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## Contents

### INTRODUCTION ................................................. 1

### I. RETIREMENT IN FINANCIAL PERSPECTIVE ............. 3
   An Aging Population .................................. 4
   Plan Ahead ........................................... 5
   The Earlier Working Years ............................. 6
   The Later Working Years .............................. 7
   How Much Is Enough? .................................. 8
   Sources of Income .................................... 9

### II. SOCIAL SECURITY ....................................... 11
   Outlook ............................................... 15
   Collecting Your Benefits ............................. 18

### III. PENSIONS .............................................. 24
   Types of Plans ....................................... 26
   The Defined-Benefit Plan ............................. 26
   The Defined-Contribution Plan ....................... 29
   Elective Deferral .................................... 31
   Job Mobility and Portability of Pensions ............. 35
   Early Retirement ..................................... 37
   Spousal Benefits ..................................... 37
   Tax Treatment of Pension Benefits ................. 38

### IV. REGULATION OF PENSIONS ............................ 43
   Problems of the PBGC ................................. 45
   Further Complications ................................ 47
   Pension Reform's Market Effects ..................... 48
   Outlook ............................................... 50
   Government-Sponsored Pension Plans ................. 50
   Federal Pensions .................................... 50
   State and Local Pensions ............................. 51
   Reform Is Unlikely ................................... 52

### V. "INFLATION" AND RETIREMENT PLANNING ............. 53
   The Effects of Inflating on Retirement Income ........ 54
   Private Pensions ..................................... 56
   Personal Savings ..................................... 59
<table>
<thead>
<tr>
<th>VI. PERSONAL RETIREMENT SAVINGS</th>
<th>61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages and Disadvantages of IRAs</td>
<td>63</td>
</tr>
<tr>
<td>Protecting Against Price Inflation</td>
<td>67</td>
</tr>
<tr>
<td>Alternatives to the IRA</td>
<td>68</td>
</tr>
<tr>
<td>Deferred Annuities</td>
<td>68</td>
</tr>
<tr>
<td>Life Insurance</td>
<td>70</td>
</tr>
<tr>
<td>The High Rates Credited on SPWL</td>
<td>72</td>
</tr>
<tr>
<td>The Tax Advantages of SPWL</td>
<td>73</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VII. ESTIMATING YOUR RETIREMENT SAVINGS REQUIREMENTS</th>
<th>74</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worksheet Part A:</td>
<td></td>
</tr>
<tr>
<td>Total Personal Savings Needed for Retirement</td>
<td>78</td>
</tr>
<tr>
<td>Worksheet Part B:</td>
<td></td>
</tr>
<tr>
<td>Estimated Required Annual Savings</td>
<td>79</td>
</tr>
</tbody>
</table>

Appendix: SWINDLING AMERICA’S MIDDLE CLASS | 81 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Most Massive Fraud in History?</td>
<td>81</td>
</tr>
<tr>
<td>Not a “Good Deal”</td>
<td>83</td>
</tr>
<tr>
<td>Column Notes</td>
<td>86</td>
</tr>
</tbody>
</table>

AIER Booklets of Related Interest | 89 |
INTRODUCTION

FOR 55 years, AIER has provided useful information on various aspects of personal finance to individuals of all ages and means. In addition to technical studies, our current publications cover a wide range of practical topics that the Institute has explored from the individual consumer’s or planner’s point of view — from keeping the family budget and buying a car to understanding the terminology of today’s complex investment markets.

A number of our publications have reported on subjects of particular interest to those who are retired or are planning for retirement. Twenty years ago AIER’s founder, E. C. Harwood, wrote a brief booklet titled “The Harvest Years Financial Plan” that proved of great interest to our readers. Since then we have continued to publish separate studies on topics such as life insurance, Medicare supplemental insurance, annuities, trusts and wills, and occasional articles in AIER’s *Research Reports* dealing with such matters as the financial condition of the Social Security system and public and private pension plans. As readers familiar with our work are aware, a common thread throughout these separate studies is that individuals must take great care to protect themselves in retirement (as at other times) against the default of the politicians’ promises to provide all things to all people and to guard against the financial uncertainties created by a money and credit system that has become notoriously unreliable.

For some time we have thought a single volume that combines into broad perspective many of the most crucial financial concerns that face today’s (and tomorrow’s) retired population might be of considerable use. As both a taxpayer and a perspective retiree, it is in your interest to understand how Social Security and private pension plans are funded, whether they are adequate now or are likely to be in the future, and what opportunities are available for private saving to protect against the greatest pitfalls that lie ahead. The aim of “How to Plan for the Harvest Years,” which explores these and other matters, is to assist the reader in making informed decisions about how best to provide for a comfortable retirement.

This book is divided into sequential chapters that lead from a discussion of the general problems of planning for retirement to the specific courses of action that may be appropriate to your circumstances. Chapter I provides a financial overview of the retirement years. Chapters II, III, and IV assess the condition of Social Security and private employer-sponsored pension plans. Chapters V, VI, and VII relate the
problem of the dollar's deteriorating purchasing power to developing a personal retirement savings plan.

An Appendix provides a single illustration of what the coming generation of Social Security recipients might expect in return for their "contributions" to the Federal Government's retirement program. So far as we are aware, this is the first analysis of its kind — although, for reasons that will be apparent, we expect there will be many more like it in the years to come.

Of course, a work designed to provide an overview of the financial problems of retirement cannot cover in comprehensive detail all items of interest. For readers who wish to pursue further study of the specific financial alternatives available to them, we invite attention to the publications listed on the last pages of this booklet and on the inside back cover.
I.
RETIREMENT IN FINANCIAL PERSPECTIVE

FOR almost everyone, the importance of financial independence during the retirement years has increased greatly in recent years. In earlier times, retirement planning was a fairly simple matter. Several generations of a family lived together or close by, and parents and grandparents were cared for during old age by their children or grandchildren. Many older people never actually “retired,” since they performed valuable tasks within this setting. Others were self-supporting throughout their lifetimes. Small personal savings were usually adequate to supplement family support and earnings.

Today, however, public and private retirement-income programs, in particular Social Security, have largely replaced the family as the primary source of support in old age. In the past 50 years the growth of Social Security and company-sponsored pension plans has transformed retirement. Most retirees now expect to be financially independent; retired parents usually maintain households separate from their children; and, given the greater geographical mobility that has characterized workers in today’s dynamic economy, often the children of retirees live far distant from their parents.

Equally significant, the retirement years today represent a larger portion of life than ever before: increases in life expectancy and a trend toward early retirement have resulted in a lower ratio of working years to retirement years, leaving fewer years in which to accumulate savings for lengthier retirements. The “preretirement expense” of retirement (that is, the portion of working-years’ income that must be set aside) thus has increased as retirees have become more independent. Individuals who expect to maintain separate households and enjoy the standard of living that many older Americans now have come to regard almost as a matter of right must plan during the working years to meet the costs of doing so. Early retirement and better health can make the “golden years” a time for travel, leisure, and fruitful activity — but only if one has saved prudently beforehand. Today, such saving involves many considerations, especially protecting against the effects of price inflation, which over the past several decades has robbed many retirees on fixed incomes of much of the purchasing power of their savings.

Indeed, the effects of today’s relatively high levels of general price inflation make financial planning for retirement far more difficult and uncertain than in the past. “Inflation” was not considered a
major threat 50 years ago when Social Security was introduced and
the pension system began to expand rapidly. It has since undermined
greatly the effectiveness and efficiency of both these systems, as well
as personal savings plans. (For a detailed discussion of the effects of
price inflation, see Chapter VI.)

Another increasing cost of old age is medical care. Medical tech-
nology that has improved the quality of life for the elderly has not
come cheaply. Although Medicare covers a substantial part of hospi-
tal costs, it by no means covers everything, and in particular the costs
of a prolonged medical treatment are borne mainly by the patient.
The costs of insuring against financial ruin due to illness, of Medicare
premiums, and of medical treatment not financed by Medicare can-
not be ignored when planning for one’s retirement.*

In sum, because both retirement and the methods of financing it
have changed so much in the last half century, at least some under-
standing of how Social Security and private pension plans work
seems essential for determining how best to provide for one’s own re-
tirement needs. As the number of elderly Americans continues to
reach historically high levels, more people will benefit from such
planning, even as the greater demands placed on income and health
care programs for the aged make informed planning more critical.

An Aging Population

As Chart 1 shows, in 1900 only 4 percent of the U.S. population
was aged 65 or older. By 1985 the over-65 age cohort was 12 percent
of the population – 28.5 million people – and by 2030 (when the
last of the “baby boom” generation reaches 65) it is expected to
reach over 21 percent. The realized and projected increase in the
number of elderly is due in part to a trend that is expected to con-
tinue well into the next century: namely, increasing life expectancy
for all age groups. A person born in 1900 had a life expectancy of
48 years, whereas one born in 1985 had a life expectancy of about
75 years. Those persons who reach age 65 can also expect to live
longer: the life expectancy of a 65 year old male increased from 11.9
years in 1940 to 14.0 years in 1980 (the increase for women was
even greater, from 13.4 to 18.3 years). This increase is attributed in
large part to advances in geriatric medicine and a sharp decline in
heart disease since the early 1960’s.

A major result of the increase in the number of elderly people has

* See our booklet “How to Cover the Gaps in Medicare” for information on how
to protect yourself against these costs, price $6.
been a concurrent increase in the "aged support ratio" shown in Table 1; that is, the number of people aged 65 and over per 100 persons aged 18 to 64 years (i.e., the working population). In 1940, 5 years after Social Security was introduced, that ratio was 10.9. By 1980, it had increased to 18.6; and by 2025 it is projected to reach 33.3. Because the Government now has such a huge role in providing benefits and services to those over 65, and because so large a proportion of Federal spending for the elderly through Social Security, Medicare, and civil service and military pensions is financed not by savings but by current tax revenue, as the elderly population grows so will the costs of these programs. The projected increases in the "aged support ratio" will thus put great pressure on the Government's ability to finance the demands of the large numbers of retirees for promised benefits. Since most Federally sponsored benefits are indexed to price inflation, either higher tax rates will have to be imposed on wage earners, the value of benefits will be decreased, or some combination of the two will be imposed through direct cutbacks or a decision by Congress to limit indexation of benefits.

Plan Ahead

Retirement may seem a distant prospect to most younger people regardless of what the demographic data say. However, simple prudence demands that each of us begin to prepare for it as early as we
Table 1
AGED SUPPORT RATIO,* ACTUAL AND PROJECTED

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>10.9</td>
</tr>
<tr>
<td>1960</td>
<td>16.8</td>
</tr>
<tr>
<td>1980</td>
<td>18.6</td>
</tr>
<tr>
<td>1990</td>
<td>20.7</td>
</tr>
<tr>
<td>2000</td>
<td>21.2</td>
</tr>
<tr>
<td>2025</td>
<td>33.3</td>
</tr>
<tr>
<td>2050</td>
<td>37.9</td>
</tr>
</tbody>
</table>

* Number of people aged 65 and over per 100 people aged 18 to 64.

are financially able. This is not to say that preparation for retirement should be the main, or even a major financial objective during all of your income-earning years. Objectives change with family circumstances and with career and income advancement. Yet, once the primary responsibilities at the various stages of your “financial life” are met, you should give thought to addressing your expected needs after you retire and how you can best provide for them.

From the standpoint of financial responsibilities, most individuals’ lifetimes may be divided into three phases: (1) the earlier working years – spanning roughly the time from when you first become employed until your youngest child is financially independent; (2) the later working years, when your spouse may be your only dependent; and (3) the period after retirement.

The Earlier Working Years

During the earlier working years, especially if you are unmarried or without children, your financial responsibilities probably are minimal. There are exceptions, of course, as when a younger single person must help care for aged, disabled, or unemployed parents or others. But usually young working people need concern themselves with perhaps paying debts incurred for schooling or establishing a separate “household” and accumulating some savings for marriage and a family.

After marriage but before children arrive, a young couple’s opportunity to save probably will be the greatest for some time, particularly if both partners work full time. Savings may take the form of
durable consumer goods (furniture, appliances, motor vehicles, etc.) and financial assets. The financial assets provide an emergency fund, a temporary portion destined for "big ticket" purchases, and a longer-term portion for a down payment on a house or condominium. If both spouses are capable of self-support, life insurance adequate to cover final expenses and readjustment should be sufficient. Medical insurance is essential to protect against today's high-cost medical care.

The young adult with children may have little money left for investment. Life insurance needs are greatest at this time, because sufficient coverage must be provided not only to support the children until they become independent but also to provide additional income for the spouse. Provision for college education for the children also may have a high priority.

At this stage of life, provision for retirement income often is neither practicable nor desirable. Many young householders cannot afford even to carry all the life insurance needed for protection of dependents. Purchase of retirement annuities (or endowment forms of insurance) often will prove to be expensive means of savings for retirement, especially for the person who can barely afford sufficient family insurance protection.* Insofar as a retirement fund is accumulated, it may well be employer-provided, either totally or partially, and company-provided pension benefits should be a factor considered when taking or leaving a job (for a complete discussion, see the "Pensions" section). In addition, most working people of any age will be participating in the compulsory Social Security system, through which they earn claims to future benefits. For most persons, however, it is only after insurance and other savings needs have been met that a long-term investment plan can be developed.

**The Later Working Years**

After the children become financially independent many families can begin a significant effort to save. This later working period for many people provides the best opportunity to accumulate assets for retirement, since family costs and insurance needs are reduced.

It is also during this time that the prospect of retirement becomes a principal factor in investment and employment decisions. High-risk investments should be avoided, because there may be neither the time nor the individual capacity to recover financially from a major

* See our booklet "Life Insurance from the Buyer's Point of View" for analysis of the life insurance problem and how best to meet it, price $6.
loss. The prospective retiree must consider whether expected Social Security and benefits will be sufficient to meet retirement needs, whether early retirement is desirable and affordable, and how much additional saving is needed to provide an adequate standard of living in retirement.

**How Much Is Enough?**

A major question for anyone planning a personal retirement fund is how much income will be needed during retirement. One useful guideline is the income replacement rate — the rate at which retirement income replaces preretirement earnings. Costs of living usually are lower after you retire, so a replacement rate of less than 100 percent for most retirees may be adequate.

A large part of the family budget before retirement is devoted to raising children, who presumably will be financially independent by the time you retire. Work-related expenses, such as commuting, clothing, etc., also will be lower — and mortgages may be paid off by this time. However, medical expenditures can be expected to increase, and these increases may partially offset the reductions in other expenditures.

Individual tax liability also may change dramatically upon retirement. For many retirees, *taxable* income drops substantially. Depending on total income levels, Social Security benefits are either tax free or only proportionally taxed; annuity income that represents return of principal is not taxed; and savings withdrawn to meet current expenses are not deemed “income” for tax purposes. Moreover, Federal tax law provides an “additional standard deduction” for taxpayers aged 65 or older. This deduction ranges from $600 to $750 (depending on filing status), and replaces the “extra exemption” allowed in previous years. State taxes often provide similar deductions for the aged. In addition, at any age over 55 a homeowner is entitled (once) to exclude from taxation up to $125,000 of the capital gain on the sale of a *principal* home. Federal tax laws also allow for “income averaging” of lump-sum pension distributions (for recent changes in this law, see Chapter III). Because one’s tax status may change considerably upon retirement, it may be worthwhile to consult a tax planner to ensure you are taking full advantage of the privileges of age accorded you by the IRS.

In any case, you should assess your own situation with respect to each of these factors. By estimating, say, your average disposable income, net of any major preretirement expenses that you expect will be reduced or eliminated, you can estimate the disposable income
level necessary in retirement to maintain your standard of living (disposable income is gross income minus taxes). Keep in mind that relatively higher annual earnings during the few years immediately preceding retirement may overstate the level of income needed to maintain current living standards, and thus an average of annual earnings during the 10 years or so before retirement may be more representative.

The Social Security Administration as well as employers who sponsor private pensions have calculated replacement rates needed to maintain preretirement standards of living. These estimates range from roughly 50 percent to 90 percent — and are inversely proportional to preretirement income. That is, the lower one’s average lifetime earnings, the higher the replacement rate. In 1981, the President’s Commission on Pension Policy estimated replacement rates for single and married people at different income levels. After adjusting for Federal and state taxes (using the tax structure of 1980, which has since been changed), and for lower work-related costs and savings rates during retirement, they suggested the following rates:*  

<table>
<thead>
<tr>
<th>Gross Preretirement Income</th>
<th>Single</th>
<th>Married</th>
</tr>
</thead>
<tbody>
<tr>
<td>$  6,500</td>
<td>.79</td>
<td>.86</td>
</tr>
<tr>
<td>10,000</td>
<td>.73</td>
<td>.78</td>
</tr>
<tr>
<td>15,000</td>
<td>.66</td>
<td>.71</td>
</tr>
<tr>
<td>20,000</td>
<td>.61</td>
<td>.66</td>
</tr>
<tr>
<td>30,000</td>
<td>.58</td>
<td>.60</td>
</tr>
<tr>
<td>50,000</td>
<td>.51</td>
<td>.55</td>
</tr>
</tbody>
</table>

**Sources of Income**

Once you have estimated how much income you will need in retirement, you then must address the question of providing it. The Social Security Administration estimates that Social Security benefits alone currently replace about 57 percent of the earnings of a full-time minimum wage worker, 41 percent of average earnings ($17,418 in 1986), and only 28 percent of earnings that were at the maximum subject to Social Security tax throughout a worker’s lifetime ($43,800 in 1987). If you earned more than the maximum taxable level, the replacement rate would be even lower. Clearly, the higher your preretirement income, the smaller the proportion of replace-

* See the *Report of President’s Commission on Pension Policy, 1981*, pp. 42-43.
ment income that will be provided by Social Security. On the other hand, the higher your income, the more likely you are to receive a pension. In 1984, 23.7 percent of civilian workers earning between $5,000 and $10,000 annually were covered by pension plans; 73.4 percent of those earning over $20,000 were covered. Higher-income individuals also are more able to supplement Social Security and pension benefits with personal savings.

The degree to which Social Security, pension benefits, personal savings, and earnings will sustain your preretirement standard of living obviously will vary depending on your individual earnings and work history. For the elderly population as a whole, the aggregate percentages of retirement income provided by each in 1985 were:*

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Security</td>
<td>38</td>
</tr>
<tr>
<td>Assets</td>
<td>27</td>
</tr>
<tr>
<td>Earnings</td>
<td>16</td>
</tr>
<tr>
<td>Pensions</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
</tbody>
</table>

As these data indicate, Social Security and pensions, while relatively new elements of retirement income, now account for more than half of all the income of the elderly. Fifty years ago, when Social Security was introduced and the pension system began to expand significantly, economic and demographic conditions favored the creation of Social Security and private pension plans. Today, the situation is the reverse. Slower growth rates in the economy and a burgeoning elderly population have put great stress on public and private attempts to guarantee adequate retirement income, and projected trends indicate there will be greater strains in the future. As both a taxpayer and a prospective retiree, it is in your interest to understand what the various retirement income plans offer, how they are funded, whether they are adequate now or are likely to be in the future, and what opportunities for private saving are available. With the aim of assisting the reader in making informed decisions about how best to provide for a comfortable retirement, in the chapters that follow we consider these three primary elements of retirement planning.

II.

SOCIAL SECURITY

The Social Security system was created by an act of Congress in 1935, largely in response to the needs of a generation of elderly people whose life savings had been wiped out during the Depression. Since then its scope has consistently been broadened by Congress, so that now participation in the system is compulsory for over 90 percent of all persons gainfully employed in the United States. The retiree benefits program, Old Age and Survivors Insurance (OASI) is the most well-known, but other programs provide benefits to the disabled (Disability Insurance, Supplemental Security Income), widows, spouses, and dependents of disabled or deceased workers. Medicare (formally, the Hospital Insurance program) is also administered by the Social Security Administration.

