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Planning Today for Tomorrow's Retirement

Zenaida Samaniego

If only it were that easy. Yet many Americans realize too late that it takes long-term planning if one expects to enjoy a comfortable retirement.

As with most life events, planning for retirement is a necessary step for success in achieving desired results. For example, it takes months for a couple to prepare for a "dream wedding," as planning for it requires participation by others such as family and friends. Planning for a child's birth and schooling requires time and resources. Corporations must plan and monitor short- and long-term strategies to grow and remain competitive in the marketplace. Our nation's leaders must be guided by sound policy for economic growth and the public good.

The Changing Retirement System

Years ago, people worked until they died, thus no thought was given to retirement and planning for it. Traditional family structures and social programs emerged that provided old-age support where needed.

The U.S. retirement landscape has evolved over time. With increasing longevity, we saw the advent of employer-sponsored defined benefit (DB) plans aimed at making way for younger members in the workforce and enticing older workers to retire with guaranteed pensions. With increasing competition, employers used these plans to attract talent and benefits expanded as a result.

For some time, employee pensions were provided under these DB plans, which together with Social Security (SS) and personal savings formed the "three-legged stool" of retirement security. During this period, workers began to expect to retire at the planned retirement age. There was still not much thought to financing it; rather, they looked forward to a life of leisure, relying mainly on their plan and SS benefits.

Employers soon realized the impact of the same longevity gains on their retired worker population, which combined with tightening regulations and other factors to make DB plans very costly and onerous to continue. Capital and earnings growth became the corporate mantra. The inception of the 401(k) plan provided employers with an opportunity, not to supplement the DB plan as the 401(k) was intended, but instead to shift away from DB to defined contribution (DC) plans.

Thus, most or all employers have "frozen"[1] their DB plans and moved toward 401(k) plans, where younger workers can defer taxes on the portion of their paycheck they contribute to their 401(k) retirement account. Some employers may match the employee contributions up to a certain percentage.[2] Other vehicles of the DC type, such as IRAs, may also be used to accumulate retirement savings.

The Evolving View of Retirement

For today's workers, the three legs of the stool have changed. Their views of retirement are still evolving.

- For some, the experiences of their grandparents and parents who retired under the DB system lead them to regard retirement as a given, believing they too can enjoy a comfortable and secure retirement. Consequently, there is not much thought to retirement planning.
- