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Introduction

This book is divided into halves. The first half of the book (chapters 1- 8) covers the fundamental building blocks of investing. These building blocks include stocks, bonds, mutual funds, REITS, money markets, etc. If you are a sophisticated investor, you may already be familiar with some of the information covered in the first half of the book. Nevertheless, nearly all of the sophisticated investors to whom I've presented this "building block" material have told me that they have benefited from it, even though they were already familiar with some of it.

The second half of the book (chapters 9 – 21) explains how to use the fundamental building blocks to create your investment portfolio. The second half of the book also covers diversification, asset allocation, Cahn's financial truths and many other important topics that rely on the building block material presented earlier.

My philosophy of investing is to earn a substantial return with as much certainty and as little risk as possible. If your goal is simply to become as rich as possible, this book is not for you. You won't find a methodology here for achieving maximum wealth at all costs. If your goal is to achieve wealth as quickly as possible, you should look elsewhere as well. I don't have a formula for that either. If your goal is to get rich surely (probably), but slowly, read on.

After reading this book, if you'd like to share your thoughts with me, you can email me at garycahn@yahoo.com.

Part 1 – The Fundamental Building Blocks

Chapter 1 – Who Wants to Be a Millionaire?

There are several routes to becoming a millionaire. The surest route is the one taken by two investors named Jack and Jill.

Jill begins to invest $2,000 per year at age 25. She continues to invest an additional $2,000 each year for a total of 10 years. She is now 34 years old. Jill stops investing additional sums of money at this point, and chooses to watch her money grow from age 34 to age 70.

Jack begins a similar investment program of $2,000 per year, but he starts investing at age 35. He continues to invest $2,000/year for a total of 36 years until he reaches age 70.

Both investors place their money in identical accounts that earn 10.3% per year. (The stock market has earned an average of 10.3% per year between 1926 and 2005, which is why this figure was selected.)

Who has more money in his/her account at age 70? Jack or Jill? While you're contemplating that question, here's a summary of their investments strategies.

	Jack	Jill
Age when investing $2,000/year begins	35	25
Age when investing $2,000/year ends	70	34
Total amount of money invested	$72,000	$20,000
Annual investment return	10.3%	10.3%

The answer is that Jill has more money than Jack, despite the fact that she invested less than 1/3 as much money as he did. More surprising is how much money each person has by age 70. Jack has $642,664 while Jill has $1,102,600.

Why does Jill end up with so much more money, even though she invests much less than Jack? The answer can be summed up in one word---compounding. Compounding can be defined as interest earned on interest.

Jill's investment compounds for 46 years, while Jack's investment compounds for 36 years. That one difference results in Jill having 71% more money than Jack does by the time they both reach age 70.

The power of compounding can be seen by examining the chart below.

Jill's investment is compounding at 10.3% per year.

Increase in Jill's investment from interest earned:

Increase from year 1 to 2	$206
Increase from year 2 to 3	$433
Increase from year 3 to 4	$684
Increase from year 10 to 11	$3,331
Increase from year 20 to 21	$8,878
Increase from year 30 to 31	$23,662
Increase from year 40 to 41	$63,067
Increase from year 45 to 46	$102,963

The difference between the return in year 10 and the return in year 45 is just a bit less than $100,000. That additional $100,000 earned in year 45 is all due to interest earned on interest.

Notice how the amount of money that Jill earns each year increases dramatically over time. This is the power of compounding. Also notice that while Jill only invested a total of $20,000 during her lifetime, she earned nearly $103,000 in a single year. Had she closed her account after 45 years rather than 46 years, she would have forgone the final $102,963.

Suppose that Jill had not chosen to reinvest her earnings in her account each year. Instead, she withdrew her earnings at the end of each year, and she spent all the earnings. In that case, at age 70 her account balance would have been $20,000, and she would have received $83,430 in earnings over the 46-year period. Thus the total value of Jill's investment would have been $103,430. The difference between $1,102,600 and $103,430 is all due to compounding. In the first instance, Jill's earnings produced additional earnings. In the second instance, Jill spent her earnings.

