

## SOCIETY OF ACTUARIES

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# Pension Section News

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### **OASDI Trust Fund** Principal Economic and Demographic Assumptions

Editor's Note: The following excerpt is taken from Section V. "Assumptions and Methods Underlying Actuarial Estimates," in the 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Copies of the OASDI 2004 Annual Report are available from the Social Security Administration's Office of the Actuary at actuary@ssa.gov.

The future income and cost of the OASDI program will depend on many demographic, economic and program-specific factors. Trust fund income will depend on how these factors affect the size and composition of the working population and the level and distribution of earnings. Similarly, program cost will depend on how these factors affect the size and composition of the beneficiary population and the general level of benefits.

Because projections of these factors and their interrelationships are inherently uncertain, a range of estimates is shown in this report on the basis of three sets of assumptions, designated as intermediate (alternative II), low cost (alternative I) and high cost (alternative III). The intermediate set represents the Board's best estimate of the future course of the population and the economy. In terms of the net effect on the status of the OASDI program, the low cost is the most optimistic, and the high cost is the most pessimistic.

Although these three sets of demographic and economic assumptions have been developed using the best available information, the resulting estimates should be interpreted with care. The estimates are not intended to be specific predictions of the future financial status of the OASDI program, but rather, they are intended to be indicators of the expected trend and a reasonable range of future income and cost, under a variety of plausible demographic and economic conditions.

The values for each of the demographic, economic and program-specific factors are assumed to move from recently experienced levels or trends, toward long-range ultimate values over the next five to 30 years. The ultimate values assumed after the first five to 30 years for both the demographic and the economic factors are intended to represent average experience or growth rates. Actual future values will exhibit fluctuations or cyclical patterns, as in the past.

#### **Economic Assumptions**

The basic economic assumptions are embodied in three alternatives that are designed to provide a reasonable range of effects on Social Security's financial status. The intermediate assumptions reflect the Trustees' consensus expectation of moderate economic growth throughout the projection period. The low cost assumptions represent a more optimistic outlook, with relatively strong economic growth. The high cost assumptions represent a relatively pessimistic scenario, with weak economic growth and two recessions in the short-range period. Based on the latest estimates, the economy is assumed to be below its potential level of output and employment in the latter half of 2003.

Under all three sets of assumptions the economy is assumed to move back to the sustainable, potential level of output by the end of the short-range period. Economic cycles are not included in the assumptions beyond the first five to 10 years of the projection period because they have little effect on the long-range estimates of financial status.

This report also includes a stochastic projection that provides a probability distribution of possible future outcomes that is centered around the Trustees' intermediate assumptions. Additional economic assumptions and modeling are required for these projections. These are discussed in Appendix E.

The principal demographic and economic assumptions for the three alternatives that are summarized in tables V.A1 and V.B1. Additional economic factors that are critical to the projections of the future financial status of the combined OASI and DI Trust Funds are summarized in table V.B2.

### Stochastic Projections (excerpts from Appendix E of the report)

Significant uncertainty surrounds the estimates under the intermediate assumptions, especially for a period as long as 75 years. This appendix presents a way to illustrate the uncertainty of these estimates. It is intended to supplement the traditional methods of examining such uncertainty and to illustrate the potential value of new techniques.

The results presented in this section reflect the intermediate assumptions and methods of the 2004 Trustees Report.

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The values for each of the demographic, economic and program-specific factors are assumed to move from recently experienced levels or trends, toward long-range ultimate values over the next five to 30 years.

