AN APPROACH FOR SOLVING THE COMING FINANCIAL CRISIS IN SOCIAL SECURITY

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ABSTRACT

Although Social Security contributions have increased by 961-fold since its inception in 1938 (60-fold, even after adjusting for inflation), more retirees, longer life-expectancy, increased benefits, and relatively fewer FICA workers have offset these increases. The projected $560 billion in OASI taxes in 2004 will take care of this year's retirement payments, but demographic reality will result in outflows exceeding contributions by the year 2018 and a complete depletion of the Trust Fund by 2044. Bipartisan commissions have tried to avert the financial crisis by adjusting the policies and formulas, but the "fixes" have been compulsory and not fully effective and have been a disincentive for people who are otherwise compelled to participate. An average worker deferring retirement for one year is better off by $16,411 (considering net wages), and the government is better off by $22,343 for that year (with deferred payments and more taxes). These numbers create large incentive opportunities.

As a solution to the coming financial crisis we propose that the federal government offer upfront cash payments and other rewards for those who choose to defer retirement. Our models show that with only 7% of potential retirees accepting such incentives, the Social Security system would be preserved for an additional 8 years, and 14% would add nearly 20 years of financial viability.

INTRODUCTION

Beginning with the stock market crash of October 29, 1929, the nation's economy spiraled downward at astonishing speed. By 1933 business activity had dropped by 60% of normal, imports and exports had dropped by about 70%, wholesale prices dropped by about one third, the Dow-Jones Industrial average lost about 83% of its value, farm values dropped about one third from already depressed

levels, farm income fell by about 57%, and one fourth of the nation's workforce was unemployed (Faulkner, 1960). To this day it is still by far the greatest depression the nation (and the world) has ever experienced.

It was in these dire circumstances that President Franklin D. Roosevelt addressed the nation in a variety of formats (including his famous fireside chats,) and assured the country that steps were being taken to ensure that Americans would be free from such anxieties as insecurity, fear, and want. Soon afterward, details of the Social Security program were unveiled. The enabling legislation was passed by Congress in 1934 and signed into law in 1935. Payroll deductions began in 1937, and the first Social Security checks were sent to recipients in January, 1940 (SSA History, 2000).

AN EVOLUTION IN PROGRAM PROVISIONS

From its modest beginnings, the Social Security program has evolved significantly over the years. The original Act, for example, provided retirement benefits only to the worker, but a 1939 amendment added benefits for the spouse and minor children. This changed the program from an individual retirement program to a family-based economic security program (SSA History, 2000). Also, Social Security began as a voluntary program. In fact, only about 50 percent of America's workers were covered under the program in 1950 when amendments were enacted to make it a more universal program (SSA History, 2000).

Another evolution related to the fact that there was no provision in the original program for changes in the cost of living. The amount paid in the first month of retirement was the amount received each month for the remaining years of retirement. That was also changed in the 1950 amendment when a cost of living adjustment (COLA) was added to the plan, but increases needed to be approved by Congress. In 1972 the law was changed to make cost of living increases automatic based on the consumer price index (SSA History, 2000). To help pay for many added provisions, a 1983 amendment established the taxation of Social Security benefits to generate additional funds, and that funding source continues today (SSA History, 2000).

AN EXPANSION IN THE NUMBER OF PROGRAMS

Besides the many provisions that have expanded the characteristics of the original program, there have also been many Congressional amendments that have

added new programs to the scope of "social security." For example, from 1954 through 1958 disability components were added to the plan, and these features eventually covered both disabled workers and the dependents of disabled workers (SSA History, 2000). The most significant financial change in Social Security occurred in 1965 when Medicare was added to the program, and over 20 million beneficiaries enrolled in Medicare within the first three years (SSA History, 2000). In 1977, a newly created Health Care Financing Administration (HCFA) was given responsibility for administering the Medicare program, but funding for Medicare continues to come from FICA payroll contributions (SSA Report, 2004).

More recently, a Supplementary Medical Insurance (SMI) Trust Fund was established to pay for physician services, and the significant thing about this program is that the funding comes from the general fund of the Federal Government (which is a significant change in the tradition of keeping "social security funds" and "general funds" separate). And with the recent passage of the Prescription Drug Program, another commitment will be added for "social security" when it is activated in the year 2006. As with previous programs, the hundreds of billions of dollars in projected expenditures will add an even greater burden for the government and, consequently, the American taxpayers.

AN APPROACHING FINANCIAL CRISIS

As is often the case with government programs, size has increased significantly with time. It is always easier for politicians to promise more than to promise less. And so it has been with programs designed for "social security." In the approximately 65-year history of the social security programs, the worker contributions that were 1% of the first $1,400 in the late 1930s have evolved to where contributions by both employee and employer are now 15.3% of the first $87,900 (2004). So instead of a $14 "potential contribution" per year per participant, the "potential contribution" is now $13,449 or about 961 times greater. Even after being adjusted for inflation the "potential contribution" per employee is over 60 times greater than it was in the late 1930s.

Social Security benefits are, of course, more generous than they were in the early years and involve a greater percentage of the population, so the 60-fold increase in "real" payroll contributions is not sufficient to keep up with the future needs of the program. Although more than enough is being paid into the "retirement" trust fund to cover present needs, it is estimated that by the year 2018, outlays will begin to exceed payroll contributions. By 2029, outlays will begin to

exceed the combined amount of both payroll contributions and trust fund earnings, and the trust fund will begin to decline until it is fully depleted in the year 2044. At that point it is estimated that annual payments into the fund will only be 73% of annual benefits (SSA Report, 2004).

While the "retirement" aspects of the program are challenging enough, the "disability" and "medical" aspects of the program make it even more burdensome. It should be noted that of the payroll contribution of 15.3% made to FICA by employees and employers, only 10.6% is made for old age and survivor benefits (OASI). An additional 1.8% is added for Disability Insurance (DI) and 2.9% for Hospital Insurance (HI). While projections show the OASI fund being depleted by the year 2044, the disabilities fund (DI) will be exhausted in 2029. Likewise, expenditures in the HI program (that covers Medicare) will begin to exceed income in 2009, and the fund will be completely exhausted by the year 2019 (SSA Report, 2004). Obviously, something needs to be done.

SEARCHING FOR A SOLUTION

It is not the purpose of this paper to judge the merits of Social Security or to evaluate the social, philosophical, or political underpinnings of the overall program but merely to explore some financial realities and possibilities. The major culprit is, of course, demographics. The "baby boomers" who were born following World War II are approaching their retirement years, and those retiring will live much longer than people a generation or two ago. When Social Security was started, the official retirement age was 65, but those entering the work force were expected to live to about 65 years of age (SSA Online, 2004). Now those entering the work force are expected to live to about 80 years of age (SSA Online, 2004) and that dramatically increases the number of people covered by the program. At the same time, the birth rate is lower than it has been in past decades, so there are fewer people joining the work force to take care of those who are and will be retiring.