The lesson here is a simple one. The secret to becoming a millionaire is to invest for the long term and continue to let your money grow. This is a lesson that you will hear repeatedly throughout the course of this book. In fact, you will hear it repeated so often that you may grow sick of hearing it. Nevertheless, it is such an important lesson, that I want to repeat it a second time before we go any further.

Invest for the long term.

Albert Einstein was a man who knew a great deal about powerful forces. This is what he said about the force of compounding. "Compounding is mankind's greatest invention, because it allows for reliable systematic accumulation of wealth." Please heed Einstein's words well.

Having seen how compounding can be extremely powerful over the long term, let's look at our investor Jill once again. Suppose that Jill begins investing at age 20 rather than 25. She invests for a total of 10 years once again; thus she invests the same $20,000 over her lifetime. She earns the same 10.3% that we assumed previously. How much money does Jill have in her account by age 70?

The answer --- $1,800,096 versus the $1,102,600 she had under the previous scenario. Jill doesn't invest a dime more than she did before, but she earns an additional $700,000 because her money compounds for 5 additional years.

The Rule of 72

You can calculate how long it will take money to double using the rule of 72. Divide 72 by the interest rate your money is earning, and that will tell you how many years it will take your money to double.

Suppose that your investment is earning 7.2% annually. 72 divided by 7.2 is 10, so it will take you 10 years to double your money.

Let's use the rule of 72 to look at one final scenario with Jill. Suppose that Jill begins her investment program at age 15 rather than age 20. All other variables are the same as they were in our previous two examples. How much money will Jill have in her account by age 70?

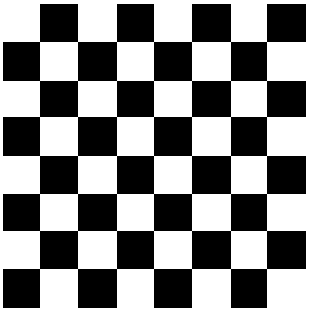
Using the rule of 72 we know that 72 divided by 10.3% (the rate at which Jill's investment is growing) is equal to 6.99, so her money will double in 6.99 years. Since Jill started investing at age 15 rather than 20, her money will be invested 5 years longer than it was before.

Can you use the rule of 72 to determine approximately how much her investment will grow to under this scenario? Remember that she ended up with $1,800,096 previously.

Since she's investing for 5 additional years, and her money will double every 6.99 years, Jill should see her money increase by somewhat less than double. In fact she'll end up with $2,938,822 compared to $1,800,096. In short, Jill will earn an additional $1.1 million as a result of beginning her investment program at age 15 rather than age 20.

Doubling Taken to the Extreme

Consider a simple checkerboard



Suppose that you walk along the checkerboard, beginning in the lower left corner, and you advance one square each day. There are 64 squares on the checkerboard. On the first day, when you are on the first square, I give you a penny. On the 2^{nd} day, you walk to the 2^{nd} square, and I give you 2 cents. On the third day, you walk to the 3^{rd} square and I give you 4 cents. On the 4^{th} day, I give you 8 cents, 16 cents on the 5^{th} day, and 32 cents on the 6^{th} day. I continue to double the amount of money that I give you each day, until you reach the 64^{th} square on the checkerboard on day 64. How much money will I give you on day 64?

Think about that before you turn the page.

The stunning answer is $92,233,720,368,547,800

For those of you who can't pronounce that number, much less comprehend it, here it is: Ninety-two quadrillion, two hundred thirty three trillion, seven hundred twenty billion, three hundred sixty eight million, and change.

If only we could double our money each day. If only.

Since 92 quadrillion dollars is a bit much to comprehend, let's return to the more realistic world of Jack and Jill.

If Jill begins her investment program at age 25, she will become a millionaire by the time she is 70. However, we left out two key factors in our Jack and Jill story. Do you know what they were?

Inflation and taxes.

As you know all too well, the only two sure things in life are death and taxes, so we certainly need to consider the latter. Or do we?

The good news is that thanks to former Senator William Roth from Delaware, we no longer need to consider taxes in every case. If Jill invests her money in a Roth IRA, she will never have to pay a dime in taxes on the earnings from this investment.