	Table V. A1-P	Principal Demographic Assumptions, Calendar Years 1940-2080						
	Total fertility rate <sup>1</sup>	Age-sex-adjuste	100,000 by age	Net immigration				
Calendar year		Total	Under 65	65 and over	Legal <sup>3</sup>	Other <sup>4</sup>		
Historical Data:	0.00	1 770 1	070.0	0.500.0				
1940	2.23	1,779.1	673.0	9,569.0				
1945	2.42	1,586.6	601.8	8,522.4	170 504			
1950 1955	3.03 3.50	1,435.6	499.4	8,028.3	170,594			
1955	3.50	1,334.2	442.8 436.9	7,612.2 7,626.7	209,779			
1965	2.88	1,330.9	430.9	7,464.0	201,276 232,400			
1905	2.43	1,224.3	430.0	6,870.7	278,928			
1975	1.77	1,099.0	369.5	6,236.4	294,303			
1980	1.82	1,035.9	331.9	5,993.6	410,348			
1985	1.84	984.2	303.6	5,777.6	433,449			
1990	2.07	934.0	289.4	5,474.0	501,065			
1991	2.06	921.5	286.2	5.395.7	548,000			
1992	2.04	909.0	280.2	5,337.9	620,986			
1993	2.02	930.8	283.1	5.492.7	644,696			
1994	2.00	918.8	280.5	5,413.8	583,390			
1995	1.98	916.6	277.3	5,419.4	573,719			
1996	1.98	903.0	266.1	5,388.4	662,284			
1997	1.97	887.8	253.6	5,353.5	571,800			
1998	2.00	880.8	246.9	5,345.5	489,360			
1999	2.01	887.0	245.0	5,407.9	523,037	400.000		
2000	2.06	878.2	243.3	5,349.5	677,579	400,000		
2001 <sup>5</sup> 2002 <sup>5</sup>	2.03	874.0 869.9	239.2 236.2	5,344.4	798,126	400,000		
20025	2.01	866.1	230.2	5,332.3 5,321.9	797,801 562,500	,		
	2.02	000.1	233.4	0,321.9	302,300	400,000		
ntermediate:	·	i						
2005	2.01	858.4	228.0	5,298.2	750,000	400,000		
2010	2.00	831.0	216.4	5,159.3	625,000	400,000		
2015	1.99	798.9	206.0	4,974.5	600,000	350,000		
2020	1.97	766.8	196.5	4,783.2	600,000	350,000		
2025	1.96	736.0	187.6	4,598.4	600,000	300,000		
2030	1.95	706.9	179.2	4,423.2	600,000	300,000		
2035	1.95	679.7	171.4	4,258.8	600,000	300,000		
2040	1.95	654.1	164.1	4,104.9	600,000	300,000		
2045 2050	1.95 1.95	630.1 607.6	157.2 150.8	3,690.5 3,825.0	600,000 600,000	300,000 300,000		
2055 2060	1.95 1.95	586.4 566.5	144.7 138.9	3,697.5 3,577.6	600,000 600,000	300,000		
2065	1.95	547.7	133.5	3,464.5	600,000	,		
2005	1.95	529.9	128.3	3,357.8	600,000	300,000		
2070	1.95	513.1	128.5	3,256.9	600,000	300,000		
2073	1.95	497.2	118.9	3,161.5	600,000	300,000		
Low Cost:								
2005	2.04	869.9	231.4	5,366.3	925,000	550,000		
2010	2.08	866.5	225.9	5,377.4	875,000	550,000		
2015	2.11	854.4	220.1	5,321.7	850,000	500,000		
2020	2.15	839.8	214.3	5,244.7	850,000	500,000		
2025	2.18	824.6	208.7	5,162.7	850,000	450,000		
2030	2.20	809.7	203.3	5,080.4	850,000	450,000		
2035	2.20	795.2	198.1	5,000.5	850,000	450,000		
2040	2.20	781.3	193.1	4,923.4	850,000	450,000		
2045	2.20	767.9	188.4	4,849.1	850,000	450,000		
2050	2.20	755.0	183.8	4,777.4	850,000	450,000		
2055	2.20	742.6	179.5	4,708.2	850,000	450,000		
2060	2.20	730.6	175.3	4,641.4	850,000	450,000		
2065	2.20	719.1	171.3	4,576.9	850,000	450,000		
2070	2.20	707.9	167.4	4,514.6	850,000	450,000		
2075	2.20 2.20	697.2 686.8	163.7 160.1	4,454.4 4,396.3	850,000 850,000	450,000		

Table	Table V. A1—Principal Demographic Assumptions, Calendar Years 1940-2080 continued									
		Age-sex-adjuste	d death rate <sup>2</sup> per	Net immigration						
Calendar year	Total fertility rate	Total	Under 65	65 and over	Legal <sup>3</sup>	Other <sup>4</sup>				
High Cost:										
2005	1.99	846.9	224.5	5,230.1	600,000	250,000				
2010	1.92	794.1	205.5	4,939.3	472,500	250,000				
2015	1.86	740.3	189.0	4,623.2	472,500	200,000				
2020	1.80	689.3	174.1	4,317.8	472,500	200,000				
2025	1.74	642.2	160.7	4,033.8	472,500	200,000				
2030	1.70	599.0	148.4	3,772.5	472,500	200,000				
2035	1.70	559.5	137.2	3,533.4	472,500	200,000				
2040	1.70	523.4	127.1	3,314.7	472,500	200,000				
2045	1.70	490.3	117.7	3,114.4	472,500	200,000				
2050	1.70	460.0	109.2	2,930.7	472,500	200,000				
2055	1.70	432.2	101.4	2,762.0	472,500	200,000				
2060	1.70	406.6	94.2	2,606.8	472,500	200,000				
2065	1.70	383.1	87.6	2,463.9	472,500	200,000				
2070	1.70	361.4	81.5	2,332.1	472,500	200,000				
2075	1.70	341.3	76.0	2,210.3	472,500	200,000				
2080	1.70	322.8	70.8	2,097.7	472,500	200,000				