In evaluating the problem it has often been stated with mathematical simplicity that either (1) a greater amount of taxes need to be paid into the funds, and/or (2) more returns need to be earned on the trust fund investments, and /or (3) people need to retire at a later age, and/or (4) Social Security recipients need to be given less in benefits, and/or (5) fewer retirees need to receive benefits (i.e., through some form of means testing). Of course, significant opposition comes to the surface when any of these five considerations are discussed. So in analyzing the problems and the potential solutions, what do the experts have to say?

A REVIEW OF THE LITERATURE

There are few things that receive more written attention than the topic of Social Security because the trillions of dollar involved either do or will affect nearly all 290 million Americans. Internet searches, for example, can literally run into the millions of references. While most writers acknowledge that there is a coming financial crisis, there are some who downplay the situation. A recent Newsweek article described the so-called Social Security crisis as "just propaganda, spread by people determined to shake your faith in the government's most popular program" (Quinn, 2004).

Most scholars, however, describe the Social Security situation as very serious. An article in The American Economic Review, for example, emphatically states that "virtually everyone familiar with US Social Security financing understands that the system cannot pay currently legislated benefits for more than another three or four decades without significant, probably politically unacceptable, tax increases. Some analysts predict that the cash crunch will come substantially sooner than that [and] all reasonable measures of the system's finances lead to the same fundamental conclusion that the system's benefits and revenue sources must be significantly rebalanced" (Pozen, Schieber, and Shoven, 2004).

Another article in *The American Economic Review* states that "reforming Social Security to restore its financial balance is one of the most important public policy issues of the 21st century" (Clark, 2004). As to how to solve the approaching crisis, an article in the Harvard Business Review suggests that "the three main alternatives executives might choose to support are…1. increasing contributions to Social Security, 2. decreasing the growth of benefits for more-affluent workers, and 3. increasing investment returns on Social Security assets" (Pozen, 2002).

Another obvious way of balancing the fund—that of deferring the time of retirement—is not dealt with as much in the literature, but an article in International Tax and Public Finance deals with the possibility by showing how "early retirement seems to plague social security systems in a number of European countries [and] delaying retirement may have…positive effects…" (Cremer and Pestieau, 2003).

While much analysis in the academic literature is given to (1) increasing contributions, (2) deferring retirement, and/or (3) reducing retirement benefits, the greatest attention at present seems to focus on increasing the earnings of the Social Security trust funds. One advocate, for example, states that idle tax dollars need to be "earning money through investment [and Social Security needs to be] transformed into a privatized system. It is time the world's foremost market

economy put the market to work for the future of America and all Americans" (Blackwell, 2002).

An article in the *Journal of Asset Management* states that a solution must be achieved by "…gradually shifting from [the current approach] towards a system more like a traditionally funded one--common in the corporate world--under which pensions are funded by the capital accumulated through lifetime contributions, while maintaining the attractive defined benefit structure [but the system must] avoid individual accounts" (Modigliani and Muralidhar, 2003). In contrast, an article in The American Economic Review strongly states that "the optimal structure for Social Security involves a substantial individual-accounts component, even for highly risk-averse participants" (Nataraj and Shoven, 2003).

As implied by the references above, many of the current academic papers seem to embrace the concepts of private investments and free-enterprise economics to solve the problems, but there remains a question of how committed these proponents really are to the concepts of free-enterprise economics. For example, most of the literature is still "governmental" in orientation which means they are compulsory and bureaucratic. Also, there is a scarcity of "social security" literature that deals with motivation and incentives. One such exception is an article in The American Economic Review that suggests it is "…time to make creative use of insights from behavioral economics that have emerged over the years" (Shiller, 2003).

AN OVERVIEW OF THE FINANCIAL PARAMETERS

Having drawn on the insights of the academic literature, we turn our attention to the financial parameters of the "social security" programs. Looking first and foremost at Old Age and Survivors Insurance (and not the disability and medical programs), there were 154 million workers paying into the OASI fund in 2003 with payroll taxes totaling $456.1 billion (SSA Report, 2004). So, on average, each employee (along with the equivalent amount paid by the employer) contributed $2,962 during 2003. In addition, earnings on the Trust Fund and income taxes collected on FICA wages added an additional $569 per worker, so the equivalent contribution per worker was $3,531.

On the recipient side of the equation, there were 39.4 million people receiving OASI benefits, and the recipient benefits during 2003 total $406 billion (SSA Report, 2004). In other words, the average recipient received $10,305 per year or $859 per month. The fact that recipients each receive about three times the

amount that each worker puts into the fund is not a mathematical problem as long as there are more than three times as many workers in the workforce to provide the necessary contributions, but this will not be the case in future years.

Some have suggested that investing the trust funds in investments that provide greater returns will solve the problem, but even doubling the trust fund earnings will only add an equivalent of $488 per year per worker. So more income on the trust fund will not be the answer (although any such earnings will help). The answer must lie in one of the other three categories (more contributions, more working years, or fewer benefits).

ESTABLISHING A FOUNDATION OF THINKING

Before proceeding any further towards a possible solution, it is essential that we first establish a foundation from which an effective solution can emerge. After all, if solid thinking is established in one "ballpark" but it is the wrong "ballpark," then the optimal solution will not emerge. In the case of Social Security, that may be the problem of the past. May we suggest at the outset that free-enterprise-type incentives may be the solution. After all, we often talk of freedom and free-enterprise economics as being responsible for building the American economic miracle—probably the most prosperous country in the history of the world.

We have also watched many countries apply the same economic principles with similar results. A prime example is China which was an economically stagnant communist country having trouble feeding its own people. After several decades observing the United States growing at about 3.5% (Sharp, Register, and Grimes, 2002), it finally replaced its collectivist thinking with a "localized capitalism" a little more than a decade ago (although maintaining some controls at the central level); its population of 1.2 billion people have since been expanding at an impressive annual compound rate of 9.94% (Lee, 2003). But even with such dramatic evidences, there are still people who look toward government bureaucracy as the solution to problems rather than the natural incentives that come with a free-enterprise approach.

THE ROLE OF INCENTIVES

These observations are not to suggest that we abandon the Social Security program or government's involvement in it. But there are government programs that are run like "government programs" (typically with compulsion, lack of

incentives, and ineffectiveness) and there are government programs that are built on free-enterprise principles (with characteristics of personal choice, incentives, and efficiency). Among other things we need to keep in mind that economic incentives and disincentives work, and they work in both positive and negative things. For example, if we increase welfare benefits, we shouldn't be surprised when there are more people on welfare. Likewise, when we want businesses to create more jobs in economically depressed areas, tax incentives frequently induce entrepreneurs to do just that.

