The Predictable Surprise
The Unraveling of the U.S. Retirement System



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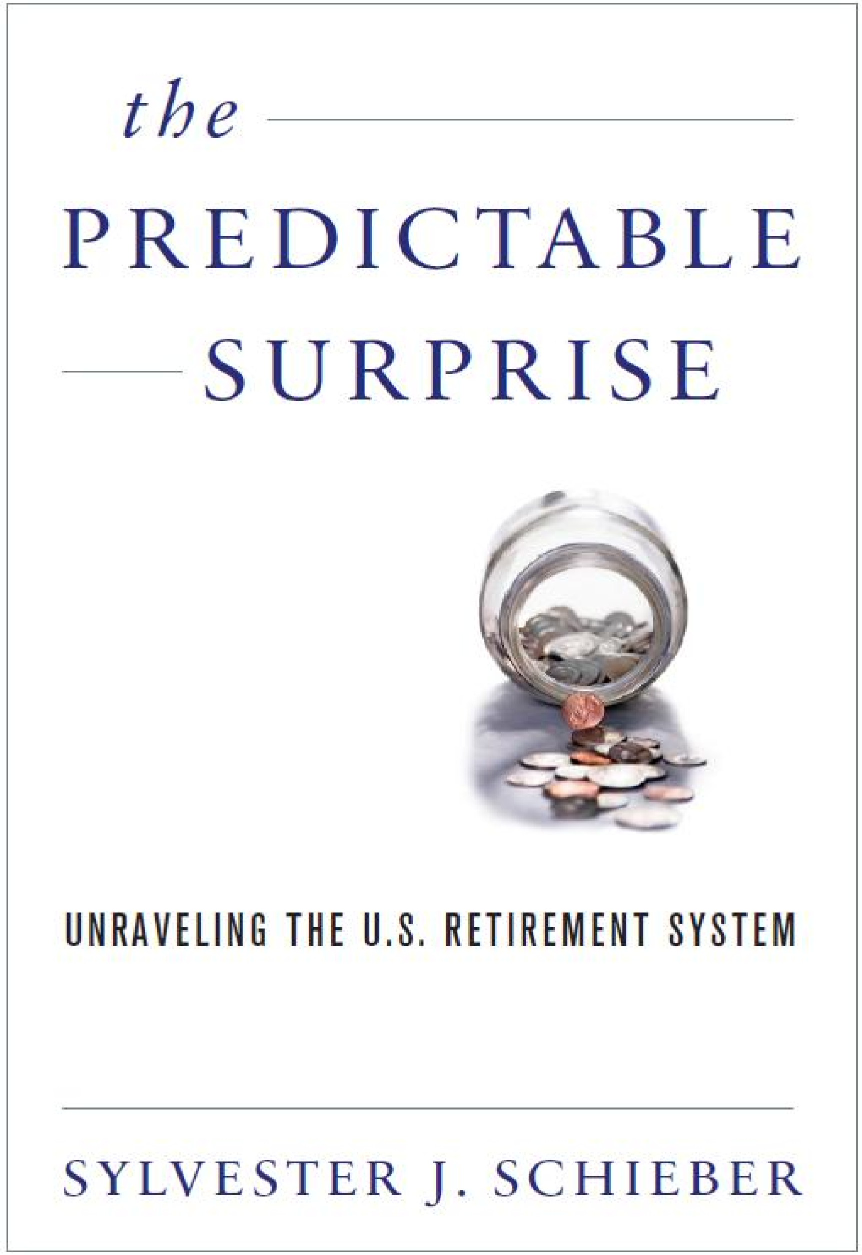

the
PREDICTABLE
SURPRISE
UNRAVELING THE U.S. RETIREMENT SYSTEM
SYLVESTER J. SCHIEBER

Thematic Overview

- Retirement policy discussions tend to focus on social insurance or worker pension/saving programs independently
- There are many recurring examples of how to get into trouble… but we tend to forget them
- We can often anticipate retirement problems well in advance… but do nothing until imminent
- There is a strong inherent tendency to push current costs off to future
- Thinking more holistically would likely give us greater flexibility to achieve better policy outcomes

Presentation Overview

- Historical basis of modern retirement system
- Early 1970s course adjustments
- The Golden Age of Retirement
- Transition period
- Beyond the Golden Age
- Policy recommendations and their implications

Employer Plans Early History

- Employer-sponsored defined benefit pensions date to the late 19th century
- Defined benefit plans were predominate early on
- Often were operated on a pay-as-you-go financing and led to some spectacular failures
- By 1920s, the needs to fund and properly expense accruing benefits were understood
- Post-World War II “stampede” of private employers to set up plans, many with pay-as-you-go financing
- 1964 Studebaker collapse led to public outcry

Social Security Early History

- President Franklin Roosevelt was adamant that the system be based on “insurance principles”
  - Benefits be funded as earned
  - Provide participants reasonable market returns
- Opposition to funding at both ends of political spectrum
- By early 1950s Social Security, was operated on a pay-as-you-go basis
- Benefits expanded and benefits increased through the early 1970s

