# financial planning

### DeMYSTiFieD

### A SELF-TEACHING GUIDE



Learn the difference between corporate BONDS, mutual FUNDS, and STOCKS



ENSURE that your EMPLOYER'S investment plan works with your PERSONAL PLAN

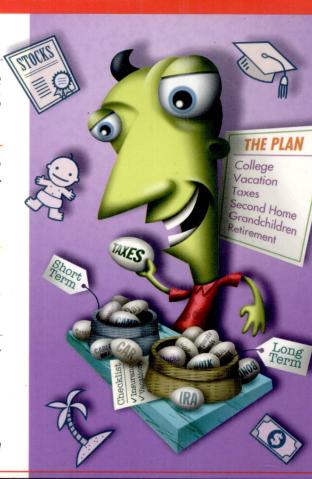


PERSONALIZE your financial PLANNING using checklists and questionnaires



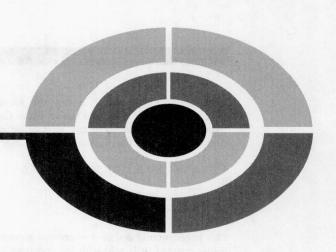
Test your skills with end-of-chapter quizzes and a FINAL EXAM

Paul J. Lim



F830.35

教育部高校国外赠书转运站赠书



### FINANCIAL PLANNING DEMYSTIFIED



PAUL J. LIM





New York Chicago San Francisco Lisbon London Madrid Mexico City Milan New Delhi San Juan Seoul Singapore Sydney Toronto

#### The McGraw·Hill Companies

Copyright © 2007 by McGraw-Hill, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a data base or retrieval system, without prior written permission of the publisher.

1234567890 FGR/FGR 09876

ISBN-13: 978-0-07-147671-3 ISBN-10: 0-07-147671-7

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If legal advice or other expert assistance is required, the services of a competent professional person should be sought.

—From a Declaration of Principles Jointly Adopted by a Committee of the American Bar Association and a Committee of Publishers and Associations

McGraw-Hill books are available at special discounts to use as premiums and sales promotions, or for use in corporate training programs. For more information, please write to the Director of Special Sales, Professional Publishing, McGraw-Hill, Two Penn Plaza, New York, NY 10121-2298. Or contact your local bookstore.

This book is printed on acid-free paper.

#### Library of Congress Cataloging-in-Publication Data

Lim, Paul.

Financial planning demystified / by Paul Lim.

p. cm.

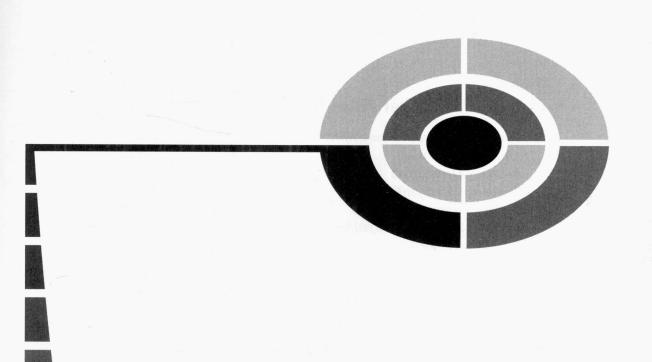
Includes index.

ISBN 0-07-147671-7 (pbk.: alk. paper) 1. Finance, Personal. I. Title.

HG179.L497 2007

332.6-dc22

2006028078

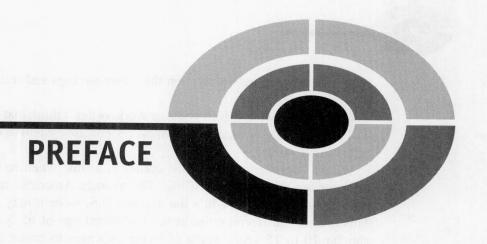


### FINANCIAL PLANNING DEMYSTIFIED

#### Other Titles in the Demystified Series

Advanced Statistics Demystified Algebra Demystified Anatomy Demystified Astronomy Demystified Biology Demystified Business Statistics Demystified C++ Demystified Calculus Demystified Chemistry Demystified College Algebra Demystified Databases Demystified Data Structures Demystified Differential Equations Demystified Digital Electronics Demystified Earth Science Demystified Electricity Demystified Electronics Demystified Environmental Science Demystified Everyday Math Demystified Geometry Demystified Home Networking Demystified Investing Demystified

Java Demystified JavaScript Demystified Macroeconomics Demystified Math Proofs Demystified Math Word Problems Demystified Microbiology Demystified OOP Demystified Options Demystified Personal Computing Demystified Physics Demystified Physiology Demystified Pre-Algebra Demystified Precalculus Demystified Probability Demystified Project Management Demystified **Quantum Mechanics Demystified** Relativity Demystified Robotics Demystified Six Sigma Demystified Statistics Demystified Trigonometry Demystified



This book is geared for anyone and everyone who earns, spends, borrows, saves, invests, needs, and (most of all) *wants* money. In today's day and age, that's pretty much all of us.