In the 1980s, when more jobs were needed in the American economy, the government established more lenient depreciation schedules (the Modified Accelerated Cost Recovery System) that preserved more cash in the businesses in the earlier years when the present value of money was higher, and the results were phenomenal. American businesses significantly increased their investments in new plants and equipment, and the economy went on a "tear" in job creation. Examples of incentives and disincentives that have worked in the past (both economic and non-economic) are shown in Table 1 below:

THE CURRENT SOCIAL SECURITY PLAN IN RELATIONSHIP TO INCENTIVES

Having summarized some common examples of economic and non-economic incentives, how has the Social Security program measured up to these incentives? In approximately the last twenty years, several committees and bipartisan commissions have dealt with the Social Security crisis, and new policies and formulas have been established to help with the problem. Generally these changes have required people (1) to pay more money into the system while they work, (2) to work more years before they retire, and (3) to receive fewer benefits when they do retire.

Other frequently-expressed concerns are that (1) social security trust funds have been continually placed in investments that yield lower returns than those achieved by professional pension managers and (2) the actuarial soundness that has been stated as an eventual goal has never been achieved. What is interesting about the situation is that the government regulates private investment funds to make sure they are (1) actuarially sound and (2) managed with a "prudent investment" mentality. If fund managers are guilty in either of these two categories, they can be forced out by government regulators or even charged with criminal neglect. And yet

some would argue that the government is the greatest violator of these two standards.

Table 1: Examples of the Impact of Incentives		
Primarily Economic:		
	Leading to positive results	**Leading to negative results**
Positive economic incentives (that give more money):	Increasing tax breaks to businesses creates jobs in central cities	Increasing welfare payments results in more people on welfare
Economic disincentives (that take away money):	Increasing fines reduces speeding in highway construction zones	Reducing welfare payments forces many mothers to leave their homes for jobs
Primarily Non-Economic:		
Positive non-economic incentives (that provide more "psychic" benefits):	Increasing patriotism brings more people into the military after Pearl Harbor	Glamorizing violence leads to more violence
Negative non-economic incentives (that take away "psychic" benefits):	Increasing jail time and other punishments reduce various types of crimes	Punishing people leads to bitterness and more undesirable behavior

Defenders of the Social Security program are quick to point out that it is not a typical insurance program but more of a "provider of last resort," and, in fact, the phrase "Social Security Insurance" is more likely to be referred to now by the shorter description of "Social Security." Social Security administrators have made occasional reference to the ultimate objective of achieving "actuarial soundness," but the program has never come close to accomplishing that goal.

Because of these real and/or perceived program deficiencies, there has emerged in recent years a widespread feeling among workers that many, especially those born from 1946 through 1964, will never see the full social security benefits that they have paid for in payroll deductions (TIAA, 2000). Do these examples demonstrate a model of free-enterprise incentives or a model of bureaucratic compulsion and lack of incentives? In Table 2, these realities have been plotted on the same grids that were shown in the previous table, and all are on the side that leads to negative results.

Table 2: Impact of Social Security policies under the current approach ("Structured Plan")		
Primarily Economic:		
	Leading to positive results	**Leading to negative results**
Positive economic incentives (that give more money):		
Economic disincentives (that take away money):		More FICA payments required Fewer benefits when retire Less return on investments
Primarily Non-Economic:		
Positive non-economic incentives (that provide more "psychic" benefits):		
Negative non-economic incentives (that take away "psychic" benefits):		Must work more years until retirement Perceived as unlikely that the benefits will ever be received

POTENTIAL INCENTIVES IN THE SOCIAL SECURITY PROGRAM

While many observers think of social security as a massive bureaucratic program, one would also be hard-pressed to find a program with more potential for free-enterprise incentives. As to the trust funds, for example, the invested funds have frequently earned less than the major stock markets have consistently averaged over the last several decades. While it might be difficult to consistently achieve the same success in Social Security, let us show the mathematics of such a possibility to illustrate the point. Suppose a worker earning $30,000 per year put 15% of his or her salary (including the employer's contribution) into Social Security for 40 years and earned 5% compounded annually, the accumulated funds at the end of the 40-year working career would be $543,600. If the worker had put the same contributions into a private pension fund that earned 10% (and actually it has been greater than that over the last 80 years), the accumulated funds at the end of 40 years

would have been $1,991,655. Under which plan is a better (and perhaps earlier) retirement provided for the recipient?

To further illustrate the power of free-enterprise incentives that potentially exist in the social security program, consider the positive impact that deferring retirement by one year has on both the worker and the government. If we consider a worker who earns $36,000 per year and has a taxable income of $30,000 per year, deferring retirement by one year will mean that the worker gives up about $12,597 in after-tax retirement benefits ($14,400 minus $1,803 in approximate taxes) but will have another $29,008 in net yearly earnings ($36,000 minus $2,754 in FICA and $4,238 in approximate income taxes). The net benefit to the worker in deferring retirement for a year will be $16,411.

As to the government, the benefit is even greater. When the same worker decides to work another year, the government saves $12,597 in retirement payments ($14,400 minus $1,803 in approximate taxes) but also receives another $9,746 in revenue ($5,508 in FICA and $4,238 in approximate income taxes). The net benefit to the government is $22,343. When an investment return on the trust fund is added, the benefit to the government is even greater. Since the government is coming out even better on the deal, couldn't a case be made for paying upfront cash incentives, even generous incentives, to entice potential retirees to defer retirement? And the government already does give higher retirement benefits to those who retire at a later time, so we see natural incentives that could be both added to the program and more strongly emphasized. Table 3, on the following page, shows how these incentives compare to the incentives (and disincentives) shown in the previous two tables. All are on the side leading to positive results.

APPLYING THE CONCEPT OF INCENTIVES

Mention has been made of bipartisan commissions that have been established (especially in the last 20 years) to recommend ways to strengthen the Social Security program. In consequence, many improvements have been made. One of the things that has been done right is the establishment of a "retirement schedule" where people have a variety of options in when and how they retire. They can take fewer benefits if they retire at an earlier age or receive greater benefits if they are willing to extend their working years. For example, a worker wishing to retire at age 62 will receive approximately 75% of full benefits (depending on the year of birth), whereas someone retiring at age 70 will receive about 125% of "normal benefits" (depending on the age of birth

Although on the right track, the problem with this "formula" is fivefold. First, it is not well communicated. Many workers, especially those approaching retirement age, are generally unaware of the options for taking early Social Security retirement or late Social Security retirement. In the official "status statements" that are now sent annually by the Social Security Administration to potential recipients (which began in October of 1999), there are three references to the amounts that recipients might expect under various retirement ages (and this is helpful information), but it certainly isn't a hard-hitting marketing campaign, and the breadth of possibilities is not adequately communicated.