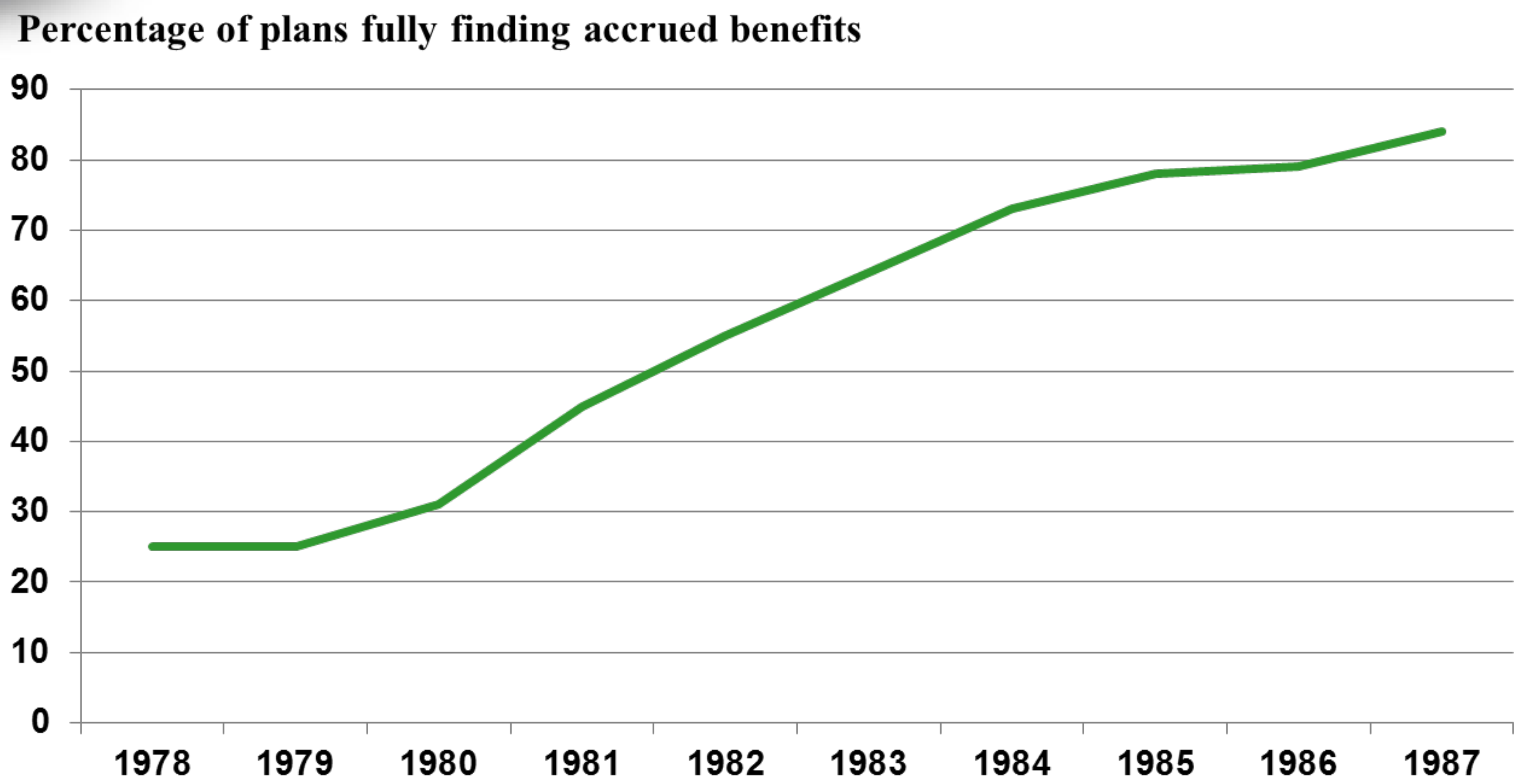
Course Adjustments in Early 1970s

- Private pensions were affected by two 1974 legislative initiatives
  - Employee Retirement Income Security Act (ERISA)
  - Congressional Budget and Impoundment Act
- Social Security benefits were automatically indexed

ERISA Intended to Secure Benefits across Several Dimensions

- Participation and vesting standards
- Funding requirements
  - Implied that benefits be funded as earned but increases in negotiated benefits could not be anticipated
  - Limited extent of benefits that could be covered in a tax-qualified plan but gave an extra amount for workers covered by multiple plans
- Created an insurance program to cover potential pension defaults
- Required annual reporting
- Strengthened fiduciary standards

Percentage of Large Private Plans with Assets Equal to Liabilities



Sources: Watson Wyatt Worldwide, *1983 Survey of Actuarial Assumptions and Funding*, p. 15, *1986 Survey of Actuarial Assumptions and Funding*, p., 4., *1991 Survey of Actuarial Assumptions and Funding*, p. 4.