Why is it necessary for all of us to plan for our financial futures? Here's the simple answer: It costs more than \$200,000 to send 2.1 kids to private colleges for four years. To buy a home, you may have to spend close to \$300,000. And if you want to be able to fund a long and comfortable retirement (with an emphasis on long, as we're living longer than our parents did), you may need to save anywhere from \$500,000 to \$1 million or more, depending on how and where you plan to live in your golden years. In fact, recent studies show that a retired couple turning 65 will need to save \$200,000 just to cover out-of-pocket medical expenses in retirement—and that's with health-care coverage.

The fact is, we are constantly being reminded of a singular truth: When it comes to money-related matters, such as paying for college, paying to keep up with the Joneses, and saving for retirement, we are on our own.

True, the government says it will be there for us. But the safety nets that Uncle Sam created generations ago, such as Social Security and Medicare, are clearly fraying at the edges. At the very least, younger Americans don't trust the integrity of such programs.

Recent surveys, for instance, have shown that two thirds of younger workers do not think Social Security will be a viable or significant resource for them by the time they retire (even though Social Security checks took care of half or more of their parent's retirement needs). In fact, a large majority of so-called Generation X workers, those in their mid 20s to early 40s, now believe that they will have to



rely primarily—if not solely—on their own savings and retirement funds to pay for their golden years.

Meanwhile, two thirds of younger workers don't think that the U.S. government will make necessary fixes to the nation's Medicare system to meet their healthcare needs in retirement.

What's frightening is that this comes at a time when retirement is becoming a longer and longer phase of life. The average American male, for example, is expected to live to 74, while the average U.S. woman may live until almost 80. This means that if you retire at the traditional age of 65, you could easily have another 10 to 15 years worth of living expenses to cover. In fact, chances are, you'll have more. That's because if you're lucky enough to make it to 65, chances are, you'll live another 18 years. That's a whole lot of years of bills to pay.

As for our employers, the safety nets that they used to provide—such as guaranteed traditional pensions and retiree healthcare benefits—are also being torn asunder. Everyday, we read about yet another Fortune 500 company that is doing away with guaranteed retirement benefits for its workers because they can no longer afford to take care of us in our old age. Yet many Americans entered the workforce with these guarantees in mind. Now, only a small minority of us will be lucky enough to enjoy a guaranteed pension in retirement.

What has replaced these safety nets? Self-directed accounts and plans such as 401(k) retirement accounts, individual retirement accounts (IRAs), and health savings accounts that make *us* do all the work. This explains why today more than 90 million of us—representing about half of all U.S. households—invest in mutual funds, primarily through our 401(k)s and other employer-sponsored retirement accounts. Compare that to a half a century ago, when only around 6 million people had to invest.

But it's not just 401(k)s. Nearly 40 million of us invest in IRAs. And don't forget the growing popularity of 529 college savings accounts and Coverdell education savings accounts, which are both self-directed tax-deferred college savings plans that force parents to make their own investment decisions.

"Self directed" has become the new catch phrase for our financial planning system. No longer are things guaranteed and done for us, as pensions are. Instead, we have to do all our own savings and investing and planning. And there are no guarantees that at the end of a long, hard working career that our efforts will be enough to cover our needs.

Of course, the trade off in this new do-it-yourself system is that if we save, spend, and invest wisely, some of us may actually come out better than we would have under the old system of government and corporate guarantees. Some of you may like this. Others won't. Either way, this is the reality we live in today.

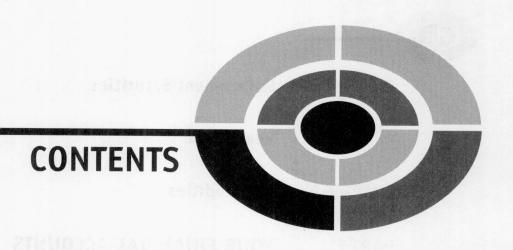
The term *financial planning* gets thrown out a lot, but there's some confusion about what it really means. Let's address this front and center. For starters, financial planning is not simply investing, though investing is a major component of a long-term financial plan. Financial planning refers to a life-long process of organizing the things that work for you—like your job, your income, your assets—while simultaneously controlling and diminishing those things that work against you. These would include your liabilities, such as debts and loans. It's about controlling what you can, like your savings and investment decisions, while doing the best unnecessary fees and expenses and taxes.