Contrary to what many may believe, Social Security is not an insurance plan based on sound actuarial principles. Rather, it is a “pay-as-you-go” system, in which “contributions” collected from workers are not invested for future retirement, but are immediately paid out as benefits to current retirees. The mandatory “contribution” is collected through a payroll tax: one half of the tax is borne directly by the employee, via the FICA (Federal Insurance Contributions Act) tax on wages (which are subject to Federal income tax as well); the other half is paid by employers, and is deductible from the employer’s gross income. In return for these taxes, employees earn claims to future benefits, to be paid by a future generation of workers. Because the funds paid in to the Social Security system are not invested, but transferred immediately to retirees and other beneficiaries, they represent not a national savings plan but a huge transfer of wealth, largely from one generation, of workers, to another, of retirees.

That the Social Security retirement program depends on transfer payments is most evident in the benefits paid to the first retirees covered by the system. According to one estimate, a 65 year old man retiring in 1940 had paid in, through employer and employee contributions, enough money to fund a yearly retirement annuity of $6.59 (based on life expectancies at that time). But the average Social Security benefit paid out in 1940 to a 65 year old male was $270.60. Thus 97.7 percent of that benefit — $264.01 — was a transfer payment rather than a return of his actual contribution. While later retirees paid more into the system, they have nonetheless received far more in benefits than they ever paid in, and gotten a far higher return than any actuarially sound annuity could offer.
WHAT IS A "TRANSFER PAYMENT"?

The term "transfer payment" often is used by Government officials, budget analysts, and others to describe any variety of payments that are made by the Government to individuals or other entities. They include payments made under Social Security, Medicare, Medicaid, Veterans Benefits, Aid to Dependent Children, Student Grants, and other welfare programs.

What all such payments have in common is that they are "one-sided"; that is, they do not form part of any exchange of goods or services. As such they contribute to the redistribution of an economy's output, and, no matter what the rationale or justification given, they always involve taking money from some people to give or "transfer" it to others.

How has the program managed to pay such lucrative benefits over the years? One name comes to mind — "Ponzi." In 1919 Charles Ponzi devised a private investment scheme that he promised would pay extraordinary returns. The first investors did indeed receive exceptionally favorable returns, paid with money collected from a second round of investors, who were in turn paid off with money collected from the next round of investors, and so on. Eventually the pool of investors dried up, and the Ponzi investment scheme ended when Ponzi was arrested with $3 million in assets and $7 million in liabilities.

Social Security is, in effect, a Ponzi scheme on a national, compulsory level. As long as the pool of "investors" — taxpayers — continues to grow in size or wealth, promised benefits can be paid. The ability of the Social Security system to pay benefits depends not on how wisely past contributions have been invested (they were spent long ago) but on the ability of the current workforce to finance those benefits. This ability in turn depends on broad economic and demographic factors that determine the actual demand for benefits and the supply of taxes available.

These factors include population growth, mortality rates, the life expectancy of the elderly, growth in real wages, price inflation, unemployment, and economic growth. Changes in any of these affect the number of workers paying into the system, the number of beneficiaries, the tax levied per worker, and the level of benefits paid per beneficiary. In the early years of Social Security, and during its greatest expansion in the 1960's, the happy coincidence of a rapidly grow-
ing economy and population allowed the program to pay generous returns to participants.

But just as Ponzi eventually ran into trouble, so has Social Security in recent years. Demographic and economic trends of recent years — such as slow growth in real wages, high rates of price inflation, declining birth rates, increased life expectancy for the elderly, and a large increase in the percentage of elderly in the population — have all reversed the trends that enabled the earlier financing of generous benefits. The expansion of the program and increases in real benefits over the years have made financing even more burdensome. More important, the ratio of covered workers to beneficiaries has fallen from 5.1 in 1960 to 3.3 in 1986, and is projected to fall to 2.0 by the middle of the next century. That is, there will be one Social Security retiree for every two workers contributing to Social Security. While future economic conditions could become much more favorable than currently expected, demographic trends are more predictable and slower to change. Their current direction promises to make the financing problem worse.

By the early 1980's the Social Security system was in serious financial trouble. In an attempt to shore up its inherently weak foundation, Congress in 1983 passed a series of Amendments to the Social Security Act. While their effect was indeed to balance projected benefits and tax revenue more closely, this was done by cutting (future) benefits and raising taxes. Thus, the current generation of taxpayers will not realize the generous return from the system that earlier (and current) retirees have. The Social Security Administration itself predicts that a 21 year old worker, under the new laws, will receive only 98 cents in benefits for every dollar that he or she pays in in Social Security taxes — a negative return that is compounded by the loss of interest earnings and the loss of benefits' purchasing power due to price inflation. Actually, this loss is vastly understated, since the Social Security Administration does not consider the time value of money (i.e., interest that could be earned) in its calculations. In the Appendix we provide an illustration of the huge actual losses that will accrue to a middle-income earner currently in the prime working years.

The 1983 Amendments provided for the following:

1. A gradual increase in payroll taxes. In 1937, the combined employer/employee tax was 2 percent, on a maximum of the first $3,000 of earnings. In January 1988, the tax was raised from 14.3 percent to 15.02 percent, on a maximum of $45,000. The tax is
scheduled to be 15.3 percent by 1990, with periodic adjustment of the maximum taxable earnings level. Since 1937 the tax has increased by more than 10,000 percent, from $60 to $6,759. In addition, the lower rate paid by the self-employed is scheduled to be phased out by 1990.

2. The eligibility age for full retirement will gradually increase from 65 currently to 66 by 2005, then to 67 by 2022. Early retirement benefits will still be available at age 62, though benefits will be reduced more sharply than now.

3. All new Federal employees, as well as employees of nonprofit organizations, are required to participate in the system. In the short term this will increase tax revenues, but in the long run it will also increase benefit claims, and thus the burden on future taxpayers.

4. The cost-of-living-adjustment (COLA) now depends on the level of the trust fund. If the fund decreases to specified levels, the COLA will match the lower of the Consumer Price Index increase or the increase in national wage levels. The fund is projected to reach these low levels early in the next century, and thus future benefits may not keep pace with the dollar's loss of purchasing power as well as past increases have. Another provision delays COLAs by 6 months.

5. For some retirees, Social Security benefits now are subject to income tax. Up to one-half of Social Security old-age benefits received by taxpayers whose incomes exceed certain base amounts will be included in taxable income. The base amounts are $25,000 for a single taxpayer, $32,000 for married taxpayers filing jointly, and zero for married taxpayers filing separately. For those exceeding these levels, the amount of Social Security benefits subject to taxation is the lesser of one-half of benefits or one-half of the excess of the taxpayer's combined income over the base amount. The revenue raised goes to the trust funds.

The rationale for taxing half of benefits is that half of the Social Security payroll tax (the half paid by employers) is not subject to income tax at the time it is paid, and thus should be taxed when it is paid out in benefits. Because only those with earnings above a certain level pay this new tax, in effect full Social Security benefits are now subject to a means test.

It is important to note that these tax threshold levels are not indexed. Today only a small percentage of retirees exceed the threshold, but unless the laws are changed, eventually most retirees will pay this additional tax. Assuming a relatively low "inflation" rate of 3
percent, $25,000 30 years from now will be worth what $10,000 is today. In the event that the law is changed when its implications become clear (and its effects are felt by more retirees), the ensuing loss of revenue would simply hasten the bankruptcy of the Social Security trust fund.

**Outlook**

The net effect of the 1983 Amendments has been to postpone the day of reckoning for the Social Security system. Its trust funds still are expected to be exhausted, only not so soon. This is the conclusion of the Social Security Administration, which has made a number of forecasts for the future of the program, ranging from “optimistic” to “pessimistic” depending on the assumptions made about future trends in economic and demographic variables.

According to the relatively “optimistic” projection, the Medicare (Health Insurance) trust fund will be depleted by 1996; the Disability (DI) trust fund will be depleted by 2026; and the Old Age and Survivors (OASI) trust fund, from which retiree benefits are paid, will be running a deficit by 2020 and will be bankrupt by 2054. Thus just as demands for benefits peak, when the last of the baby boomers retire, the programs will be financially weakest. Chart 2 illustrates the expected trend in the revenue and cost of Social Security programs, excluding Medicare.

This optimistic forecast assumes that the economy will experience no recessions; that it will grow 2-3 percent per year; that after 1993 the unemployment rate never will exceed 6 percent; that Social Security payroll taxes will increase to 23 percent; and that an expected surplus in the OASDI trust funds in years 1990-2020 will be “saved” and used to finance deficits in later years rather than to finance the expected deficit in Medicare, to postpone scheduled tax increases, or to increase benefits.

The “pessimistic” forecast predicts bankruptcy sooner for all the Social Security programs, but even this “worst-case” scenario makes relatively optimistic assumptions. It assumes that price inflation never will exceed 5 percent after 1990; that unemployment never will exceed 7.7 percent; that real wages will increase by 1.14 percent each year; and that the economy will experience only one mild recession in 1990. During the past 15 years the economy fell short of all these levels, yet these are the worst conditions Government forecasters have entertained as possibilities. In this forecast payroll taxes would have to increase to 42 percent to avoid bankruptcy of the funds — a rate that surely would be ruinous to the economy.
Chart 2
PROJECTED OASDI INCOME RATES AND COST RATES
USING SOCIAL SECURITY'S "INTERMEDIATE" ASSUMPTIONS

In all the Social Security forecasts it is assumed that a large surplus, eventually the equivalent of 5 years' worth of benefits, will accrue in the OASDI fund over the next years through about 2020, and that this surplus will be used to offset later deficits. But in the past Congress has invariably found ways to drain off such surpluses — and almost surely will be sorely tempted to use this surplus to finance Medicare (projected to be bankrupt in the 1990's), to increase benefits, or to postpone scheduled tax increases. As the percentage of elderly people increases steadily in coming years, the political temptation to reach into the Social Security "cookie jar" also will increase. Finally, in the unlikely event that such surpluses do accrue, one should remember that any such surplus is not actually saved, but rather lent to the Treasury, and the accrued IOUs must eventually be paid back to the trust fund out of general tax revenue, or through further inflating of the dollar.

The 1983 Amendments thus balance expected benefit claims and tax revenue in the short term at the expense mainly of the current workforce and future retirees. They do not solve Social Security's long-term problems. Social Security's fundamental distortions have not been corrected: incentives to work and save still are discouraged by Social Security, which encourages early retirement, penalizes extra earnings after retirement, and discourages personal saving. Those who try to plan successfully for their retirement are penalized most by the system, and are forced to participate in a program that, in effect, even now is a major obstacle to their financial security. Unfortunately, official Government projections indicate a continually increasing and burdensome Government role in retirement planning, taxation of labor, and in the investment of national savings.

By virtue of the Nation's demographic profile alone, a long-term solution to the problems facing Social Security will require drastic change, not short-term tinkering. Isolating the welfare aspects of the program, the "transfer payment" element, might foster useful debate on this aspect separate from the retirement income aspect, and this debate presumably would include the appropriateness of using labor-tax revenues for paying welfare benefits. The retirement income aspect then might be addressed as the savings-investment issue that it is. And viewed in that perspective, it is clearly a role for the private sector, free of Government distortions, in our opinion. The key problem then would be how to return the retirement income aspect of Social Security to the private sector in a way that provides time for those affected to adjust their retirement planning.
Collecting Your Benefits

The Old Age and Survivors Insurance program provides monthly benefits to retirees, dependents, widows, spouses, and divorced spouses. Provided they are "fully insured," both male and female workers become entitled to retirement benefits at age 62. In general, 40 quarters (10 years) of participation in the program are required for an individual to be fully covered. For those who qualify for benefits as spouses, widows, divorced spouses, and dependents (children and older parents), benefits may not be available until either the beneficiary or the worker reaches a certain age, and there are various other conditions that must be met. (For example, to collect divorced spousal benefits, one must have been married at least 10 years. The incentive for a disgruntled spouse of 9 years to wait another year before seeking a divorce is clear. Also, widows without dependents cannot collect benefits until age 60.) If you fall into one of these categories, regardless of your income it may pay to check with your local Social Security office about possible eligibility for benefits.

The wife or husband of a retiree receiving the primary benefit will be entitled to a "spouse's benefit," equal to one-half of the retiree's benefit when she or he reaches the age of 65, or at any time prior to that age if she or he is caring for a dependent child who also is entitled to a benefit. (A spouse who does not have a child in his or her care may apply for the spouse's benefit at or after age 62. The full benefit is then reduced by 25/36 of 1 percent for each month by which his or her age is less than 65. However, no benefit is payable until the retiree's benefits begin.) A similar benefit is payable to each dependent child under 18 years of age and to each permanently disabled child regardless of age.

The amount of the pension payable to a fully insured individual depends on his or her average taxable earnings during the years of covered employment. The primary insurance amount (PIA) is the basic monthly Social Security benefit that an individual will receive, and is derived from the average indexed monthly earnings (AIME) during the pertinent years of covered employment. Because of various changes in the law over the years, and the need to index for price inflation, calculation of benefits is complicated, and a simple presentation of typical results is not feasible. A pamphlet available from local Social Security offices, "Estimating Your Social Security Retirement Check Using the 'Indexing' Method," is useful for personal calculations. However, the indexing procedure described in that booklet yields only rough estimates and applies only to retirees entering Social Security for the first time. Many retired persons already
receiving benefits will find that their benefits differ substantially from those indicated by the current method of calculating benefits.

Local Social Security offices also can provide you with an official estimate of your benefits. If you are over age 61 your local office probably can give you the estimate; if you are younger, you must complete a request form available from your local office and mail it to a regional office. Until recently official estimates of benefits were available only to those age 60 or older; due to recent policy changes, any worker now can receive this estimate of the benefits he or she would receive upon retiring at age 62, 65, or 70. Of course, the farther away your retirement is, the more likely those estimates will change as your earnings record changes.

This “Personal Earnings and Benefit Statement” also includes year-by-year totals of earnings subject to the payroll tax, and the amount of tax paid. It is worthwhile to keep your own earnings records and check them against this statement every few years. If the official records are in error, you may receive smaller benefits than those to which you are entitled. Such errors do occur. In 1983 the Social Security Administration estimated that nearly 19 million earnings reports had incorrect names or Social Security numbers, and thus those earnings could not be properly credited.

To begin collecting benefits, you should notify your local office about 2 months ahead of time, and have a copy of your birth certificate. The process may take longer and require more paperwork for the self-employed.

The average monthly Social Security benefit for a newly retired worker in 1986 was $459. In 1987 the maximum benefit for an individual retiring at age 65 was $789, and the maximum family benefit was $1,380 ($1,807 for the surviving family of a deceased worker). There generally is no minimum benefit. A monthly Medicare medical insurance premium (currently $24.80) is automatically withheld from your check, unless you state you do not want such coverage. (Medicare hospital insurance is automatically provided without charge to everyone over 65.*) Benefits are indexed to the Consumer Price Index, although in recent years there have been a number of (thus far unsuccessful) Congressional attempts to eliminate or “freeze” these adjustments.

Although you can receive full retirement benefits only at age 65,

* For a full explanation of what Medicare provides and how to supplement it, see our booklet “How To Cover the Gaps in Medicare,” price $6.
you may collect early retirement benefits any time after age 62. These benefits are permanently reduced from their full retirement level, with a reduction of 5/9 of 1 percent from their full benefit level for each month before age 65 that you retire. Thus if you retire at age 62 your benefit will be permanently reduced by 20 percent. If, for example, you would be entitled to a monthly benefit of $600 at age 65, if you retire at age 62 you will receive $480; if you retire at age 64, the benefit will be reduced from $600 to $560.

There are advantages and disadvantages to taking early retirement benefits, some of which will be obvious only to the individual. Medicare coverage does not begin until age 65, even if you are receiving Social Security benefits at an earlier age, so you must arrange for adequate health insurance, perhaps through your former employer, until then. If you expect to continue working at a high level of earnings sufficient to raise your AIME (average indexed monthly earnings), and thus your Social Security benefit, you should consider continuing to work. On the other hand, the extra years of benefits afforded by early retirement may well offset the reduction in the level of the monthly benefit.

For example, if your full retirement benefit at age 65 would be $600, and you retire at age 62, your monthly benefit will be permanently reduced by $120, to $480. Total “extra” benefits received by retiring 3 years early would be $17,280 (36 times $480). Dividing the reduction, $120, into $17,280 results in 144 months, or 12 years, until the added benefits from waiting until 65 to retire begin to outweigh the extra benefits you receive if you retire at 62. Thus you would “come out ahead” until age 74. (The 12-year interval applies no matter what benefit level you begin with.) On the other hand, the spousal benefit, which is 50 percent of the worker’s benefit, decreases more than proportionately if early retirement is taken, to less than 50 percent of the worker’s reduced benefit.

If you postpone retirement until after 65, your benefits will increase 3 percent for each year you delay retirement until age 70. After age 70 there is no automatic increase, and you will receive benefits whether or not you are retired.

To receive benefits retirees must meet the requirements of a Social Security “earnings test.” The maximum amount that persons aged 62 to 70 may earn in any 1 year and still receive Social Security benefits is limited. If earnings exceed the limit, benefits will be reduced in relation to excess earnings. In 1988, individuals aged 65 to 70 may earn a maximum of $8,400 without having their benefits reduced.
(6,120 for persons under 65). Individuals who earn more than the annual exempt amount will have their benefits reduced $1 for each $2 of earnings exceeding that amount. Social Security does not consider income from savings, investments, insurance or annuities as "earnings." There is no limit on the amount that persons over 70 may earn. For these earnings tests you are considered to be 65 (or 62, 70, etc.) for the entire year in which your birthday occurs, not just after the month it occurs. If an individual's earnings exceed the annual exempt amount in the year benefits start, a benefit will still be paid for any month in which he or she neither earns more than 1/12 of the annual exempt amount nor performs substantial services in self-employment.

As noted above, a portion of some beneficiaries' Social Security benefits are subject to tax. Combined income for purposes of determining Social Security benefits tax liability includes "modified adjusted gross income" plus one-half of Social Security benefits. "Modified adjusted gross income" is "adjusted gross income" plus nontaxable interest income. If modified adjusted gross income plus half of Social Security benefits total more than the Social Security tax thresholds (see p. 14), half of the excess is taxed. However, the maximum tax is the lesser of one-half of benefits or one-half of the excess of the taxpayer's combined income over the threshold amount.

Recent judicial rulings prohibit Social Security offices from advising beneficiaries as to their potential tax liabilities. Individuals whose incomes probably will exceed the tax thresholds should consult their local IRS offices to request Internal Revenue Service Publication 554, Tax Benefits for Older Americans.

While Social Security provides substantial retirement benefits, they are less likely to be adequate to one's retirement needs the greater one's preretirement income. Table 2 shows the replacement ratios for various types of beneficiaries and income levels. For a couple aged 65 retiring in 1987, with one working spouse earning the maximum taxable earnings of $43,800, Social Security benefits would replace only 32.4 percent of those earnings. For a single worker with maximum earnings taking early retirement at age 62, the figure is only 17.3 percent. Thus, although the Social Security benefit represents a price inflation-indexed annuity (in contrast to private annuities that are fixed in value and lose purchasing power over the years), for most categories of retirees it is not sufficient to maintain preretirement standards of living. Moreover, in the long run benefits are likely to be reduced out of financial and actuarial necessity. For
Table 2
SOCIAL SECURITY MONTHLY BENEFITS AND REPLACEMENT RATES
FOR SELECTED PRERETIREMENT INCOME LEVELS
(1987)

<table>
<thead>
<tr>
<th>Age and Type of Beneficiary</th>
<th>Monthly Benefit by Preretirement Income Level (Dollars)</th>
<th>Replacement Rate by Preretirement Income Level (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low ($6,968)</td>
<td>Average ($17,418)</td>
</tr>
<tr>
<td>Single Worker:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>$391</td>
<td>$593</td>
</tr>
<tr>
<td>62</td>
<td>313</td>
<td>474</td>
</tr>
<tr>
<td>Worker 65, with spouse:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>587</td>
<td>890</td>
</tr>
<tr>
<td>62</td>
<td>538</td>
<td>815</td>
</tr>
<tr>
<td>Worker 62, with spouse:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>508</td>
<td>771</td>
</tr>
<tr>
<td>62</td>
<td>459</td>
<td>697</td>
</tr>
<tr>
<td>Widow 65, spouse retired at:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>391</td>
<td>593</td>
</tr>
<tr>
<td>62</td>
<td>324</td>
<td>492</td>
</tr>
</tbody>
</table>

these reasons it is important to provide for supplementary retirement income, through pensions, earnings, income-producing assets, and personal savings.
PENSIONS are relatively recent phenomena, having become common only in the last 40 years or so. The first pensions in this country were offered in 1818 to veterans of the Revolutionary War, and other plans were offered to veterans of subsequent conflicts. The first company-sponsored plan in private industry was offered by the American Express company in 1875. As late as 1930 private pension plans were still the exception, with only 15 percent of the labor force covered by them. The loss of personal savings experienced by many during the Depression brought an increasing demand for a secure, steady stream of income after retirement, and in 1935 Social Security introduced on a national scale a model (albeit a poorly designed one) for retirement income annuities based on employee earnings and service.