Social Security's Post Indexation Experience

- Indexing approach adopted in 1972 led to rapid benefit growth and exploding program costs
- Cost of benefits = beneficiaries/workers times average benefits/average covered earnings
  - From 1972 through 1976
    - CPI increased a cumulative 40.6 percent (and was doubly incrementing initial benefit levels)
    - Real wage growth was a cumulative 0.9 percent
  - From 1977 through 1981
    - CPI increased a cumulative 60.0 percent
    - Real wages increased a cumulative -6.9 percent

The Golden Age of Retirement

Private Retirement Plans in the New Regulatory Environment

- From 1975 to 1983, number of DB plans increased 69 percent, participants 11 percent
- Number of DC plans doubled and active participants increased to 2.5 times 1975 level
- In 1960, 30 percent of DB plans offered age 55 retirement; by 1980 it was 57 percent
- In 1960, no private plans offered full benefits before age 65; by 1980, 69 offered them
- In 1960, only 10 percent of private DB plans offered some subsidized early benefits; by 1980, 95 percent offered them

Average Lifetime Value of Social Security Benefits in Excess of Value of Lifetime Contributions for a 65-Year-Old Retiree

	Average earner		Maximum earner	
Year	Single male	Married with spouse benefit	Single male	Married with spouse benefit
1950	$39,724	$74,773	$47,515	$89,476
1960	134,348	270,032	145,381	296,307
1970	146,298	303,433	158,674	335,777
1980	106,075	234,463	126,350	289,231

Source: Sylvester J. Schieber, *The Predictable Surprise: The Unraveling of the U.S. Retirement System* (New York: Oxford University Press, 2012), pp. 67-68.

Social Security Benefit Claiming and Average Retirement Years

In 1959, 35 percent of elderly estimated to be in poverty, by 1979, the rate had dropped to 15 percent

	Average Social Security claiming age		Expected years in retirement	
	Men	Women	Men	Women
1950-1955	68.5	67.9	12.0	13.6
1965-1970	63.4	64.3	13.9	16.7
1980-1985	62.9	62.8	16.3	20.5
1995-2000	62.6	62.6	18.0	22.0

Source: Murray Gendell, "Older Workers: Increasing Their Labor Force Participation and Hours of Work," *Monthly Labor Review* (January 2008), p. 42.

Cumulative Payroll Tax Rates and Supplemental Savings Rate as Percent of Worker's Lifetime Earnings

	Lifetime payroll tax as % of earnings	Required private contribution rate	Combined total
1955	2.1 %	4.6 %	6.7 %

Source: Sylvester J. Schieber, *The Predictable Surprise: The Unraveling of the U.S. Retirement System* (Oxford: Oxford University Press, 2012), p. 241.

Cumulative Payroll Tax Rates and Supplemental Savings Rate as Percent of Worker's Lifetime Earnings

	Lifetime payroll tax as % of earnings	Required private contribution rate	Combined total
1955	2.1 %	4.6 %	6.7 %
1965	3.6	5.4	9.0
1975	5.9	5.9	11.8

Source: Sylvester J. Schieber, *The Predictable Surprise: The Unraveling of the U.S. Retirement System* (Oxford: Oxford University Press, 2012), p. 241.

Transitions

New Perceptions Evolved in the 1980s and on into the 1990s

- Policy motivations change toward private employer-sponsored plans
  - The 1978 Tax Act introduced section 401(k) but not implemented until early 1980s
  - Drive for low tax rates brought focus onto tax expenditures and curtailing pension funding
- Rash of legislation affected private retirement plans
  - TEFRA, DEFRA, REA83, TRA85, OBRA87, 89 & 93
  - Omnibus Budget Reconciliation Act of 1987 shifted funding perspective from ultimate benefit to currently accrued liability
  - Tax Reform and Omnibus Budget Reconciliation Act of 1989 locked up assets

Per Capita Contribution Patterns Per Active Plan Participant

	Active DB participants (thousands)	Per capita contributions (2011 $s)	Active DC participants (thousands)	Per capita contributions (2011 $s)
1980	30,100	$3,357	18,886	$2,953
1990	26,205	1,378	35,340	3,362
2000	22,218	1,919	50,874	4,985

Source: Calculated by the author based on private tax qualified plan disclosure data filed on Form 5500s for respective plan years and found at http://www.dol.gov/ebsa/publications/form5500dataresearch.html.