Table 3: Impact of Social Security policies under the proposed approach ("Incentives Plan")

Primarily Economic:		
	Leading to positive results	**Leading to negative results**
Positive economic incentives (that give more money):	Upfront money (progressively increasing) if defer retirement More wages until retire More investment income being earned by the fund Higher benefits (progressively increasing) when retire	
Economic disincentives (that take away money):		
Primarily Non-Economic:		
Positive non-economic incentives (that provide more "psychic" benefits):	More likely to receive full benefits in the future America and Social Security will become stronger	
Negative non-economic incentives (that take away "psychic" benefits):		

The second problem with the options is that they are too complicated. The combination of retirement dates, birth dates, and other factors make it difficult for

the average recipient to comprehend. The third problem is that the numbers are stated primarily as percentages (which many people don't relate to) rather than being in "hard cold dollars." The fourth problem (and perhaps the biggest problem) is that the benefits to be received for delaying retirement are benefits that are deferred well into the future. The very nature of human beings is that they want their rewards now rather than later. That is why car dealers successfully sell cars with a "$2,000 cash back" even though the $2,000 comes out of the amount borrowed by the customers. The $2,000 is "now," but the repayment of the $2,000 is "far" into the future. As Americans we have not only become largely a "me" generation but a "now" generation.

A fifth problem is that nothing is said to appeal to people about their "sense of citizenship" or patriotism—about helping to solve the problem. The same generation that has retired in recent years is the generation that voluntarily signed up by the millions for military service following Pearl Harbor. Americans are patriotic. They respond to needs if they are understood and viewed as "compelling." This same generation (along with many "baby boomers" who are approaching retirement) might yet step forward to solve the problem if the appeal is made. Perhaps working a few more years for a noble cause might be as enticing and rewarding as playing golf and shuffleboard each day.

A TYPICAL PAYOUT UNDER THE CURRENT SOCIAL SECURITY PROGRAM

To illustrate possible ideas for dealing with the eventual insolvency of Social Security (under current projections), we will refer to the current approach as a "structured plan" (as was seen in Table 2). Under this general plan there are some options for potential retirees and some built-in financial reasons for deferring retirement, but the earnings history, age, and other parameters largely determine the dollar amounts. The program possibilities and recommendations that we will be proposing will be referred to as an "incentives plan" because we will be proposing additional incentives and other stimulating features.

Rather than dealing with aggregate numbers that are in the hundreds of billions of dollars, it is initially simpler to illustrate the financial possibilities by considering a single individual who has been making $36,000 per year and who is now approaching age 65 and contemplating retirement. Under the current or "structured plan," this retiree would receive about $1,200 per month or $14,400 per year in retirement payments less an annual income tax on the payments of about

$1,803 (that was added in 1983). If the retiree lives for 20 years (and if we use a present value of 5%), the present value of the benefits received by the retiree over the twenty-year period will be $156,986 (as shown in Table 4). Also shown in Table 4 is the present cost of the Social Security payments by the Social Security Administration (SSA) which is $239,943 for the 20 years.

A TYPICAL PAYOUT IF THE RECIPIENT DEFERS RETIREMENT UNTIL 70

If the recipient waits until age 70 to retire, he or she will continue to enjoy $29,008 in net wages during the additional five years of employment ($36,000 less $4,238 in approximate income taxes and $2,754 in FICA). After the five years, the net retirement from Social Security will be about 30% greater or approximately $15,997 ($18,400 minus approximate income taxes of $2,403). Of course the present value of all payments will be worth less to the retiree because of the need to wait for the money. Table 5 shows that the present value of all payments received by the retiree over the 20 years will be $255,689 or $98,703 more because of the decision to defer retirement by five years. The government also comes out a winner because its present cost will become $102,509, which is $137,434 less than the cost if the retiree chooses to retire at age 65.

A PROPOSED APPROACH FOR BUILDING IN MORE INCENTIVES

As referenced above, what if there were a couple of simple formulas that were well communicated through a massive advertising campaign that gave those at retirement age some upfront cash incentives each year to entice them to defer retirement as well as significant increases in the retirement benefits when the time came that they did retire. If these formulas were designed appropriately (with both recipient and government in mind), both sides would come out major winners. The government would continue to receive more FICA and income taxes as well as defer social security payments; the recipient would benefit from (1) additional years of wages, (2) upfront cash payments for deferring retirement, and (3) increased benefits when the retirement was taken.

Table 4: Social Security calculations with full retirement at age 65 (Under the current or "structured plan")

		Recipient								Government				
Age	Wages	S.S. Pay	Tax	FICA	Net	PV	Value	Tax	FICA	Inv	S.S. Pay	Net	PV	Value
65	0	14,400	-1,803	0	12,597	0.95	11,997	1,803	0	0	-14,400	-12,597	0.95	-11,997
66	0	14,400	-1,803	0	12,597	0.91	11,426	1,803	0	-630	-14,400	-13,227	0.91	-11,997
67	0	14,400	-1,803	0	12,597	0.86	10,882	1,803	0	-1,291	-14,400	-13,888	0.86	-11,997
68	0	14,400	-1,803	0	12,597	0.82	10,364	1,803	0	-1,986	-14,400	-14,583	0.82	-11,997
69	0	14,400	-1,803	0	12,597	0.78	9,870	1,803	0	-2,715	-14,400	-15,312	0.78	-11,997
70	0	14,400	-1,803	0	12,597	0.75	9,400	1,803	0	-3,480	-14,400	-16,077	0.75	-11,997
71	0	14,400	-1,803	0	12,597	0.71	8,952	1,803	0	-4,284	-14,400	-16,881	0.71	-11,997
72	0	14,400	-1,803	0	12,597	0.68	8,526	1,803	0	-5,128	-14,400	-17,725	0.68	-11,997
73	0	14,400	-1,803	0	12,597	0.64	8,120	1,803	0	-6,015	-14,400	-18,612	0.64	-11,997
74	0	14,400	-1,803	0	12,597	0.61	7,733	1,803	0	-6,945	-14,400	-19,542	0.61	-11,997
75	0	14,400	-1,803	0	12,597	0.58	7,365	1,803	0	-7,922	-14,400	-20,519	0.58	-11,997
76	0	14,400	-1,803	0	12,597	0.56	7,014	1,803	0	-8,948	-14,400	-21,545	0.56	-11,997
77	0	14,400	-1,803	0	12,597	0.53	6,680	1,803	0	-10,025	-14,400	-22,622	0.53	-11,997
78	0	14,400	-1,803	0	12,597	0.51	6,362	1,803	0	-11,157	-14,400	-23,754	0.51	-11,997
79	0	14,400	-1,803	0	12,597	0.48	6,059	1,803	0	-12,344	-14,400	-24,941	0.48	-11,997
80	0	14,400	-1,803	0	12,597	0.46	5,771	1,803	0	-13,591	-14,400	-26,188	0.46	-11,997
81	0	14,400	-1,803	0	12,597	0.44	5,496	1,803	0	-14,901	-14,400	-27,498	0.44	-11,997
82	0	14,400	-1,803	0	12,597	0.42	5,234	1,803	0	-16,276	-14,400	-28,873	0.42	-11,997
83	0	14,400	-1,803	0	12,597	0.4	4,985	1,803	0	-17,719	-14,400	-30,316	0.4	-11,997
84	0	14,400	-1,803	0	12,597	0.38	4,748	1,803	0	-19,235	-14,400	-31,832	0.38	-11,997
							156,984							-239,940