<sup>1</sup>The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire childbearing period. The ultimate total fertility rate is assumed to be reached in 2028.

<sup>2</sup>The age-sex-adjusted death rate is the crude rate that would occur in the enumerated total population as of April 1, 2000, if that population were to experience the death rates by age and sex observed in, or assumed for, the selected year.

<sup>3</sup>Historical estimates of net legal immigration assume a 25 percent reduction in legal immigration due to legal emigration. Estimates do not include persons legalized under the Immigration Reform and Control Act of 1986.

<sup>4</sup>Net other annual immigration is estimated to have been between 225,000 and 550,000 persons for years 1980 through 1999.
<sup>5</sup>Preliminary or estimated.

		Table V. B1	—Principal D	emograph <u>ic</u> /	Assumptio <u>ns</u>					
		Ave	rage annual perc	centage increase	in—					
Calendar Year	Productivity (Total U.S. economy)	Earnings as a percent of compensation	Average hours worked	GDP price index	Average annual wage in covered employement	Consumer Price Index	Real-wage differential <sup>1</sup>			
Historical Data:										
1960 to 1965	3.2	-0.2	-0.2	1.4	3.2	1.2	2.0			
1965 to 1970	1.9	4	7	4.1	5.8	4.2	1.6			
1970 to 1975	2.1	7	9	6.6	6.6	6.8	2			
1975 to 1980	1.0	6	2	7.3	8.7	8.9	3			
1980 to 1985	1.6	2	1	5.3	6.7	5.2	1.4			
1985 to 1990	1.2	.0	1	3.3	4.7	3.8	.9			
1990 to 1995	1.1	1	.4	2.5	3.6	3.0	.6			
1995 to 2000	2.0	.7	.2	1.7	5.5	2.4	3.1			
1993	.2	-1.0	1.1	2.4	1.9	2.8	9			
1994	1.0	4	.8	2.1	4.1	2.5	1.7			
1995	.3	1.0	.9	2.2	4.3	2.9	1.4			
1996	2.1	1.2	.0	1.9	4.0	2.9	1.2			
1997	1.5	1.2	.7	1.9	5.7	2.3	3.5			
1998	1.9	.4	.9	1.2	6.2	1.3	4.9			
1999	2.0	.2	.5	1.4	5.2	2.2	3.0			
2000	2.4	.3	-1.2	2.1	6.4	3.5	2.9			
2001	1.4	3	-1.2	2.4	2.2	2.7	6			
2002	3.8	5	-1.0	1.1	.3	1.4	-1.1			
2003	3.4	3	-1.2	1.6	1.9	2.3	4			
Intermediate:										
2004	2.7	3	.0	1.1	3.6	1.2	2.4			
2005	1.8	1	.0	1.1	4.3	1.5	2.8			
2006	1.9	1	.0	1.6	3.9	2.0	1.9			
2007	1.9	1	.0	2.1	4.0	2.4	1.5			
2008	1.8	1	.0	2.4	4.2	2.8	1.4			
2009	1.8	1	.0	2.5	4.1	2.8	1.3			