Funding of Private Defined Benefit Plans Relative to Current Liability

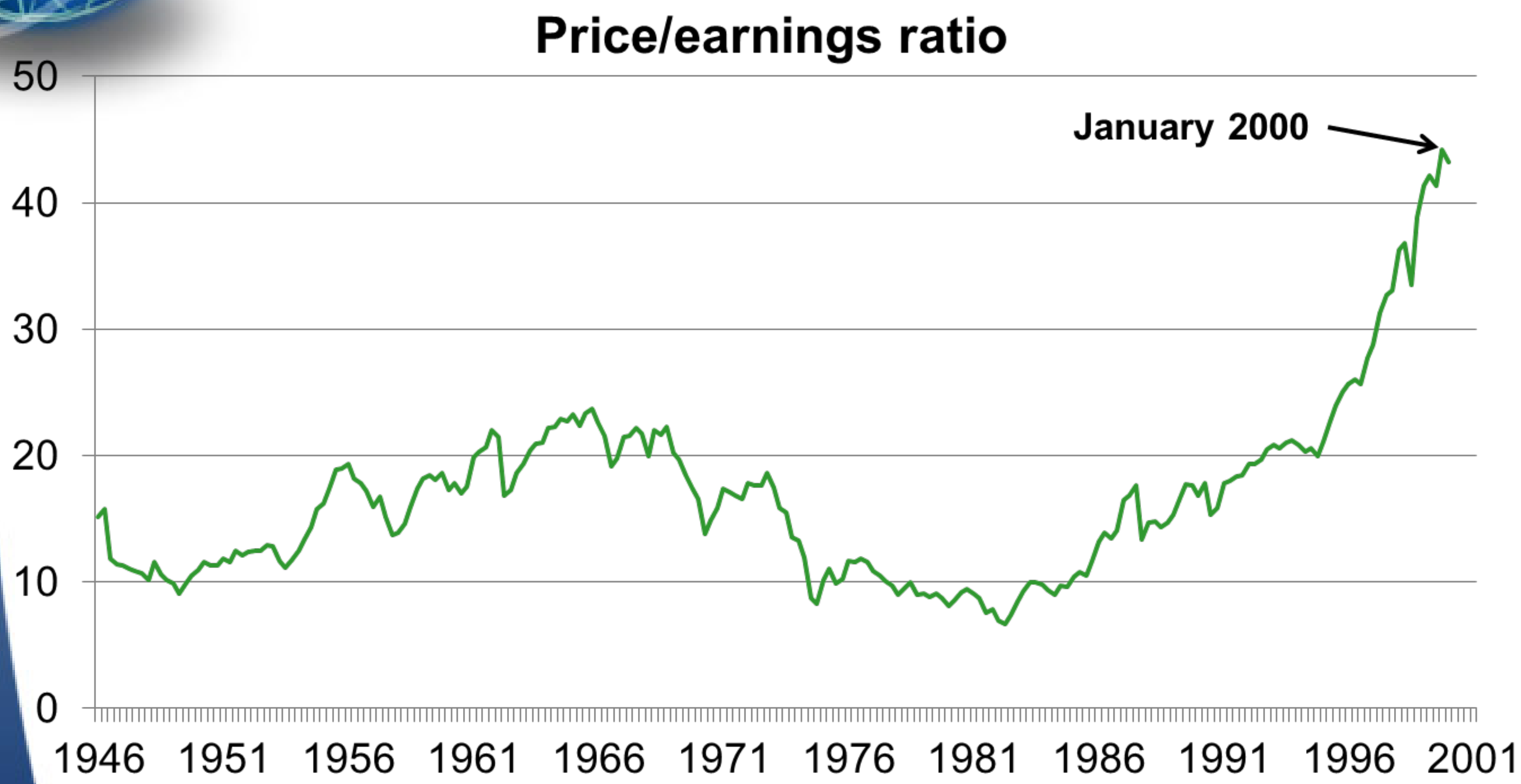
Year	All plans' median funding ratio	Percent with ratio > or = 1.0	Median funding ratio of overfunded plans
1987	1.45	83	1.57
1989	1.40	85	1.50
1991	1.38	85	1.45
1993	1.27	82	1.35
1995	1.15	70	1.25
1997	1.23	84	1.30
1999	1.25	82	1.32
2000	1.11	69	1.22

Source: Watson Wyatt Worldwide, *Actuarial Assumptions Survey*, various years.

While Contributions Were Declining Liabilities Were Increasing

- Three forces were increasing defined benefit liabilities during the 1980s and 1990s
  - The baby boomers were settling into career jobs and average service in plans was rising because of their relative share of the workforce
  - The baby boomers were also aging toward retirement day and the power of compound discounting was accelerating the growth of benefit obligations in present value terms
  - Interest rates were falling
- Irrational exuberance about financial market performance gave the impression we could manage the systems on thin margins