However, rapid expansion in the number of plans and of workers covered did not begin until World War II, when economic and tax conditions stimulated increased coverage. The labor shortages and wage controls of the war prompted employers to use pension benefits as an alternative form of compensation to attract workers; and the increased membership and strength of labor unions, which demanded pension coverage and generous benefits, led to expansion of private pension plans. Perhaps most important, favorable tax laws encouraged companies to offer pensions. Employer contributions to qualified pension plans, and interest earned on such contributions, were deductible from taxable income as far back as the 1920's. However, steep increases in corporate and personal income tax rates made such a deduction especially valuable during and after World War II.

Between 1940 and 1960, pension coverage grew rapidly (see Table 3). Increases in the number of covered workers slowed in the following 2 decades, but by 1980, almost half the civilian workforce participated in one of some 800,000 plans. By 1984, the percentage of covered workers had dropped to about 43 percent, the greatest representation being in larger and unionized companies. Nevertheless, for many of today’s retirees, pension benefits represent a crucial supplement to Social Security and private savings, and in 1985 benefits provided 14 percent of total income of the elderly.

Pension plans are formed for the employees of an organization to provide for retirement income. Pensions may be sponsored by a single employer, covering its own employees, or by an entire industry (e.g., the construction industry), covering all employees in the indus-
try. Income payments to retired employees are called benefits, and the amount of the benefit usually is based on an employee's years of service, level of earnings, and age. Benefits may be paid as an annuity, a single cash payment, or a series of payments. Benefits are paid from a pension fund, which consists of contributions from the employer, and sometimes the employee, along with any interest accumulated on such contributions. Neither employer-employee contributions nor interest earned are subject to taxation until the money is withdrawn from the fund. However, amounts that may be contributed tax free are limited by statute. Pension benefits are subject to income tax, unless they represent the return of previously taxed contributions to a plan (i.e., are a return of principal).

Employees covered by a plan are not automatically entitled to receive benefits, but first must become "vested." Vesting is the process by which an employee acquires, over a specified number of years, a legal claim to benefits. "Full vesting" may occur all at once, after a number of years of service ("cliff vesting"), or gradually, whereby an employee earns a right to a larger percentage of earned benefits each year, becoming "partially vested" until that percentage eventually

---

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers Covered by Private Pension Plans</th>
<th>Workers in Private Nonagricultural Establishments</th>
<th>Covered Workers as a Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>4,100</td>
<td>28,159</td>
<td>14.6</td>
</tr>
<tr>
<td>1945</td>
<td>6,400</td>
<td>34,429</td>
<td>18.6</td>
</tr>
<tr>
<td>1950</td>
<td>9,800</td>
<td>39,171</td>
<td>25.0</td>
</tr>
<tr>
<td>1955</td>
<td>14,200</td>
<td>43,727</td>
<td>32.5</td>
</tr>
<tr>
<td>1960</td>
<td>18,700</td>
<td>45,836</td>
<td>40.8</td>
</tr>
<tr>
<td>1965</td>
<td>21,800</td>
<td>50,691</td>
<td>43.0</td>
</tr>
<tr>
<td>1970</td>
<td>26,300</td>
<td>58,326</td>
<td>45.1</td>
</tr>
<tr>
<td>1975</td>
<td>30,300</td>
<td>62,260</td>
<td>48.7</td>
</tr>
<tr>
<td>1980</td>
<td>35,800</td>
<td>74,481</td>
<td>48.1</td>
</tr>
</tbody>
</table>

reaches 100. An employee automatically is fully vested in any direct contributions he or she, rather than the employer, makes to a plan.

The actual funding of pension plans is done either through a group annuity contract offered by a life insurance company (an "insured" plan) or through a trust established by the employer and administered by a bank or trust company (a "trusteed" or "noninsured" plan). Approximately two-thirds of total pension assets are held in trusteed plans. Funds are invested in corporate stocks and bonds, government bonds, mortgages, and to a limited extent other assets such as gold and foreign investments. Total private pension assets have grown from just over $2 billion in 1940 to well over a trillion dollars in 1987.

Vesting, coverage, funding and other requirements of pensions are subject to minimum standards set by Federal pension laws enforced by the Internal Revenue Service and the Department of Labor. Although no employer is required to offer a pension, those that do must meet these standards to qualify for favorable tax treatment. Although not all retirement benefit plans meet these standards, the vast majority do, and these are called "qualified plans."

**Types of Plans**

Pension plans vary widely in the level of benefits provided and the formulas used to calculate benefits and contributions. However, aside from variations in the details of individual plans, there are two general categories of pension programs.

**The Defined-Benefit Plan**

The most traditional and most common type of pension is the defined-benefit plan. In a defined-benefit plan a specified dollar benefit is paid to the retired employee, and the amount of the benefit depends on the employee's earnings, years of service, and age. Generally a formula based on these factors is used to calculate the benefit (see "Sample Formulas" box). Employees have a legal claim to benefits only after they become vested. Benefits are payable upon retirement, eligibility for which is typically based on minimum age and/or service requirements. Benefits most often are paid as a monthly annuity, although some employers may allow a retiree to collect all benefits due in one lump-sum payment.

Employers are legally liable for vested benefits owed to employees, and must fund defined-benefit plans with whatever amount of contributions is needed to meet this benefit liability. In some plans, employees also may contribute to the pension fund. An employer's
SAMPLE FORMULAS FOR DETERMINING BENEFITS OF A DEFINED-BENEFIT PENSION PLAN

Example 1: A “flat” benefit formula bases benefits solely on hours of service, awarding a specific dollar benefit for each year:

\[
\text{Benefit Accrued per Years of Service} \times \text{Years of Service} = \text{Annual Pension Benefit}
\]

\[
\begin{align*}
\$200 \times 30 &= \$6,000 \\
\end{align*}
\]

Example 2: A “unit” benefit formula bases benefits on employee’s salary as well as years of service, typically using a percentage of salary:

\[
\text{Annual Salary} \times \text{Percentage} \times \text{Years of Service} = \text{Annual Pension Benefit}
\]

\[
\begin{align*}
\$40,000 \times .01 (1 \text{ percent}) \times 30 &= \$12,000 \\
\end{align*}
\]

* Depending on plan, this amount may be final salary, average salary during service, etc.

Benefit liability includes not only benefits currently owed to retirees, but an estimate of the total value of benefits to be paid in the future to current and past employees. The value of future benefits depends on many factors that can only be conjectured, such as future wage levels, job turnover, mortality rates, life expectancy, price inflation rates, and interest rates. Economic and actuarial assumptions are used to estimate the present value of this liability, and if the value of the pension fund equals this estimated liability, the pension plan is said to be “fully funded.” If the liability is greater than the pension fund, the plan is “underfunded.”

Pension laws require that a minimum level of funding be maintained. Since the actual levels of interest rates, price inflation rates, etc., may vary from assumed rates, and assumptions may need to be changed, the estimates of the value of the liability are revised annually. Because these estimates, as well as the actual value of the pension fund, can vary widely from year to year, the level of annual contributions required may also vary considerably. A pension fund that realizes a high return on its investments may require no annual contribution from the employer; conversely, one that performs poorly may require an unexpectedly large contribution.

Since the value of a pension fund can vary dramatically from year to year, pension funds can rather suddenly become “underfunded” even though they are not necessarily in financial distress. Under-
funding can be a serious problem, eventually leading to the termination of a defined-benefit plan. But it should be remembered that this measure of a plan's financial health considers only whether a plan's fund is sufficient to pay off immediately all benefits that would be owed if the plan were suddenly to shut down. In actual situations, the liability does not fall due all at once but is amortized over many years, and an 'underfunded' plan therefore may not be financially untenable over the long run. In addition, qualified defined-benefit plans are insured by a Government agency, the Pension Benefit Guaranty Corporation (PBGC). In the event a financially unsound plan terminates, employee benefits (of up to $1,857.95 per month for a 65 year old) are guaranteed by this agency. (The Government's role in insuring pensions is discussed in greater detail in Chapter IV.)

In the event a plan is overfunded, i.e., contains funds in excess of the estimated benefit liability, an employer may terminate the plan, pay off owed benefits (in cash or by purchasing annuities for the beneficiaries), and retain the excess funds for other uses. Such a 'reversion' of funds requires the approval of the Federal Government, and a 10 percent excise tax is assessed on any funds received by the employer.

Defined-benefit pensions were preferred by employees for many years, because they were presumed to assure the retiree a fixed-dollar benefit from retirement until death, and placed the burden of financing that benefit on the employer. The employer bore the risk of funding the plan, and made up a fund's poor investment performance with compensating contributions.

However, in recent years such plans have become less attractive for a number of reasons. Increasing regulation has made them more costly to administer: in addition to the costs of complying with regulations, employers must pay to the PBGC annual "insurance premium" fees that have risen from one dollar per employee in 1974 to $16-$50 in 1988. In addition, the 1986 Tax Reform Act limits the maximum annual benefit that may be paid out of a qualified plan, to $90,000 for a 65 year old, and increases reductions in maximum benefits to early retirees. Previously, the $90,000 maximum was actuarially reduced for retirees collecting before age 62 to $75,000 for a 55 year old; now the $90,000 maximum is reduced for those retiring before age 65 to $35,800 for a 55 year old. In short, the costs of such plans - to both employers and employees - have been increasing while the allowable benefits have been decreasing.

Defined-benefit plans are also less well-suited to an economy in
which the workforce is increasingly mobile. Since one of the employer’s incentives for offering compensation in the form of a pension is to encourage employees to remain with the firm, plans are designed to reward long years of service. A minimum number of years is required to become vested, and unvested benefits are not portable—that is, they cannot be transferred from one employer’s pension plan to another. Defined-benefit plans also tend to reward career employees by basing benefits on final salaries as well as years of service, and thus vested benefit plans disadvantage employees who leave a firm early in their careers.

More than anything else, price inflation has undermined defined-benefit plans by reducing the purchasing power of their fixed-dollar benefits. When pensions became common in the 1940’s and 1950’s, the purchasing power of the dollar was eroding at much slower rates than recently. During the last 20 years the purchasing power of the dollar has plummeted. Few private plans provide for full indexing of benefits for retirees, instead indexing them only partially or providing increases on an irregular basis only when the rate of price inflation is deemed especially high by fund managers and “excess” funds are available to fund increased benefits. Thus, a fixed-dollar defined benefit can quickly lose its value during the retirement years, and with life expectancies higher and early retirement more common than ever, the real value of such a benefit now steadily erodes over a longer period of time than in previous generations.

In addition, benefits earned in jobs held years prior to retirement, and based on wages earned many years ago, can become nearly worthless by the time one retires simply because inflationary growth in wages and prices makes the wage levels of earlier years insubstantial by current standards. (The role of price inflation is discussed in detail in Chapter V.)

The Defined-Contribution Plan

The other major type of pension program is the defined-contribution plan. In this plan an employer makes contributions to retirement accounts maintained separately for each participating employee, and the benefits eventually received depend on the value of invested contributions when the employee retires. Contributions are determined according to an explicit formula based on the employee’s compensation, typically a percentage of salary. Employees may have the option of contributing to such plans, and any employee contributions are immediately fully vested.

The various types of defined-contribution plans available include
profit-sharing plans, employee stock ownership or stock bonus plans, 401(k)s (also known as “cash or deferred arrangements”), Keogh plans (also know as H.R.10 plans when sponsored by proprietorships or partnerships rather than corporations), and SEPs (“simplified employee pensions,” an employer-sponsored variation on an individual retirement account, and available only to businesses with less than 25 employees).

Benefits may take the form of an annuity purchased with the value of the retirement account upon retirement, or a lump-sum payment. Unlike a defined-benefit plan, the retirement benefit in a defined-contribution plan is not directly tied to the employee's salary or years of service, but depends on the market value of the account at the time of retirement. The employer assumes no liability for guaranteeing a specific benefit, and no obligation beyond making any promised contributions during an employee’s years of service.

Because the benefit in a defined-contribution plan depends on the value of the account, and is not determined independently as in the case of defined-benefit plans, there is no possibility that benefits will be worth more than the retirement fund. Thus, defined-contribution plans by definition are always fully funded and free of the problem of underfunding associated with defined-benefit plans. Consequently, employers have no need to insure that funds are sufficient to pay promised benefits; if the value of the fund is low, the value of the benefit will also be relatively low. The administrative costs of determining the present value of future benefits also are eliminated.

Because the financing of this type of plan is more straightforward, and the employer is responsible only for a current level of contributions rather than a future level of benefits, the Federal pension laws intended to ensure adequate financing and actuarial design of pensions do not apply to defined-contribution plans. There is no need for the Government to monitor the funding status of such plans, as they are always fully funded. However, defined-contribution plans must still comply with various tax laws to be considered “qualified plans” eligible for favorable tax treatment of contributions. They must comply with vesting, participation, and coverage rules that apply to all pension plans, as well as various laws concerning limits on contributions and proper fiduciary management of funds. Specific laws, administered by the IRS, apply to each type of defined-contribution plan, and as they provide only minimum and maximum standards from which individual plans may differ considerably, they will not be addressed in detail here. For the particular requirements and
options of your own pension plan, you should obtain a copy of the plan from your employer.

**Elective Deferral**

One feature common to many defined-contribution plans, and in particular 401(k)s and SEPs, is the “elective deferral.” An elective deferral option allows an employee to choose to have part of his or her salary contributed by the employer to a retirement fund rather than have it paid as cash salary to the employee. The deferred income is not included in an employee's gross income, and no tax is paid on it until it is withdrawn from the pension fund as a benefit. In effect, the elective deferral provides the employee the same savings opportunity as an individual retirement account, without being subject to the $2,000 limit of an IRA. Employers often match part of the elective deferral with additional contributions.

However, just as tax laws limit the size of defined benefits, they also limit the size of defined contributions. Employer contributions to elective deferrals are now limited to $7,000 ($9,500 for a deferred annuity). Any excess deferral above this limit (which is scheduled to be increased annually through cost-of-living adjustments) is subject to double taxation — once when it is contributed and again when it is later received as a retirement benefit. (However, if deferrals in excess of this limit are withdrawn and paid to an employee shortly after being contributed, they are taxed only once, as income.)

The $7,000 limit applies only to employer contributions based on elective deferrals. The total of combined employer and employee contributions to any defined-contribution plan cannot exceed 25 percent of the employee's annual compensation, or $30,000, whichever is less. This limit is also scheduled to increase with the cost of living. As with IRS regulations concerning defined-benefit plans, these limits apply only to qualified pension plans.

There are potential advantages to defined-contribution plans. While a participant in such a plan does not have the security of a fixed benefit, he or she gains the opportunity to realize an enlarged benefit if the fund earns a high return. In addition, such plans often allow for greater employee management of funds. Some plans allow employees to switch funds from one capital account to another, thereby allowing beneficiaries to balance risk and return according to their own preferences rather than the employer's.

Defined-contribution plans also tend to be more portable than defined-benefit plans, because they often have faster vesting sched-
ules and are more likely to allow a lump-sum withdrawal of benefits if an employee leaves a job before retirement. In contrast, defined benefits, fixed in value and often not payable until retirement, may lose much of their purchasing power in the years between leaving a job and retiring. A lump-sum payment can be reinvested (in another qualified retirement plan or an individual retirement account) and continue to increase in value during those years.

Defined-contribution plans outnumber defined-benefit plans, but because they are more common in smaller businesses and as supplementary plans linked to defined-benefit plans, more people are actually covered by defined-benefit plans. Since 1974, when pension regulations made defined-benefit plans more costly to administer, and high rates of price inflation began to seriously undermine their value, the growth of defined-contribution plans has far exceeded that of defined-benefit plans. Three times as many new plans (nearly 300,000) were introduced in the period 1974-84 (see Table 4).

The benefits eventually received by an employee depend on his or her satisfying plan requirements. But many workers have at best a vague understanding of what they must do to ensure they will receive the maximum benefit due to them. A misunderstanding of the specific provisions of a plan can result in an employee receiving a much smaller benefit than he or she expects.

Much of the misunderstanding stems from confusing terminology. “Coverage,” “participation,” and “vesting” are essential to determining pension benefits, but they have very distinct meanings. A “covered” employee is one whose employer contributes to a pension plan, although the employee may not actually be participating in the plan. A “participating” employee is included in the plan, but does not necessarily have a nonforfeitable, legal claim to earned benefits. Often employees are not eligible to participate in a plan until they reach age 21 or have worked for a company for at least a year. A “vested” employee has a nonforfeitable claim to promised benefits, regardless of whether the employee remains with the company until retirement. An employee may be “partially vested,” having a claim to only a percentage of earned benefits. A “fully vested” employee has a legal claim to all earned benefits. Often the term “vested benefits” is used to indicate the share of total earned benefits to which an employee has attained, through vested service, a nonforfeitable legal claim.

To become vested an employee must work for the company for a minimum number of years specified in the plan. Federal law currently requires that a participating employee be at least 50 percent
<table>
<thead>
<tr>
<th>Year</th>
<th>Total Number (000s)</th>
<th>Growth Rate (%)</th>
<th>Defined-Benefit Plans</th>
<th>Total Number (000s)</th>
<th>Growth Rate (%)</th>
<th>As Percent of All Plans (%)</th>
<th>Defined-Contribition Plans</th>
<th>Total Number (000s)</th>
<th>Growth Rate (%)</th>
<th>As Percent of All Plans (%)</th>
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<td>70</td>
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* The total number of all defined-benefit and defined-contribution plans for 1977-80 are from U.S. Department of Labor tabulations of ERISA annual reporting forms. Since all plans must file these forms annually, these numbers represent a count of all plans in existence. For 1974-76 and 1981-84, these data are not available. Estimates were made by EBRI using Internal Revenue Service determination letter statistics.

† Totals for all plans may differ from component totals due to rounding.

Sources: U.S. Department of Labor, tabulations of data from Internal Revenue Service 5500 and 5500c forms; and U.S. Department of the Treasury, Internal Revenue Service, news releases of determination letter statistics.
vested after 10 years of service, and fully vested after 15 years. Beginning in January 1989 the minimum vesting schedule will require full vesting after 5 years’ service, or 20 percent after 3 years, with another 20 percent each year thereafter (resulting in full vesting after 7 years).

To be credited with a year of vested service, an employee generally must work 1,000 hours a year (with a 40-hour workweek, this takes about 6 months). If an employee does not work the minimum required hours, he or she may receive no credit toward vested service. This requirement becomes particularly important when considering retirement or leaving a job, the more so when a plan provides for cliff vesting. Cliff vesting provides an employee with full vesting after a certain number of years, and zero vesting before that time. (Many plans currently provide for 10-year cliff vesting — employees have no vested rights until they have 10 years of credited service, after which they are 100 percent vested.) If an employee participating in, say, a 10-year cliff vesting plan leaves the job after 9 years, or even after 9 years and 999 hours, all benefits are forfeited, and the employee receives nothing except the return of any employee contributions, plus interest. If the plan had instead provided for partial vesting of an additional 10 percent every year, then the opportunity to gain an additional 10 percent share of earned benefits would have been lost. Because vesting requirements can make such a difference in determining one’s pension benefit, they should be carefully considered, if possible, in timing the decision to retire or leave a job.