In this book, I will try to touch on several aspects of financial planning. In Part I, I will focus on *your assets and liabilities* by discussing ways in which we can save money and avoid debt. In this section, I will also address an often-overlooked asset that households need to be mindful of—their credit profile. Indeed, your credit profile and score can end up either saving (or costing) you tens, if not hundreds of thousands of dollars over the course of a lifetime of borrowing. Yet many families often ignore this valuable asset.

Next, in Part II, we will turn our attention to *your investments*. One of the biggest challenges for families as they attempt to create a financial plan is deciding which buckets to place their hard-earned savings into. Does the money belong in stocks, for instance, or bonds or cash? Or are you better off investing additional money in real estate? We will go over the ins and outs of all the major competing investment vehicles in this section of the book.

Then in Part III, we will focus on how to organize those buckets of stocks and bonds and cash that you've just put your savings into. In other words, we will talk about *your financial accounts*. For example, households often confuse core investment building blocks like stocks and bonds with the "envelopes" in which we usually hold those building blocks, such as tax-sheltered 401(k)s and IRAs (and even 529 savings plans for college). If we consider stocks and bonds as buckets in which we can organize our savings, then 401(k)s and IRAs are really the shelves in which we can place those buckets of stocks and bonds. In the final part of this book, we will discuss safeguards you should consider to protect your financial plans.

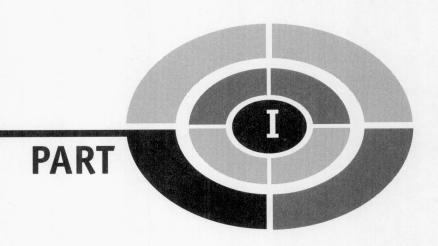
At the end of all of this, I hope you will know enough about financial planning to know what you know—and recognize what you don't. And most of all, I hope you will know enough about the ins and outs of creating a financial plan to actually go out and start one.



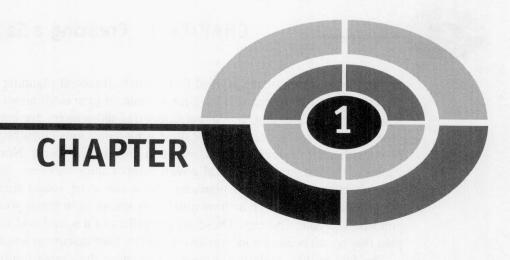
	Preface	ix
PARTI	YOUR ASSETS AND LIABILITIES	1
CHAPTER 1	Creating a Savings Plan	3
CHAPTER 2	Borrowing and Credit	22
PART II	YOUR INVESTMENTS	43
CHAPTER 3	Corporate Stocks	45
CHAPTER 4	Corporate Bonds	75
CHAPTER 5	Cash	97



CHAPTER 6	<b>Government Securities</b>	112
CHAPTER 7	Real Estate	132
CHAPTER 8	Commodities	149
PART III	YOUR FINANCIAL ACCOUNTS	163
CHAPTER 9	Your Managed Funds	165
CHAPTER 10	College Savings	196
CHAPTER 11	Retirement Savings	215
CHAPTER 12	Safeguarding Your Financial Plan	241
	Final Exam	253
	Glossary	259
	Online Resources for Financial Information	279
	Answer Key	289
	Index	293
	About the Author	304



### Your Assets and Liabilities



## Creating a Savings Plan

### Why Save for the Future?

Call it the law of big numbers. All of the things that are truly important in life and that cost money—such as getting married, buying a home, having kids, educating those children, taking care of your parents in their golden years, and eventually retiring comfortably in your own old age—have become enormously expensive as of late.

A typical home might cost \$300,000 or more. Taking care of your parents during a long (and hopefully happy) retirement can easily cost tens if not hundreds of thousands of dollars. And as for children, while priceless, they could end up costing you far more than you could ever imagine, once you factor in the price of diapers, food, health care, day care, clothing, toys, and education. Since the average U.S. household earns only around \$50,000 a year, it's hard to imagine how any of us can afford the American Dream.