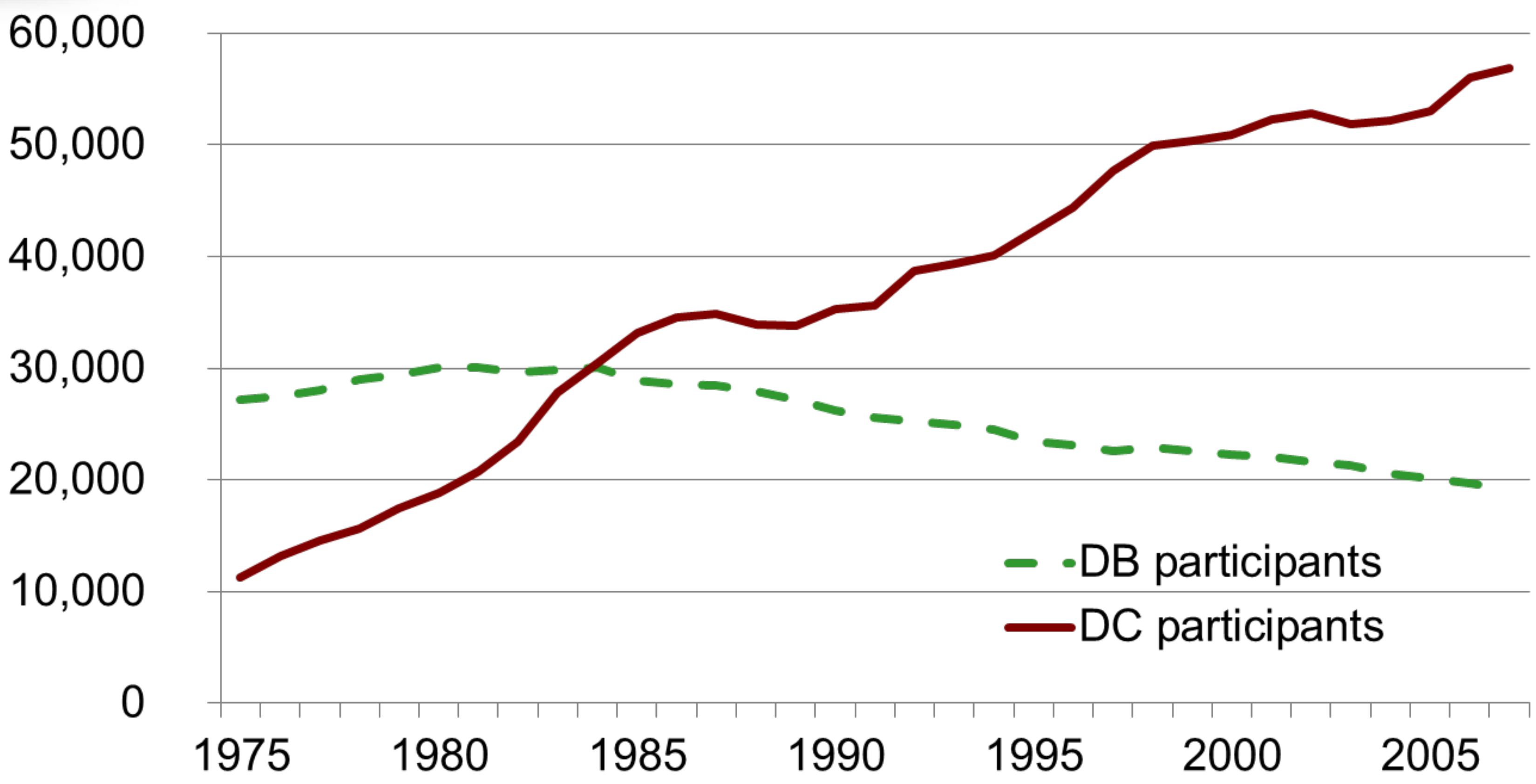
Price-Earnings Ratios on U.S. Stocks for Selected Years



Source: Robert J. Shiller, updated data used in developing *Irrational Exuberance* (Princeton, NJ: Princeton University Press, 2000), found at: http://www.irrationalexuberance.com/index.htm.