A “break in service” also can affect one’s vesting. Such a break occurs if an employee works fewer than 500 hours a year. If the break in service lasts longer than 5 consecutive years, or (after 5 years of initial service) longer than an employee’s service prior to the break, then the years of service prior to the break need not be taken into account by the employer for vesting and participation purposes.

In addition, a year’s credit for vesting purposes is not necessarily the same as a year’s credit toward benefits. A plan may require more than 1,000 hours of work for an employee to be credited with an additional year of service used in figuring the benefit or contribution earned by the employee. In the previous example of a 10-year cliff vesting plan, after 1,000 hours in the tenth year of service the employee would be 100 percent vested, but, depending on the plan’s requirements, might not be credited with a tenth year of service for purposes of calculating earned pension benefits until after, say, 1,500 hours of service.
There may be other provisions in a plan that can be easily overlooked or misinterpreted, but may be of great importance in determining the amount of your pension and when you can collect it. For example, some plans are “integrated” with Social Security, and may either reduce the earned pension benefit by the retiree’s Social Security benefit, or reduce the employer’s defined contribution to a pension fund by the Social Security tax paid by the employer. An employee unaware of this integration will receive a much smaller pension than anticipated. As another example, a plan might offer an employee the option of receiving the value of a pension in one lump-sum payment if the employee leaves the job before retiring, but only if the employee makes a written request for this before actually ending his or her service. If such a request is not made, the benefits may not be available until retirement.

The wisest course is to avoid making any assumptions about one’s pension plan, and to read a copy of the plan thoroughly to understand its provisions, especially before retiring or leaving a company.

Job Mobility and Portability of Pensions

Vested service assures the employee of receiving a pension, but it does not guarantee the amount of the benefit. That depends, among other things, on the employee’s salary and years of service. Because plans are designed to reward career employees the most generously, workers who change jobs frequently may end up with disproportionately smaller pension benefits.

As mentioned above, nonvested benefits earned with one company are lost upon switching to another company, and with each new job a new vesting period must be satisfied. Nonvested benefits, and service, are thus said to lack “portability.” Yet even a worker who earns vested benefits in a succession of jobs is likely to end up with a smaller pension than one who, with the same career earnings history, remains with one company until retirement.

The example in Table 5 illustrates how frequent job changes can leave a worker with a much smaller total of pension benefits in retirement. In the example, Employee A works for 10 years each for four successive employers, each offering identical defined-benefit plans. Benefits are based on final salary and years of service — for every year of service, 1 percent of the employee’s final salary is awarded in annual benefits. Thus after 10 years of service, the employee has earned an annual pension of 10 percent of final salary. Employee B works for 40 years for one firm that offers an identical pension plan, and thus earns a pension equal to 40 percent of final pay. The salary
Table 5

THE HIGH COST OF JOB-HOPPING

(Pension basis: 1 percentage point per year of service multiplied by final salary.)

<table>
<thead>
<tr>
<th></th>
<th>Years of Service</th>
<th>Percentage Point Credit</th>
<th>Final Salary</th>
<th>Annual Pensions</th>
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<tr>
<td>Employee A</td>
<td>1st job</td>
<td>10</td>
<td>10</td>
<td>$35,817</td>
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<tr>
<td></td>
<td>2nd job</td>
<td>10</td>
<td>10</td>
<td>64,143</td>
</tr>
<tr>
<td></td>
<td>3rd job</td>
<td>10</td>
<td>10</td>
<td>114,870</td>
</tr>
<tr>
<td></td>
<td>4th job</td>
<td>10</td>
<td>10</td>
<td>205,714</td>
</tr>
<tr>
<td></td>
<td>Total Pension:</td>
<td></td>
<td></td>
<td>$42,054</td>
</tr>
</tbody>
</table>

| Employee B | 1st job | 40 | 40 | $205,714 | $82,286 |
| Total Pension: | | | | $82,286 |

Note: Figures assume starting salary of $20,000 and 6 percent annual "inflation" rate. Pay increases match "inflation" rate.

history and total years of service are assumed to be identical for both employees, and each is assumed to earn a fully vested interest in any pension benefits. Despite the parallel working histories and identical pension plans, Employee B retires with a much larger pension than Employee A.

Of course, all pension plans are not alike, and not all companies offer them. Workers who change jobs frequently can still earn substantial pensions, and may in fact move on to jobs with better plans. However, pensions generally are not meant to encourage job mobility, and the loss of nonvested benefits alone can cost a worker substantial benefits when leaving a job. Other retirement benefits, such as continued medical coverage, insurance, and death benefits may be available only to workers remaining with a company until retirement. It is therefore important to review the provisions of a plan and consider the possible loss of benefits when considering a job change and the timing of a decision to leave a job.

Vested pension benefits earned in jobs left years before retirement and not paid out until retirement are also likely to be worth less because of price inflation. A benefit based on the final salary earned in a job held early in one's career will not be indexed to reflect the inflationary increases in wages and prices that occur after one leaves the job. Consequently the benefit will be worth much less in real dollars by the time it is actually collected. Some plans, particularly defined-contribution plans, provide more pension portability— they allow employees to take cash-equivalent payments of their vested benefits when they leave a company, rather than require that
they wait until retirement to receive the benefit. This cash amount can then be reinvested to earn a return until it is converted into a retirement annuity or otherwise used to fund retirement income.

**Early Retirement**

There is no longer a mandatory retirement age, but many plans define the "normal retirement age" as 65, when full Social Security benefits become available. Retirement benefits may be available prior to this under an early retirement provision, by which benefits may be collected before age 65 but usually only after a certain number of years of service. No employer is required to offer this option, and the age limit for early retirement varies with every plan. The amount of the benefit is usually permanently reduced by an actuarially based percentage to account for the additional years of benefits the employer expects to pay. The specific reduction, if any, will be described in the written plan. Other retirement benefits, such as health, medical, dental, and life insurance may be modified for workers choosing early retirement. It is essential to provide for medical insurance until age 65, because Medicare coverage does not begin until then, even if a retiree is collecting early retirement Social Security benefits.

**Spousal Benefits**

The Retirement Equity Act of 1984 (REA) established new laws concerning spousal rights to retirement benefits. Prior to its passage, pension law required that benefits be paid in the form of a joint-and-survivor annuity unless the retiring employee specifically chose a higher-paying single-life annuity. Under the joint-and-survivor annuity option, benefits continue to be paid to the spouse after the retiree’s death, but the monthly benefit is reduced over the retiree’s life and more so over the surviving spouse’s life. (The surviving spouse’s annuity must be at least half of the annuity payable to the participant during the couple’s expected remaining lifetime together.) The single-life annuity provides for an unreduced benefit, paid only until the retiree’s death, with the survivor receiving nothing afterwards. Under the old law, the worker could choose the single-life annuity without informing the spouse, and consequently a widow or widower could be left with no benefits at all, without her or his prior consent.

Under the new laws, the retiring married employee may still waive the automatically provided joint-and-survivor annuity option, in favor of a single-life annuity, but such a waiver now requires the written and notarized consent of the spouse. Couples may wish to con-
sider waiving the option if, for example, the retiree is expected to outlive the spouse, or if the retiree has sufficient life insurance to provide for the spouse. (Conversely, having chosen the joint-and-survivor option, no life insurance may be necessary.)

The REA also provided for a preretirement survivor annuity to be provided automatically to the spouse of a worker who dies before retirement. This option may be waived only with the written and notarized approval of the spouse. According to the law, benefits will be paid to a vested worker’s spouse at the plan’s earliest retirement age whether or not the participant had retired or was eligible for early retirement at the time of death. If the preretirement option is chosen (or, more properly, not waived) the worker’s benefit will usually be permanently reduced by an actuarially based percentage.

Finally, the REA specified that pension benefits can be divided in the event of divorce, and may be treated as alimony or property (most are awarded as part of a property settlement). Settlements vary widely, as there is no minimum award required. Divorced spouses are entitled to collect awarded benefits as soon as the plan participant reaches the earliest retirement date provided under the plan, regardless of whether the participant has actually retired. The method of payment must be one allowed by the plan; for example, a lump-sum payment can be awarded only if a plan provides such an option. In some cases, nonvested benefits may also be awarded, and a plan participant who never actually becomes vested may be responsible for funding the award by other means.

**Tax Treatment of Pension Benefits**

Tax treatment of pension benefits is designed to encourage workers to save such benefits until retirement, and then draw on any retirement savings only after retirement. Consequently, the laws tend to penalize those who receive benefits at a very early or a very late age. The 1986 Tax Recovery Act made a number of significant changes in these laws, which are discussed below. In addition, retirees receiving taxable pension benefits may find that under the new tax rates they no longer have the correct tax withheld from benefits. To change the amount withheld, the retiree should file a new Form W-4P or the simpler W-4AP (Withholding Certificate for Pension and Annuity Payments) with the payer of the benefit. All new retirees must also file this form.

The taxable amount of a pension benefit is that part that does not represent a return of the employee’s own contribution. (For this purpose, employer contributions made on behalf of an employee as part
of an elective deferral in a 401(k) plan are not considered employee contributions.) If the pension is an annuity, exclusion from income tax of the return of the retiree's contribution varies according to the starting date of the annuity. For annuities beginning before July 1, 1986, the old "3-year rule" still applies: if the total of annuity payments to be received in the first 3 years will equal or exceed the retiree's contributions, then all annuity benefits are excluded from gross income until the entire contribution has been recovered. For annuities beginning after July 1, 1986, the retiree's contributions are recovered on a prorated basis over the life of the annuity rather than in full at the beginning. Thus a part of each annuity payment would be excluded from gross income (the part representing prorated return of the employee's contribution). Once the retiree's full contribution has been recovered, on this prorated basis, all benefits are fully taxable.

An exception to taxation of pension benefits is made for any pension payments classified as death benefits; these may be excluded up to $5,000 from the surviving spouse's income.

Required Distributions — A qualified employee retirement plan (which includes a qualified pension, profit-sharing, stock bonus or annuity plan) must provide that the beneficiary begins receiving benefit payments by April 1 of the calendar year following the later of: 1) the calendar year in which the employee reaches age 70½, or 2) the calendar year in which the employee retires. However, distributions beginning after 1988 must begin by April 1 following the calendar year in which the employee reaches age 70½, regardless of the date of retirement. (Currently, this rule applies only to distributions from IRAs.) The minimum required distribution is based on the life expectancy of the retiree (and of a designated survivor, if any). Required distributions are not eligible for tax-free rollover treatment (discussed below).

Under current law, failure to make the required minimum distribution from an IRA results in an excise tax, imposed on the beneficiary, of 50 percent on the excess of the required distribution over the amount actually distributed. Beginning January 1, 1989, this tax will also apply to distributions required to be made from all qualified retirement plans, not just IRAs.

Excess Distributions — A new excise tax of 15 percent will be applied to total excess distributions made from all of an individual's qualified retirement plans, tax-sheltered annuities, and IRAs. An "excess" is defined as any amount over $112,500 (this limit is scheduled
to be indexed). Certain distributions are excluded from the tax, such as payments made after the employee’s death, or payments representing a return of the employee’s contribution. An exception is also made for lump-sum distributions that are subject to special capital gains or 5-year income averaging rules, for which the limit is increased to $562,500.

**Early Distributions** — A 10 percent tax, previously applying only to IRAs, applies after 1986 to early distributions (or “early withdrawals”) from any qualified retirement plan. An early distribution is one made before an employee reaches age 59½. Exceptions include payments made because of the employee’s death or disability, or for medical care, or to an employee leaving a job through early retirement after age 55, or as part of a series of substantially equal periodic payments beginning after the employee leaves the job. However, the exceptions for medical care and for early retirement after age 55 do not apply to early withdrawals from an IRA. Early distributions rolled over to another pension plan or an IRA are generally not subject to this tax.

Some plans allow employees to borrow from their retirement account, and such loans are not subject to the early withdrawal tax. However, they must be repaid within 5 years (except those used to buy a principal home) and a market interest rate must be paid.

**Lump-Sum Payments** — A lump-sum distribution is the payment within 1 year of the entire value of an employee’s vested pension benefits. Such a payment may be made to an employee who leaves a job, to one older than age 59½, or to the survivor of a deceased employee. Employers are not required to offer a lump-sum option, and the employee’s choice of it may be subject to the employer’s approval. Conversely, if the value of vested benefits is less than $3,500 the employer may choose to pay off all benefits in a lump sum regardless of the employee’s preference.

The portion of a lump sum that does not represent a return of the employee’s own (previously taxed) contribution to a plan is subject to special income-averaging tax rules, which have recently changed. Previously, the law allowed 10-year averaging of the tax due on such a distribution (thus allowing the benefit to be taxed as if received in equal parts over 10 years). However, for distributions received after 1986, 10-year forward averaging has been repealed and replaced with 5-year forward averaging. The 5-year averaging option can be used only once, and only for distributions received after the beneficiary reaches age 59½.
An exception to this new rule is made for individuals who reached age 50 by January 1, 1986. They may elect once to use 5-year averaging (under the new tax rates) or 10-year averaging (under the 1986 tax rates). Individuals qualifying for this exception may use it for a lump sum received prior to reaching age 59½, in which case the general rule of 5-year averaging is not available later for distributions received after age 59½.

The capital gains treatment of pensions accruing prior to 1974 has also changed. Now, only a portion of the distribution attributable to pre-1974 coverage may be treated as a long-term capital gain. There is a similar exception to the new law made for people reaching age 50 before January 1, 1986.

**Rollovers** — A rollover is a tax-free transfer of cash or other assets from one retirement program to another (including IRAs). Only the part of the distribution not consisting of employee contributions may be rolled over, and a rollover must be completed by the 60th day following receipt of the distribution to qualify for tax-free treatment.

Required distributions, from pensions, annuities, or IRAs, may not be rolled over.

Rollovers of partial distributions from retirement plans to IRAs (but not to another qualified pension plan or tax-sheltered annuity) are allowed, provided the distribution is at least 50 percent of the balance to the credit of the employee in the plan and the employee chooses the tax-free rollover treatment. However, after 1986 only distributions made because of the employee's death, disability or separation from service may be rolled over tax free. A surviving spouse of a participant in a pension plan may roll over part or all of a distribution received upon death of the participant, unless it represents a required distribution.

Individuals should keep in mind that once a lump sum is rolled over into an IRA or other retirement plan, it cannot be withdrawn before age 59½ without incurring a 10 percent excise tax. There are exceptions to this early distribution penalty, as noted earlier.

These are the tax laws most commonly applicable to pension income. Exemptions and exceptions exist for many laws, and to understand all legal options, avoid tax penalties, and minimize tax payments, individuals should gain a thorough knowledge of the laws, or consult a tax planner for further assistance. For more information on the taxation of pension benefits, consult Internal Revenue Service Publication 575, “Pension and Annuity Income.”
The Internal Revenue Service has served as the chief administrator of pension laws since the 1920’s, when contributions first became deductible against current income for tax purposes. For many years the costs of complying with such laws were relatively low for an employer. Now, however, the numerous Labor Department and PBGC regulations introduced in the last 15 years concerning vesting and funding of plans have increased the costs of offering pension plans, and made them prohibitively expensive for many smaller businesses. The impact of these regulations is discussed in the next chapter.
IV.
REGULATION OF PENSIONS

As the first large wave of beneficiaries of pension plans reached retirement age in the 1950's and 1960's, a number of difficulties became evident. Existing pension laws were intended mainly to prevent company sponsors from claiming excessive tax deductions for their contributions to pension funds. There were no regulations concerning participation, vesting, funding or fiduciary standards. In several cases that received wide publicity, workers lost their promised benefits because companies went out of business and were unable to make payments, or because eligibility rules for pension plans were exceedingly stringent or had not been described clearly to workers. In other instances, pension funds had been mismanaged and invested for the benefit of the employer or individuals rather than employees. Many plans were underfunded, i.e., the value of pension fund assets was less than the present value of benefits owed to past and present employees.

In response to increasing complaints about such abuses, Congressional hearings were held, and in 1974 Congress legislated the Employee Retirement Income Security Act (ERISA, see box). Similar to many other Government programs designed to "safeguard" the interests of private citizens, ERISA was intended to ensure that private pension plans were adequately funded and that participation and vesting requirements were reasonable. The Pension Benefit Guaranty Corporation (PBGC), an independent Government agency, was created to ensure that workers would receive a minimum level of pension benefits even if an employer went out of business or a pension plan became insolvent.

However, its record over the past 13 years indicates that rather than solving such problems, ERISA actually created more. Admittedly, some plans were amended to comply with the standards as intended by the law's framers. However, ERISA has had contrary effects as well. Many well-run and well-funded pension plans already met – or exceeded – the new funding requirements. Reportedly, "in a number of instances . . . companies with plans more liberal than the ERISA requirements have shifted back to the minimum standards set forth in the law."* Moreover, the costs and complications of complying with the new law forced many smaller funds to terminate, presumably at cost to covered employees. It plainly discouraged the for-

THE EMPLOYEE RETIREMENT INCOME
SECURITY ACT OF 1974 (ERISA)

ERISA provides for the following:

1. If an employer chooses to have a pension plan, the employer must submit annual financial reports to covered employees and to the Secretary of Labor; and, upon request of a covered employee, a statement of his or her total nonforfeitable benefits.

2. The employer must provide full vesting by one of the vesting plans specified in the law. (The 1986 tax reform bill amended this provision, effectively speeding up vesting schedules; after 1988, full vesting will be required after no later than 7 years.)

3. Upon leaving employment, an employee paid vested pension benefits must have the option of investing the benefits in an Individual Retirement Account (IRA) within 60 days of such payment; or, with the consent of a new employer, reinvesting such assets from the previous plan into the new employer's plan.

4. Funding of pensions by employers is required to be accomplished over a period of up to 40 years, on a straight-line basis. Failure to provide the minimum funding requirements will lead to assessment of penalties (sometimes severe) against such employers.

5. The Pension Benefit Guaranty Corporation (PBGC) was established in order to guarantee the payment of a minimum level of vested benefits if a terminated plan had insufficient assets to pay those benefits. The PBGC was to be funded with mandatory premiums collected from employers, and to finance benefits was authorized to claim up to 30 percent (this level has recently been increased) of the net worth of a company whose pension plan was terminated. The Labor Secretary is authorized to terminate plans that do not meet funding standards or are unable to pay benefits. Defined-contribution plans are, by definition, always fully funded, and thus are exempt from minimum funding rules and coverage by the PBGC.

6. ERISA imposed fiduciary standards — such as the "prudent man" rule — for any person involved with the control, management, or disposition of a pension fund's assets.

ERISA does not oblige an employer to offer a pension plan. It applies only to private plans, and thus Federal, state, and local government plans are exempt from its provisions.
mation of new pension plans: between 1974 and 1976, the rate of increase in tax-qualified corporate plans was halved, while the rate of terminations quadrupled.*

Beyond this, poorly funded plans soon became a liability to either the workers themselves or to Federal taxpayers. Very simply, many mismanaged plans were terminated before ERISA went into effect—and all obligations to employees dissolved. Others remained underfunded, which meant that they would become the liability of the newly created PBGC.

* Problems of the PBGC

The PBGC was intended to be a self-financing Government-owned corporation, which would act as an insurer of defined-benefit pension plans. (Defined-contribution plans are, by definition, always fully funded, and thus need no insurance against the possibility of insufficient funds.) Premiums collected from all sponsors of defined-benefit plans were expected to be sufficient to cover the agency’s costs of taking over and financing weak plans unable to meet benefit obligations.