Table 5: Social Security calculations with full retirement at age 70 (Under the current plan)

		Recipient						Government						
Age	Wages	S.S. Pay	Tax	FICA	Net	PV	Value	Tax	FICA	Inv	S.S. Pay	Net	PV	Value
65	36,000	0	-4,238	-2,754	29,008	0.95	27,627	4,238	5,508	0	0	9,746	0.95	9,282
66	36,000	0	-4,238	-2,754	29,008	0.91	26,311	4,238	5,508	487	0	10,233	0.91	9,282
67	36,000	0	-4,238	-2,754	29,008	0.86	25,058	4,238	5,508	999	0	10,745	0.86	9,282
68	36,000	0	-4,238	-2,754	29,008	0.82	23,865	4,238	5,508	1,536	0	11,282	0.82	9,282
69	36,000	0	-4,238	-2,754	29,008	0.78	22,729	4,238	5,508	2,100	0	11,846	0.78	9,282
70	0	18,400	-2,403	0	15,997	0.75	11,937	2,403	0	2,693	-18,400	-13,304	0.75	-9,928
71	0	18,400	-2,403	0	15,997	0.71	11,369	2,403	0	2,027	-18,400	-13,970	0.71	-9,928
72	0	18,400	-2,403	0	15,997	0.68	10,827	2,403	0	1,329	-18,400	-14,668	0.68	-9,928
73	0	18,400	-2,403	0	15,997	0.64	10,312	2,403	0	596	-18,400	-15,401	0.64	-9,928
74	0	18,400	-2,403	0	15,997	0.61	9,821	2,403	0	-175	-18,400	-16,172	0.61	-9,928
75	0	18,400	-2,403	0	15,997	0.58	9,353	2,403	0	-983	-18,400	-16,980	0.58	-9,928
76	0	18,400	-2,403	0	15,997	0.56	8,908	2,403	0	-1,832	-18,400	-17,829	0.56	-9,928
77	0	18,400	-2,403	0	15,997	0.53	8,484	2,403	0	-2,724	-18,400	-18,721	0.53	-9,928
78	0	18,400	-2,403	0	15,997	0.51	8,080	2,403	0	-3,660	-18,400	-19,657	0.51	-9,928
79	0	18,400	-2,403	0	15,997	0.48	7,695	2,403	0	-4,642	-18,400	-20,639	0.48	-9,928
80	0	18,400	-2,403	0	15,997	0.46	7,328	2,403	0	-5,674	-18,400	-21,671	0.46	-9,928
81	0	18,400	-2,403	0	15,997	0.44	6,979	2,403	0	-6,758	-18,400	-22,755	0.44	-9,928
82	0	18,400	-2,403	0	15,997	0.42	6,647	2,403	0	-7,896	-19,400	-23,893	0.42	-9,928
83	0	18,400	-2,403	0	15,997	0.4	6,331	2,403	0	-9,090	-18,400	-25,097	0.4	-9,928
84	0	18,400	-2,403	0	15,997	0.38	6,029	2,403	0	-10,345	-18,400	-26,342	0.38	-9,928
							255,689							-102,509

Table 6: Social Security calculations with full retirement at age 75 (Under the new plan)

		Recipient						Government						
Age	Wages	S.S. Pay	Tax	FICA	Net	PV	Value	Tax	FICA	Inv	S.S. Pay	Net	PV	Value
65	36,000	1,200	-6,038	-2,754	28,409	0.95	27,056	6,038	5,508	0	-1,200	10,346	0.95	9,853
66	36,000	2,400	-6,338	-2,754	29,309	0.91	26,584	6,338	5,508	517	-2,400	9,963	0.91	9,037
67	36,000	3,600	-6,638	-2,754	30,209	0.86	26,095	6,638	5,508	1,015	-3,600	9,561	0.86	8,259
68	36,000	4,800	-6,938	-2,754	31,109	0.82	25,593	6,938	5,508	1,493	-4,800	9,139	0.82	7,519
69	36,000	6,000	-7,238	-2,754	32,009	0.78	25,079	7,238	5,508	1,950	-6,000	8,696	0.78	6,813
70	36,000	7,200	-7,538	-2,754	32,909	0.75	24,557	7,538	5,508	2,385	-7,200	8,231	0.75	6,142
71	36,000	8,400	-7,838	-2,754	33,809	0.71	24,027	7,838	5,508	2,797	-8,400	7,742	0.71	5,502
72	36,000	9,600	-8,138	-2,754	34,709	0.68	23,492	8,138	5,508	3,184	-9,600	7,229	0.68	4,893
73	36,000	10,800	-8,438	-2,754	35,609	0.64	22,954	8,438	5,508	3,545	-10,800	6,691	0.64	4,313
74	36,000	12,000	-8,738	-2,754	36,509	0.61	22,413	8,738	5,508	3,880	-12,000	6,125	0.61	3,760
75	0	28,800	-3,963	0	24,838	0.58	14,522	3,963	0	4,186	-28,000	-20,651	0.58	-12,074
76	0	28,800	-3,963	0	24,838	0.56	13,830	3,963	0	3,154	-28,000	-21,684	0.56	-12,074
77	0	28,800	-3,963	0	24,838	0.53	13,172	3,963	0	2,069	-28,000	-22,768	0.53	-12,074
78	0	28,800	-3,963	0	24,838	0.51	12,545	3,963	0	931	-28,000	-23,907	0.51	-12,074
79	0	28,800	-3,963	0	24,838	0.48	11,947	3,963	0	-264	-28,000	-25,102	0.48	-12,074
80	0	28,800	-3,963	0	24,838	0.46	11,378	3,963	0	-1,519	-28,000	-26,357	0.46	-12,074
81	0	28,800	-3,963	0	24,838	0.44	10,837	3,963	0	-2,837	-28,000	-27,675	0.44	-12,074
82	0	28,800	-3,963	0	24,838	0.42	10,320	3,963	0	-4,221	-28,000	-29,059	0.42	-12,074
83	0	28,800	-3,963	0	24,838	0.4	9,829	3,963	0	-5,674	-28,000	-30,511	0.4	-12,074
84	0	28,800	-3,963	0	24,838	0.38	9,361	3,963	0	-7,200	-28,000	-32,037	0.38	-12,074
							365,591							-54,653

In Table 6 we have used an "upfront cash" formula of $100 per month or $1,200 in the first year of deferred retirement, $200 per month or $2,400 in the second year, and have continued this $1,200 per year increase with no maximum cutoff. As to the "increased benefits" formula when retirement is taken, we have used (for illustrative purposes) an even 10% increase in eventual retirement benefits for the first year of retirement, an additional 10% increase in the second year and so on with no maximum cut-off. As shown in Table 6, for example, the recipient who delays retirement for 10 years will receive a retirement benefit of $28,800 starting at age 75 or twice the amount if retirement had been taken at age 65.

In Table 6, notice that the present value of the recipient payments will be $365,591. This is $109,902 more than if retirement is deferred five years (shown in Table 5) and $208,605 more than if retirement is taken at age 65 (shown in Table 4). The present value cost to the government has also decreased to $54,653. This is $47,856 less than the five-year retirement option shown in Table 5 and $185,290 less than the retirement option shown in Table 4 (retiring at age 65). It is significant that the benefits of deferring retirement are so great that significant incentives could be offered by the government to encourage American workers to defer retirement.

PROMOTING THE CONCEPT OF DEFERRING RETIREMENT

Considering the fact that a typical worker deferring retirement for a single year could provide the government with $22,343 in net benefits (as described in the example on page 9), and considering the fact that there are approximately 40 million workers already at retirement age with millions more approaching that age, the financial possibilities are staggering. The government could afford to be lavish in the incentives given and also in the money spent to communicate the message.

The upfront cash payments, for example, that are shown in the third column of Table 6 are a type of reward for non-retirement, and if they were properly communicated and understood, they could become a powerful incentive (like cash-back incentives that car dealers use). The increasing amount for the eventual retirement benefits would also be important, but besides the specific information on financial incentives for deferring retirement, the overall tone of any communication would be equally important.

To accomplish the task of communicating elements of an "incentives plan," a possible advertising communiqué is shown in Table 7 on the following page. Although it is not yet "visually appealing," it contains the primary information that such an advertisement might communicate to the American public. Of the basic

elements that such an advertisement should have, the idea that both the country and the individual citizen would be benefited from such a decision is important. In other words, the idea of "contributing to country and patriotism" should be instilled as much as the financial benefits that would be received by workers choosing to defer retirement.

Table 7: Contents of a Possible Advertising Flyer for a New "Incentives Plan"

Strengthen America and the Social Security Program
And Be Compensated for Doing Your Part

Announcing newly approved
Incentives for Deferring Retirement
Approved by the Congress of the United States
Signed into law by the President of the United States
Administered by the Social Security Administration

Significant benefits for you, Social Security, and the U.S. Government:

Your additional benefits when you defer retirement:
Upfront cash payments that increase each year you defer retirement
Increased Social Security benefits when you do retire
Continuing wages in your job until you retire

Additional government benefits when you defer retirement:
Deferral of Social Security payments
Continued receipts of FICA and income taxes
Additional earnings on the Social Security Trust Fund

Example of a typical worker
(Earning $36,000 per year and approaching 65 years of age)

Upfront cash payments:
Receives approximately $100 per month by check the first year of deferred retirement, $200 per month by check the second year of deferred retirement, and so on with no cut-off point. For example, a 7-year retirement deferral would result in approximately $700 cash payments per month in the 7th year.

Increased Social Security Benefits:
Increases eventual Social Security benefits by approximately 6% for the first year of deferred retirement, 12% for the second year of deferred retirement, and so on with no cut off point. For example, a 7-year retirement deferral would result in an approximate 42% increase in retirement benefits when retirement is taken.

For specific information on your retirement:
Please call the toll free number (800-123-4567) to receive specific information on your benefits for deferring retirement based on your date of birth, yearly earnings, etc.

It should also be emphasized that this new program has been approved by the Congress of the United States and signed into law by the President of the United States. Implied in this message (among other things) would be the idea that the changes are bipartisan in nature and have widespread approval. There should also be examples or specifics about how the individual and government would be benefited by a deferred retirement decision (three such benefits shown for each in Table 7). Equally important would be a clearly communicated example of a typical American considering retirement with specific numbers showing the derived benefits. And lastly, a toll-free number should be given so the person reading the advertising flyer would know how to get additional information. Important in this last idea is the implication that it would be different for each individual depending on date of birth, earnings history, etc.

A SIMULATION MODEL TO TEST THE POTENTIAL IMPACT

To test the possible implications of such an incentive program with voluntary participation, a fairly extensive simulation model was created for the purposes of this study, and dozens of scenarios were tested to evaluate the sensitivity of the individual variables. A fine-tuning of the model eventually made it quite accurate in duplicating the official projections that are published each year by the Social Security Administration in its Annual Report. For example, the SSA Report currently projects expenditures to become greater than contributions in the year 2018, expenditures to become greater than both contributions and trust fund earnings in 2029, and the OASI trust fund to be fully depleted by the year 2044.

In the simulation numbers that are shown in Table 8, a net growth rate of 1.5% per year has been used for the growth in the nation's work force, and a net growth ranging from 2.58% to 3.70% per year has been used for the number of Social Security recipients. The first year (2004) shows earnings on the Social Security Trust Fund at 6.1766% because that was the earnings rate in 2003. In the last five years, the earnings rate has been between 6% and 7% (SSA Report, 2004), but in an effort to adjust for an increasing currency level and to be conservative in projections, an earnings rate of 4% has been used in the model for the remaining years following 2004. That rate is considered sustainable, especially if there is some shift of trust funds into the equity markets (with a proportional reduction of funds in the lower-yielding government securities).

To effectively communicate the mathematical implications of the model, most variables have been held constant including currency valuation. In other

words, inflation has been taken out of the equation by holding all monetary information in 2003 dollars. It has also been assumed that contributions to FICA have remained at 15.3%.

