt would be cut in half in nine years and half again nine years later. Of course, interest expense on the nation's indebtedness would increase in tandem with any inflation that was perceived to be more than temporary, perhaps rendering it necessary for the government to cap such expense by legislative fiat.

Although inflation is typically associated with periods of expansion, this type of inflation is likely to be accompanied by long periods of little or no growth, like the stagnation of the seventies. That is because its cause is not the expansion of the money supply as capital is demanded by the private sector to fuel growth; instead, the money supply would expand as the government created the money with which to pay off its debts, which came into being as the result of expenditures made long ago.

Whether we have the resolve to tighten our belts sufficiently is, of course, open to serious doubt.

As for whether the stock market crash portends deflation in the face of our debt and deficits, the jury is still out. Certainly, the Crash resulted in the destruction of significant paper wealth, a factor that is frequently an important cause of recession or depression and that might very well help to bring on a period of deflation. In such a scenario, the national debt would soar in real terms, and it might develop that the only course of action other than repudiation available to the government would be to print up the money to pay off the debt. The effect would be to flood the economy with unwanted paper in amounts that would probably be too large to be absorbed or utilized. After all, as this is being finalized in December 1988, M1 is only $787 billion, *about 30 percent of the national debt*. The survival of the greenback as a major currency, let alone a reserve currency, would be in doubt, and the recession or depression would probably be accompanied by severe inflation. The possibility may not be ignored, however, that once the money supply began to collapse, no amount of printed paper might be sufficient to reinflate it.

SO WHERE'S THE BEEF?

If you are thinking carefully about what I've been saying, you are probably wondering why we haven't seen more inflation that we have in the 1980s. If you are thinking that, then you are to be congratulated, because that's a very good question. There are three elements to the answer. The first one is that the Federal Reserve, first under the leadership of Volcker and now under Greenspan, has placed at the top of its priorities the prevention of substantial inflation. By tightening credit whenever inflationary forces appeared to be increasing, the Federal Reserve has so far been pretty successful. Of course, there have been casualties of this approach, including the crashing stock market and collapse of the weaker members of our banking system. How long the Federal Reserve can successfully continue to pursue this strategy remains to be seen. Potential show-stoppers include the deflationary depression already mentioned, another stock market crash, a politically unacceptable increase in our trade deficit, or an even less acceptable nationwide decline in the value of residential homes.

The second, extremely important element that helps explain the relative tameness of inflation in the 1980s is where we were in the 1970s. You will recall that that decade ended with an inflationary spiral that was

unprecedented in the United States, one that went a long way out in *discounting* foreseeable inflation. In other words, much of the demand for raw materials and even labor that was to develop in the 1980s had been priced into the market long ago.

The third factor in delaying the almost inevitable inflationary consequences of our Great Attracter is the curious path taken by much of the money created as we went into such great debt. Two very significant categories of government debt-holders include our social security system and the nation's public and private pension funds. On September 30, 1987, the Old-Age and Survivors Insurance Trust Fund (the largest part of what we call "Social Security") had total assets of $58.2 billion, *consisting entirely of obligations of the United States,* which bear interest at rates comparable to similar securities offered to the public. According to the Board of Trustees, under its worse-case scenario, the total assets of the OASI fund and the Disability Insurance fund are expected to rise to $268 billion by 1992 (11.4 percent of our 1987 national debt) and to continue to rise thereafter until they reach $3.392 trillion in the year 2015 (144 percent of our 1987 national debt), after which time there will be a net outflow of dollars. The amount by which net assets rise minimizes the effect of the money creation implicit in the national debt. When net assets fall, money is entering the system and the government has to find an alternative source of financing.

Corporate pension funds have a similar but not identical impact. Pension funds invest mainly in government and corporate securities. Pension funds derive their capital directly from the economy as well as from these investments. To the extent that dollars flow from the economy through pension funds to the government in exchange for debt, the effects of the money creation implicit in the debt are diminished. When the net flow of funds is reversed, government securities are being sold and money is entering the system.

In the recent past and near future, it appears that the net flow of funds has been and will be from the economy to the government via the government securities markets. These circumstances are the result of the fact that our economy has been expanding and, more importantly, baby boomers are at an age where they are net depositors of social security and pension funds. As the baby boomers age and begin to draw funds out of social security and corporate pension accounts, there will likely be a flood of money into the system.

Obviously, the impact of this money entering the system cannot be

reasonably forecast. If we experience extraordinary growth, the effect may be less than if growth is ordinary. My guess is that, under any scenario, over the very longest term, the numbers are going to have an increasingly inflationary impact.

In the end, the single, overriding consideration is probably going to be the effect of interest on our national debt. If our Great Attracter grows at an average rate of 8 percent, the national debt will double every 9 years. Starting at a little less than 3 trillion in 1988, the national debt would rise to 6 trillion in 1997, 12 trillion in 2006, and 24 trillion in 2015. Of course, our debt may compound at a much slower or faster rate, or may even decline as productivity gains are made.

To the extent that the huge social security and corporate pension trust funds do in fact temporarily shelter the economy from the impact of the money creation implicit in our debt, they may ultimately make matters worse, as the true nature of the problem will likely be underestimated until it is very late in the game. Precisely when the monetary situation begins to worsen cannot be foreseen. Certainly the markets will see the money coming some time before it begins to arrive—how much before only time will tell.

IMPLICATIONS OF THE THESIS

If the thesis proves to be substantially correct, one thing is virtually certain: The world (not just Americans, as is commonly presumed) is in for a substantial period of significantly reduced standards of living. This is the outcome of all of the various scenarios that would occur under the thesis save one: a period of growth so astounding that it enables us to repay our debts without missing a meal. Since I rate this as the least likely of the possible scenarios over the near term, I am confident that our standard of living will decline for a significant period. The question is whether our living standard will decline as a result of inflation or deflation and what level of growth, if any, will accompany those conditions.

Other outcomes are far more uncertain. Over the next one to five years, these are some likely results of our thesis:

1. *Unless, through some colossal misjudgment, we fall into a deflationary abyss, inflation is likely to occur in increasingly wide swings that are biased upward.* Each upward wave will be attended by some

degree of risk of currency repudiation. To some extent, this process had begun in the 1970s, until it was interrupted by the recession induced by the Federal Reserve in the early 1980s. Figure 16.2 shows the rate of increase of the Consumer Price Index during the period from 1974 to the present.

As you can see, the inflation trend appeared to be tilted upward until the Federal Reserve ushered in disinflation by its extremely tight monetary policies. Since such policies are attended by the risk of massive bank failure (banks are short-term borrowers and long-term lenders and, therefore, are hurt when short-term rates rise), it is doubtful whether the Federal Reserve will have as a realistic option the same tight money policy in the future. Other potential obstacles to continued tight money have already been mentioned.

Figure 16.3 illustrates the most probable course of inflation through the next several business cycles under the thesis presented.

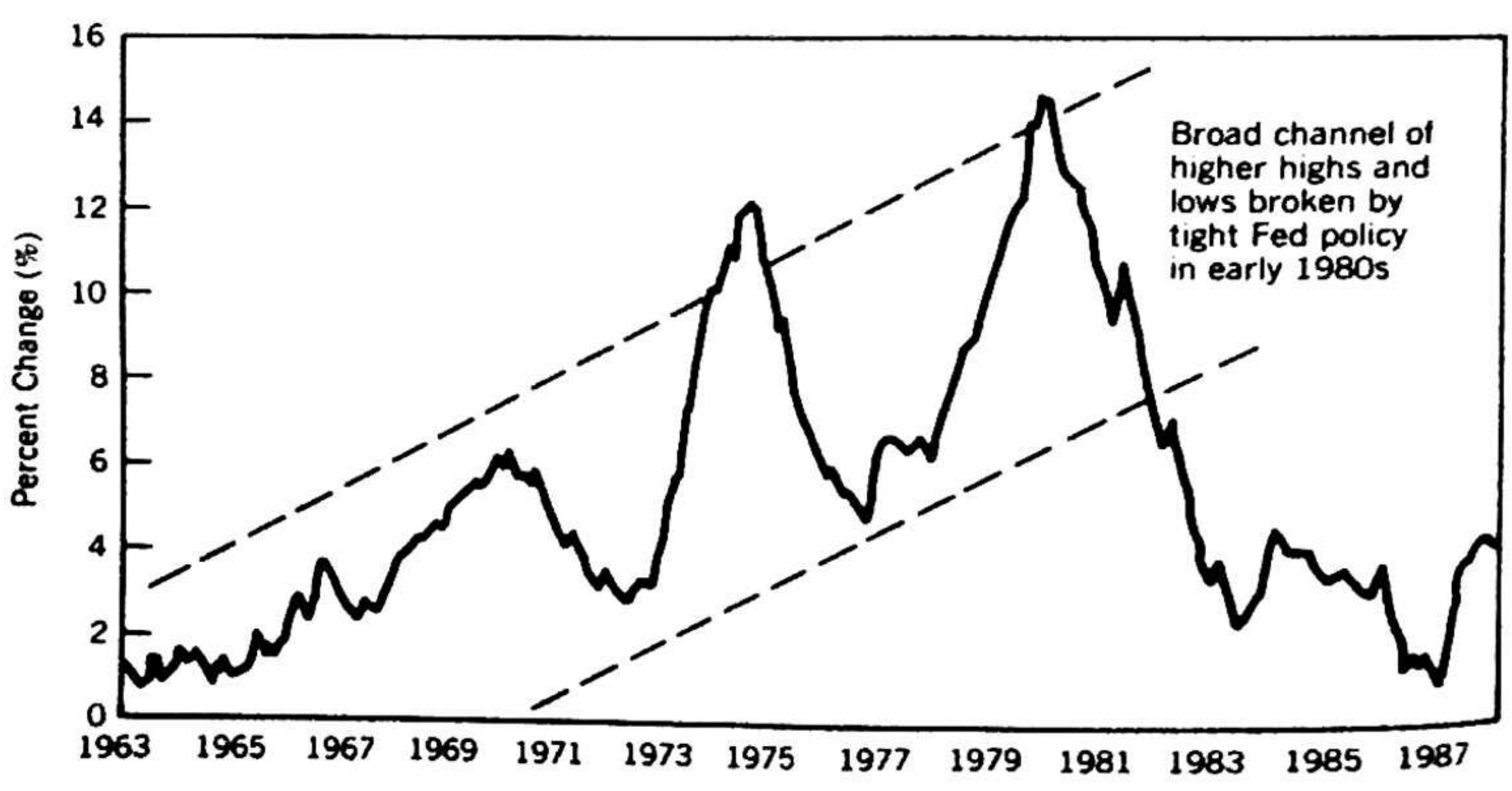


FIGURE 16.2. YEAR TO YEAR CHANGES IN THE CONSUMER PRICE INDEX 1963 THROUGH 1987. **During the 1960s and 1970s, the inflationary cycles accelerated. This trend was broken by the tight money policy of the Federal Reserve in the early part of this decade.**

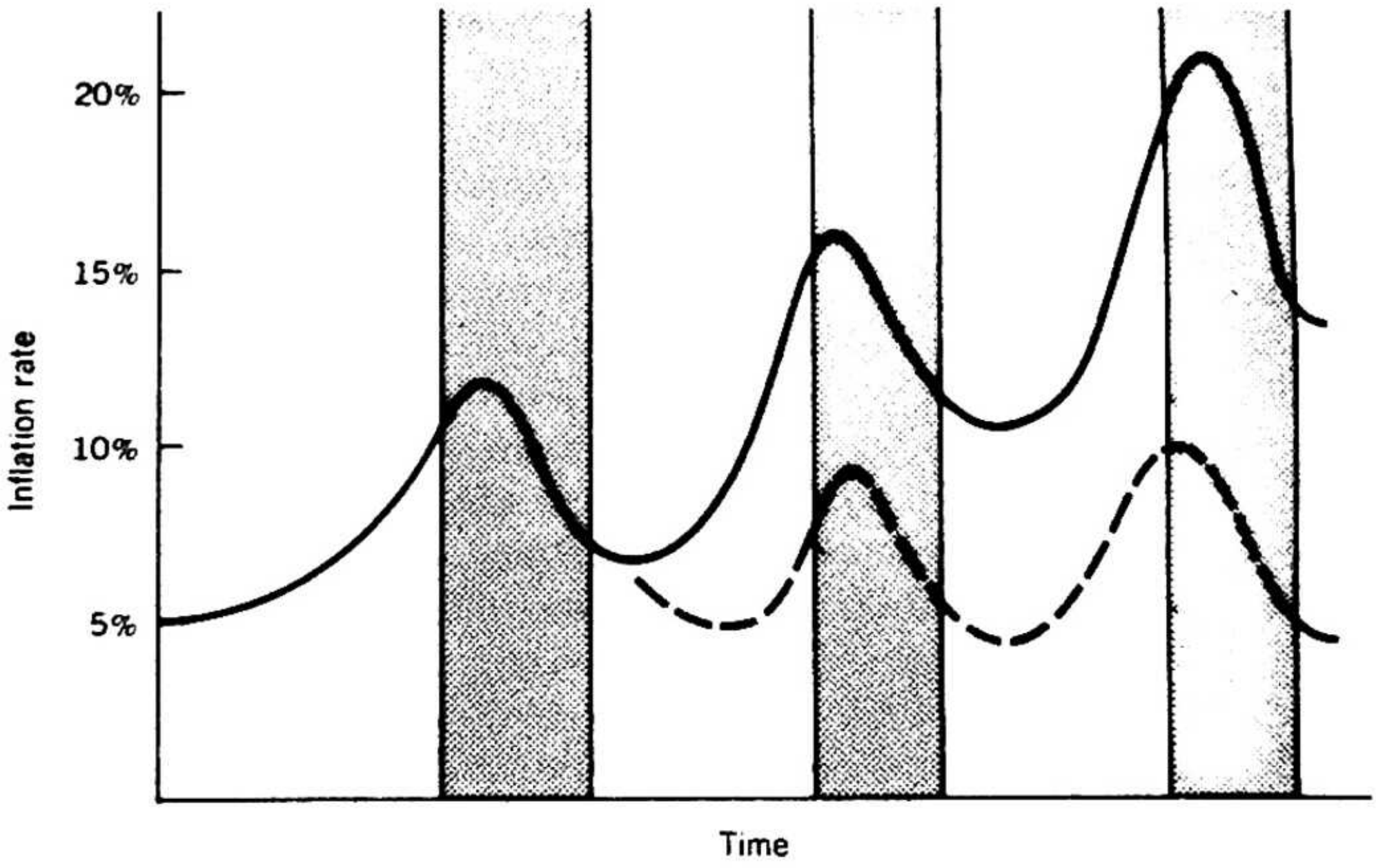


FIGURE 16.3. POSSIBLE FUTURE INFLATION TRENDS. **Our growing debt burden may make a return to increasing secular inflation inevitable. Compare this chart to Figure 16.2. It is questionable whether our financial system could stand another era of monetary policy that is as tight as prevailed in the early 1980s, although a productivity revolution might lessen or slow inflationary trends. Shaded areas indicate recessions.**

2. *The decline of fiat money means appreciation of gold in paper money terms.* Oddly, gold is likely to benefit under any scenario. A weaker dollar and high inflation would be favorable to gold. In the case of deflation, gold might decline initially, but if and when it became apparent that the effect of such a result would be to render our debt unpayable absolutely and forever, the dollar might die or at least require devaluation and a return to the gold standard to save it.
3. *Punctuated by substantial rallies, the dollar is likely to continue to weaken against other major currencies over the long term.* Although over time it has declined quite a bit from its highs, it is doubtful that the market has fully discounted the intractable nature of our debt. It must be recognized that, at current levels, the dollar appears to be below purchasing power parity by nearly as much as it was above it in 1985. If such is the case, it is certainly capable of staging one or more rallies brought on by adjustments in our

international balance of trade. This brings us to a very interesting phenomenon, however. Many, if not the majority, of economists have been puzzled by the intractable nature of the trade deficit.[7] In 1985, when the Group of Five industrial nations reached the Plaza Accord to devalue the dollar, it was generally assumed that a lower dollar would bring about more balanced trade within no more than 12 to 18 months. As this is being reviewed in December 1988, more than three years have passed since the dollar reached its high in March 1985 during which time it has been devalued by nearly 30 percent on a trade-weighted basis. Yet the United States trade deficit for 1987 was a record 170 billion. The explanations proffered include the willingness of foreign producers to accept reduced margins to hold market share; lower raw material input costs of such producers, as their currencies have appreciated; and their agility in moving production to lower cost producers whose currencies have not appreciated by as much as their own. Helpful as they are, they do not satisfactorily answer the question.

While I do not profess to have the answer, it is interesting to conjecture that the consumption boom that underlies the trade deficit will continue so long as (a) consumers continue to value consumption goods more than the dollars they hold, and (b) consumers are able to obtain dollars to spend. The first recognizes the social nature of the valuation process. It is entirely possible, as was suggested above, that consumers have simply continued to place a low valuation on dollars relative to consumption goods because they recognize that the national debt and budget deficits mean that an enormous supply of them will continue to come. The second condition will, to a large extent, depend on where we are in the economic cycle. A recession that reduces income should reduce consumption, encourage domestic savings, and lower the trade deficit. It is paramount to note that such a reduction will entail reduced trade overall (lower imports and lower exports), rather than increased but balanced trade (same or higher imports and relatively higher exports). This is contrary to the current consensus view that a lower dollar

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[7]See, "The Theory Gap on the Trade Gap," *The New York Times*, section 3, page 1 (Business Section, January 17, 1988).

will result in both a balance of international trade and continued economic growth as the economy shifts gears from one that is consumer driven to one that is export driven. The problem with this consensus view is that it fails to recognize the dollar valuation process described above.

If the thesis is correct, then the future is likely to hold cyclical swings in our balance of trade, with low deficits or balance during recessions and high deficits during periods of recovery and boom. One factor that will continually work against the value of the dollar is inflation. It is entirely possible that the foregoing cycles are accompanied by enough inflation so that we alternate from a dollar that is under purchasing power parity to one that achieves such parity by inflating the cost of our basket of goods. If this is so, trade may not come into balance except for brief intervals, until our trading partners decline to extend us further credit. Figure 16.4 shows how future cycles of trade imbalance might relate to business cycles.

During the 1980s the transition of the United States from the world's largest creditor to the world's largest debtor and the emergence of Japan have caused a significant discrepancy between the amount of dollars held as reserves by the world's central banks and the relative trading positions of the United States and Japan. Figure 16.5 shows this relationship.

If the divergence continues to grow, it would appear to be a question of time before the dollar loses its status as *the* reserve currency of the world's central banks. This is another way of saying that the dollar will lose some of its *money value*, as its utility diminishes.

It is interesting to speculate as to just how far the dollar might decline before people decided to repudiate paper money altogether—including the foreign currencies that appreciated in dollar terms. Remember, the dollar is the world's reserve currency and the United States is the world's largest economy. If the dollar declines too far too fast, it is likely that people will begin to move away from paper altogether. And, since there appears to be no other potentially viable reserve currency, a return to some form of gold-backed currency seems likely.

4. *The government is likely to begin direct intervention in many markets and to take other action that is antithetical to our free market system.*

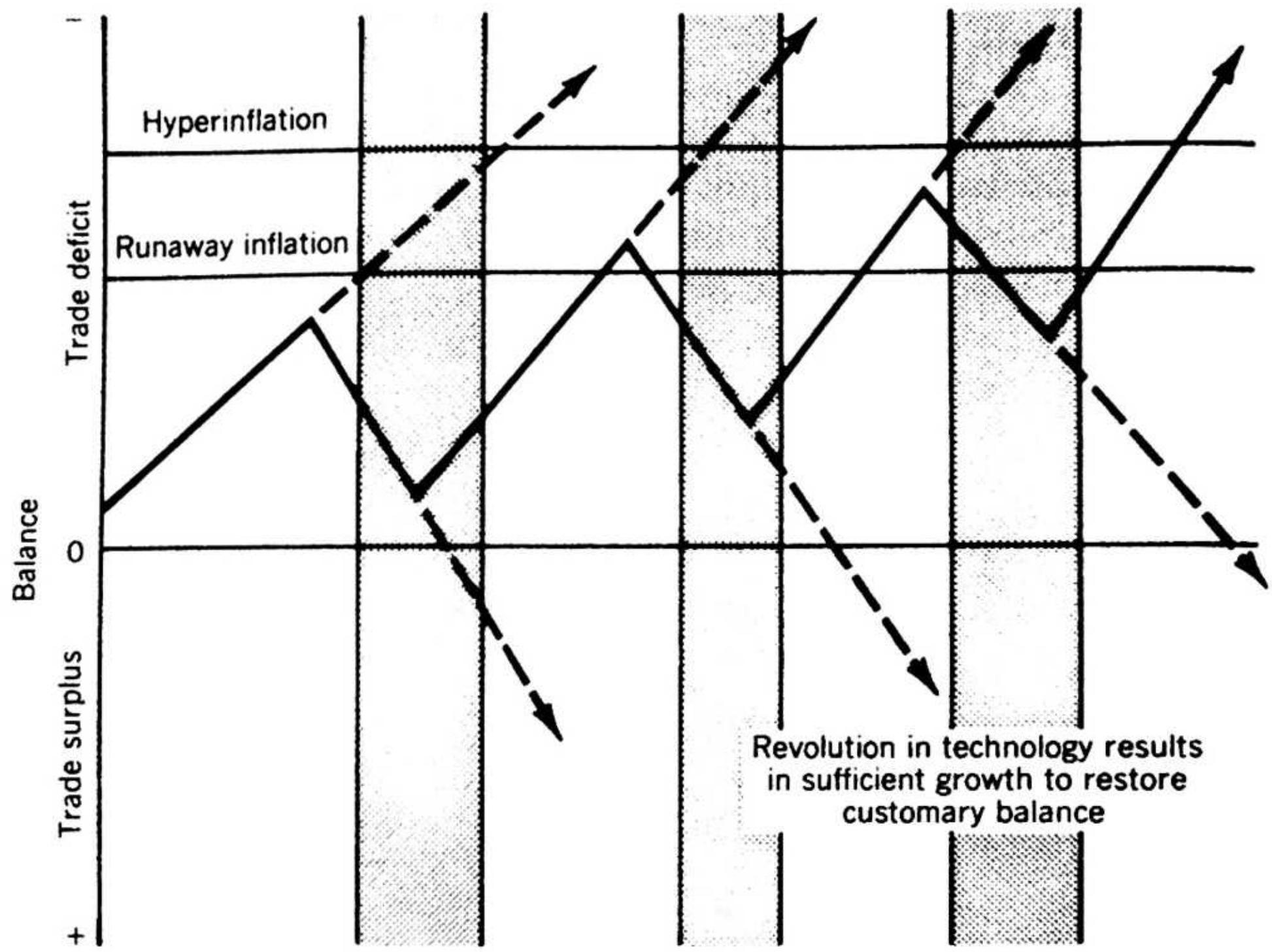


FIGURE 16.4. POSSIBLE FUTURE COURSE OF U.S. MERCHANDISE TRADE DEFICIT. **As long as the U.S. consumes more than it produces, our trade deficit can be expected to endure and increase in nominal terms. Do we have the national will to tighten our belts enough to break the pattern? Again, a productivity revolution might someday solve the problem. Shaded areas indicate recessions.**

> Such other action could be to outlaw various forms of speculation, ownership of gold, and transfers of currency or capital outside the country. In addition, the government could repudiate its debt or put a cap on the interest that it is willing to pay.

The foregoing is merely a thesis. Even if it turns out to be correct, it may take many years for it to develop, and with each passing year, the possibility increases that some intervening event such as war or technological revolution will render it nothing more than one poor speculator's sorry fantasy.

You should also note that *the thesis is far too long term and broad brush to have any trading value whatsoever.* Its utility lies in the background it provides in developing short-term trading strategies, which may or may not conflict with it, and *in planning lifetime asset allocation.*

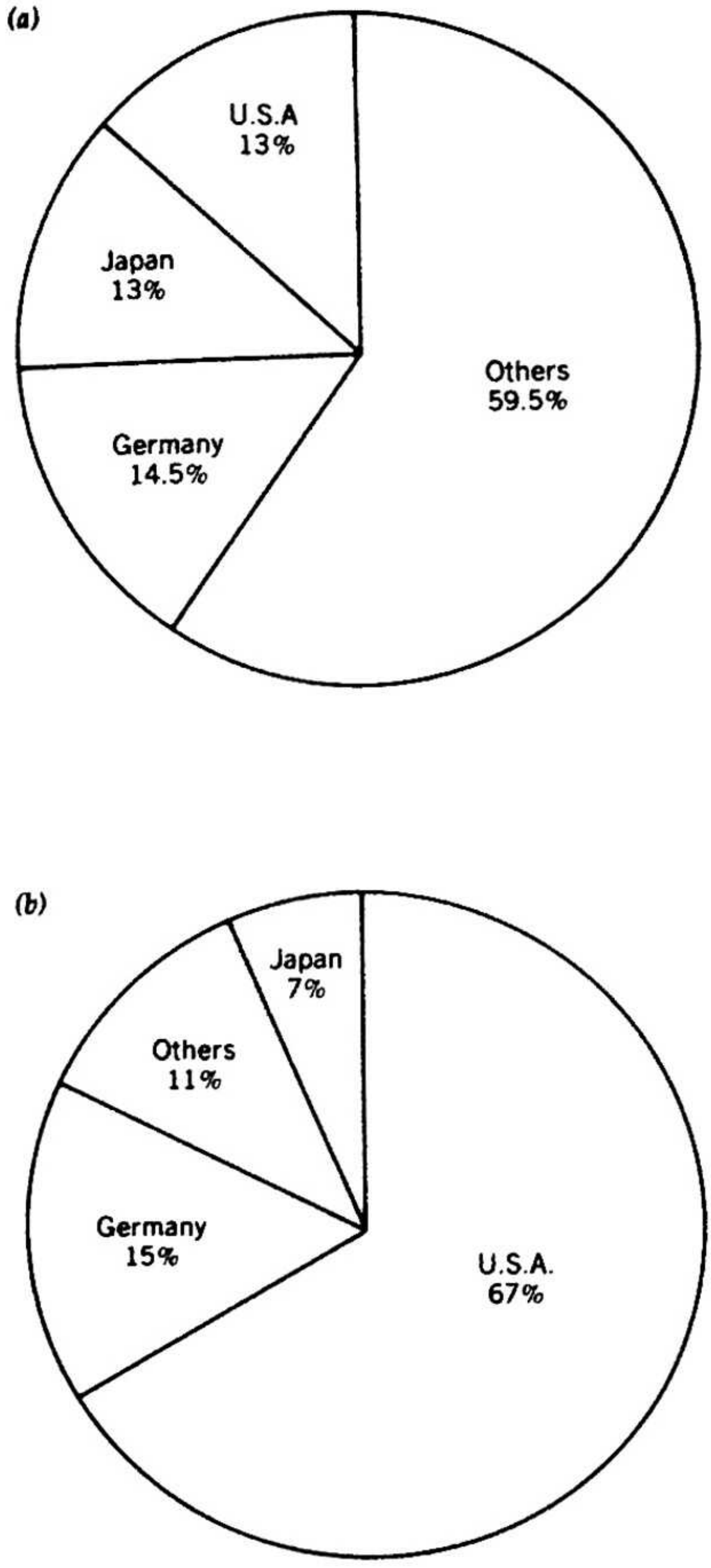


FIGURE 16.5. U.S. SHARE OF WORLD TRADE VERSUS RESERVE HOLDINGS 1986. **Figure 16.5*(a)* shows the U.S. share of world trade in 1986. Figure 16.5*(b)* shows the distribution of currencies held in reserve by central banks at year end 1986. Note that the proportion of U.S. dollars held (67 percent) substantially exceeds the U.S. share of world trade (13 percent).**

Finally, you should remember that we have muddled through more impossible crises than it is possible to remember, and whether we witness the circumstances called for by the thesis or not, we will muddle through once more. At some point, growth will begin to accelerate dramatically as the technological revolution hits its stride. In the meantime, we'll just have to try not to fly too close to the Great Attracter.

17

YOU CAN SKIN THE CAT OR THE CAT CAN SKIN YOU

Some ideas on personal money management for nonspeculator speculators

All the way back in Chapter 1, I remarked that we are all speculators whether we like it or not. By now my reasoning should be clear, whether you agree or not. Let's examine the full implications of such a grisly statement.

Funk and Wagnall's *Standard College Dictionary* defines *speculate* as follows: to make an investment involving a risk, but with hope of gain. The same source defines *invest*: to commit or use (money, capital, etc.) for the purchase of property, securities, a business, etc., with the expectation of profit. Comparing the two definitions, we can see that the distinguishing feature between speculation and investment is the level of risk and uncertainty associated with the activity.

To many people, the term *speculator* conjures up images of wild-eyed dice throwers, people too greedy or lazy or crazy to get a real job. Obviously, such images are diametrically opposed to the truth, at least as far as successful speculators are concerned, and do grave harm because they undermine the paramount role played by speculation in a free market economy. Many, if not most, people, government leaders included, ignorantly believe that little or no useful function is played by speculators. Speculators who lose are regarded as fools who have gotten what they had coming. Speculators who succeed are regarded with suspicion: Winners must be cheaters is the belief of those who do not know how to win or are unwilling to do the work necessary for success. Small wonder that most people do not wish to speculate.

Most people are quite comfortable with the notion of investing, however. Investors are risk-averse. Investors build for the future, patiently putting capital to work in the expectation of sure reward justly earned.

Most people are not qualified to speculate. Speculation is hard work. Speculation requires better-than-average intelligence and exceptional independence of mind and discipline. Recall what Bernard Baruch had to say about the difficulty of the challenge and the vision required to meet it. Since most people are not qualified to speculate, it is just as well that most people do not want to do so. However, there is one little problem: The current economic climate renders all of us speculators, whether we like it or not.

In a rationally run society, government would operate as sparingly as possible. It would provide the minimum conditions of law and order necessary to let the free market economy work its magic. In fiscal and monetary matters, sound policies would be consistently pursued with the long term in mind. By "sound" I mean consistent, predictable policies aimed at encouraging savings and investment. *The long term growth of the economy as directed by the free market would be the goal, not winning the next election*. In such a society, speculation would be left to the professional speculators, the determination of who achieves that status being left to the marketplace. Equally important, in such a society sound and stable conditions would yield *an environment in which the majority of people could pursue their lives confident that, if they worked hard and saved more than they consumed, their future would be secure* within the limitations of the resources of man and the society in which they live. Such people could nestle safely into the category of "investor," eschewing the higher risks that attend speculation.

Unfortunately, we live in an increasingly imperfect world.

Fiscal and monetary irresponsibility inevitably result in uncertainty and risk. Currency debasement is just one small part—but it is the one that directly forces all who earn more than they spend to speculate, whether they want to or not.

In an uncertain world such as ours, everyone who earns money must continually make speculative decisions, even though most people are not qualified to do so. This chapter explores some of the alternatives available to you. As you consider them, keep in mind that the ultimate message of this chapter is not that there is more than one way to skin the cat, but that, *if you aren't careful, it is inevitable that the cat will skin you*.

WHO ARE YOU?

Many fine books and magazines offer sound advice for people who are forced to grope their way along the complex maze of the risky business of planning for the future. Notable among these are *Sylvia Porter's Money Book*, by, coincidentally, Sylvia Porter; *Still The Only Investment Guide You'll Ever Need*, by Andrew Tobias; and, *A Random Walk Down Wall Street*, by Burton Malkiel. These books generally advise some form of diversification—a strategy of deploying assets in such a fashion that you are likely to be protected from total loss no matter what the environment is, and have some prospect of growth under the most probable environments. Since these sources do such a good job, little time will be spent on it here.

What this book can add is its voice to the diversification chorus and a slightly different slant on the problem.

Instead of discussing what kind of investment the average person should have, let's begin by recognizing that few of us are average people. Each of us is an individual with our own particular set of talents, needs, goals, and obligations. So let's start out by recognizing that, before you begin to put together an investment strategy, you must ask the ultimate ontological questions: Who am I, what do I want out of life, and what am I willing to do to get it?

You need to assess your talents. You need to ask yourself how important wealth is to you. How hard are you willing to work? How long are you willing to postpone or limit consumption in favor of savings and investment? Is your goal to have what you want in life, but die with nothing, or to leave a large estate for your children? How much risk are you willing to take? How important is defending what you have?

THE ALTERNATIVE COURSES OF ACTION

Most guides speak as though there are two courses of action available to people with money to deploy: investment or speculation. The third available course not generally considered is, of course, consumption. Consumption, we are taught from the cradle, is immature and undesirable because it favors the present at the expense of the future. Consume now and be sorry later is the message we all receive.

But is this true in the current environment?

In the inflationary 1970s, most people saw their savings ravaged. The

lesson they learned was that consumption had received an undeservedly bad rap. When, in the 1980s, they were asked to choose between saving and consuming they overwhelmingly elected the later, *even though the environment was one of high real interest rates which meant that savers could make unprecedented real gains in wealth simply by saving some money*!

Consumption is even more attractive in a society in which employers are required to provide pensions and the government provides social security. Of course, we are now entering a stage in which serious doubt exists that the government is going to be able to make good on its promise of secure retirement for everyone.

Do not misread the foregoing discussion as an apology for consumption. It most assuredly is not. It is merely intended to show that such a policy is not so irrational as it might seem on the surface, given the policies of our government. If such policies lead to a decline in the value of paper currencies as described in the preceding chapter, it is very likely that you will find yourself increasing consumption whether you like it or not, as you attempt to hold as little currency as possible.

If you decide not to consume 100 percent or more of your earnings, then you are faced with the question of how to deploy your savings. One alternative is to speculate, following the principles discussed in this book. Another is to deploy your assets in such a fashion as to achieve your desired mix of growth versus preservation of capital, recognizing that the two goals are most often incompatible. *You may also play with the mix of assets in order to reflect your perception of the probability of an environment of inflation, disinflation, or deflation*. For the reasons discussed in the preceding chapter, my personal bias is toward higher inflation even if a recession or depression is experienced and certainly if we achieve prosperity. However you choose to do this, you should be sure, to the extent possible, that the occurrence of either scenario will not preclude you from accomplishing your objectives.

ALTERNATIVE ASSETS

For most people, the most important milestone will be ownership of a home. In general, during periods of inflation it is desirable to be a debtor, since you are borrowing valuable dollars today and repaying devalued dollars tomorrow. However, two other factors that are often overlooked are the rate of interest in real terms and the amount the asset you are

purchasing appreciates over the period of the loan. Two important benefits of owning a home outright are that your basic shelter is provided, and, *unlike other speculations, you can live in it.*

As this book is being written, much publicity is being given to forecasts by respected authorities of significant declines in residential real estate. In my opinion, while such declines may be tolerated on a regional basis, they are politically unacceptable on a national basis, especially at a time when middle-class America has so much debt associated with its homes. The effect of a residential crash in real estate would be to bankrupt the American voter and, obviously, it would be resisted by the government with all its might, even if the cost of so doing included unleashing substantial inflationary pressures.

Such forecasts do, however, underscore the necessity for objectively assessing the risks of home ownership. The risks of home ownership are usually underestimated by a long shot. While home ownership can form the cornerstone of personal wealth, in my opinion *stretching* to buy a home (advice frequently given to young people) makes sense only when inflation and local economic growth are foreseen. *Being too leveraged on a home at the wrong place and at the wrong time can bankrupt you,* our bias toward inflation notwithstanding. On the plus side, the real estate market is nowhere near as efficient as the more freely traded debt, securities, and commodities markets, so the booms and busts of the real estate cycle are more easily foreseen and the latter more easily avoided.

Fixed-income obligations of the United States and local authorities offer a sure income stream and are desirable in periods of high real rates of return. But, given the intractable nature of the national debt and budget deficit problem, these instruments must be regarded with a healthy degree of skepticism. I am not suggesting that Uncle Sam is not going to honor his obligations in the near future. Neither am I suggesting that bonds are not now or will never again be a good speculation. I am simply noting that the longer we forestall acceptance of the bitter consequences of our recent profligacy, the greater the likelihood that, ultimately, some restructuring of our national debt will occur. In the current environment, *it is probably best to stick to federal obligations and not go too far out in maturity, except with your more speculative capital.* Whatever you decide, recognize that nothing is without risk. That's the whole point of this chapter.

The stock market is often presented as a good hedge against inflation, and it is. But, as we noted in Chapter 14, the stock market usually has completed much of its advance prior to the increase in wages, raw

materials, and consumer prices, generally regarded as constituting inflation. The bull market that ended in August 1987 already did its job of discounting inflation through the remainder of this cycle. Buying the highs of the stock market is not a good hedge against anything. In this case, there is no substitute for the principles discussed in Part Two.

To the extent that you determine to participate in the stock market through the vehicle of mutual funds, you should keep a few points in mind. Mutual funds *are* viable alternatives for those who are unwilling or unable to select their own securities. But it is imperative to *avoid purchasing funds with large loads*[1], *high portfolio turnover, and/or a hot track record.* Transaction costs make it difficult for you and your portfolio manager to win. A hot track record assures only that your adviser will soon attract more money than he or she can successfully manage. Favor funds with no loads, long-term holdings of diverse portfolios, and a long track record that does not out- or underperform the market by too much. As for timing the purchases, the best alternative is to apply the principles of this book, buying your fund shares when none of your friends want to talk about the stock market. Alternatively, over a lifetime, making regular purchases of a fixed (inflation-adjusted) dollar amount can be expected to yield satisfactory results.

Precious metals should be a significant part of most people's asset mix, given the current state of affairs. As with the stock market, timing purchases to coincide with periods of supply is usually of paramount importance. However, at $390 per ounce (in February 1989) gold is at a fraction of its true potential if the thesis described in the preceding chapter proves to be substantially correct. It should be emphasized that we are talking about a long-term, transcycle investment. We are not suggesting that gold cannot decline by a great deal in the meantime, although I do think that the downside potential is probably fairly limited. Gold or silver bullion may be best if holdings are large. Some amount of coins is desirable as a hedge against hyperinflation, since coins and not bullion may be used for ordinary purchases.

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[1]A *load* is a charge for entry or exit into the fund. If the charge is applied upon entry so as to reduce the assets available for investment, it is said to be "up front." If the load is charged upon redemption, it is said to be "back end."

18 A CRASH OF PRINCIPLES

If speculators are an endangered species, so are all capitalists

It was not very long ago, that a convoy of farmers descended on the Chicago Board of Trade to protest what the speculators had done to depress the price of grain. The affair would have been quite amusing but for the serious nature of (1) the plight of the farmers (which was apparent to everyone), and (2) the false accusation that the farmers were levying at the members of the Board (which was probably not apparent to very many, other than the members themselves).

It is one of the great and dangerous ironies of economic life that such an important and beneficial class of actor as speculators is credited with doing so little good and so much harm.

The example under discussion is revealing. In the double-digit inflation days of the late 1970s prices of agricultural commodities and the farms on which they were produced skyrocketed. The rise in farm real estate was so dramatic that even high mortgage rates did little to deter new entrants to the farming business from bidding up farm prices. When the boom in agricultural commodities ended, the prices of farms collapsed. Many farmers were hurt. The ones that were hurt worst were the ones that bought the farm (pun intended) at the high with unsustainably onerous mortgage terms. Whether these people admitted it or not, they were speculators in farmer's clothing. Now here they were at the Chicago Board of Trade looking for a scapegoat.

Was this situation unique? A temporary lapse, perhaps, never to be

repeated, in which speculators failed to receive the proper respect due them for the role they play in allocating society's scarce resources?

Hardly. In fact, in the summer of 1988, speculators were again blamed for manipulating grain prices, but this time the allegation was that they had seized upon the opportunity presented by the drought to raise prices beyond reason. A senior senator threatened to come down on his staff members with "hobnailed" boots if he caught them profiting at the expense of the farmer or public by speculating in grain futures. At the time I happened to be long on soybeans, and, while I'm not a member of his staff, I took the remarks personally, because while the markets were rewarding me handsomely for doing my job as a speculator our leaders were practically calling me a traitor. Back in March, when I bought soybeans, there were plenty of them around and they were very low priced. Obviously, they were being consumed by relatively marginal consumers. In taking my beans into inventory, I prevented them from being consumed by people who really didn't want them very much. Six months later there was a drought. Prices were up by about 50 percent. The concern was that there wouldn't be enough soybeans to go around. And I just happened to have some. So I sold them to some people who wanted them very badly. Scarce as they had become, thanks to me there were a few thousand bushels more beans this summer than there would have been had I not decided to do my job as a speculator back in March and buy them. And now this senator was threatening speculators with hobnailed boots. I'll tell you where I'd like to put *my* hobnailed boots—if I owned a pair.

These two instances of trying to make scapegoats out of speculators would be worthy of little more than passing notice if they were infrequent. But today, as this book is being written, blaming the economic ills that result from poor government policy or other factors on speculators is likely to happen with increasing frequency. If the thesis presented in Chapter 16 is correct, there is a very real risk that speculation will be severely restricted or even outlawed altogether. If that should happen, our society will have lost important freedom and we will be substantially poorer for it.

Before I get into all that, let me recognize that the principal purpose of this book—to present some ideas about the theory and practice of speculation—has already been accomplished to the best of my ability. I have added this chapter because this book presents me with a rare opportunity to address an intelligent audience on a subject of the greatest importance.

The opportunity is to express a view which, because of its nature, is otherwise unlikely to receive much attention. In a sense, I suppose I am taking advantage of your attention, and I apologize in advance for it. But, by now, I hope we are old friends, and, if you are not especially interested in my views, I ask that you indulge me as you would an old friend, and hear me out.

The thesis is a simple one. In any free market economy in which the government insists on the practice of nearsighted and deceptive fiscal policies and inflationism, there will be increasing tension between the government, which seeks to avoid the undesirable consequences of its policies, and the speculators, who are sufficiently farsighted to see them coming.

As noted in Chapter 16, liberating a currency from the gold standard, as we did in the 1930s, or any other objective standard for that matter, can only be done to pave the way for substantial increases in the money supply. Fiat money enables governments to spend money they don't have. It enables governments to buy guns or give away butter without the approval of its citizens, since they are not being taxed in the traditional sense to pay for these things. Obviously, this is a great way to win votes, especially when the effects of inflating the money supply are often felt only after a great while. Before people realize what is happening, society gets burdened with unimaginable debts—debts that, in the end, will probably be eliminated by inflation at the expense of creditors and those who were too responsible to become overleveraged. If the government errs in its judgment, then the unpopular result may be deflation, in which case the debts will be extinguished with prejudice to the debtors who must pay off their loans with dollars that are so much dearer than when they were borrowed.

The tension between policy makers and speculators develops, not because of the vision of speculators, but because when they act on it, they compress the future toward the present. That speculators are in this sense nothing more than messengers is either misunderstood or conveniently forgotten. The people who are responsible for the policies creating many of the speculative opportunities seek to blame the consequences of such policies on the speculators profiting from them. Since the public is both uninformed and suffering most at the time the finger is pointed at the speculators, it generally finds the speculators to be guilty as charged

Sad as these circumstances are, the situation would not be so bad if it were not for the important role speculators play in helping the economy

get where it's going. If it were possible to have two identical parallel economies, one in which speculation were encouraged and the other in which it was prohibited, the first would achieve substantially higher levels of wealth and satisfaction for its members. It would do so in very short order. Today, speculation is in greater danger in the United States than at any other time in this century. Let me show you why.

THE REAL CRASH OF 1987

On Monday, October 19, 1987, Wall Street laid its greatest egg ever. On that day, the Dow Jones Industrial Average fell by 508 points. Although it is impossible to count accurately the loss of wealth in the crash, some rough measurement is possible. From the high in August to the low in October 1987, the Wilshire Index, which tracks the total market capitalization of the 5000 largest publicly traded companies, fell by about $1 trillion. Losses attributable to similar declines in stock markets around the world bring the total up a couple of trillion dollars more. If you include declines that followed in commodity prices, the numbers extend many times farther into the dimensions of the incomprehensible.

Shortly after the Crash, President Reagan appointed a task force to study the causes of the functioning of our free markets in the crisis. The panel, headed by Nicholas Brady, released its findings in January 1988.

One focus of inquiry of the Brady panel was the role of stock index futures. *Stock index futures* are futures contracts based on widely followed stock indexes. The individual securities that comprise the indexes are regulated by the Securities and Exchange Commission and are traded pursuant to a host of regulations, many of which were promulgated in the aftermath of the 1929 stock market crash. Stock index futures are regulated in a different way by a different agency, the Commodity Futures Trading Commission. Two of the most important differences are the absence of a short sale rule and much lower margin requirements in the case of futures. The short sale rule requires an uptick before securities may be sold short. Its purpose is to prevent short sellers from forcing declining stocks into free fall. Since shortly after the 1929 crash, the Federal Reserve Board has set margin requirements at levels in excess of those that would otherwise be demanded by the marketplace. The intent of requiring a relatively high margin is to limit the exposure of banks and

brokerage firms and to dampen speculative activity thought to be excessive.

Stock index futures are an ideal speculative vehicle. They enable traders to trade the market as a whole, quickly and efficiently. The higher leverage is viewed by some speculators as an attractive feature. Institutions use stock index futures to protect portfolios against loss in declining markets by employing a strategy called *portfolio insurance*. Some institutions also engage in *index arbitrage*, a strategy designed to extract profits when market sentiment causes the stock index markets to be priced too high or low relative to the actual securities comprising the index.

Critics of stock index futures include members of Congress, the head of the New York Stock Exchange, investment advisers, and even heads of several major investment firms. Reduced to its essence, their argument is that the presence of stock index futures fosters excessive speculation, which increases market volatility, destroys wealth, slows growth, and adds uncertainty to the economy. Many of these critics have called for identical rules for stock indexes and securities trading, including applicability of the short sale rule and a 50 percent margin requirement. Some call for the abolition of stock index futures trading altogether.

These arguments are wrong and dangerous, with important implications that extend far beyond the limited scope of the inquiry into stock index futures trading.

As we have explained in great detail, speculation is fundamental in a capitalist society. As we have repeatedly seen, speculators perform the important economic function of directing producers to produce what consumers want most. Speculators do this by acting as a conduit between producer and consumer. Speculators absorb supplies when they are temporarily in excess. They raise prices through their purchases to encourage additional production when it is anticipated that demand will soon increase. In addition, speculators unburden producers from unwanted risks associated with fluctuating prices. In return for performing these most valuable services, successful speculators are rewarded with profits.

Speculation is among the most competitive of businesses. Literally millions of risk-oriented individuals trade with one another, making the markets highly efficient. Those who are unqualified are eliminated from the competition in short order. Those who do their job best reap the greatest profits, earning more capital to put to work.

All capitalists, whether they farm, own factories or shops, or provide services, are speculators. They invest their time and capital because they believe current supply is insufficient to meet the demand of the future. *Speculation is not a freak phenomenon on the fringes of the capitalist system.* Speculation is capitalism.

Although our capitalist system is imperfect, no other system attempted or proposed even approximates the wealth and freedom that we have realized. This is particularly apparent when you compare ours with systems in which production is directed by centralized governments instead of speculators operating in free markets.

While virtually all economists recognize the beneficial effects of speculation, few truly understand the speculative process. Nowhere is this more obvious than in the academic literature on the question of whether speculation can be a destabilizing influence on the markets. Consider, for example, the following sorry passage from an otherwise interesting work on manias, panics, and crashes written by a respected economist:

> The insiders destabilize by driving the price up and up, selling out at the top to the outsiders, who buy at the top, and sell out at the bottom when the insiders are driving the market down. The losses of the outsiders are equal to the gains of the insiders, and the market as a whole is a standoff. . . . But the professional insiders initially destabilize by exaggerating the upswings and the falls, while the outsider amateurs who buy high and sell low are less price manipulators than the victims of euphoria, which infects them late in the day. . . .[1]

It should be noted that the author of the passage is not referring to insiders who possess inside information or who are otherwise in a position to affect the market, but to ordinary speculators whose only guilt is that they happen to be able to succeed at speculation—that is, whose only wrongdoing is to provide an important service to our free market economy and to be rewarded for so doing.

The very use of the term "insiders" in this context reflects a level of ignorance that does the gravest harm to all of us by promoting misunderstanding of the important role that speculators play in our free markets.

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[1]Charles P. Kindleberger, *Manias, Panics, and Crashes* (New York: Basic Books, 1978), p. 32.

Putting a handful of cheaters aside (who, by the way, visible as they may be, are far too small in number to have any lasting, structural impact on the markets or market prices), there are no "insiders" as the term is used in that passage. They are nothing more than figments of the imagination.

In the context of the role of stock index futures in the October Massacre, the argument of those who believe that speculators can destabilize the markets might be that too many ill-equipped individuals who would normally refrain from participation in the stock and stock index markets were enticed by the record-shattering bull market that preceded the Crash. As these amateurs charge into the markets in a greedy frenzy, the argument runs, they increase volatility. They also cause market aberrations that are seized or acted upon by computer-directed arbitrage and portfolio insurance programs. When too many of these influences prevail in the same direction, goes the argument, the result is chaos.