	Та	ble V. B1—Pri	ncipal Demo	graphic Assur	nptions contin	ued	
		Ave	rage annual per	centage increase	e in—		
Calendar Year	Productivity (Total U.S. economy)	Earnings as a percent of compensation	Average hours worked	GDP price index	Average annual wage in covered employement	Consumer Price Index	Real-wage differential <sup>1</sup>
Intermediate con	nt.		-				-
2010	1.7	1	.0	2.5	4.1	2.8	1.3
2011	1.7	1	.0	2.5	4.0	2.8	1.2
2012	1.6	1	.0	2.5	4.0	2.8	1.2
2013	1.6	2	.0	2.5	3.9	2.8	1.1
2010 to 2015	1.6	2	.0	2.5	4.0	2.8	1.2
2015 to 2080	1.6	2	.0	2.5	3.9	2.8	1.1
Low Cost:							
2004	2.8	3	.0	.9	3.7	1.0	2.7
2005	2.1	.0	.0	.7	4.1	1.1	3.0
2006	2.2	.0	.0	.9	3.7	1.3	2.4
2007	2.2	.0	.0	1.3	3.7	1.7	2.0
2008	2.1	.0	.1	1.4	3.7	1.8	1.9
2009	2.0	.0	.1	1.5	3.6	1.8	1.8
2010	2.0	.0	.1	1.5	3.6	1.8	1.8
2011	1.9	.0	.1	1.5	3.5	1.8	1.7
2012	1.9	1	.1	1.5	3.5	1.8	1.7
2013	1.9	1	.1	1.5	3.5	1.8	1.7
2010 to 2015	1.9	1	.1	1.5	3.5	1.8	1.7
2015 to 2080	1.9	1	.1	1.5	3.4	1.8	1.6
High Cost:							
2004	1.2	4	1	2.4	2.5	2.5	1
2005	2.6	1	1	2.2	6.0	2.6	3.4
2006	1.7	1	1	1.9	4.2	2.3	1.9
2007	.1	3	1	3.4	3.1	3.8	7
2008	1.9	2	1	5.0	5.9	5.3	.6
2009	2.0	2	1	5.2	7.5	5.5	2.0
2010	1.2	3	1	4.4	5.5	4.7	.8
2011	1.2	3	1	3.6	4.5	3.9	.5
2012	1.2	2	1	3.5	4.5	3.8	.7
2013	1.3	-2	1	3.5	4.3	3.8	.5
2010 to 2015	1.3	2	1	3.5	4.4	3.8	.6
2015 to 2080	1.3	3	1	3.5	4.4	3.8	.6

<sup>1</sup>The real-wage differential is the difference between the percentage increases, before rounding, in the average annual wage in covered employment, and the average annual Consumer Price Index.

	Table V. B2—Additional Economic Factors								
	Average annual	Av							
Calendar Year	unemployment rate <sup>1</sup> (percent)	Labor force <sup>3</sup>	Total employment <sup>4</sup>	Real GDP <sup>5</sup>	Average annual interest rate <sup>2</sup> (percent)				
Historical data:	•	•	•	-	•				
1960 to 1965	5.5	1.3	1.6	5.0	4.0				
1965 to 1970	3.9	2.2	2.1	3.4	5.9				
1970 to 1975	6.1	2.5	1.5	2.7	6.7				
1975 to 1980	6.8	2.7	2.9	3.7	8.5				
1980 to 1985	8.3	1.5	1.5	3.1	12.1				
1985 to 1990	5.9	1.7	2.0	3.2	8.5				
1990 to 1995	6.6	1.0	.9	2.4	7.0				
1995 to 2000	4.6	1.5	1.8	4.0	6.2				

	Average annual	l A			
Calendar Year	unemployment rate <sup>1</sup> (percent)	Labor force <sup>3</sup>	Total employment <sup>4</sup>	Real GDP <sup>5</sup>	Average annual interest rate <sup>2</sup> (percent
Historical data cont.	•		•		•
1993	6.9	.8	1.3	2.7	6.1
1994	6.1	1.4	2.2	4.0	7.1
1995	5.6	1.0	1.4	2.7	6.9
1996	5.4	1.2	1.4	3.6	6.6
1997	4.9	1.8	2.2	4.4	6.6
1998	4.5	1.0	1.4	4.3	5.6
1999	4.2	1.2	1.5	4.1	5.9
2000	4.0	2.3	2.5	3.8	6.2
2001	4.8	.8	.0	.3	5.2
2002	5.8	.8	3	2.4	4.9
2003	6.0	1.2	.9	3.1	4.1
Intermediate:					
2004	5.7	1.3	1.7	4.4	4.4
2005	5.5	1.6	1.7	3.6	4.8
2006	5.6	1.3	1.3	3.2	5.1
2007	5.5	1.1	1.1	3.0	5.6
2008	5.5	1.0	1.0	2.8	5.9
2009	5.5	.9	.9	2.7	5.9
2010	5.5	.8	.8	2.6	5.9
2011	5.5	.8	.8	2.4	5.9
2012	5.5	.6	.6	2.3	5.8
2013	5.5	.6	.6	2.2	5.8
2010 to 2015	5.5	.6	.6	2.2	5.8
2015 to 2080	5.5	.2	.2	1.8	5.8
Low Cost:					
2004	5.4	1.4	2.0	4.9	4.4
2005	5.4	1.7	1.8	3.9	4.6
2006	5.2	1.5	1.6	3.9	4.9
2007	5.1	1.2	1.4	3.6	5.3
2008	5.0	1.1	1.3	3.5	5.4
2009	4.8	1.1	1.2	3.3	5.5
2010	4.7	1.0	1.1	3.2	5.5
2011	4.6	.9	1.1	3.1	5.5
2012	4.5	.6	.6	2.7	5.5
2013	4.5	.4	.4	2.4	5.5
2010 to 2015	4.5	.6	.7	2.7	5.5
2015 to 2080	4.5	.6	.6	2.6	5.5
High cost:	4.0	.0	.0	2.0	0.0
2004	6.4	1.0	.6	1.7	4.5
2004	6.5	1.3	1.2	3.7	6.1
2005	6.1	1.3	1.7	3.4	5.5
2007	6.5	.9	.4	.4	5.6
2008	7.3	.6	2	1.7	7.7
2009	6.6	.9	1.6	3.6	8.8
2010	6.4	.9	1.1	2.2	7.2
2011	6.5	.7	.6	1.7	6.2
2012	6.5	.8	.8	1.9	6.0
2013	6.5	.8	.8	2.0	6.0
2010 to 2015	0.5			1.0	
2010 to 2015	6.5	.6	.6	1.8	<u> </u>