Shifting toward Defined Contribution Plans in Private Firms

Thousands of active participants

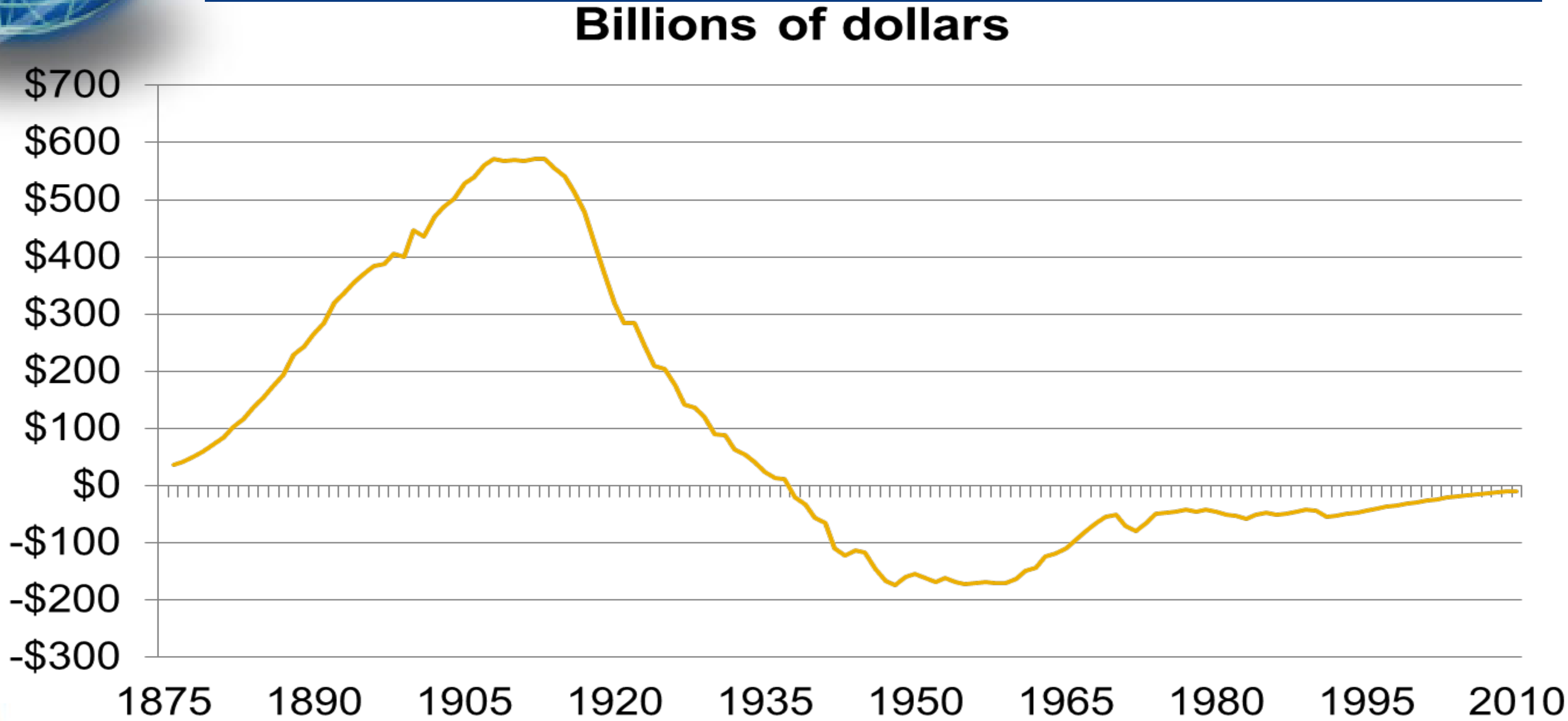


Source: Calculated by the author based on private tax qualified plan disclosure data filed on Form 5500s for respective plan years and found at http://www.dol.gov/ebsa/publications/form5500dataresearch.html.

New Perceptions Evolved in the 1980s and on into the 1990s

- Policy motivations change toward private employer-sponsored plans
- Social Security policies no longer driven solely by appetites for expanding benefits
  - The 1977 and 1983 Amendments raised tax rates and maximum taxable earnings levels
  - The latter began to address long-term demographic issues by raising age for claiming “unreduced” benefits
  - Long-term underfunding revealed as time passed
- Evolving understanding that the economics of retirement was changing

Social Security Intercohort Transfers Paid to Specific Birth-Year Classes during Their Retirements in 2009 Dollars

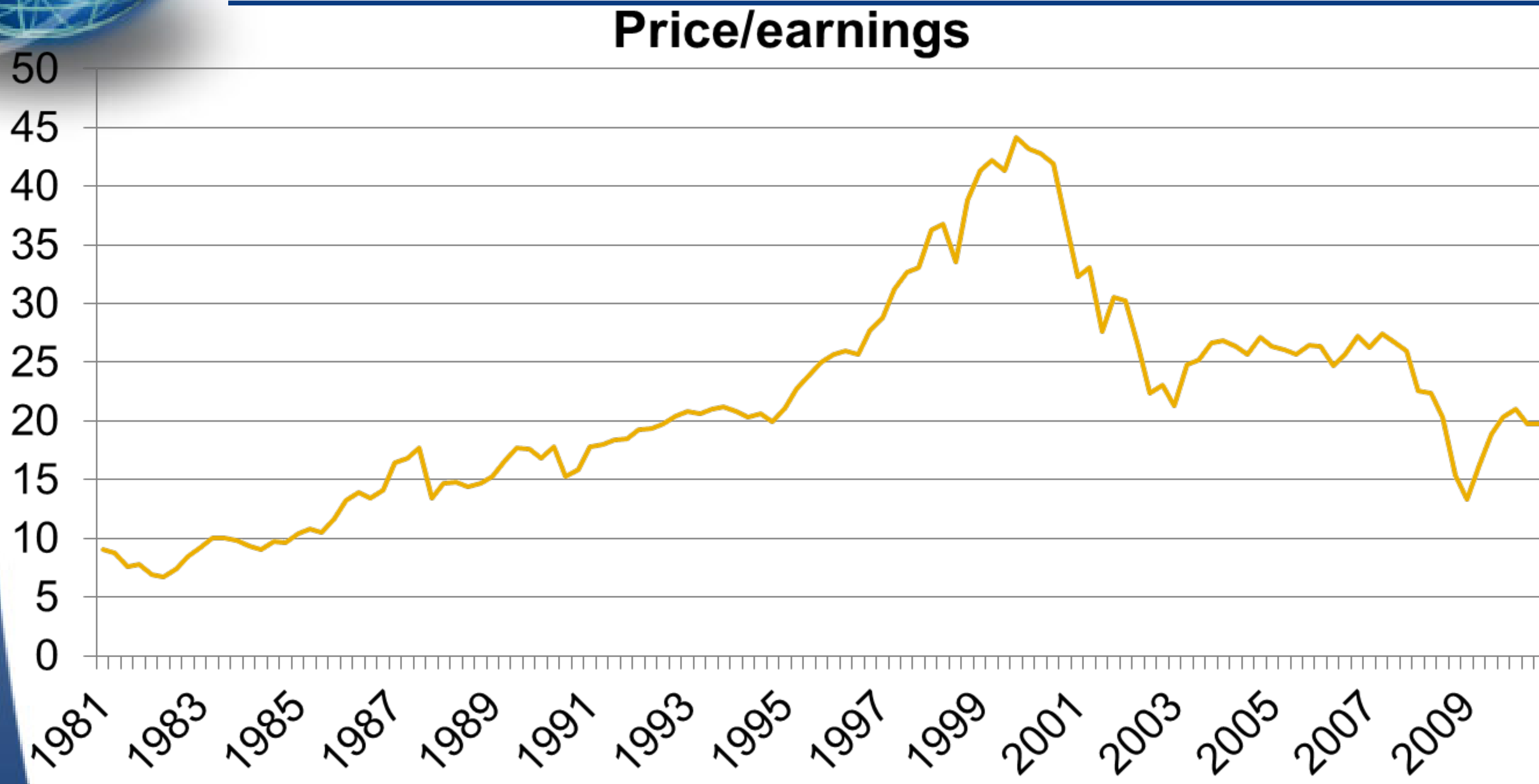


The prospects suggested here for future retirees are misleading because the system is underfunded by $8.6 trillion under current law over next 75 years.