#### **CHAPTER 1** Creating a Savings Plan

Yet somehow, we manage. And that's where financial planning comes in.

Taking the time to create a long-term financial plan is all about being realistic. It's about understanding that some money-related matters are completely out of your hands. For instance, even the most price-conscious consumers can't control how much health care, education, rent, and groceries will cost. Nor can we control what the federal, state, and local governments charge us every year in taxes. Yet when it comes to financial planning, there are some issues that are decidedly within your control, such as how much you spend, how much you save, and how you manage your nest egg. These are the pillars of a sound and sensible financial plan that we all need to concentrate on (and that we discuss at length in this book).

The fact is that modern life costs much more than most families earn in any given year. So by definition, your financial plan has to be a long-term endeavor. You simply can't get it done in a couple of years. There are no shortcuts or magic bullets when it comes to generating a lifetime of income. It's sort of like dieting. Every now and then, a new fad diet will come along that captures our attention. But 9 times out of 10, those diets wind up disappointing us—and our waistlines are the worse for it. Well the same goes for financial planning gimmicks and shortcuts, and it's our bank accounts that are worse off.

### Time Is a Financial Plan's Best Friend

The good news is that time is our friend. You've all probably heard the phrase "time is money." Well it's true. There is a fundamental relationship between time and money that all of us who are constructing a financial plan need to understand. Academics will tell you that the time value of money is a very simple concept: Money that you have in hand today is worth far more to you than money that you might earn in the future because today's money can earn its own money along the way. What this means is that money saved today—and put to work in investment vehicles—is a far more valuable asset than its current value lets on. In other words, even if you only have a small amount of savings today, that money—so long as you don't frivolously spend it—can actually turn into rather large sums of money in the future. How large can those sums grow? It all depends on time. The more time you have to work with, the easier it will be to convert small buckets of money today into large amounts of money in the future.

In fact, the success of your financial plan will depend not only on how good a job you do saving and planning for the future but on when you get started. Sooner is always better. For example, say you were to start saving when you turned 25 years old. How much do you think you would have to set aside annually for the next 40 years, to create a nest egg worth \$1 million at retirement? \$15,000 a year?

Figure 1-1. Amount You'd Accumulate by Investing \$10,	Figure 1-1.	Amount	You'd Accumulate	by	Investing \$10.0	00
--	-------------	--------	------------------	----	------------------	----

<b>Interest Rat</b>	e 10 Years	30 Years	40 Years
5%	\$132,100	\$697,600	\$1,268,400
7%	\$147,800	\$1,010,700	\$2,136,100
10%	\$175,300	\$1,809,400	\$4,868,500

\$20,000 a year? No, the answer is just \$5,000 a year, assuming you earn 7 percent annually on your money between the time you're 25 and when you turn 65. Think about it: To amass \$1 million, all you would really need to save is \$200,000 of your own money over the course of a lifetime (that's \$5,000 times 40 years) so long as you have four full decades for that money to earn interest of its own. See Figure 1-1 for another example.

Now, say you procrastinated and waited until you were 35 to begin saving. Guess how much money you'd have to set aside annually, starting at that age, to accumulate \$1 million at retirement? The answer is double the annual amount you would have needed to save if you started at 25. In other words, to amass \$1 million, a 35-year-old would need to set aside \$10,000 a year for the next 30 years. That means a 35-year old really needs to gather \$300,000 in total savings over the course of a working career to hit the \$1 million mark by retirement. Again, that's assuming that this person earns 7 percent a year on the money. This means procrastinating does come at a price. In our example, waiting 10 years will end up costing you \$100,000 in extra savings to reach the same goal.

The situation is even worse for those who really drag their feet before starting a financial plan. For instance, say you waited until you were 45 to start saving in earnest. With only a 20-year time horizon until retirement, you'd have to save \$23,000 annually, starting in your mid-40s, to reach the magical million-dollar mark. Not only is saving \$23,000 a year a Herculean, if not impossible task—as it is around half the average annual income of households in the United States—you'd have to save that much every year for 20 years. That works out to a grand total of \$460,000 in personal savings. So for those of you who think that there's little harm in waiting to start your financial plan, remember: A 45-year-old who gets a late start saving will have to set aside more than twice as much money as a 25-year-old simply to reach the same financial goal.