<sup>1</sup>Unadjusted civilian unemployment rates are shown through 2013. Thereafter, the rates are adjusted to the age-sex distribution of the civilian labor force in 2002.

<sup>2</sup>The average annual interest rate is the average of the nominal interest rates, which, in practice, are compounded semiannually for special public-debt obligations issuable to the trust funds in each of the 12 months of the year. <sup>3</sup>The U.S. civilian labor force concept is used here.

<sup>4</sup>Total of civilian and military employment in the U.S. economy.

<sup>5</sup>The real GDP (gross domestic product) is the value of total output of goods and services in 1996 dollars.

(continued on page 12)

#### Background

The Trustees Report has traditionally shown additional estimates using a low-cost and a high-cost set of specified assumptions to reflect the presence of uncertainty. These additional estimates provide a range of possible outcomes for the projections. However, they provide no indication of the probability that actual future experience will be inside or outside the range of these estimates. This appendix presents the results of a model, based on stochastic modeling techniques, that estimates a probability distribution of future outcomes of the financial status of the combined OASI and DI Trust Funds. It should be noted that this model is in its early stages of development. Future improvements and refinements to the model are expected. In particular, future revisions are expected to reflect a fuller range of uncertainty about the future, as is discussed below.

#### Methodology

More detail on this model, and stochastic modeling in general, is available on the Internet.<sup>1</sup> Each time-series equation is designed such that, in the absence of random variation, the value of the variable would equal the value assumed under the intermediate set of assumptions.

For each simulation of the model, values of the variables listed above are determined by using Monte Carlo techniques to randomly assign the year-by-year variations. Each simulation produces an estimate of the financial status of the combined OASI and DI Trust Funds. Results shown in this section, based on the 5,000 simulations of the model, reflect the distribution of results.

The results from this model should be interpreted with caution and with a full understanding of the inherent limitations. Results are very sensitive to equation specifications, degrees of covariance among variables and the historical periods used for the estimates.

The historical period available for most variables is relatively homogeneous and does not reflect many substantial shifts. The time-series modeling reflects what occurred in the historical period. As a result, the variation indicated in this appendix should be viewed as the minimum plausible potential variation for the future. Substantial shifts, as predicted by many experts and as seen in prior centuries, are not fully reflected in the current model.

#### Results

Table VI.E1 displays long-range actuarial estimates for the combined OASDI program resulting from using both the deterministic and stochastic approaches. Actuarial estimates included in the table are for the longrange period, 2004-78. Stochastic estimates are shown

<sup>1</sup>The Internet address is: www.socialsecurity.gov/OACT/ stochastic/index.html.

	[Comparison of deterministic results and stochastic results]								
	Traditio	nal deteri model	ministic	Stochastic model					
	Inter-	Low Cost	High Cost	Median 50th	80-percent con	fidence interval	95-percent confidence interv		
	mediate	0051	COSL	percentile	10th percentile	90th percentile	2.5th percentile	97.5th percentile	
Actuarial balance	-1.89	0.41	-4.96	-1.98	-3.25	-0.85	-4.02	033	
Open group unfunded obligation (in trillions)	\$3.7	-\$1.1	\$10.3	\$4.0	\$7.1	\$1.5	\$9.2	\$0.4	
First year cost exceeds tax income	2018	2022	2013	2018	2014	2021	2013	2023	
Year assets become exhausted	2042	2	2031	2042	2035	2056	2032	2071	
Annual cost in 75th year (percent of taxable payroll)	19.29	14.01	27.23	19.78	16.08	24.70	14.38	27.88	
Annual cost in 75th year (percent of GDP)	6.62	5.20	8.61	6.78	5.52	8.46	4.95	9.54	

Table V.1.E.1—Long-Range<sup>1</sup> Estimates Relating to the Actuarial Status of the Combined OASDI Program [Comparison of deterministic results and stochastic results]

<sup>1</sup>75-year period: 2004-78.

<sup>2</sup>The fund is not estimated to be exhausted within the projection period.

for the median (50th percentile) and for the 95-percent and 80-percent confidence intervals. For comparison, deterministic estimates are shown for the intermediate, low cost, and high cost assumptions. Each stochastic estimate displayed in the table does represent the results of one stochastic simulation. However, for a given percentile, the stochastic estimates shown for the different long-range actuarial measures are generally not from the same stochastic simulation.

Hypertext versions of the 2004 Social Security and Medicare Trustees Reports as well as "A Summary of the 2004 Annual Reports" are available on the Internet at the following addresses:

#### **Social Security (OASDI)**:http://www.ssa.gov/OACT/ TR/TR04/index.html

**Medicare (HI and SMI)**:http://www.cms.hhs.gov/ publications/trusteesreport/2004/

**Summary:** http://www.ssa.gov/OACT/TRSUM/ trsummary.html

Other information about Social Security benefits and services is available at: http://www.ssa.gov or by calling toll-free 1.800.772.1213

**Other information about Medicare benefits and services is available at:** *http://www.cms.hhs.gov* or by calling toll-free 1.800.663.4227. ◆

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for the Pension Section Council and the Research Committee to consider.

- Solving the portability problem: The Pension Section Council is considering a call for papers to identify potential solutions to address the various practical problems facing plan sponsors and members relating to portability of pension benefits.
- Cash balance plan survey: The Research Committee is preparing to conduct a comprehensive survey of cash balance plans in the United States, examining a variety of aspects including prevalence, design, transition, financing, and communication.
- Rational retirement age: The notion of age 65 as the "normal retirement age" dates back to the 19th century, when life expectancies were far shorter than today. In addition to longer life expectancies after retirement, employees approaching retirement age today are healthier, working conditions are significantly different and individuals' economic needs during the years leading up to and immediately following retirement reflect different priorities and commitments to dependent children and elderly parents. These considerations call into question the relevance of age 65 as the pivot point for private and public retirement plans. To help support future discussion within the broader community of legislators, plan sponsors and the general public, we believe that some basic research could help bring greater intellectual rigor to the question of what the right retirement age is. This could take into account macroeconomic and societal issues, questions of affordability of retirement, and methodologies for the qualitative and quantitative assessment of an individual's ability to work productively (e.g., applying approaches used to assess the ability to work for individual claimants under disability plans, on a broader population basis).

· "Paternalism versus orphanism": From studying for actuarial exams (and, for those of us with a few grey hairs, from design work with plan sponsors in decades past), we're all familiar with the concept of paternalism as a rationale supporting employers' fundamental design, communication and management decisions for pension and postretirement benefit plans. In recent years, however, employees have increasingly demanded greater control over their own financial security, and many employers have expressed concerns over their ability and responsibility to provide full, automatic, guaranteed benefit coverage and protection to employees and retirees. As the pendulum swings toward greater autonomy and self-reliance for individual employees and retirees, what are the longer term financial and societal implications? Is there a risk that the pendulum could swing too far-and, if so, what are the consequences? The Pension Section Council has contemplated this "blue sky" question, and is starting to reach out to others outside the actuarial community to spark some discussion and debate.

#### Publications

Several items are being developed for publication—in some cases, in traditional print form; in other cases, electronically:

• *Pension Forum:* Two issues of the *Pension Forum* are confirmed for release this year—one focusing on the bond yield curve (with perspectives on how yield curves are developed and practical aspects of using yield curves to value pension liabilities), and another centered on ASOP 27. A third issue will follow as soon as practical, to highlight the remaining papers from the 2003 Financial Economics Symposium that have not yet been published in other journals.

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