However, since its formation the liabilities of the PBGC have exceeded its assets, and the agency has run a deficit (see Chart 3). Annual employer premiums initially set at $1 per covered employee have gradually been raised to $8.50, but the increase in PBGC liabilities has been much greater. Its deficit, which represents unfunded future liabilities, was estimated to be about $4 billion in 1987. In an attempt to reduce this deficit, and encourage better funding of plans, in 1988 the employer premium will increase to a range of $16 to $50 per employee, with the most underfunded plans paying the highest premium.

The main source of PBGC liabilities has been pension plans in “declining industries,” especially steel. These plans have been hurt by a shrinking workforce (resulting in a smaller pool of fund contributions), by increasing pension costs as workers retire, and by the inability of failing businesses to meet funding obligations. Consequently, under the provisions of ERISA the PBGC has assumed the obligations of a number of severely underfunded plans, such as those of the LTV Steel Corporation, which alone has an estimated $2.3 billion pension liability. Eighty percent of the agency’s deficit in 1986 was attributable to steel industry pension liabilities.

The PBGC now finds itself the brunt of criticism from many sides:

*Barron’s, May 1, 1978.
from Federal "cost cutters" who demand a reduction in PBGC spending and deficits; from participating employers who object to ever-higher insurance premiums, to the agency's increasing reluctance to assume obligations of troubled funds and increasing tendency to turn to litigation to avoid doing so; and from employees concerned about the safety of their pensions.

What these various critics ignore, but what seems an inescapable feature of nearly all Government "insurance" agencies that place restrictions on appropriate market responses to changing conditions, is that the very existence of the PBGC introduces many distortions. For example, it provides an incentive for companies with underfunded plans to terminate on the basis of insufficient funds, thus transferring the burden of financing to the PBGC and eliminating a huge financial burden to the businesses.* Rival businesses with financially sound pension plans are in effect forced to subsidize their weaker competitors through the PBGC, and they themselves reap no benefit from their mandatory, ever-increasing premiums. Until recently, the agency did not charge higher premiums to riskier funds, but levied all plans

* Currently the PBGC is attempting to force LTV to reassume its pension obligations, claiming that the company, reorganized after a Chapter 11 bankruptcy, is now profitable enough to do so. LTV is contesting this in court.
according to the same formula. Thus, there was no premium penalty for underfunding, and no reward for sound management.

Beginning in 1988 higher premiums will be charged to the riskier, underfunded plans, thus transferring some of the risk back to those plans. However, this will also increase the financial burden of weak plans and provide a stronger incentive for terminations—which would in turn increase the agency’s deficit. If PBGC deficits continue to increase, taxpayers almost surely will pay a larger portion of its costs via “bailout” schemes involving either direct appropriations or inflationary Treasury borrowings. While the Federal Government is not legally liable for any obligations and liabilities incurred by the PBGC, it probably will assume them, just as it has those of other independent Federal “insurance” agencies.

**Further Complications**

In addition to encouraging underfunded plans to terminate and transfer the costs of pension financing to the Government, ERISA regulations also have encouraged financially healthy defined-benefit plans to terminate, with the result that many workers have lost future benefits. As a result of the financial bull market of 1982-87, the $210 billion in pension fund assets in 1974 is now worth over $1 trillion, with billions of dollars of that representing surplus assets in “overfunded” plans. (Surplus assets are those in excess of total benefit liabilities.) Over 500 reversions have taken place since 1980, and in 1985 alone $4.3 billion in surplus assets was set free via reversions.

ERISA’s funding laws, which were designed to ensure adequate funding and proper management of funds, do not directly address the issue of surplus funds. Indeed, when ERISA was passed in 1974, the financial markets were “bearish” and no one foresaw that surpluses might become a problem if the financial markets turned upward. Existing regulations actually provide a strong incentive for termination, since the only way an employer can tap into a surplus fund is by canceling the entire pension plan and paying off the present value of benefits owed to past and present employees. The employer may provide a new pension plan as a replacement, but is under no obligation to do so. Beyond the value of vested benefits, employees may be left with nothing.

Recently, lawmakers have tried to correct this unintended consequence of ERISA by passing yet another law. The 1986 tax law levies a 10 percent excise tax on any surplus assets reverted to a company via a terminated pension plan. The number of reversions has indeed
fallen, but some of this decline probably is attributable to changing conditions in the financial markets.

Even as the Government tries to correct some distortions caused by regulation, it continues to introduce new ones. In 1984 Congress passed the Retirement Equity Act (REA). Designed to improve benefits for retirees, in particular women, it sets more liberal participation standards, allows longer "breaks in service," and strengthens spousal claims to benefits. The 1986 tax reform bill introduced further changes, including faster vesting schedules. While some retirees and workers undoubtedly will benefit from the new laws, the costs of complying with them may very well be passed on to employees in the form of less generous pension plans. It also is likely that these additional regulations will further discourage some employers from offering any pension plan at all.

**Pension Reform's Market Effects**

In the broader context of the performance of the financial markets upon which all funded pension plans depend, the recent "reforms" designed to make workers' pensions more secure also have created a significant link between common stock prices and corporate earnings. As noted above, ERISA's funding rules apply only to defined-benefit plans. But under conditions of chronic and variable inflating the problems of managing a defined-benefit pension plan are acute. They involve projecting the future level of benefits, the rate of return on future earnings, etc. Changing assumptions regarding future price, wage, and benefit levels and varying rates of return on a plan's assets result (at a minimum) in considerable variation in the amount of the annual contribution needed to make a company's plan solvent.

Actuaries, accountants, and indeed ERISA's rules, tend to employ devices, such as moving averages, gradual changes in assumptions of future trends, and long periods for amortizing unfunded liabilities, that serve to moderate fluctuations in the annual amounts that a plan's sponsor must pay in. There is one major exception: employers are not allowed to deduct as an expense on their tax returns — and ERISA's rules proscribe — any contributions to plans that are "fully funded."

The total effect of these rules and practices on annual pension costs is extraordinarily complex and difficult to measure. But it is clear that employers' payments into pension plans have leveled off in recent years, and have actually decreased markedly in relation to wages. Since 1983, payments out of plans to beneficiaries actually have exceeded payments in by employers. As noted above, the rea-
son was that the assets held in pension plans, especially common stocks, have appreciated greatly since 1982.

Writing in the *New England Economic Review*, Alicia Munnell has estimated that the “bull market” in securities prices subsequent to 1982 caused corporate pension expenses to be $30 billion less in 1986 than they would otherwise have been.* This has subtle implications.

First, because employer contributions to pension plans are counted as part of the “compensation of employees” in the National Income and Product Accounts (NIPAs), the “missing” $30 billion reduced the estimate of personal savings by that amount and the widely followed personal savings rate by a full percentage point. Secondly, Ms. Munnell estimated that the reduction in pension costs resulting from higher securities prices reduced the rate of increase in the indexes of hourly earnings and employment costs by “roughly two-tenths” of 1 percent per year during the 1980’s.

Finally, and perhaps most significantly, the $30 billion that employers did not contribute to pensions in 1986, as a result of the stock market boom, was added to pre-tax corporate profits then. Because the aggregate data are derived from the NIPAs and, for a variety of reasons, may not match up with the aggregate of corporations’ published financial results, estimating the impact of this $30 billion is difficult. But, it would appear that about $12 billion was paid to the Treasury in higher tax payments and the remaining $18 flowed through to the “bottom line” reported to stockholders. That amount would represent roughly one-third of the increase in corporate after-tax profits between 1982 and 1986.

To an unknown extent this addition to corporate profits served to boost stock prices to higher peaks than they would have reached if pension costs had maintained their prior trend. The mechanism could be reversed. Ms. Munnell notes that “a decline in the stock market should create a substantial increase in pension contributions.” If so, this could exacerbate the downward cycle of stock prices as well by depressing corporate earnings.

In short, the politicians’ efforts to create the security of assured fixed pensions may have created a giant engine for instability in the financial markets. Making corporate profits significantly dependent on the level of stock prices greatly increases the uncertainties of saving and investing for retirement or any other purpose.

Outlook

Recent tax initiatives strongly suggest that in the future many of the tax advantages of pension plans will be diminished, if not eliminated altogether. Probably more important, employers are increasingly aware of how costly administering such plans has become and of how constraining regulations can be during times of financial volatility. The disincentives created by such laws are often predictable but are rarely given much weight by advocates of Government regulation. While the laws advantage certain targeted interests, their eventual costs to society can be large and their consequences unexpectedly far-reaching. The Government's "solution" to unintended consequences is usually further regulation, but whether the voluntary private pension system can remain viable in the face of increasing regulation is open to serious question.

Government-Sponsored Pension Plans

Government-sponsored pension plans for public employees are distinct from private-sector pensions primarily because governments at the Federal, state, and local levels do not operate under the same legal and financial constraints as do private businesses. Private-sector pensions are funded either by design or law, but public plans are not subject to funding regulations, and political pressures make voluntary funding unlikely. At the same time, generous pension benefits are a particularly attractive alternative to direct wage compensation, because they require no immediate expenditure of tax revenue. Consequently, public employees generally receive better pensions than their counterparts in private industry. When benefits eventually fall due, the government's ability to finance such benefits is, unlike the private sector's, limited only by its ability to raise taxes and borrow money. Because the incentives to grant generous benefits are so strong, and the incentives (both political and legal) to finance them so weak, public-sector pensions are very generous and very poorly funded.

Federal Pensions

At the Federal level, the largest pension program is the Civil Service Retirement System (CSRS). The CSRS covers over 4 million current and past employees and pays $23 billion annually in benefits. Its liabilities — the present discounted value of all benefits owed to past and present employees — total $537 billion. The program is partly financed with contributions from Government employees, who pay 7 percent of their salaries to the pension fund, and who probably feel they are merely getting back what they paid in. Yet
these contributions are insufficient to cover more than 20 percent of current benefit outlays, let alone prefund these same employees' own future pension benefits. The system is, like Social Security, financed on a pay-as-you-go basis. The remaining cost is funded with taxpayer dollars. The unfunded liability of future benefits will eventually be paid for with revenue from future generations of taxpayers.

The actual cost of the CSRS program is suggested by the Government's own estimate of the burden of these promised benefits. It estimates that if the CSRS liability were to be prefunded on a 40-year amortized basis (as private-sector plans are required to be), the annual cost would equal 85 percent of the civil service payroll.*

The Military Retirement System (MRS) is the second largest retirement program, with a liability of over $444.3 billion. This liability is completely unfunded, and although it will not fall due all at once, eventually it will have to be paid — out of general tax revenue. Since no prefunding of benefits is required, their actual cost is distorted, and partly because of this distortion the MRS provides retirement benefits more generous than any private plan offers. Full retirement is available after only 20 years of service, with benefits equal to 50 percent of final pay. Twenty-five percent of military personnel retire in their thirties, and thus may collect benefits for 40 years or more. As a consequence, military pension costs have increased from the equivalent of 13 percent of the total active duty payroll in 1970 to 57 percent today.

As the cost of Federal pensions grows with the size of the public workforce, the pressure to finance these payments through Government-sponsored inflating will increase. This will hurt virtually all retirees dependent on fixed-dollar retirement income. But it will not substantially reduce the real burden of these payments, since many public pension plans, including both the MRS and CSRS plans, pay benefits that are fully indexed to price inflation. Thus, their real cost cannot be inflated away over the years — indeed, the fiscal burden they will impose will itself be inflationary.

* State and Local Pensions

Unlike the Federal Government, state and local governments must balance their budgets (states and localities cannot create “money” by monetizing debt), and thus are limited in their capacity to finance

pension benefits by running deficits and borrowing money. Nevertheless, these plans are not subject to Federal pension regulation, and the degree of funding can vary greatly, from fully funded to pay-as-you-go. Some governments have adequately funded their pensions only after skyrocketing benefit liabilities threatened fiscal disaster (as in the case of New York City in 1974). Other states and localities are paying the price of poorly designed pension plans, spending larger amounts of tax dollars on benefits, leaving less to provide for essential services. As government at all levels continues to grow, so will the burden of these pension liabilities. Ironically, part of the tremendous increase in the number of state and local employees, from 3 million in 1945 to over 13 million in 1985, is no doubt due to the understatement of the actual costs that public pension laws promote.

Plans that are funded face another danger: state and local governments often are tempted to invest pension funds in ways that may not be in the best interest of pensioners. (The Federal Government would likely follow suit, had it any funds to invest.) Public pensions are exempt from Federal pension laws requiring prudent fiduciary management and investment of funds; consequently funds can be used to finance "socially responsible" projects that may earn below-market returns. The New York State pension fund is an example: officials recently announced that $100 million of pension fund money would be used to finance small business loans "at below market interest rates." This may appear to be a no-cost way of helping businesses that fail to qualify for loans elsewhere, but the lower return (and higher default rates) on fund investments will simply require greater tax revenues to finance pension commitments.

Reform Is Unlikely

Public "enterprise," which is least bound by the laws of the market and limited only by Government's ability to raise taxes (and print money), would seem to be the likeliest candidate for pension regulation. Yet the main body of pension law pertains to private, not public, industry. Attempts to reform public pensions invariably meet great resistance and, at the Federal level, have always failed. Even as increasing regulation of private plans threatens to make them impractical, failure to control public plans promises to leave current and future generations with a tremendous debt, for services rendered years ago. This debt almost surely will not only add to the tax burden at all levels of government, but also contribute to inflationary government spending. The resulting loss of value of the dollar will especially affect those dependent on fixed incomes, and make retirement planning for private citizens increasingly difficult.
V.
“INFLATION” AND RETIREMENT PLANNING

The primary goal of retirement planning is to provide an adequate standard of living for individuals during a period of life in which they may have neither the energy nor the ability to support themselves by continued paid employment. Prudent planning is best done some years ahead of the expected date of retirement, and must allow for the possibility that the retirement period may continue for many years. A comfortable retirement requires long-term planning, and like all long-term planning it is particularly sensitive to changes in the purchasing power of the currency or currencies in which retirement income is denominated. To estimate accurately in advance the amount of funds one will need in retirement, one would have to be able to predict with some certainty the future value of the dollar.

Unfortunately, the national policy of continuous inflating over the last 55 years has made such predictions difficult, if not impossible. Since 1970 the purchasing power of the dollar has fallen dramatically. There was a 50 percent loss in purchasing power of the dollar during the 10 years ended in 1979, followed by a further loss of 20 percent during just the 2 years 1980 and 1981. Today it takes one dollar to buy what 34 cents bought in 1970, and what 16 cents bought in 1945.

The loss of the dollar’s purchasing power did not begin with the 1970’s; it simply accelerated then to rates that aroused great concern. The fact is that inflating has been a key feature of U.S. economic policy since the depression of the 1930’s. High employment (low unemployment) and rapid economic growth were the stated economic goals, but the method used to achieve those goals was to attempt to stimulate demand through Federal deficits and rapid rates of increase in the “money supply.” And that is precisely what inflating is: the creation of too much “money” for the volume of newly produced goods and services available to be purchased. Price inflation, that is an increase in the general level of prices or a loss in general purchasing power of the dollar, is just one effect of monetary inflating.

Among the many other detrimental effects of inflating are: (1) distortions of the real sectors of the economy as the excess purchasing media, or money, flow in unsteady streams through the channels of trade and industry; (2) heightened volatility of securities and commodities markets as the excess purchasing media flowing through the financial markets rush to and fro as market traders assess the pros-
pects of the volatile real sectors; and (3) wide swings in foreign-currency exchange rates and international trade and financial flows.

A complete discussion of the many other equally harmful effects of inflating is available in other Institute publications.* For the present discussion, the most important point is that in our view inflating is not likely to be stopped soon in the United States, notwithstanding the promises of elected officials to do so and the reduced rate of price inflation since 1982. Inflating enables politicians to appear to be able to enact Government spending programs for the benefit of special interest groups without having to exact equal tribute from the producers of the Nation in the form of higher taxes. In reality, the spending is paid for through the harmful effects of inflating, including a loss in the purchasing power of the dollar. When these effects begin to alarm the general public, the politicians must convince the public that inflating will be stopped, or their “game” would be up. For this reason, politicians talk a good deal about ending inflating, and from time to time they even must engineer a “recession.” But as soon as public confidence is restored, they return to their inflationary ways. Inflating has continued this way for decades, but the trend has been toward acceleration over the years (it should be noted that the “subdued” 4 to 5 percent annual rates of price inflation of recent years are much higher than during the 1950’s, 1960’s, or early 1970’s).

During the 47 years through 1987 shown in Chart 4, the annual rate of loss in purchasing power of the dollar has averaged 4.6 percent. At that rate the dollar loses half of its value every 12 years. During the 10 years ending 1987, the average annual rate of loss in purchasing power was 6.0 percent, a rate that would halve the dollar’s purchasing power about every 9 years. In the last 6 years the rate of price inflation has been lower, but historical evidence indicates that periods of moderate price inflation usually are followed by periods of acceleration (see boxed areas of the chart). In short, over the long run the dollar is likely to continue to lose purchasing power so long as the Government has the power to finance spending by creating money.

The Effects of Inflating on Retirement Income

The adverse effects of inflating have been particularly damaging to those concerned with retirement planning. To the usual uncertainties

associated with planning for the future, prospective retirees must add uncertainty over the purchasing power of their retirement dollars. The fixed-dollar benefits traditionally provided by many pension plans and annuities are the most susceptible to a loss of the dollar's purchasing power; on the other hand, investments promising a variable-dollar return do not assure a steady source of income either.

Even Social Security benefits, which for most Americans will constitute a substantial part of retirement income, are not immune to the effects of inflating. Social Security benefits have so far kept pace with, and indeed outpaced, the rate of price inflation, because they are adjusted each year by a cost-of-living-adjustment (COLA). However, these increased benefits have not been costless. They have been paid for with higher Social Security payroll taxes. In addition, it has
WILL THE STOCK MARKET CRASH FOMENT DEFLATION?

A number of analysts, especially the so-called "Wave Theorists," have asserted that the stock market crash of 1987 will inevitably lead to depression and deflation, as they say the stock market crash of 1929 led to the depression and deflation of the 1930's. In our view, such analysis seriously misrepresents the "causes" of the Great Depression, which lay in the inflationary excesses of the period between 1914 and 1929. More important, it ignores the principal differences in the characteristics of "money" and in borrower-creditor relationships then and now. Simply put, in 1929 a dollar was "as good as gold" and borrowers were expected to make good on their debts. When creditors forced borrowers to liquidate their assets en masse, supply for those assets exceeded demand and prices fell (i.e., a classic deflation occurred). In contrast, today a dollar is a paper I.O.U.-nothing that can be created out of thin air at the whim of the Government and is as good only as the market's confidence in it. Debtors are "bailed out" with such money creations by all manner of inflationary Government interventions. In these circumstances, a classic deflation involving a massive banking collapse seems only a very remote possibility.

Indeed, despite the numerous bank failures that have occurred recently as a result of imprudent lending to domestic and foreign creditors, the banking system as a whole remains sound. The net aggregate financial positions both of commercial banks and thrift institutions actually have improved somewhat even as the number of failures has reached record levels. The aggregate equity capital and total capital ratios of U.S. commercial banks (expressed as a percent of liabilities) have increased recently, as has net income as a percent of average equity capital. Similarly, the net worth and ratio of assets to liabilities of U.S. thrift institutions also have improved, and net after-tax income as a percent of average assets has trended upward since 1981. What this indicates is that there is a small proportion

become an annual ritual in Washington to consider eliminating or reducing the COLA, and future increases in benefits may not keep pace with the dollar's loss of purchasing power as well as past increases have. Finally, the earnings limit above which benefits are subject to income tax ($25,000 for single taxpayers, $32,000 for married couples) has not been indexed, and will consequently decrease in real, inflation-adjusted terms as price inflation continues. Simple "bracket creep" will push more and more people over this limit, and their Social Security benefits will effectively be cut.

Private Pensions

Employees and retirees covered by defined-benefit pension plans, which provide monthly fixed-dollar benefits, have been particularly hurt by the decline in the dollar's purchasing power. Many such plans do not provide cost-of-living increases for post-retirement benefits.
of very "sick" banks and thrifts, but that, overall, the financial strength of most depository institutions has been relatively unaffected by the various "crises" (energy, real estate, farm, oil, Third World debt, etc.) that have received the most media attention.

The Government's response to the banking "crisis" so far suggests that any future bank troubles will contribute to more inflating rather than a deflation. Time after time, wherever large amounts of bank credit have been needed to forestall a major failure, that credit has been extended regardless of its inflationary consequences.

Equally important, officials now are again faced with the choice of defending the dollar or continuing to inflate. With fears of a recession heightened by the stock market debacle of this fall and a Presidential election coming up, officials may be all too willing to "forget" the dollar for the time being, especially if its lower value promises to foster an improvement in the trade balance, thereby stimulating laggard industries.

In our view, the probability is greater that any forthcoming "depression" (if one were to occur) would result in accelerating price inflation — perhaps hyperinflation — rather than a deflation. Conventional economic theory holds that depression and deflation are "two sides of the same coin" and that depression and "inflation" are impossible. Yet if a nation's international credit collapses at the same time that officials continue to "pump up" the domestic money supply, as has happened in many Third World nations recently, this is precisely what occurs. Today much of the Third World is in depression, but in no Third World country has deflation occurred. Rather, countries throughout Latin America and Africa are faced with massive, often hyperinflationary, deterioration of their currencies' purchasing power.

As yet, it is by no means inevitable that a similar hyperinflationary depression will occur in the United States, as a few analysts have asserted. But the chances that future economic reverses will tend to be inflationary would seem far to exceed the possibility that they will be deflationary.

The resulting losses can be substantial: for example, an unindexed benefit of $1,000 loses a third of its purchasing power after 10 years of "moderate" 4 percent price inflation. Some plans may provide ad hoc cost-of-living increases in post-retirement benefits, but they are not required to do so. In fact, during the rapid price inflation of the late 1970's and early 1980's, median pension income fell in real, inflation-adjusted dollars.

Inflationary trends also affect benefits accrued prior to retirement. Benefits determined according to an employee's average salary earned over all of a worker's years of service will not fully reflect inflationary increases in the nominal wage base; only a benefit formula that uses the employee's final salary alone as the basis for determining the benefit will fully reflect the buying power of accrued benefits, which still are subject to subsequent losses of purchasing power.
In addition, employees who change jobs frequently will experience a loss in the real value of benefits, even those based on final salary, because benefits are not indexed during the time between leaving the job and retiring. For instance, $100 of vested benefits earned upon leaving a job at age 40 will, assuming a 5 percent annual “inflation rate,” be worth only $28 when actually paid to the beneficiary at age 65.

Defined-benefit pension plans thus are ill-suited to an economy dependent on a currency that no longer serves as a store of value. Such plans evolved decades ago when the dollar tended to lose only a relatively small amount of its purchasing power over periods of 10 or 20 years. Accelerated price inflation has since undermined their value, while increasing Government regulation has added to their administrative costs. Consequently, employers now more frequently offer defined-contribution plans.

In contrast to defined-benefit plans, defined-contribution plans (which include 401(k)s and profit-sharing plans) provide benefits that ultimately depend on the value of a retirement account to which an employer has made regular contributions. The fixed benefit provided by a defined-benefit plan is not tied to the pension fund’s performance, and the employer sponsoring the plan bears the risk of the fund’s investment return; if the fund earns an added “inflation premium,” this is not passed on to the employee, but in effect goes to the employer, who can use it to reduce his actual annual contribution to the pension fund. The benefit provided by a defined-contribution plan varies with the value of the pension fund; the employee bears the risk of the plan’s investment performance, reaping the rewards of a high return, suffering the loss of a low return. If the invested funds have earned a high return, the benefit will be correspondingly large.

Insofar as these plans pass on directly to the beneficiaries any “inflation premium” earned on the funds, they provide greater protection against losses in the dollar’s buying power than do defined-benefit plans. They also continue to accrue interest earnings in the years between leaving a job and actual retirement. However, such pension funds are no more likely to “beat inflation” than any other investment account, and whether monetary inflating adversely affects the value of a defined-contribution fund depends on whether price inflation reduces the real return on the fund below what it would have been had the dollar’s value been maintained.

Upon the employee’s retirement, some employers may use the value of the defined-contribution plan to purchase a dollar annuity
for the employee. Such an annuity will be subject to the same loss of purchasing power during the post-retirement years as any other fixed-dollar benefit. Fortunately, many employers give the employee the option of taking a lump-sum cash payment upon retirement. A lump-sum payment not only provides maximum liquidity, but allows the employee the greatest freedom to invest the money as he or she sees fit.

**Personal Savings**

Decisions on how to invest lump-sum payments, or other funds, for retirement purposes have been badly muddled by the effects of inflating. It is ironic that even as the percentage of elderly people in this country approaches new high levels, the absence of a stable currency deprives most persons of the opportunity to make long-term financial investments capable of providing a steady future income with constant buying power. The buying power provided by even the "safest" long-term investment is now uncertain; other investments may promise a higher return more likely to keep pace with price inflation, but they also carry a higher investment risk and thus provide little security.

As one economist has observed: "Our financial system ought to serve both investors who want to earn maximum returns (and are willing to take substantial risks) and holders of reasonably safe assets who view their saving largely as deferred consumption. The latter are not accommodated during inflation; we thereby lose 'savers' surplus.' Inflation creates in this way an unhappy division of savers into 'sharpies' and 'suckers,' if I may borrow some nontechnical terminology. The former make sophisticated choices and often reap gains on inflation which do not seem to reflect any real contribution to economic growth. On the other hand, the unsophisticated saver who is merely preparing for the proverbial rainy day becomes a sucker."*

The very uncertainty that makes long-term investing so difficult in an inflationary era makes it more important than ever that individuals and families supplement Social Security and pension benefits with personal savings. The Social Security retirement program is unlikely to provide more generous benefits in the future than it does now, and already it is inadequate for many. Pension benefits are susceptible to losses of purchasing power and the volatility of financial markets. To insure the highest standard of living and maximum inde-

pendence during the retirement years, individuals should consider their retirement needs, as well as other financial goals, when developing a broader program of personal investment. Some of the investment opportunities available expressly for retirement planning, and in particular the special tax laws applied to them, are discussed in the next chapter.
VI.

PERSONAL RETIREMENT SAVINGS

Many individuals are not covered by any of the pension plans described in Chapters III and IV, or will receive benefits too small to meet their financial needs in retirement. Social Security alone provides only a minimum level of income, even for workers entitled to the maximum benefit. Most retirees who wish to maintain their pre-retirement standard of living and enjoy the financial independence to pursue lifetime interests after their working years thus must plan to supplement Social Security and pension benefits with personal savings. In particular, because the long-term buying power of the dollar is so uncertain, a personal retirement investment plan should strive to provide a constant level of purchasing power during retirement.*

A primary investment vehicle currently available to retirement planners is the Individual Retirement Account (IRA). Introduced as part of the Employee Retirement Income Security Act of 1974, the IRA was intended to provide working people not covered by pension plans with the opportunity to accumulate retirement savings under the same favorable tax conditions enjoyed by pension plans. Contributions to such accounts initially were deductible from taxable earnings, up to a limit of $1,500 or 15 percent of compensation, whichever was less. The tax on interest earnings was deferred until funds were withdrawn from the account. The 1981 Economic Recovery Tax Act broadened the eligibility rules for IRAs, allowing all workers, not just those without pension coverage, to make tax-free contributions to IRAs. The contribution limit was raised to the lesser of $2,000 or 100 percent of earned income. Spousal IRAs also were introduced. These enabled a married worker (filing a joint return) to establish a separate “spousal IRA” for a nonworking spouse. The maximum combined annual contribution to both accounts was set at the lesser of $2,250 or 100 percent of earnings, divided between accounts in any way so long as not more than $2,000 are deposited in one IRA.

The 1986 Tax Reform Act, however, restricted eligibility for the tax deductibility of IRA contributions. For workers covered by employer-sponsored retirement plans, the deduction has been elimi-

* Social Security benefits currently are adjusted for the cost of living, but most other conventional sources of retirement income, such as savings deposits and dollar annuities, are not.
nated or reduced to less than $2,000 for those with higher incomes. Table 6 describes by earnings level, tax-filing status, and pension plan coverage, the tax treatment that applies to IRA contributions.

Individuals who are not eligible to deduct any part of their IRA contribution from taxable income still may make nondeductible contributions, with total contributions not to exceed $2,000. (Non-deductible contributions are not subject to regular income tax when withdrawn from the account, as are deductible contributions.) Interest earned on all contributions, both deductible and nondeductible, is tax deferred until withdrawn from the account.

An exception to the $2,000 contribution limit is made for "roll-overs" (i.e., when funds withdrawn from one retirement account are deposited in another) of lump-sum distributions from pension plans. There is no limit on the amount that may be rolled over into an IRA, but it must be done within 60 days of receiving the lump-sum payment. One IRA may be rolled over into another, with the added restriction that a distribution from any one IRA may be rolled over only once each year. Required distributions received from IRAs after age 70½ may not be rolled over.

The deductibility of contributions and tax-deferred accrual of interest earnings make IRAs a very attractive investment vehicle for savings. To encourage the use of IRAs for retirement savings only, rather than for short-term savings, and to insure that IRA funds actually are drawn upon for retirement income and not simply used to build up tax-sheltered legacies, certain restrictions apply to the use of IRA funds. Unlike some pension plan accounts and annuities, IRAs may not be used as collateral on loans, and borrowing from an IRA is prohibited. Tax penalties are imposed for the withdrawal of IRA funds before age 59½ and for failure to withdraw funds according to IRA schedules later in life.

An IRA withdrawal before age 59½ is subject to a 10 percent penalty tax on the premature distribution, in addition to regular income tax. (Exceptions to this rule are noted in the section on tax treatment of pensions in Chapter III.) Between ages 59½ and 70½ there is no penalty for either contributions or withdrawals. However, after age 70½, no further contributions may be made (except for lump-sum distributions from company pension plans) and the individual must begin receiving minimum annual distributions from the IRA, with the required minimum determined according to IRS actuarial schedules.* Failure to make the minimum distribution results in a 50 percent penalty tax on the required amount not actually distributed.
Advantages and Disadvantages of IRAs

The reduced liquidity of the IRA before age 59½ may be a substantial disadvantage in times of financial distress. However, it must be balanced against the substantial added benefits provided by favorable tax treatment of contributions and interest earned on the account. The higher one's tax bracket and the higher the interest rate earned, the sooner the extra financial gains from tax-free contributions and interest earnings will offset any penalty tax incurred should early withdrawal become necessary. At current interest rates (roughly 7 to 9 percent) it takes anywhere from 6 to 13 years before the total after-tax and after-penalty value of an IRA, after early withdrawal, exceeds the after-tax value of a regular savings account earning an identical return. If there is a good chance one will need to make an early withdrawal of a substantial portion of the account within the first few years, it is wiser to choose a more liquid type of savings account. If only small early withdrawals are made earlier than that, the net benefits can still outweigh the penalties, primarily because of the tax-free treatment of contributions. If contributions are not tax deductible, the advantages of the IRA are reduced considerably, and only the added benefits from deferred taxation of interest earnings remain to offset reduced liquidity and any penalty for early withdrawal. In this case, a non-IRA investment may prove to be a better investment alternative, involving fewer restrictions on the use of funds but allowing tax-free accrual of interest earnings.

Of course, as one approaches 59½, the restrictions on the use of IRA funds become a less important, and finally irrelevant, concern. As illustrated in Table 7, for those who must withdraw funds early, the penalties are severe; but for those who can leave the IRA untouched until age 59½, the additional savings can be substantial. In our example, the value of a $1,000 tax-deductible contribution to an IRA, earning 7 percent interest, is compared with the value of $1,000 first subject to income tax, with the remainder invested in a non-IRA investment also earning 7 percent interest. In the 15 percent tax bracket, an IRA investment would yield a return 28 percent greater than a non-IRA investment; and in the 33 percent bracket it would yield an impressive 73 percent higher return — after 25 years $1,529 more per $1,000 invested.

* The minimum distribution may be based on the individual's life expectancy or on the joint and survivor life expectancy of the individual and a designated beneficiary. For more information on this, see IRS Publication 930, "Required Distributions from IRAs," and, for more general information, IRS Publication 590, "IRAs."
### Table 6
ELIGIBILITY FOR TAX DEDUCTION OF IRA CONTRIBUTION

<table>
<thead>
<tr>
<th>Filing Status</th>
<th>Pension Coverage Status*</th>
<th>$0-$10</th>
<th>$10-$25</th>
<th>$25-$35</th>
<th>$35-$40</th>
<th>$40-$50</th>
<th>$50+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married, filing joint return</td>
<td>One or both spouses covered</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Partial**</td>
<td>No Deduction</td>
</tr>
<tr>
<td></td>
<td>Neither covered</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
</tr>
<tr>
<td>Married, filing separate returns</td>
<td>You are covered</td>
<td>Partial**</td>
<td>No Deduction</td>
<td>No Deduction</td>
<td>No Deduction</td>
<td>No Deduction</td>
<td>Deduction</td>
</tr>
<tr>
<td></td>
<td>You are not covered</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
</tr>
<tr>
<td>Single, or Head of Household</td>
<td>Covered</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Partial**</td>
<td>No Deduction</td>
<td>No Deduction</td>
<td>Deduction</td>
</tr>
<tr>
<td></td>
<td>Not covered</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
<td>Full Deduction</td>
</tr>
</tbody>
</table>

The Full Deduction is: $2,000 per spouse, for a married couple, filing jointly, with both spouses working; $2,250 per couple, for a married couple, filing jointly, with only one spouse working (a spousal IRA must be established); and $2,000 per single person, head of household, or married person filing separate return.

* For tax purposes, an employee is considered to be "covered" if he is eligible to participate in a pension plan, regardless of whether he elects to participate. The W-2 form will indicate if one is covered. Receipt of Social Security or pension benefits from a former employer does not constitute "coverage."

† Adjusted Gross Income (AGI) includes wages, interest earnings, and annuity income; it does not include deductible IRA contributions.

** To determine the partial deduction, if eligible, use the following calculation:
1. Determine the excess of AGI over $25,000 (for singles), $40,000 (for married couples filing jointly), or zero (for married persons filing separately), using whichever figure applies.
2. Subtract this excess amount from $10,000.
3. Multiply the result by .20 (or .225, for a spousal IRA).
4. Round the result up to the nearest $10 multiple.

For example, for a married couple filing a joint return, with both spouses working, one spouse covered by a pension plan, and total AGI of $44,000, the excess over $40,000 is $4,000. Subtracting this excess from $10,000 leaves $6,000. $6,000 multiplied by .20 equals $1,200.

Thus, each spouse is entitled to a $1,200 maximum tax deduction on IRA contributions.

Note: There is a $200 floor on maximum partial deductions. That is, if the above calculations indicate one qualifies for a partial deduction of less than $200 (but greater than zero), the deductible limit is increased to $200.
Table 7
VALUE OF $1,000 INVESTED IN AN IRA ACCOUNT AND IN A NON-IRA INVESTMENT ACCOUNT*

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-Tax Value</th>
<th>IRA Account</th>
<th>Non-IRA Account</th>
<th>Non-IRA Account Initial Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Effective Tax Rate</td>
<td>Effective Tax Rate</td>
<td>Effective Tax Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15% 28% 33%</td>
<td>25% 38% 43%</td>
<td>15% 28% 33%</td>
</tr>
<tr>
<td>1</td>
<td>$1,070</td>
<td>$ 910 $ 770 $ 717</td>
<td>$ 803 $ 663 $ 610</td>
<td>$ 901 $ 756 $ 701</td>
</tr>
<tr>
<td>5</td>
<td>1,403</td>
<td>1,192 1,010 940</td>
<td>1,052 870 799</td>
<td>1,135 921 843</td>
</tr>
<tr>
<td>10</td>
<td>1,967</td>
<td>1,672 1,416 1,318</td>
<td>1,475 1,220 1,121</td>
<td>1,515 1,177 1,060</td>
</tr>
<tr>
<td>15</td>
<td>2,759</td>
<td>2,345 1,986 1,849</td>
<td>2,069 1,711 1,573</td>
<td>2,023 1,505 1,332</td>
</tr>
<tr>
<td>20</td>
<td>3,870</td>
<td>3,289 2,786 2,593</td>
<td>2,902 2,399 2,206</td>
<td>2,700 1,925 1,676</td>
</tr>
<tr>
<td>25</td>
<td>5,427</td>
<td>4,613 3,908 3,636</td>
<td>4,071 3,365 3,094</td>
<td>3,605 2,462 2,107</td>
</tr>
</tbody>
</table>

* A 7 percent annual return is assumed on all investments.  † Including 10 percent penalty.

Note: Figures based on assumption that no additional contributions are made after initial contribution, and interest is left to accrue in account.
Many banks, savings and loan associations, brokerage firms, and credit unions offer IRA investment programs. These are technically "trust" or "custodial" accounts with the bank (or broker, etc.) serving as the trustee or custodian. Insurance companies offer qualified IRA annuities, which are flexible-premium deferred annuities that are treated for tax purposes like any other IRA.* Before establishing any account, the investor should review carefully the terms of the agreement, including any broker fees and restrictions on the investment of funds. Broker fees should be paid separately so that they will not be deducted from, or considered a part of, the IRA contribution itself. To qualify for favorable tax treatment, all contributions must be made by April 15th following the tax year to which they are to be credited.

IRA funds may be invested by their trustee or custodian in a wide range of programs, from long- and short-term fixed-income investments (such as bonds or certificates of deposit) to common stocks or mutual funds. The individual may have greater or lesser control over the type of investment, depending on the terms of the account. Tax laws do not restrict the direct transfer of funds from one IRA to another, and thus allow the investor considerable flexibility in switching accounts. If done properly (competent advice should be obtained beforehand), such a transfer is not considered a rollover, and there is no limit on how many times a year it can be done. However, transfers of funds may be limited by the trustee, depending on the terms of the agreement, so it is important to review these terms carefully beforehand.

Investors who wish to retain maximum control over their investment can bypass the traditional IRA and set up a "self-directed" IRA through a bank (or broker). This type of account retains the bank as trustee or custodian, but allows the investor to select the types of investments for the fund.† The Treasury provides model trust and model custodial account forms that satisfy all IRS requirements for such an account. IRA accounts currently held in other forms can be converted to self-directed accounts with no tax penalty. Such a conversion must meet certain requirements to escape taxation, and should be done with care.

* For more information on annuities, and qualified IRA annuities, see our booklet, "Annuities From the Buyer's Point of View," price $6.

† Self-directed IRAs may not be invested in collectibles, such as antiques, gems, metals, stamps, guns, or alcoholic beverages.
Protecting Against Price Inflation

Most traditional IRA investment programs offered by financial institutions do not reflect sound investment policy in an inflationary era; they are concentrated in dollar investments that may or may not retain their buying power in the long run. While such dollar investments have done well in recent years, as price inflation has slowed, their real rates of return during periods of accelerated price inflation have been inadequate. Unfortunately, there is no investment that provides full security against the effects of price inflation. The Government's policy of monetary inflating has put even the "safest" investments at risk.

However, a self-directed IRA affords at least some opportunity for an investment program more likely to provide a stable source of purchasing power over the years. For example, such an IRA might be diversified into nondollar investments, including gold and foreign-currency denominated investments.

It is beyond the scope of this booklet to present a detailed account of such a program, in part because retirement planning represents but one element of an individual's financial concerns.* However, note that the extent to which IRAs can be diversified into nondollar investments is limited. Due to changes contained in the 1986 tax law, investors may now hold U.S.-minted gold and silver coins in IRAs. However, since gold produces no interest earnings, the tax-deferral benefit of IRAs is lost on them, as it is on any investment that does not produce taxable interest earnings. Gold-based securities or stocks, however, do provide interest or dividends, and these might be considered. The availability of foreign-currency denominated investments (for example, Swiss franc annuities) for IRAs is limited, not by law but because it is difficult to find an IRA trustee to handle such investments. Despite these limitations, self-directed IRAs allow the investor greater flexibility in choosing investments that, as part of a larger personal investment plan, provide greater protection against price inflation than most institutionally managed IRAs are likely to provide.

For those who wish to enjoy a comfortable standard of living dur-

* For those unfamiliar with the fundamentals of investing to preserve real wealth, AIER's wholly owned investment advisory, American Investment Services, Inc. (AIS) issues a monthly Investment Guide, available from AIS, Great Barrington, MA 01230 for $42 per year. The Guide provides guidance to investors of modest and large means to help them preserve the value of their wealth during these volatile financial times.
ing their retirement years, the importance of understanding the retire-
ment system cannot be overemphasized. Those individuals who are
content with vague notions that Social Security and pension benefits
alone will provide for them in their later years are likely to be disap-
pointed. The Social Security system is far from robust, and ultimate-
ly depends on demographic trends that, as presently projected, fore-
bode a program less and less able to meet the needs of growing num-
bers of older Americans. Pension benefits will provide adequate retire-
ment income for some, but those covered by such plans should have
a clear understanding of what their plan does and does not provide,
about the requirements for earning a vested right to benefits, and
about the likely buying power of those benefits during retirement.
Most individuals will find personal savings a highly desirable, if not
absolutely necessary, supplement to any expected benefits. IRAs are
the most obvious savings instrument available, but changes in the tax
laws have reduced their attractiveness, and indeed the amount of sav-
ings that can be invested in them has fallen in real terms since they
were introduced in 1974.* The retirement planner must look beyond
IRAs, and focus on developing an investment program that aims to
provide a steady flow of purchasing power throughout the retirement
years.

Alternatives to the IRA

For those who do not qualify for tax-deductible IRA contribu-
tions, a number of investment alternatives provide a tax-favored
method of accumulating savings for retirement. Even those who do
qualify for IRA deductions may find such alternatives useful for sav-
ings in excess of the $2,000 IRA maximum annual contribution. Two
of the most attractive alternatives are deferred annuities and single
premium life insurance.†

Deferred Annuities

A deferred annuity is one in which payments to the annuitant do
not begin until at least 1 year, and usually many years, after the an-
nuity premium has been paid. As mentioned earlier, insurance com-
panies offer deferred annuities that qualify as IRAs. The premium
payment on such “qualified” annuities is treated as an IRA contribu-
tion, and is tax deductible for eligible investors. However, insurance

* The $2,000 limit on contributions, set in 1981, is today worth only $1,660 in
constant, 1981 dollars.
† For a much more detailed discussion of these, see our publications, “Annuities
from the Buyer’s Point of View,” and “Life Insurance from the Buyer’s Point of
View,” price: $6 each.
companies also offer "non-IRA" deferred annuities that do not qualify for the deduction of premium payments, but do allow interest earnings to accumulate tax free until distributions begin. These annuities are available to any investor and there is no legal limit on the amount one may invest in them.

Deferred annuities may be purchased with a single premium or through a series of installment premiums. Installment premiums may be fixed or flexible in amount. A flexible-premium deferred annuity has no requirement that a specific premium be paid in any given year.

The lifetime of a deferred annuity is divided into two periods. During the first, the "accumulation" period, no payments are made to the annuitant, and the annuity account is invested to earn interest. When the contract matures (at a time specified in the contract), the accumulation period ends and the second period, the "payout" period, begins. At this time the annuitant has a choice of cashing out the value of the annuity in one lump sum or converting it into a series of lifetime income payments.

The accumulation period is of greatest concern to the investor saving for future retirement; the payout period is of most concern to those who have already accumulated their savings, and are concerned with using them to provide a steady stream of income during the retirement years. The option of cashing out the annuity upon maturity is very significant, since annuities that provide the most favorable returns during the accumulation period may not provide the highest annuity income during the payout period, and vice versa. Obviously, a deferred annuity that provides the most favorable terms during both periods is ideal, but the prospective investor should consider that different annuities for each period may be optimal.

During the accumulation period the annuitant may elect to cancel the contract and receive a cash-surrender value as stipulated in the contract. The cash-surrender value is what remains after surrender charges have been deducted from the accumulation value. In general, if the annuity is cashed in before the specified maturity date, the cash-surrender value is less than the "accumulation value" advertised by insurance companies. Surrender charges are levied in order to discourage premature cash-ins, and usually are highest during the first few years of the contract. Typically they decline over time and disappear after about 7 years. The surrender charge usually is a percentage of the face value of the annuity, and may range anywhere from 5 to 20 percent. Annuities that carry very high surrender charges or retain them for many years should be avoided, unless they offer particu-
larly high returns and the annuitant is unlikely to cash in the policy prematurely.

Other features of deferred annuities further limit their value as a short-term investment. Partial withdrawals often are restricted in number or size. Loans usually are permitted, but are treated by the Internal Revenue Service as cash withdrawals. This is an important distinction, because any cash withdrawals of accumulated earnings made before age 59½ are subject to a 10 percent penalty tax, in addition to regular income tax. (The tax applies only to withdrawals of interest earnings.) This tax is similar to that levied on IRA withdrawals and is subject to similar exceptions and makes the deferred annuity a very illiquid investment for those who cannot be reasonably certain of being able to leave invested funds untouched until age 59½.

For those who can invest with that assurance, deferred annuities offer the opportunity to earn a higher return than that offered by short-term investments. They offer a guaranteed minimum rate (typically about 4 percent), and recently most have paid a variable rate well above that minimum — between 9 and 11 percent. The net return, after administrative charges and surrender charges have been assessed, can vary widely, and only the investor can weigh the potential return against the various restrictions of the policy, and decide which features are most important for his or her investment goals. A survey in the January 1988 issue of Consumer Reports, which evaluated the performance of 90 annuities during their accumulation and payout periods, may be a useful guide for those who wish to explore this alternative further.*

Life Insurance

Single-premium whole life insurance (SPWL) contracts offer investors with substantial sums to set aside for retirement many of the same features as the deferred annuity. With the SPWL, a single, non-deductible premium payment buys a specific amount of life insurance, and the premium earns interest at a rate that will not be less than a guaranteed minimum specified in the policy. Income tax on interest earnings is deferred until withdrawals are made against the cash value of the policy, and if the policy is never surrendered, but paid as a death benefit, no tax is ever paid.

Under the SPWL contract, the single premium is large enough to keep the face amount of insurance in force for the whole life of the

* Back issues of Consumer Reports are available for $4 each from: Back Issue Department, Consumer Reports, P. O. Box 2485, Boulder, Colorado 80322.

70
insured without the policyholder ever having to remit another premium payment. In relation to the total premium, the investment element is the overwhelmingly dominant part of the contract at the outset. The company thus has a large pool of funds to invest and to earn a return. The internal cash values associated with the policy thus can accumulate quite rapidly because of the compounding of interest and the tax-deferred status of those internal buildups.

Not all of the internal cash buildup is available to the policyholder as a cash-surrender value or policy-loan value at the outset, however. In one form or another, the company will apply charges to the premium or to the internal values until it recoups its expenses and takes its initial profit “markup.” The greater part of the charges often is in the form of a hefty charge upon surrender and during the contract's early years only. This discourages surrenders, and it better assures the company that it will have the funds to “manage” a longer period. Over that period the company then can recoup its costs and make its profit from the difference between the yield it earns on its portfolio and the lower rate it credits to internal cash values. No identified charge is necessary.

In practice, surrender charges on SPWL contracts are similar to those imposed on deferred annuities, and reduce the cash value of the contract during the earlier years of the policy. However, SPWL policies offer a unique advantage: they allow investors to borrow against the increase in the cash value (the “buildup”) of the policy, with no tax penalty for early withdrawals. These “loans” do not have to be repaid, ever, and the interest charged on them usually is the same rate at which the policy earns interest (some insurers advertise these as “no interest” loans). No income taxes are paid on such loans as long as the policy remains in effect. However, if the policy is cashed in (as would be likely if it is maintained primarily for its investment value rather than for its insurance value), taxes become due on all amounts received as loans (and the cash-in value is reduced by the amount of any outstanding loans).

The SPWL contract is being heavily marketed at this time as an attractive investment vehicle primarily because of two factors: (1) the guaranteed rates at which the investment element is credited are high in relation to shorter term saving and investment vehicles and (2) available tax advantages can make the return on the investment even more favorable on an after-tax basis. The death benefit is treated as a “bonus”: if the policyholder-insured should die prematurely and thus not benefit from the high investment return, his estate would benefit from the life insurance proceeds.
Since the early 1980's, interest rates in general have decreased sharply, and short-term rates have fallen much more than long-term rates. Indeed, whereas in the early 1980's short-term rates on safe investments (Treasury bills and bank time deposits and certificates of deposit, for example) were higher than on safe long-term investments (Treasury bonds and high-grade corporate bonds, for example), more recently the relationship has been the reverse. One-year Treasury bill rates are about 6.75 percent and long-term Treasury bond rates about 8.75 percent as this is being written.

Investors holding maturing higher yielding instruments they obtained when interest rates were higher now face the alternative of either accepting a much lower return on a shorter-term instrument or of putting their funds into longer-term instruments currently yielding more than the short but subject to two big risks. The big risks of "safe" longer-term fixed-rate dollar assets are a currency risk and an interest rate risk. If price inflation again accelerates sharply, the long-term fixed-rate investor will receive back dollars with much less buying power than those invested. He could incur an absolute loss in buying power even if the nominal-dollar return now seems comparatively high. Or if price inflation accelerates again, nominal interest rates probably will rise sharply, which will reduce the market price of fixed-interest long-term instruments. Again, the long-term investor could lose. He would lose if he were to sell his then-lower-yielding asset at the reduced market price or if he were to hold it and miss the opportunity to earn more.

These conditions give the SPWL contract particular investment appeal. Life insurance companies hold mainly long-term assets, so the yield they will receive on new funds invested will be closer to the present higher long-term rates and they can promise those longer rates (reduced by the companies’ "cut") on longer contracts. Moreover, SPWL offers a way around the currency and interest rate risks for the accumulations (and possibly part of the principal) invested in such contracts. The SPWL policyholder can reduce his long-term investment by taking a policy loan at low rates of interest (from 0 to 3 percent) and reinvesting the proceeds at the higher rates that would be available if price inflation and nominal interest rates increase again. Of course this is not possible until the loan and cash values have built up. So during the first few years the policyholder bears the currency and interest rate risks, but afterward the insurance company bears those risks.
The Tax Advantages of SPWL

The tax-free inside buildup of cash values is a genuine advantage to SPWL contracts. Although the gain on the “investment” in an SPWL contract would be taxed as ordinary income (not as a capital gain) in the year a policyholder would take the surrender value, the tax would be totally avoided if the policy never is surrendered and the death benefit is paid when the insured dies.

But what if the policyholder wants to take out some of the funds invested in the contract? Partial surrenders are not possible with whole life policies. The invested funds represented by the cash values (which never include the entire amount of the premium) can be withdrawn partially or totally in the form of policy loans, and those loans do not have to be repaid – ever. Of course the death benefit of the contract is reduced from the face amount by any policy loans outstanding. And as mentioned above, many SPWL contracts require the payment of interest on outstanding policy loans, in the form of either remitted funds or reductions to the cash values of the policy. A policy loan thus is not the same as a withdrawal of funds from a savings account or the sale of a security.

The attractiveness of an SPWL contract as an investment is heavily dependent on the overall financial plan of the prospective buyer, including his tax status and attitude toward investments. Higher tax-bracket people, the primary group targeted for SPWL sales, should consult their tax advisors and financial planners about the advisability of buying such a contract as an investment.
VII.
ESTIMATING YOUR
RETIREMENT SAVINGS REQUIREMENTS

Even though there are many years to plan for it, saving for retirement apparently catches many people "off guard." Some people no doubt are persuaded that Social Security benefits will be adequate to meet their needs and so do not bother to formulate a systematic savings plan. Others who do not trouble to do so until the last few years before retiring often find the amounts involved overwhelming, and are forced to reduce their standard of living drastically once they leave the workforce. Even many of those who believe they have planned prudently years in advance of retirement discover too late that, as a result of price inflation and unexpected expenses, their estimates of the assets they need for retirement were woefully short of the mark.

Unfortunately, there is no foolproof way to ascertain exactly how much of your present and future earnings must be set aside to fund a particular standard of living in retirement. As the foregoing chapters ought to have made clear, the future purchasing power of the dollar is highly uncertain, as is the purchasing power of future Social Security benefits, public and private pension payments, and most forms of personal savings.

Even so, at least some estimate of retirement savings requirements, even if it is only a rough one, seems preferable to remaining completely "in the dark" about how much you should plan to set aside for use in later years. We describe briefly here how a systematic savings plan, begun at a given age, can be designed to fund a specific retirement income.

Table 8 shows the estimated portion of equivalent retirement income provided by Social Security, pensions, and personal assets and earnings for a number of preretirement income levels. Column (1) in that table shows gross preretirement income reflecting the expected average gross income of the 10 years before retirement (if you have many working years ahead, this amount obviously must be based on assumptions about your future earning power; if you are nearing retirement, however, you probably can make a reasonable "educated guess" about what your income will be in the near future). Column (2) shows estimated replacement rates (to provide an additional "cushion," we have increased these rates slightly above the estimated rates provided by Social Security cited on page 9). Column (3) shows
Table 8
ESTIMATE OF SAVINGS NEEDED TO FUND EQUIVALENT RETIREMENT INCOME AT SELECTED INCOME LEVELS

<table>
<thead>
<tr>
<th>Gross Preretirement Income</th>
<th>Replacement Rate</th>
<th>Equivalent Retirement Income</th>
<th>Amount Provided By:</th>
<th>Unadjusted Assets Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,000</td>
<td>0.71</td>
<td>10,650</td>
<td>Social Security</td>
<td>$6,923</td>
</tr>
<tr>
<td>20,000</td>
<td>0.66</td>
<td>13,200</td>
<td>Pensions</td>
<td>$1,065</td>
</tr>
<tr>
<td>25,000</td>
<td>0.65</td>
<td>16,250</td>
<td>Earnings and Assets</td>
<td>$2,130</td>
</tr>
<tr>
<td>30,000</td>
<td>0.64</td>
<td>19,200</td>
<td></td>
<td>$3,694</td>
</tr>
<tr>
<td>35,000</td>
<td>0.63</td>
<td>22,050</td>
<td></td>
<td>$5,850</td>
</tr>
<tr>
<td>40,000</td>
<td>0.62</td>
<td>24,800</td>
<td></td>
<td>$7,872</td>
</tr>
<tr>
<td>45,000</td>
<td>0.61</td>
<td>27,450</td>
<td></td>
<td>$9,702</td>
</tr>
<tr>
<td>50,000</td>
<td>0.60</td>
<td>30,000</td>
<td></td>
<td>$13,800</td>
</tr>
</tbody>
</table>

the equivalent retirement income (the product of (1) and (2)) that is needed for each income level.

Columns (4), (5), and (6) in Table 8 give estimates based on the aggregate experiences of all Social Security retirement beneficiaries of the amount of retirement income that will come from Social Security, pensions, and personal earnings and assets. It should be noted that these amounts represent only average experience and that each individual’s circumstances will be different. We have provided these estimates only as a rough illustration of what many current retirees have experienced, and they may be of some use if no other information is available. However, it is up to you to estimate as accurately as possible sources of your own income based on your individual situation. If you are in your later working years, you should calculate your Social Security PIA using the booklet “Estimating Your Social Security Check Using the ‘Indexing’ Method” (see page 18). If you participate in a fixed-benefit pension plan, you may be able to receive a reasonably accurate estimate of pension income from your employer.

For our purposes here, however, the amounts shown in columns (6) and (7) are most pertinent. Column (6) shows the remainder after Social Security and pension payments have been deducted from the equivalent retirement income amounts shown in column (3). The amounts in column (6) thus show income that must come from either savings or retirement earnings. In this discussion we assume that the entire amount is from savings. (Although many of the “active elderly” want to keep a hand in a business or profession, many other retirees are incapable of active work. From the standpoint of
financial security, it is prudent not to depend on active earnings in retirement.)

Column (7), on the other hand, shows the total amount of assets needed to provide the income flow shown in column (6). For the sake of illustration, we have used the amount that would be required to purchase a straight-life dollar annuity (from the lowest-cost company listed in the 1987 edition of our booklet "Annuities from the Buyer's Point of View") that would yield the income shown in column (6). That annuity yielded $11.42 monthly per $1,000 invested. Thus, to calculate the amount needed to fund a given income flow:

(a) divide the amount in column (6) by 12 (to get the monthly income amount); (b) divide the quotient obtained from step (a) by 11.42; and (c) multiply the result in step (b) by 1,000. [Example: to fund the annual income flow of $2,130 shown in the top line of column (6) in Table 8, a) $2,130/12 = $177.50; b) $177.50/11.42 = 15.543; c) 15.543 × 1,000 = $15,543.] Note that we have labeled column (7) "unadjusted assets needed." These are the amounts that would provide the income flows shown in today's dollars: they do not address the problem of determining how many dollars would be required to provide the equivalent purchasing power at some future date.

In order to estimate the amount of funds required to provide the same purchasing power at some future time, an adjustment must be made for price inflation. That is, if, say, the dollar can be expected to lose half or two-thirds of its purchasing power between now and the time you expect to retire, then you must save proportionally more in order to offset that loss. Although no one can predict what future rates of price inflation actually will be, in Table 9 we provide several alternative "inflation factors" that can be used to adjust the asset amounts in column (7) of Table 8. For example, if one assumes that the "inflation rate" will average 4 percent over the remaining working years, then the unadjusted assets amounts in Table 8 should be multiplied by the appropriate "inflation factor" in Table 9. Thus, assuming 4 percent "inflation," a 40 year old with a retirement savings requirement of $92,141 in today's dollars (gross preretirement income of $45,000) would need to save $92,141 × 2.666, or $245,648 by the time of retirement. If it is assumed that price inflation will average only 3 percent per year, then the amount would be "only" $192,943, but if 5 percent, it would be $311,989.