In lines 27 through 45 of Table 8, the mathematical results are shown using the assumptions established for the new incentives program for voluntary deferral of retirement. For this incentives program, it has been assumed that 7% of the potential social security recipients are "in deferred retirement" at any given time. The 7% of the recipient pool is about 2.8 million Americans which is less than 1% of the total population of America. Admittedly, some Americans (currently about 5% of those over 65) are not currently on Social Security (TIAA, 2000), so adjustments would need to be made for these people. But the study and mathematical model are designed to introduce the concept, and adjustments could be made in the assumptions as necessary to adjust for these and other realities.

As shown in lines 27 through 45, the peak in the Social Security Trust Fund comes eight years later in the proposed incentives program than it did under the current program (in 2036 rather than in 2028), and the dollar amount of $4.878 trillion is greater than at any time for the current or proposed programs. Also notice that rather than being in the negative range in 2044, the fund would still have nearly $3 trillion in the Trust Fund. All told, over the 75-year period (which is used by the Social Security Administration as the planning period), the funds generated by voluntary deferral program would generate over $13 trillion just in the OASI Trust Fund (with no inflation in the figures).

Table 8: Financial Projections under the Current and Proposed Social Security Plans (Eight-year increments)

1.	**Calendar Year:**	2004	2012	2020	2028	2036	2044	2052
2.	Percent increase in OASI workers	.0125	.0125	.0125	.0125	.0125	.0125	.0125
3.	Number of OASI workers (millions)	155.8	172.1	190.1	209.9	231.9	256.1	282.9
4.	Percent increase in OASI recipients	.0258	.0258	.0258	.0258	.0370	.0370	.0370
5.	Number of OASI recipients (millions)	40.4	49.6	60.8	74.5	98.5	131.8	176.2
6.	**Social Security (OASI) projections under the "current plan" (adjusted for inflation):**							
7.	Beginning OASI Trust Fund ($ billions)	$1,355.3	$2,230.9	$2,951.0	$3,340.7	$2,885.6	$399.6	-$5,616.8
8.	OASI contributions per worker and employer	$2,964	$2,964	$2,964	$2,964	$2,964	$2,964	$2,964
9.	Total OASI contributions ($ billions)	$461.8	$510.1	$563.3	$622.2	$687.2	$759.0	$838.3
10.	OASI taxes on benefits per recipient	$317	$317	$317	$317	$317	$317	$317
11.	Total OASI taxes on benefits ($ billions)	$12.8	$15.7	$19.3	$23.6	$31.3	$41.8	$55.9

Table 8: Financial Projections under the Current and Proposed Social Security Plans (Eight-year increments)

12.	OASI Trust Fund rate of return	.0618	.0400	.0400	.0400	.0400	.0400	.0400
13.	Total OASI Trust Fund earnings ($ billions)	$75.2	$85.1	$115.0	$132.8	$121.2	$34.7	-$184.1
14.	Total inflow of OASI funds ($ billions)	$549.8	$610.9	$697.6	$778.6	$839.7	$835.5	$710.1
15.	**Status quo outflow to OASI funds:**							
16.	Average OASI payments to recipients	$10,289	$10,289	$10,289	$10,289	$10,289	$10,289	$10,289
17.	Total OASI payments to recipients ($ billions)	$415.9	$509.9	$625.1	$766.4	$1,013.8	$1,355.8	$1,813.1
18.	OASI administrative expenses ($ billions)	$0.6	$0.6	$0.6	$0.6	$0.6	$0.6	$0.6
19.	Total outflow of OASI funds ($ billions)	$416.5	$510.5	$625.7	$767.0	$1,014.4	$1,356.4	$1,813.7
20.	**Net status quo OASI changes:**							
21.	Net increase in OASI funds ($ billions)	$133.4	$100.5	$71.9	$11.6	-$174.8	-$520.9	-$1,103.6
22.	Ending OASI Trust Fund ($ billions)	$1,488.7	$2,331.4	$3,022.9	$3,352.4	$2,710.8	-$121.3	-$6,720.4
23.	**Calculations on deferring retirement:**							
24.	Workers at the retirement age (millions)	40.4	49.6	60.8	74.5	98.5	131.8	176.2
25.	Percent of potential recipients deferring retirement	0	.07	.07	.07	.07	.07	.07
26.	Number of workers deferring retirement (millions)	0	3.5	4.3	5.2	6.9	9.2	12.3
27.	**Social Security (OASI) projections under the "proposed incentives plan" (adjusted for inflation):**							
28.	Begin. OASI Trust Fund (for deferral assumptions)	$1,355.3	$2,331.4	$3,713.9	$4,646.6	$4,877.5	$3,307.8	-$1,483.2
29.	More OASI contributions per deferred retiree	$0	$3,816	$3,816	$3,816	$3,816	$3,816	$3,816
30.	More OASI total contributions ($ billions)	$0	$13.2	$16.2	$19.9	$26.3	$35.2	$47.1
31.	Less in OASI payments per deferred retiree	$0	$14,400	$14,400	$14,400	$14,400	$14,400	$14,400
32.	Less in OASI total payments ($ billions)	$0	$49.9	$61.2	$75.1	$99.3	$132.8	$177.6
33.	Total OASI positives ($ billions)	$0	$63.2	$77.5	$95.0	$125.6	$168.0	$224.7
34.	**Negative assumptions for the OASI fund:**							
35.	Incentive cash payments per deferred retiree	$0	$2,400	$2,400	$2,400	$2,400	$2,400	$2,400
36.	Total cash incentives paid ($ billions)	$0	$8.3	$10.2	$12.5	$16.6	$22.1	$29.6
37.	Less in OASI taxes received per retiree	$0	$1,803	$1,803	$1,803	$1,803	$1,803	$1,803
38.	Less in total OASI taxes ($ billions)	$0	$6.3	$7.7	$9.4	$12.4	$16.6	$22.2
39.	Total OASI negatives ($ billions)	$0	$14.6	$17.9	$21.9	$29.0	$38.8	$51.8
40.	**Net OASI changes from deferred retirements:**							
41.	Difference in OASI Trust Fund before earnings ($ b.)	$0	$48.6	$59.6	$73.1	$96.7	$129.3	$172.8
42.	Earnings on additional amt. in Trust Fund ($ billions)	$0	$1.9	$2.4	$2.9	$3.9	$5.2	$6.9
43.	Increase in OASI earnings from							