Roth IRAs are available to most investors. Here's a summary of the rules that apply to you if you wish to open a Roth IRA.

1. You may invest a maximum of $5000/year ($6000 if age 50 or older.)
2. You must have earned income in the year that you invest. Earned income is generally money that you earn from some type of employment, e.g. your job, babysitting, lawn mowing, etc. In a given year, you may not invest more than your earned income in a Roth.
3. Your income must be $99,000 or less if you are single, or $156,000 or less if you are married (filing jointly), to take <u>full</u> advantage of the $5000/$6000 Roth maximums.
4. Earnings on your investment can't be withdrawn before age 59.5, or you are taxed on the earnings that you withdraw. Your original investment may be withdrawn at any time without paying additional taxes or penalties.
5. You are never required to withdraw your money, unlike a traditional IRA.

There are additional rules that apply to a Roth, although the ones above are the most important. You should consult a tax professional before opening a Roth to be sure that you qualify for one.

Now that you know the most important rules for opening a Roth IRA, let's return to our investor Jill. Suppose that Jill is our 15 year-old daughter. If she opens a Roth IRA this

year, and she deposits $2,000 per year in it for 10 years, our daughter Jill will have an account worth $2.9 million by the time she's 70, and she will never have to pay taxes on any of the money.

All Jill needs to do is earn $2,000 from a job (jobs such as babysitting and lawn mowing qualify), and she can become a millionaire nearly three times over by the time she is 70. That's the good news. The bad news is that if your 15 year-old Jill is like most 15 year-olds, the last thing she is interested in doing is investing her hard earned grass cutting money. Most 15 year-olds I know want to spend their earnings as quickly as they receive them.

Fortunately there is solution to this problem. You can make a deal with your daughter, Jill. The deal is a simple one. If Jill agrees to open a Roth IRA and invest her $2,000 grass-cutting money, you will give her $2,000, which she can use any way she pleases.

The IRS rule that governs this type of transaction is a simple one. Anyone may gift to anyone else up to $12,000 per year (as of 2006), without any tax implications to either party. Thus you can choose to make a gift to Jill of more than the money that Jill invests in her Roth IRA each year, or an amount equal to what she invests in the Roth, or just a portion of the money she invests. Moreover, if you don't want to make a gift to Jill, her grandparents, uncles, aunts, or any 3rd party can make a monetary gift to Jill, without any tax consequences to Jill or the 3rd party.

By investing in a Roth IRA, you can dispense with the ugly issue of taxes.

Let's tackle the other item that was left out of our Jack and Jill scenario--inflation.

Inflation as of 2007 was running at approximately 3.5 percent per year. That isn't terribly much. Nevertheless, in Jill's case we're talking about 46 years of investing. When you examine an investment over that long a period of time, you must consider inflation, even if inflation is moderate or minimal.

To understand the consequences of inflation, let's consider a few examples of how inflation takes its toll over long periods of time.

Consider a Rolls Royce. A new Rolls had a list price of $363,990 in 2002. Can you estimate how much a Rolls sold for in 1963?

$16,655

$16,655 won't even buy a Volkswagen today.

A Rolls Royce wasn't cheap back in 1963, even though its $16,655 price tag seems that way from today's vantage point. You had to be just as wealthy in 1963 to afford a Rolls as you do today. It's just that $16,655 doesn't go as far today as it did 40 years ago. This is of course due to inflation.

The increase in the cost of college has been just as dramatic over the past several decades. I entered Dartmouth's MBA program in 1981. At the time, the total cost for a year at Dartmouth was $12,500. The cost for a year at Dartmouth in 2005 is $60,760.

Let's consider one final example of how inflation can warp our perspective. You may remember from your study of American history that Native Americans sold the island of Manhattan to the settlers for $24 worth of beads in the year 1626. At first glance, from the perspective of 2005, it appears that the Native Americans made a rather bad deal. Manhattan is worth quite a bit more today than $24.

However, suppose that the Native Americans took their $24 and invested it in an account that paid the same 10.3% that Jack and Jill earned. Remember that we chose 10.3% because that is what the stock market has returned during the past 80 years. Needless to say, there was no stock market in 1626, so making such an investment would not have been possible. But let's just suppose such an investment were possible.

Our Native American friends invest their $24 in 1626, and watch it grow at the rate of 10.3% per year until 2005. How much would their $24 investment be worth today?

328 quadrillion dollars!

I'm not sure what the island of Manhattan is worth today, but perhaps the Native Americans didn't get such a raw deal after all.

Let's return to inflation's effects over somewhat shorter periods of time.

If inflation runs at 3% per year, table 1.1 below shows the future purchasing power of today's dollar.

Purchasing Power Over Time of One Dollar
Table 1.1

5 years	$0.86
10 years	$0.74
15 years	$0.63
20 years	$0.54
25 years	$0.47
35 years	$0.34
45 years	$0.25

Jill was investing for 46 years. By the end of her investment career, the dollar that she invested initially will be worth less than 25 cents. Clearly, even at today's relatively low rate of 3.5% inflation, Jack and Jill must consider what their purchasing power will be by the time they reach age 70. How should they do that?

We assumed that Jack and Jill would see their investment grow by 10.3% per year, because that is what the stock market has returned on average since 1926. However, that figure includes inflation. When one subtracts inflation from the calculation, the stock market has returned an average of 6.9% per year during the past 80 years. We refer to returns that exclude inflation as real returns.

Let's revisit Jack and Jill now that we know we need to account for inflation. Here's what their investment accounts would look like if we assume that they earn a real return of 6.9% rather than a return of 10.3%:

	Jack	Jill
Age when investing $2000/year begins	35	25
Age when investing ends	70	34
Total amount of money invested	$72,000	$20,000
Annual investment return	6.9%	6.9%
Account balance at age 70	$291,183	$303,790

The good news is that Jill still has more than Jack, because she took advantage of compounding over a longer period of time. However, the advantage she had over Jack is not nearly as great as it was when we ignored inflation and assumed that both investors could earn 10.3% on their money.

I'm not 25 Anymore

By now I hope that I've convinced you that starting your investment program early is highly advantageous. We compared Jill's returns when she started investing at age 15, 20, and 25, and we saw that starting an investment program early makes a huge difference. Before I go too much further, I probably should stop and speak to those of you who are saying, "I'm not Jill. I'm not 25 anymore. What does Jill have to do with me?"

No doubt some of you who are reading this book are 60 years of age or older. I suspect that you were ready to skip to the next chapter a long time ago, because you are convinced that Jack and Jill have no relevance to you whatsoever. In a moment I hope to convince you otherwise. Before I do, I want to remind you 60 year-olds that Jack and Jill do have enormous relevance to your grandchildren. You can do them an great service if you get them to open a Roth IRA, **today**. Don't you wish your grandparents had done the same for you, when you were 15 years old? (Note that a Roth IRA didn't exist then.)

I said that Jack and Jill have more relevance to you if you are 60 than you might think. Suppose that you and your spouse are both 60 years old. Actuaries tell us that there is a 44% chance that one of you will live to be 90. That's a 30-year investment window. That's not quite as long as Jill's window of 46 years, but 30 years is more than long enough to continue to add to your nest egg in a very substantial way, thanks to the virtue of compounding. You can use the following website to calculate the life expectancy for

one or two people.
http://flagship4.vanguard.com/VGApp/hnw/content/PlanEdu/Retirement/PEdRetPicLongRetireContent.jsp

Investing for the Very Long Term

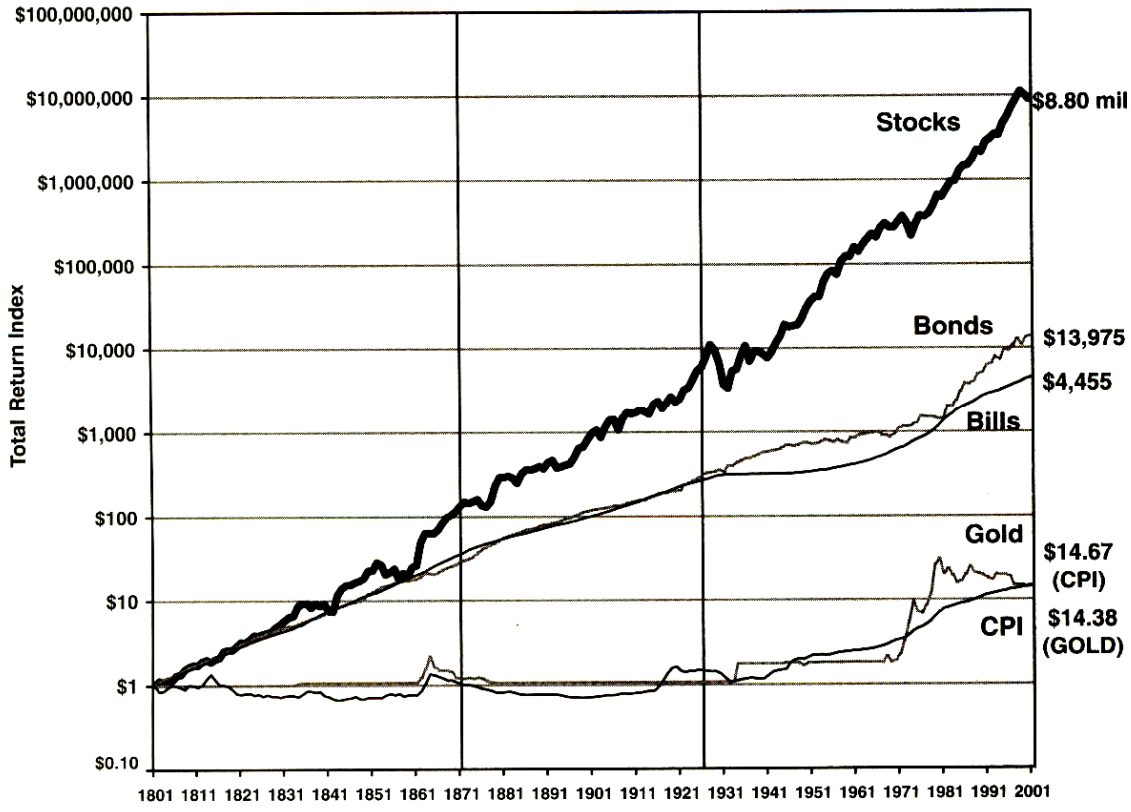
I said that investing for the long-term is a major theme of this book. Let's spend a moment looking at long term investing in the extreme.

Suppose that your great great great great great grandparents had invested one dollar in the stock market in 1802, and specified that the money was to go to you, their great great great great great grandson/granddaughter. Unlike our Native Americans who sold Manhattan and did not have the opportunity to invest in the stock market, there was a U.S. stock market in 1802, although it looked quite a bit different that it does today. What would your ancestors' investment of $1 in 1802 be worth today?

The answer is $8.8 million. Don't you wish your ancestors had been prescient?

The graph below shows what a dollar invested in various types of investments in 1802 would be worth today.