To repeat, although recently rates of price inflation have fallen within this 3-5 percent range, there is no guarantee that they will remain there. Rather, in our view there is a greater likelihood that at
### Table 9

**"INFLATION" ADJUSTMENT, DISCOUNT, AND ANNUAL SAVINGS FACTORS**

<table>
<thead>
<tr>
<th>Age</th>
<th>(5%)</th>
<th>(4%)</th>
<th>(3%)</th>
<th>Discount Factor</th>
<th>Annual Savings Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>4.322</td>
<td>3.243</td>
<td>2.427</td>
<td>0.013</td>
<td>0.057 0.042 0.032</td>
</tr>
<tr>
<td>36</td>
<td>4.116</td>
<td>3.119</td>
<td>2.357</td>
<td>0.014</td>
<td>0.058 0.044 0.033</td>
</tr>
<tr>
<td>37</td>
<td>3.920</td>
<td>2.999</td>
<td>2.288</td>
<td>0.015</td>
<td>0.059 0.045 0.034</td>
</tr>
<tr>
<td>38</td>
<td>3.733</td>
<td>2.883</td>
<td>2.221</td>
<td>0.016</td>
<td>0.060 0.046 0.036</td>
</tr>
<tr>
<td>39</td>
<td>3.556</td>
<td>2.772</td>
<td>2.157</td>
<td>0.017</td>
<td>0.061 0.048 0.037</td>
</tr>
<tr>
<td>40</td>
<td>3.386</td>
<td>2.666</td>
<td>2.094</td>
<td>0.019</td>
<td>0.063 0.049 0.039</td>
</tr>
<tr>
<td>41</td>
<td>3.225</td>
<td>2.563</td>
<td>2.033</td>
<td>0.020</td>
<td>0.064 0.051 0.041</td>
</tr>
<tr>
<td>42</td>
<td>3.072</td>
<td>2.465</td>
<td>1.974</td>
<td>0.021</td>
<td>0.066 0.053 0.042</td>
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<tr>
<td>43</td>
<td>2.925</td>
<td>2.370</td>
<td>1.916</td>
<td>0.023</td>
<td>0.068 0.055 0.044</td>
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<tr>
<td>44</td>
<td>2.786</td>
<td>2.279</td>
<td>1.860</td>
<td>0.025</td>
<td>0.070 0.057 0.047</td>
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<tr>
<td>45</td>
<td>2.653</td>
<td>2.191</td>
<td>1.806</td>
<td>0.027</td>
<td>0.072 0.060 0.049</td>
</tr>
<tr>
<td>46</td>
<td>2.527</td>
<td>2.107</td>
<td>1.754</td>
<td>0.030</td>
<td>0.075 0.062 0.052</td>
</tr>
<tr>
<td>47</td>
<td>2.407</td>
<td>2.026</td>
<td>1.702</td>
<td>0.032</td>
<td>0.077 0.065 0.055</td>
</tr>
<tr>
<td>48</td>
<td>2.292</td>
<td>1.948</td>
<td>1.653</td>
<td>0.035</td>
<td>0.080 0.068 0.058</td>
</tr>
<tr>
<td>49</td>
<td>2.183</td>
<td>1.873</td>
<td>1.605</td>
<td>0.038</td>
<td>0.084 0.072 0.062</td>
</tr>
<tr>
<td>50</td>
<td>2.079</td>
<td>1.801</td>
<td>1.558</td>
<td>0.042</td>
<td>0.088 0.076 0.066</td>
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<tr>
<td>51</td>
<td>1.980</td>
<td>1.732</td>
<td>1.513</td>
<td>0.047</td>
<td>0.092 0.081 0.071</td>
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<tr>
<td>52</td>
<td>1.886</td>
<td>1.665</td>
<td>1.469</td>
<td>0.052</td>
<td>0.098 0.086 0.076</td>
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<tr>
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<td>1.601</td>
<td>1.426</td>
<td>0.058</td>
<td>0.104 0.093 0.082</td>
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<tr>
<td>54</td>
<td>1.710</td>
<td>1.539</td>
<td>1.384</td>
<td>0.065</td>
<td>0.111 0.100 0.090</td>
</tr>
<tr>
<td>55</td>
<td>1.629</td>
<td>1.480</td>
<td>1.344</td>
<td>0.074</td>
<td>0.120 0.109 0.099</td>
</tr>
<tr>
<td>56</td>
<td>1.551</td>
<td>1.423</td>
<td>1.305</td>
<td>0.084</td>
<td>0.131 0.120 0.110</td>
</tr>
<tr>
<td>57</td>
<td>1.477</td>
<td>1.369</td>
<td>1.267</td>
<td>0.098</td>
<td>0.144 0.133 0.124</td>
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<tr>
<td>58</td>
<td>1.407</td>
<td>1.316</td>
<td>1.230</td>
<td>0.115</td>
<td>0.161 0.151 0.141</td>
</tr>
<tr>
<td>59</td>
<td>1.340</td>
<td>1.265</td>
<td>1.194</td>
<td>0.138</td>
<td>0.184 0.174 0.164</td>
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<tr>
<td>60</td>
<td>1.276</td>
<td>1.217</td>
<td>1.159</td>
<td>0.170</td>
<td>0.217 0.207 0.197</td>
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<td>1.170</td>
<td>1.126</td>
<td>0.218</td>
<td>0.265 0.255 0.246</td>
</tr>
<tr>
<td>62</td>
<td>1.158</td>
<td>1.125</td>
<td>1.093</td>
<td>0.299</td>
<td>0.346 0.337 0.327</td>
</tr>
<tr>
<td>63</td>
<td>1.103</td>
<td>1.082</td>
<td>1.061</td>
<td>0.461</td>
<td>0.509 0.499 0.489</td>
</tr>
<tr>
<td>64</td>
<td>1.050</td>
<td>1.040</td>
<td>1.030</td>
<td>0.948</td>
<td>0.995 0.986 0.976</td>
</tr>
<tr>
<td>65</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000 1.000 1.000</td>
</tr>
</tbody>
</table>
Worksheet

Part A

TOTAL PERSONAL SAVINGS NEEDED FOR RETIREMENT

A  Estimated Gross Preretirement Income ..........................................................

B  Replacement Rate (Table 8, Column 2) ..........................................................

C  Equivalent Retirement Income (line A × line B) ..............................................

D  Estimated Annual Income from Social Security (PIA × 12)* ............................

E  Estimated Annual Pension Income (if any) .......................................................  

F  Estimated Annual Income Needed from Savings (line C - line D - line E) .........

G  Estimated Unadjusted Total Personal Savings Needed (line F ÷ 12 ÷ 11.42 × 1,000)†

* From "Estimating Your Social Security Check Using the 'Indexing' Method," available from your local Social Security office.

† The figure 11.42 in this formula represents the highest monthly return currently available on $1,000 invested in a dollar annuity, and will vary somewhat from year to year as investment prospects change. Estimated annuity returns therefore should be reviewed periodically and savings requirements adjusted accordingly. A useful source in this respect is A. M. Best's *Retirement Income Guide*, which is issued annually and is available in many public libraries.
### Part B

**ESTIMATED REQUIRED ANNUAL SAVINGS**

<table>
<thead>
<tr>
<th>Age when Saving Begins</th>
<th>Unadjusted Savings from line G</th>
<th>Savings Factor (%) from Table 9</th>
<th>Annual Savings Requirement (line G x Savings Factor)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>79</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*We have provided space here for you to enter a number of estimates based on different assumptions respecting your income, the age when you begin saving, “inflation” rates, etc.*
some point the rate of the dollar’s depreciation will accelerate, perhaps very sharply. We provide these illustrations only to alert readers to the losses that they can expect to suffer even if rates of price inflation remain roughly at present levels.

In order to convert the inflation-adjusted required savings into a systematic savings plan, in the last four columns of Table 9 we have provided the discount and savings factors that give the amounts that must be saved annually if the retirement program is to be fully funded. We assume a 5.5 percent annual return on savings. Thus, for our earlier example, the unadjusted savings requirement of $92,141 is multiplied by a discount factor of .019, which gives $1,751 in today’s dollars as the amount that must be saved each year. To adjust for expected price inflation, the unadjusted savings requirement ($92,141) is multiplied by one of the annual savings factors given in the last three columns of Table 9. If one assumes that price inflation will average 4 percent per year, then, $92,141 × .049 yields an annual savings amount of $4,514, or about $375 monthly.

To recapitulate, annual savings are calculated by multiplying your estimate of unadjusted assets needed to provide adequate retirement income (Table 8, column (7)) by the appropriate annual savings factor from one of the three right-hand columns in Table 9. The worksheet provided on pages 78 and 79 may be useful for making the required calculations.
Appendix

SWINDLING AMERICA'S MIDDLE CLASS

The vast majority of Americans, including most elected representatives of both parties, seem to regard Social Security as an almost universal good. Insofar as the public and the politicians have perceived problems with Social Security, these have generally been narrow fiscal ones: how to ensure the solvency of its trust funds; how to fund annual cash flows; how to determine benefits; at what levels to set employer and employee tax rates; etc.

President Reagan learned early that attacks on Social Security (proposing reductions or making participation voluntary) are extraordinarily unpopular from a political standpoint. He soon changed his tune, and vowed that no circumstance could convince him to try to dismantle Social Security. Indeed, he made its preservation a major theme of his 1984 reelection campaign. In this campaign season, virtually all the remaining candidates have pledged full support for the system.

Such widespread support for Social Security, especially from middle-income groups, evidently derives from a number of generally held beliefs: that its “safety net” features provide an indispensable source of protection against life’s uncertainties, especially in today’s unpredictable labor and financial markets; that, through the forced savings of withholding taxes, it enforces prudence in an otherwise spendthrift society; and, perhaps most important, that overall it is a “good deal” not only for the poor or the distressed, but also for the backbone of society, America’s middle class. Indeed, middle-class Social Security entitlements now constitute by far the largest expenditure category of the Federal Government. In FY 1988, 42 cents of every Federal tax dollar will go for direct benefit payments to individuals (as compared with only 29 cents for national defense).

Probably few would question the usefulness of providing a general fund that can be used to provide benefits for the genuinely needy. But if they were aware of the havoc that Social Security has wreaked on the savings of middle-income America — and of the enormous personal losses and financial insecurity that the system fosters over the long run — we suspect that even fewer people would endorse Social Security as a means of providing retirement income.

The Most Massive Fraud in History?

The plain fact is that, as a retirement program, Social Security must rank as one of the most massive swindles in history. We have written elsewhere about the fundamental flaws in its retirement
benefit program, i.e., that like a classic "Ponzi" scheme it does not incorporate a plan for accumulating assets sufficient to pay the benefits promised, but rather pays them out of workers' current earnings — and that it has promised more and more even though the proportion of beneficiaries to workers will increase dramatically during the coming decades. And we have observed that as a consequence, although the present generation of Social Security beneficiaries is receiving benefits far in excess of what their "contributions" would fund, future generations will get less, perhaps much less.*

So far as we are aware, however, neither we nor anyone else has troubled before now to estimate the potential magnitude of the personal losses that will accrue to the next generation of Social Security retirees.

On pages 84 and 85 we provide a single illustration of just how devastating Social Security could be to the financial interests of a representative middle-income worker now in the prime working years. The table projects what a 40 year old (with a wife and child) who began working at age 22 and "contributed" the maximum amounts to Social Security throughout his working years might have accumulated toward retirement if, instead of paying Social Security taxes, he had been allowed to use the funds to purchase amounts of private life and disability insurance equivalent to Social Security’s working-years benefits and to invest the remainder of the funds for use in the later years.†

In the table, we first computed the gross tax (in current dollars) payable to Social Security each year (column 5) from the maximum taxable income amounts (column 3) and combined employer-employee tax rates (column 4). We then calculated the yearly current-dollar value of Social Security’s survivors’ and disability benefits as determined by the estimated cost of purchasing private life and disability insurance whose amounts would provide income equivalent to Social Security benefits (columns 6 and 7).** The benefit equivalent

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† In our illustration, it is assumed that husband and wife are the same age, and that their child was born when they were 30 years of age. The table lists taxes, value of benefits, etc., through age 66, since full benefits will be payable to them only at age 67.
** Our estimates for life insurance substantially overestimate the value of Social Security’s survivors’ benefits, since we calculated equivalent values on the basis of face amounts of insurance that would yield interest income equivalent to Social Security benefit income. This procedure would leave the principal amounts available for use after the Social Security benefit period expires.
amounts in columns 6 and 7 then were subtracted from the gross tax amount in column 5 to give the net tax amount for each year (column 8).

Assuming that the net tax each year was available to invest, we calculated in column 9 the amounts to which such an investment left to accumulate at interest would have accrued by the time of retirement (see the column notes for interest assumptions). The "bottom line" in the table — almost three-quarters of a million dollars — indicates the total of funds (in today's dollars) that would be available from Social Security taxes for the retirement years.

*Not a "Good Deal"

How does that amount compare to what Social Security currently promises in retirement benefits? Not well at all. In 1987, a male aged 67 with $730,927 to spend could purchase a straight life annuity from the Baltimore Life Insurance Company (the lowest-cost company) that provided a comfortable monthly income of $8,712 — or $104,551 per year. In contrast, Social Security's maximum retirement benefit, which almost no one gets, in 1987 was $1,380 — or $16,560 per year — and the equivalent principal amount needed to purchase an annuity yielding $1,380 per month is $115,772. Of course, the "bottom line" will be different for each individual. But in our illustration Social Security promises benefits worth $615,155 less than could be obtained through prudent investment in private financial markets. Such losses would seem to be at least in the range of what millions of middle-income Americans now in their prime working years can expect to suffer.

Although it often is described by such terms as "intergenerational transfers" or "income shifting," very simply, this is grand theft. The prospect is that in the coming decades hundreds of thousands of dollars of millions of individual workers' funds will "slip through the cracks" before they reach retirement age. No doubt in many cases the missing funds could mean the difference between comfort and penury. Plainly, superior market alternatives to the larcenous Social Security retirement program are available to America's workers — but only if the system is changed to allow people the chance to take advantage of them.
## WHAT YOUR SOCIAL SECURITY TAXES COULD BE WORTH

<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>Maximum Taxable Income</th>
<th>Combined Employer-Employee Tax Rate</th>
<th>Gross Tax</th>
<th>Survivors' Benefits Equivalent Value</th>
<th>Disability Benefits Equivalent Value</th>
<th>Net Tax</th>
<th>Accrued Values at Retirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>22</td>
<td>$7,800</td>
<td>0.0960</td>
<td>$748.80</td>
<td>0</td>
<td>0</td>
<td>$748.80</td>
<td>$12,575.38</td>
</tr>
<tr>
<td>71</td>
<td>23</td>
<td>7,800</td>
<td>0.1040</td>
<td>811.20</td>
<td>0</td>
<td>0</td>
<td>811.20</td>
<td>12,977.15</td>
</tr>
<tr>
<td>72</td>
<td>24</td>
<td>9,000</td>
<td>0.1040</td>
<td>936.00</td>
<td>0</td>
<td>0</td>
<td>936.00</td>
<td>14,313.38</td>
</tr>
<tr>
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<td>0</td>
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<tr>
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<td>26</td>
<td>13,200</td>
<td>0.1170</td>
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<td>19,883.66</td>
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<td>0.1170</td>
<td>1,930.50</td>
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<td>1,725.57</td>
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<td>30</td>
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<td>2,141.70</td>
<td>$205.38</td>
<td>247.51</td>
<td>1,688.81</td>
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<td>0.1226</td>
<td>2,807.54</td>
<td>205.09</td>
<td>258.60</td>
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Total. $730,926.70
Column Notes

(2) Full-time employment beginning at age 22 assumes the completion of a 4-year college degree program.

(3) Amounts in this column assume that earnings equaled or exceeded the maximum taxable to Social Security during the early years of employment, and that subsequent raises kept pace with the increases in the maximum taxable income. The reported average starting salary for 4-year college graduates in 1970 was about $725, or $8,700 annually. Holders of bachelor’s degrees in some technical fields had much higher starting salaries, e.g., chemical engineers, whose reported annual starting salaries in 1970 were over $10,824. See College Placement Council, Inc., CPC Salary Survey, A Study of Beginning Offers, and Statistical Abstract of the United States, 1975, p. 143.

Maximum taxable income after 1988 is assumed to remain at the present level ($45,000 in 1988 dollars). In fact, this assumption in all likelihood underestimates the amount of employee income that actually will be taxable to Social Security. Since 1970, the Social Security maximum taxable income has increased at twice the rate of price inflation. Moreover, current proposals to “make Social Security financially sound” would abolish limits on taxable income – that is, all wages and salaries would be taxed.

(4) Tax rates shown in this column are for the combined rate applied to employers and employees. As a fixed cost of employment, the employer tax is in effect an additional tax on wage and salary earners, who would otherwise enjoy it as income. It is assumed that the current tax rate (15.3 percent) will not be raised in the future. In fact, this seems highly unlikely. Several Social Security actuarial studies project increases in the combined tax rate to about 30 percent by the year 2030. Thus, the projection in column 4 may seriously underestimate actual future rates.

(5) Amounts shown are in current dollars. No adjustments have been made for price inflation after 1988, since it is assumed (perhaps erroneously if benefit increases lag behind the rate of price inflation) that future increases in Social Security costs and benefits will offset each other equally.

(6) This column estimates year-by-year the equivalent market value of Social Security’s survivors’ benefits, as determined by the estimated cost of purchasing an annual renewable term life insurance policy, the face amount of which would provide income to the
survivors equivalent to Social Security's benefits. For the purposes of this illustration, we have disregarded Social Security's "lump-sum death benefit," currently $255, since no comparable life insurance is available (the amount is too small to justify overhead costs of administering such a policy) and its actual equivalent worth, valued annually, is negligible.

For the sake of consistency, we have used approximate 1987 premium costs for a low-cost annual renewable term policy, as illustrated in our 1987 edition of "Life Insurance from the Buyer's Point of View," pp. 70-71, and have converted those amounts to current dollars for years prior to 1987. To illustrate, if the insured in our example had died in 1978 at age 30 leaving a wife and infant child, Social Security survivors' benefits would have provided income to the wife and child for the next 18 years (until the child turned 19) plus a widow's benefit presumably beginning at her age 62, since full retirement benefits do not commence until age 67 after 2011. The monthly survivor's benefit would have been about $950 beginning in 1978. To provide the same income (with a comfortable margin) and subsequent cost-of-living increases, as well as the widow's benefit between ages 62-66 (total value of about $46,000 in 1987 dollars) would have required a life insurance policy worth about $190,000 in 1978 dollars, or $324,000 in 1987 dollars. In 1987, the annual premium for a low-cost annual renewable term policy with a face amount of $324,000 for a preferred-risk male aged 30 was about $349, or, in terms of 1978 dollars, $205.38, which is the amount shown in the table.

Amounts for the years 1996-2014 are the costs of annual renewable term life insurance that would provide sufficient funds for the widow's benefit between ages 62-66 (the face amount of the insurance for years prior to 2008, when the widow is 60, are less than the amount required to fund her benefit income, since funds from a death benefit paid prior to that time would be left to accumulate interest).

(7) Amounts in this column are year-by-year estimates of the equivalent market value of Social Security's disability benefits, as determined by the cost of purchasing a disability insurance contract from a private insurer. The procedure followed is similar to that for estimating the value of survivors' benefits in column 6. As with term life insurance contracts, there is great variation in the costs of disability insurance (in our survey, policies with similar benefits differed as much as 2½ times in cost). Our estimates re-
flect premium costs for low-cost policies for a preferred-risk in-
sured. The market value of disability benefits for the first 3 work-
ing years is shown as zero, which reflects the required number of
quarters with reported earnings and the waiting period before dis-
ability benefits commence.

(8) The net tax amount is the gross tax amount shown in column 5
minus the sum of the equivalent values of survivors’ and disability
benefits shown in columns 6 and 7.

(9) This column shows the amounts to which the yearly net tax in
column 8 would have accrued if left on deposit to accumulate
interest compounded annually until retirement at age 67. For the
years 1970 through 1987, we used the annual average of our
composite of short-term interest rates; for the years 1988-2014,
we assumed an annual interest rate of 5.5 percent.

Note on the data: It should be kept in mind that the amounts for survivors’ and
disability benefits shown in the table must be considered only as rough estimates
at best. The unfortunate actuality is that precise figures for these benefits are im-
possible to obtain, largely because the process by which Social Security calculates
benefits is highly ambiguous. Depending on which Social Security source one
uses, and which formula is applied to a particular situation, several substantially
different results may be obtained for the same situation. We have tried repeat-
edly to obtain from the Social Security Administration reliable procedures for
estimating Social Security benefits, with no success. However, as Social Security
officials readily admit, the actual benefits paid to survivors and retirees almost
never reach the publicized maximum amounts (even if one has paid the max-
imum in Social Security taxes), and on average is much lower. For example, in
1984, the publicized maximum benefit payable to a worker retiring at age 65
was $703, but the average reported benefit was only $461. The amounts we have
used in calculating the equivalent values of maximum Social Security benefits,
which are based on the maximum benefit levels, are admittedly rough. However,
insofar as our estimates may be wide of the mark, the errors would tend to
overestimate the actual value of Social Security benefits.

Plainly, the yearly equivalent costs of life and disability insurance also will
vary greatly among individuals, depending on such factors as personal health
characteristics, number of dependents in the family, and so on. Likewise, the
gross and net tax amounts obviously depend on the years during which one earns
income. And the net tax amounts for a working couple would be much higher in
relation to benefits than is shown in the table. In short, the total accrual amount
shown on the “bottom line” of the table will vary greatly depending on indi-
vidual characteristics. Nevertheless, even allowing for individual differences —
and for the admitted imprecision of the estimating process — it seems apparent
that today’s middle-income earners in their prime working years can expect to
receive far less in return from their “investment” in Social Security than they
would receive from comparable investments made through private-sector finan-
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expenditures twenty shillings and sixpence—
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