The fallacy of this argument is that it confuses cause and effect. The presence of amateur speculators may very well occur simultaneously with periods of excessive market volatility. But, if there are too many of them in the market, it does not reflect negatively on the particular instrument they happen to favor at the moment, in this case stock index futures, or on the free market system. *Speculators* do not destabilize the market. Rather, *it is destabilizing economic policies that destabilize the markets,* luring participants who might be better off deploying their capital elsewhere. Amateur speculators do not cause booms and busts; poor policy does. In fact, speculative activity as a whole acts to lessen volatility and increase wealth. Eliminating, restricting, or subjecting stock index futures to rules that are irrelevant to the vehicle is no more rational than blaming Holland's seventeenth-century Tulip Mania on the bulbs.

Those who wonder at the increasing volatility of the stock market might also consider that, over the past two decades, institutions have come to comprise the largest class of stock owners. The result is that, while the stock market has grown dramatically, the number of decision makers has declined. The situation is exacerbated by the fact that these professionals are judged by unreasonable criteria: They must outperform the markets on a quarterly basis. To do so, they resort to buying more and taking more risk in rising markets (buy high) and selling more and taking less risk in declining markets (sell low). These tendencies are frequently directly opposite to purposeful speculative strategies and may very well add to market volatility.

The transparency of a few of the most vocal critics cannot be ignored.

Congressmen are responsible for our nation's economic policy. Investment advisers and bankers are expected to guide their clients and manage their own capital well in difficult times. Heads of stock exchanges are understandably threatened when the volume of trading in futures on stock indexes grows at a pace that far exceeds growth in the trading of the individual securities.

To those who fail to perform, the ready availability of a scapegoat is welcomed. The obscurity of the economic truth of the matter and the small constituency of stock index futures makes them an obviously vulnerable target.

It will be a while before the issues surrounding the regulation of trading in stock index futures are sorted out. Fortunately, the Brady commission, whose report forms the basis for proposed legistation, stopped short of suggesting that such trading be curtailed. Unfortunately, it did suggest that "consistent margins" (whatever that means) be applied to all stock-related instruments and that certain "circuit breakers" such as price limits be imposed to slow trading in volatile situations. Such measures, which are artificially imposed on what a free market would otherwise require, can only hamper efficient pricing and risk transfer, and, in the end, can be expected to exacerbate panics such as the October Massacre. Certainly, they cannot compensate for the irresponsible fiscal and or monetary policies that create the conditions.

Unless enacted, the findings of the Brady Commission are, of course, merely advisory. Feeling the pressure to act in the meantime, the Chicago Mercantile Exchange and the Chicago Board of Trade imposed their own trading limits on the stock index futures contracts traded at their exchanges and the New York Stock Exchange required a ban on program trading on days in which the Dow Jones Industrials are up or down by 50 points or more. Calls for the abolition of stock index futures trading can still be heard in some quarters.

When I wrote the first draft of this chapter, I suggested that, if the thesis presented in Chapter 16 is correct, then history is likely to regard the Crash of 1987 as the first of a series of paroxysms that are likely to involve other instruments and markets, most probably in the currencies, precious metals, and energy markets. I concluded that speculators in those markets could expect to be challenged as well. What surprised me was how quickly that would prove to be the case.

With the Crash of October 19, the Federal Reserve lost its ability to

defend the dollar through tight credit policies. As soon as the market recognized this, the dollar plummeted toward its free market price. The central banks of the major industrial nations sought at first to cushion and then reverse the fall of the dollar. At first, they met with apparently limited success. On December 14, 1987, there appeared in *The Wall Street Journal* an article entitled "Who Will Control the Dollar's Value?" which suggested that there is a struggle for control of the dollar between currency traders and government officials, which the politicians have been losing.

It should go without saying that currency traders do not control the value of the dollar to even a small degree. The foreign currency markets encompass the entirety of world trade and are far too huge to be comprehended, let alone controlled, by any individuals, banks, or governments. The value of the dollar reflects and will reflect the policies of the United States that have an impact on its supply and demand. In the end, all the intervention in the world isn't going to change anything, except to add to the deficits of the governments doing the intervening. (And just whose money do you think they're intervening with?)

Unfortunately, the whole point of this essay is that it does not go without saying. When, in January 1988, the central banks succeeded in reversing the dollar's decline, Emmanuel Johnson, Vice Chairman of the Federal Reserve Board, issued a statement to the effect that the speculators should be aware that betting against the dollar was a risky business. Such swaggering by an important banking official is uncalled for under any circumstances. But the real disgrace is that the statement lays bare the basic antagonism between governments that seek to avoid the inevitable consequences of their policies and the speculators whom they seek to make scapegoats.

And then there was the case of the senator's hobnailed boots. Sadly, by the time you read these words, it is likely that other increasingly strident challenges will have been made to the very important business of speculation.

Bull markets come and go. So do periods of prosperity, recession, and, even, depression. Of course the world can live without stock index futures, foreign currency futures, or any other speculative vehicle, but that is not the point. The October Massacre of 1987 has placed the issue of our free market system on the agenda for review. The current guise is stock index futures trading. Above all else, our free markets are a social

process. Although even the greatest experts know very little about them, one thing is certain: They function best with the least amount of regulatory interference.

If it turns out that we have seen the lows in the stock market and the urgency abates, few if any changes may be made in our policies or our markets. But the Crash of 1987 has put us on notice that there are serious policy problems confronting us. In time, the free markets will surely inspire humility in all officials who think that they can dictate to the marketplace. *The danger (and I'm afraid the likelihood) is that, in the end, there will be more government and less free markets, when it is precisely the government and not the free markets that caused the crisis.*

Consider these words: Less *free* markets means less *freedom*. It also means less prosperity for everyone.

Although the dollar amount of the damage done in the October Massacre is beyond comprehension, in the final analysis the real harm will be measured, not by the pluses and minuses of the Dow, but by how the government and the country respond to what may prove to be our greatest challenge ever. What is required is leadership. What is required is a plan calling for fiscal common sense. What is required is that we find the national will to do what must be done.

Specifically:

1. We must not lose sight of the fact that the real causes of the problem are the budget deficit and national debt.
2. We must break the connection between entitlement programs and non-means-tested, cost-of-living adjustments, restricting such programs to the truly needy. The plan must reduce spending and encourage capital formation, saving, and investment.
3. Any inquiry conducted into the markets must recognize as its starting point the importance of fostering speculation by those who are equipped to engage in the activity. Means to assure coordination among the exchanges, regulatory agencies, and the Federal Reserve should be examined.
4. The various regulatory and self-regulatory agencies should be encouraged to determine whether current capital and other requirements of member firms designed to assure the financial viability of the system adequately reflect current volatility.

5. We must not let the government and others go unchallenged when they seek to make speculators the scapegoats for their own defalcations.

Whatever our course of action, we will obtain our best chance of success if we refrain from interfering in the functioning of our free markets. If, instead, we shrink from the basic principles that have made us the most prosperous nation on earth, that will be the real crash.

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