Value of a One Dollar Investment Over Time
Diagram 1.2

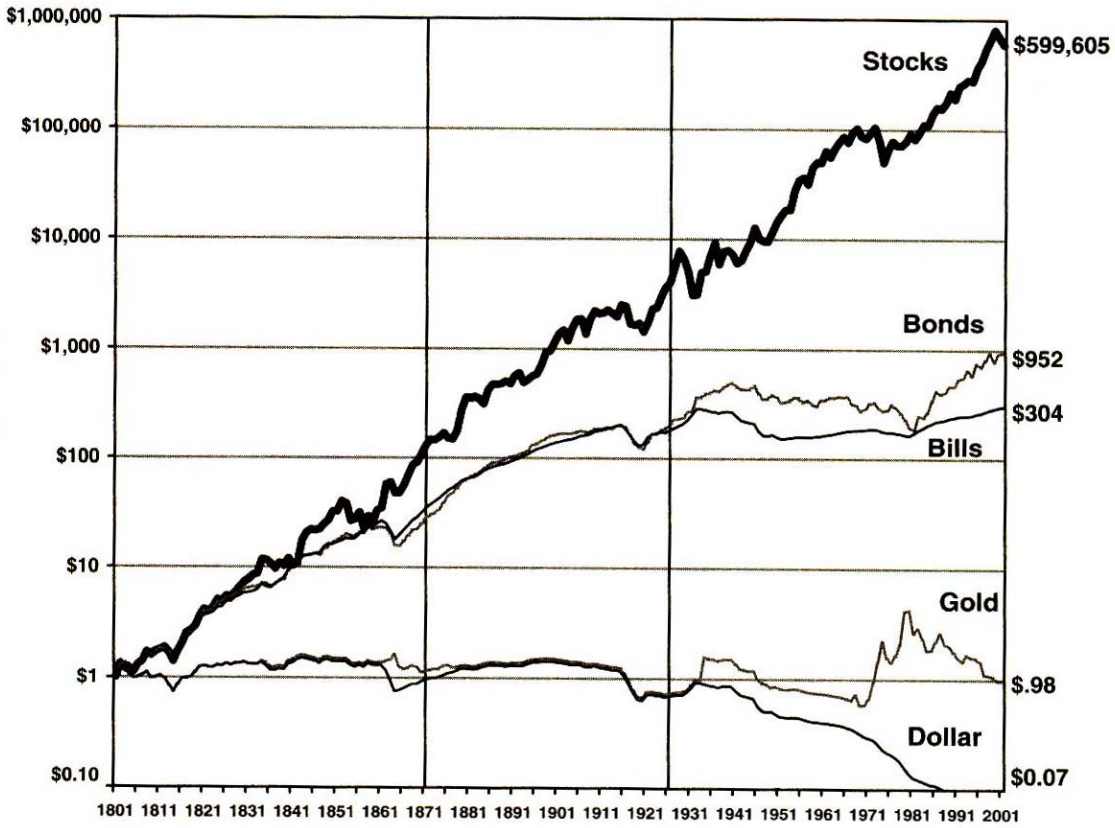


Notice that a dollar invested in the stock market would have been a much wiser investment than investing in government bonds or treasury bills or gold. Looking at this graph, you might think that the only smart investment is stocks. In fact you would be wrong. Later in this book, I will urge all of you to invest in bonds as well as stocks, but that is a lesson for another chapter. For now, let's continue to talk about stocks.

Another important lesson that you should take away from the graph above is that the long-term direction of the stock market is up. Even the great depression of the 1930's is barely a small ripple on this chart. A few pages ago, I told you that I would urge you over and over again in this book to invest for the long term. I'm going to implore you now for the third time to invest for the long term. Look at the chart above to understand why. While stocks and bonds can move dramatically lower in the short term, when you invest over the long term, you are almost assured that the value of your investment will rise. Stocks, bonds and bills have certainly done so for the past 200 years.

Remember that when we consider investments over long periods of time, we need to consider inflation. Diagram 1.2 above did not take inflation into account. Let's see what that same investment of one dollar in 1802 would look like today, assuming that we subtract out inflation.

Value of a One-Dollar Investment Over Time – Excluding Inflation
Diagram 1.3



Our one-dollar investment would have grown to slightly less than $600,000, if we subtract out inflation. Clearly this isn't nearly as good as the $8.8 million we "had" a few moments ago. Nevertheless, turning one dollar into $600,000 isn't bad. Notice what one-dollar invested in gold would have turned into after 200 years. 98 cents. While we won't talk about gold investments until chapter 3, I think you can probably anticipate what I'm going to say about them, based on diagram 1.3.

Turning a dollar into $600,000 is wonderful to think about, and perhaps some of you may wish to invest a dollar today for your great great great great great great grandchildren who will be born 200 years from now. After all, I did say, invest for the long term. However, for most of us, thinking about a lifetime of investing (70-80 years) is about as long term as we can comprehend. So let's return to investments with that time-frame in mind.