Table 8: Financial Projections under the Current and Proposed Social Security Plans (Eight-year increments)

	deferred retirements	$0	$50.6	$62.0	$76.0	$100.5	$134.4	$179.8
44.	Add in original Trust Fund increase ($ billions)	$133.4	$100.5	$71.9	$11.6	-$174.8	-$520.9	-$1,103.6
45.	New end. balance in OASI Trust Fund ($ billions)	$1,488.7	$2,701.9	$3,847.7	$4,734.2	$4,803.2	$2,921.3	-$2,407.0
46.	**Impact on Trust Fund for DI and HI:**							
47.	More total DI and HI taxes ($ billions)	$0	$5.9	$7.2	$8.8	$11.7	$15.6	$20.9
48.	Earnings on new DI and HI taxes ($ billions)	$0	$0.2	$0.3	$0.4	$0.5	$0.6	$0.8
49.	Net additional DI and HI taxes ($ billions)	$0	$6.1	$7.5	$9.2	$12.1	$16.2	$21.7
50.	**Impact on the Federal Government General Fund:**							
51.	More general taxes from deferred retirements	$0	$14.7	$18.0	$22.1	$29.2	$39.1	$52.3
52.	Earnings on additional general taxes ($ billions)	$0	$0.6	$0.7	$0.9	$1.2	$1.6	$2.1
53.	Net additional general funds ($ billions)	$0	$15.3	$18.7	$23.0	$30.4	$40.7	$54.4
54.	**Total impact of deferring retirements:**							
55.	Total increase in OASI funds ($ billions)	$0	$50.6	$62.0	$76.0	$100.5	$134.4	$179.8
56.	Total increase in DI and HI funds ($ billions)	$0	$6.1	$7.5	$9.2	$12.1	$16.2	$21.7
57.	Total increase in general funds ($ billions)	$0	$15.3	$18.7	$23.0	$30.4	$40.7	$54.4
58.	Total government benefits from deferred retirements	$0	$71.9	$88.2	$108.1	$143.1	$191.3	$255.8

In addition to the funds generated for the old age and survivors program (OASI), successfully deferring retirement for 7% of those eligible for retirement would also provide significant funds for the disability program (DI), for the hospital (or Medicare) program (HI), and for the government's general fund. In Table 8, the total financial benefits received in the respective years are shown in lines 56 and 57, and the total for all three categories (including OASI) are shown in line 58. Although not shown in Table 8, the 75-year benefits (using the planning horizon of the Social Security Administration) would be $13.2 trillion in OASI, $1.6 trillion for DI and HI funds, and $4.0 trillion for the general fund. The total of all three categories for the 75 years would be $18.8 trillion.

While these numbers are staggering in size, the Social Security financial crisis is still not fully solved under the assumptions that were presented. In simplest terms, the 7%-retirement-deferral assumption (and related assumptions) would "buy" about eight additional years before the fund would be completely depleted. With a 14% deferral rate, nearly 20 years of financial viability would be added to the program. Other changes in the variable values could be used to fully balance the

inflows and outflows over time. The Social Security Administration (SSA) has thousands of employees who do such planning, and the "tweaking" could be done. But it does seem that good old-fashioned free-enterprise incentives, if properly turned loose, could "breath" additional health and life into a system that is not yet demographically or actuarially sound. Such an approach would go a long way towards solving what is certainly one of the greatest problems facing America in the 21st century.

SUMMARY

The evaluation of the approaching financial crisis in Social Security and several possibilities for solving the crisis has yielded the following observations:

(1) Payments into the Social Security program have increased by 961 times since its inception in 1938. Even adjusted for inflation, there has been a 60-fold increase in annual contributions by the American workers.

(2) More than offsetting the 60-fold increase have been (a) greater numbers of retirees, (b) greater life expectancy for the retirees, (c) greater benefits per retiree, and (d) proportionally fewer workers entering the workforce to pay for the retiree benefits.

(3) The trust fund for Old Age and Survivors Insurance (OASI) will see (a) expenditures exceeding contributions in the year 2018, (b) expenditures exceeding both contributions and trust fund earnings by 2029, and (c) a depletion of the fund by 2044.

(4) Although government commissions have instituted changes in the Social Security programs to help avert the financial crises, these compulsory programs of higher taxes, later retirement, and fewer benefits have not yet brought viability to the program.

(5) Presented in the paper is a voluntary, free-enterprise incentives program consisting of upfront cash payments and other motivations to entice workers to defer retirement, and the approach would be a win-win situation for government and retirees.

(6) In the simulation model that was presented, an assumed retirement deferral rate of 7% of eligible retirees would "buy" an additional eight years before the OASI retirement fund would be depleted, and a 14% deferral rate would add nearly 20 years of financial viability to the program..

(7) With a different combination of variable assumptions, a long-term balance between Social Security inflows and outflows could be accomplished and done so with little if any compulsion by government.

CONCLUSION

The main conclusion of the study is that the United States Social Security Program is on a collision course that will completely deplete its funds by the year 2044. With natural incentives consisting of upfront cash payments and other enticements, enough workers could be motivated to defer retirement which would bring about a long-term balance between inflows and outflows and bring the program into long-term viability.

A PARTING WORD

In searching for a solution to the projected Social Security crisis, the possible use of a voluntary, free-enterprise approach laced with a little patriotism and capitalism should be taken quite seriously. The basic situation is not substantially different from the severe financial crisis that Americans faced trying to finance the war effort of World War II. The "war-bonds approach" of that era provided a classic success around which such a Social Security program could be modeled.

As proved to be the case, (1) the crisis was compelling enough, (2) the "war bonds" program credible enough, and (3) the promoters effective enough that the nation rallied around the program with amazing commitment. "When an estimation of the cost of a nationwide, multi-media campaign for a year reached $4 million, the Committee elected to solicit space donations for bond advertisements. This decision proved highly successful. Over a quarter of a billion dollars of advertising was donated in the first three years of the Defense Savings Program. After one month

alone, over 90% of Americans polled were aware of the Payroll Savings Plan part of the campaign" (Ad Access, 2003).

From May 1941 through the end of 1945, war bonds designed to yield approximately 2.5% were offered to a nation of approximately 139 million people, and by the time the last proceeds were deposited on January 3, 1946, over 85 million Americans (more than 61% of all men, women, and children) had purchased over $185.7 billion in war bonds (Ad Access, 2003). That was at a time when prosperous Americans were making about $2,000 per year (Kugel, 2003), and the greater prosperity and greater population base of today would easily lead to similar or better results under current circumstances.

Considering that inflation has resulted in an 11-fold increase in prices since World War II, and adjusting the 1940's population base of 139 million to the current population of about 290 million people, the current equivalent of the World War II experience would be about $4 trillion or roughly $1 trillion per year. Even if only one third of that success could be achieved, the $1.3 trillion would be approximately equal to the entire Social Security Trust Fund at the present time.

Finally, considering (1) that cash payments would be upfront instead of deferred, (2) that the overall benefits would be far superior by multiples (as evidenced by the present value analyses of Tables 4 - 6), and (3) that the program would likely be for many years beyond the four-and-a-half-year bond campaign, the Social Security program could be extended significantly beyond current projections. And beyond any personal benefits, Americans have proven that they will rally around a compelling cause when the need is effectively communicated.

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