Source: Dean R. Leimer, "Cohort-Specific Measures of Lifetime Net Social Security Transfers," ORS Working Paper Series, Number 59 (Washington, DC: Social Security Administration, February 1994), pp. 76-77 and calculations by the author to update to 2009 dollars.

Beyond the Golden Age of Retirement

Price-Earnings Ratios on U.S. Stocks for Selected Years



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1997	1.23	84	1.30
1999	1.25	82	1.32
2000	1.11	69	1.22
2001	0.99	48	1.22
2002	0.92	35	1.20
2003	0.90	33	1.11
2004	0.95	43	1.12
2005	0.99	48	1.11

Source: *Actuarial Assumptions Survey*, various years.

The Private Pension Funding Story under Financial Accounting Standards

	All plans' mean funding ratio	All plans' median funding ratio
1998	1.10	1.04
1999	1.21	1.16
2000	1.14	1.09
2001	0.95	0.92
2002	0.77	0.76
2003	0.80	0.79
2004	0.82	0.82
2005	0.81	0.81
2006	0.89	0.87
2007	0.95	0.94
2008	0.74	0.71
2009	0.76	0.75
2010	0.78	0.78

Source: Towers Watson tracking of Fortune 1000 firms sponsoring defined benefit plans.

Per Capita Contribution Patterns Per Active Plan Participant

	Active DB participants (thousands)	Per capita contributions (2011 $s)	Active DC participants (thousands)	Per capita contributions (2011 $s)
1980	30,100	$3,357	18,886	$2,953
1990	26,205	1,378	35,340	3,362
2000	22,218	1,919	50,874	4,985
2009	17,745	6,472	61,090	4,889

Source: Calculated by the author based on private tax qualified plan disclosure data filed on Form 5500s for respective plan years and found at http://www.dol.gov/ebsa/publications/form5500dataresearch.html.

Large PBGC Single Employer Claims in First Decade of New Millennium

	Claims ($ millions)	Vested participants	Average claim per participant
Kaiser Aluminum	597.3	17,727	$33,694
Weirton Steel	640.5	9,410	68,064
Trans World Airlines	710.5	34,189	20,782
National Steel	1,216.1	35,404	34,349
Delta Airlines	1,739.7	13,028	133,533
LTV Steel	2,135.0	83,094	25,694
US Airways	2,699.9	55,770	48,412
Bethlehem Steel	3,650.2	97,015	37,625
Delphi	6,108.5	69,042	88,475
United Airlines	7,256.5	122,541	59,217
Total top 10 claims	26,754.2	537,220	49,801
Total claims ever	42,918.1	1,810,587	23,704

Source: Pension Benefit Guaranty Corporation, *Pension Insurance Data Book*, various years found at: http://www.pbgc.gov/practitioners/plan-trends-and-statistics/content/page13270.html.

Value of Lifetime Social Security Contributions, Benefits and Net Position for Workers Born in 1949, Retiring in 2014

Value at retirement date	Medium earner
Lifetime payroll taxes	$353,800
Single male benefit	273,049
Net lifetime gain	-80,751
One-earner couple benefit	554,229
Net lifetime gain	200,429
Two-earner couple taxes	707,600
Two-earner couple benefit	609,534
Net lifetime gain	-98,066

Source: Sylvester J. Schieber, The Predictable Surprise: The Unraveling of the U.S. Retirement System (Oxford: Oxford University Press, 2012), p. 285.

Value of Lifetime Social Security Contributions, Benefits and Net Position for Workers Born in 1949, Retiring in 2014

Value at retirement date	Medium earner	Maximum earner
Lifetime payroll taxes	$353,800	$898,346
Single male benefit	273,049	402,884
Net lifetime gain	-80,751	-495,462
One-earner couple benefit	554,229	789,968
Net lifetime gain	200,429	-108,378
Two-earner couple taxes	707,600	1,796,692
Two-earner couple benefit	609,534	899,364
Net lifetime gain	-98,066	-897,328

Source: Sylvester J. Schieber, The Predictable Surprise: The Unraveling of the U.S. Retirement System (Oxford: Oxford University Press, 2012), p. 285.

Cumulative Payroll Tax Rates and Supplemental Savings Rate as Percent of Worker's Lifetime Earnings

	Lifetime payroll tax as % of earnings	Required private contribution rate	Combined total
1955	2.1 %	4.6 %	6.7 %
1965	3.6	5.4	9.0
1975	5.9	5.9	11.8
1985	9.0	6.1	15.1
1995	9.9	6.7	16.6
2005	12.0	7.1	19.1
2011	13.1	7.5	20.6

Source: Sylvester J. Schieber, *The Predictable Surprise: The Unraveling of the U.S. Retirement System* (Oxford: Oxford University Press, 2012), p. 241.