Consider the following table:

Returns and Risk 1926 – 2001
Table 1.4

	Actual Return	Real Return	Risk
Stocks	10.3%	6.9%	20.3%
Long term bonds	5.3%	2.2%	9.5%
One-year treasury bills	3.9%	.7%	3.2%

This table corroborates the data we saw on diagram 1.3 a few moments ago. Stocks outperform bonds over the long term. Bonds outperform bills. Moreover, inflation accounts for a significant portion of the return, so it is important to subtract inflation out. In this table we introduce a new concept---risk. We will have much more to say about risk in future chapters. For now, it is sufficient to point out two important facts: First, stocks produce better returns than bonds and bills do over the long term. Second, stocks are riskier than bonds and bills. We have come to the second important lesson in this book, a lesson that you will hear repeatedly in the ensuing pages: risk follows returns. There is no such thing as an investment that earns a high return with low risk.

Based on table 1.4 above, we can hope that if our grandchild opens a Roth IRA today, she will earn a real return after inflation of about 7% if the investment is in stocks, or about 2% if it is in long-term bonds. That assumes that the next 80 years are like the past 80 years. The question is, will they be?

Financial prognosticators rarely make forecasts for ten years into the future, much less 80 years. However, in early 2005 a number of experts did predict what the next 44 years would bring us. Table 1.5 summarizes their views.

Expected Market Returns During the Next 44 Years According to 10 Experts
Annual Returns After Inflation
Prediction made as of 2/28/05
Table 1.5

Name	Organization	Stocks	Govt Bond	Corp Bonds
William Dudley	Goldman Sachs	5.0%	2.0%	2.5%
Jeremy Siegel	Wharton	6.0	1.8	2.3
David Rosenberg	Merrill Lynch	4.0	3.0	4.0
Ethan Hams	Lehman Brothers	4.0	3.5	2.5
Robert Shiller	Yale	4.6	2.2	2.7
Joseph LaVorgna	Deutsche Bank	6.5	4.0	5.0
Parul Jain	Nomura	4.5	3.5	4.0
John Lonski	Moody's	4.0	2.0	3.0
David Malpass	Bear Stearns	5.5	3.5	4.25
Jim Glassman	J.P. Morgan	4.0	2.5	3.0

First, here's a word about the folks who made these predictions. The good news is that these are the best and brightest members of the financial community. Other than the two who are at colleges, each of the superstars above is being paid millions of dollars a year for his advice.

The bad news is that their advice may not be worth nearly that much. To see why, you'll have to wait until chapter 3. For now, I would ask that you take the advice above with a grain of salt, even though these superstars are all brilliant men, and infinitely more knowledgeable than I am.

Despite the caveat in the paragraph above, let's assume for the moment that the predictions in table 1.5 are worth heeding. How do these predictions compare with the actual stock and bond returns that we saw in table 1.4? In the case of bonds, the past 80 years saw a 2.2% real return. Most of our experts believe that we may do a bit better than that over the next 44 years. In the case of stocks, the past 80 years saw a 6.9% real return. None of our experts believe that we will achieve that rate of return during the next 44 years.

What implications do these predictions have for Jack and Jill, whom we met on the first page of this book? Remember that we assumed they would earn what stocks have returned over the past 80 years---a 10.3% actual return or a 6.9% real return. If our experts are correct, then Jack and Jill's investments will not grow as quickly as they had hoped.

Before we leave Jack and Jill, I'd like to answer (partially) a question that some of you may be pondering. When we discussed Jack and Jill, we said that the stock market has actually returned 10.3%, which is equal to a real return of 6.9% during the past 80 years.

Some of you may be saying, “I can’t invest in the stock market. I can only invest in individual stocks such as IBM or Microsoft. What does the total stock market return of 6.9% have to do with me?”

In fact, you can invest in the entire stock market. It is an easy investment to make, and one of the smartest possible investments. In chapter 8, you’ll learn how to make an investment in the entire stock market.

Chapter Summary

1. Invest for the long term and invest early. (Remember Jack and Jill).
2. The long-term direction of the stock market is up.
3. Risk follows return, i.e. there is no such thing as a high return/low risk investment.
4. Pay attention to inflation when considering investments over the long term.
5. By investing in a Roth IRA you can permanently avoid paying taxes on your investment.