This brings us to lesson one of financial planning: You have to be patient. Small amounts of money, saved in drips and drabs, and properly organized, will turn into large amounts of money in the future to cover the staggering costs of modern life. See Figure 1-2. You have to take this at faith. So don't get hung up on the truly big numbers that frighten so many savers. Don't worry that sending your kid to college may end up costing you and your spouse \$100,000—maybe \$200,000 if you have more than one child. Be grateful that if you start saving for



### **CHAPTER 1** Creating a Savings Plan

Figure 1-2. Amount You'd Accumulate by Investing \$100 a Week

<b>Interest Rate</b>	10 Years	30 Years	40 Years
5%	\$67,400	\$361,200	\$662,300
7%	\$75,100	\$528,120	\$1,134,720
10%	\$89,130	\$986,040	\$2,762,630

college bills the day your child is born, you will have an 18-year time horizon to work with. And if you have 18 years to work with, all you would need to save is \$2,750 each year, from the time your child is born until he or she turns 18, to amass \$100,000 (again, assuming you earn 7 percent a year on your money). That's doable, right?

### The Power of Compound Interest

Why is time such a powerful force on our financial plans? It has to do with a concept related to the time value of money, which is the *power of compound interest*.

You've probably heard the axiom made famous by Benjamin Franklin: "A penny saved is a penny earned." Ol' Ben had it right. Well sort of. It's probably more accurate to say that "a penny saved is another penny that your original penny can earn."

Compound interest refers to the fact that if you begin to save and invest early on, the first batch of money you put to work will soon earn interest. And if you reinvest those proceeds back into the original investment—in other words, if you leave the money in the account, rather than spend it today—your interest will start earning interest of its own in a short while. Then, if you wait long enough, the interest that your interest generated will soon begin to earn interest of its own, and so on. What makes compound interest such a powerful force is that eventually your money literally works for you (instead of you working for your money) and helps you reach your long-term financial goals.

For instance, say you were to invest \$1,000 in the first year of your financial plan. That money, if it were to earn 7 percent a year, would generate \$70 of interest. Simple math would mean that over three years, you'd end up with \$210 in interest. However, the rules of investment math aren't as simple, which turns out to be good news for long-term financial plans.

Let's say you wanted compound interest to work for you. So instead of pocketing that original \$70 a year in interest income, you reinvested the money back into your portfolio. In this case, compound interest would help you earn \$225, not \$210. How? Remember, after Year 1, your account would have earned

### **CHAPTER 1 Creating a Savings Plan**



\$70 of interest. If you simply reinvested that interest into your account, your balance at the start of Year 2 would technically be \$1,070. And 7 percent of \$1,070 is \$74.90. So in the second year of your savings regimen, you actually have earned more than the \$70 in interest that you gained in Year 1, even though your account is growing at the exact 7 percent interest rate.

Now, if you were to reinvest that \$74.90 back into your account, you'd have \$1,144.90 to start Year 3. If you were to earn 7 percent interest again, that \$1,144.90 would generate \$80.14 of interest income in Year 3. Throw that back into your account, and you'd have \$1,225.04 at the end of this three-year period. In other words, instead of earning \$210 of interest over three years (based on simple math), the laws of compound interest have allowed you to earn \$225.04 in interest.

You can use Figure 1-3 to find out how much your money will grow over time based on the laws of compound interest. Here's how to use the chart. Say you want to know how big your nest egg would become if you earned 8 percent a year on your money for the next 18 years. Well, go to the column that shows "8%." Then trace down that column to the row that says "18 years." The figure there is 3.996019. This is the compound interest factor that you will enjoy, based on your time horizon and your earnings rate.

Now, take whatever amount of savings you have today and multiply it by this figure. For instance, say you have \$25,000 saved up. In 18 years, that money would grow to \$99,900 if it were to earn 8 percent annual interest during this time. We arrive at this amount by multiplying your \$25,000 times the factor 3.996019. If you had 28 years to work with instead of just 18 and you had an 8 percent annual earnings rate, your original \$25,000 would grow to nearly \$215,680. This amount is based on the compound interest factor of 8.627106 that you will see for "8%" and "28 years." This is quite telling. This means that if you had another decade to work with on top of your original 18 years, you could grow your nest egg by more than twice as much. That's the power of compound interest.

### The Biggest Threat to Your Financial Plan

If time is your financial plan's best friend, what's its biggest enemy? As it turns out, it's inertia. According to Newton's first law of motion, bodies in motion tend to stay in motion, while bodies at rest tend to stay at rest. Well, the financial planning corollary is that families who don't start planning for the future early tend never to get going.

You've probably heard this statistic: On average, Americans spend more time planning a vacation trip or researching a new car purchase than they do planning for their financial futures. Sadly, it's true. The typical family will probably spend