Recent Policy Proposals and Their Implications

Recent Retirement Policy Intimations

- Renewed focus on tax expenditures related to retirement saving and perception that benefits are not worth current cost
  - Concerns that tax benefits accrue primarily to those at upper end of earnings spectrum
  - Concerns that lower earners are left with inadequate retirement income security
  - Yearning for the return to the good old days of defined benefit annuity provision

Percentage of Households with Some Plan Coverage by Ages 51-56

	Original sample	War baby sample	Early boomers sample
Survey year	in 1992	in 1998	in 2004
All respondents	78.8	81.2	80.4
All households	76.9	79.3	78.4
Couples	83.9	87.1	87.5
Singles	58.8	62.1	59.2

Source: Alan Gustman, Thomas Steinmeier and Nahid Tabatabai, *Pensions in the Health and Retirement Study* (Cambridge, MA: Harvard University Press, 2010), p. 95.

Percentage of People in Designated Plan types at Ages 51-56

	Total in a DB plan	Total in a DC plan	Total in both types
Original sample (51-56 in 1992)	68	58	27
War baby sample (51-56 in 1998)	60	70	31
Early baby boomer sample (51-56 in 2004)	49	72	25

Source: Alan Gustman, Thomas Steinmeier and Nahid Tabatabai, Pensions in the Health and Retirement Study (Cambridge, MA: Harvard University Press, 2010), p. 98.

Percentage of People 51 to 56 in 1992 Reporting Pension Income

Year surveyed	Percentage receiving pension income	Average monthly benefit in 1992 $s
1992	11.6%	1,073
1994	16.9%	1,511
1996	21.3%	1,265
1998	23.0%	1,032
2000	31.4%	1,041
2002	34.5%	945
2004	39.3%	925
2006	37.3%	817

Source: Alan Gustman, Thomas Steinmeier and Nahid Tabatabai, Pensions in the Health and Retirement Study (Cambridge, MA: Harvard University Press, 2010), p. 277.

Maximum Net Value of Tax Preferences from Qualified Plans for 1949 Birth Cohort Retiring in 2014

	Medium earner
Plan accumulation	$359,015
Assumed marginal tax rate	15%
Income tax liability at retirement	53,852
Net pension distribution	305,163
Accumulated value of savings if taxed as a taxable savings account	241,521
Value of the tax preference versus a regular savings account	63,642

Source: Sylvester J. Schieber, The Predictable Surprise: The Unraveling of the U.S. Retirement System (Oxford: Oxford University Press, 2012), p. 287.

Maximum Net Value of Tax Preferences from Qualified Plans for 1949 Birth Cohort Retiring in 2014

	Medium earner	Max earner
Plan accumulation	$359,015	$1,904,088
Assumed marginal tax rate	15%	28%
Income tax liability at retirement	53,852	533,145
Net pension distribution	305,163	1,370,943
Accumulated value of savings if taxed as a taxable savings account	241,521	937,339
Value of the tax preference versus a regular savings account	63,642	433,604

Source: Sylvester J. Schieber, The Predictable Surprise: The Unraveling of the U.S. Retirement System (Oxford: Oxford University Press, 2012), p. 287.

Recent Retirement Policy Intimations

- Renewed focus on tax expenditures related to retirement saving and perception that benefits are not worth current cost
- Fiscal Responsibility Commission and Deficit Reduction Task Force both recommended:
  - Employer plan proposals
    - Limit deductible contributions to 20 percent of earnings
    - Set dollar limit on DC contributions to $20,000
    - Silent on DB limits
  - Social Security proposals
    - Raise taxable income limits
    - Scale back benefit for higher earners

Combined Value of Social Security Gains and Tax Preferences Qualified Plans for 1949 Birth Cohort Retiring in 2014

	Medium earner	Maximum earner
Single males	-$17,109	-$61,858
Single females	14,609	-15,060
One-earner couple	264,071	325,226
Two-earner couple	29,218	-30,119

Source: Sylvester J. Schieber, The Predictable Surprise: The Unraveling of the U.S. Retirement System (Oxford: Oxford University Press, 2012), p. 289.

Narrow Concentration of Focus: Does This Make Sense?

- Proposals to roll back contribution limits would dramatically diminish the potential value of tax-qualified benefits for workers in $100,000 to $200,000 range
- Proposals to raise taxable maximum earnings under Social Security and rolling back benefit levels at upper income would dramatically worsen economic deal for workers in the $110,000 to $190,000 range

Policy Aspirations of Plan Sponsors and the Implications and Alternatives

- Short-term concerns about low interest rates and large pension obligations
  - Private plan sponsors push for regulatory relief
  - Public plan sponsors assume future high returns
- Longer term focus
  - We could be facing low interest rates for some time
  - Ultimately the obligations have to be covered
  - Continuing low funding levels simply exposes sponsors to any additional negative market shocks
  - For private plans, need to address the risk of overfunding plans in current environment with no potential to reclaim assets if plans become overfunded

Where from Here?

- Need to rescale the retirement system to provide basics without impoverishing the future
- Give those able to work longer the incentives to do so without harming those who cannot
- Must acknowledge that defined contribution savings are a critical part of retirement security
- Push to create new DB-type arrangements will not provide immediate benefits
- Must provide an attractive and efficient means to convert these benefits into dependable lifetime support
- Social Security should remain a backstop but less bountiful at the top than today

Questions and Comments

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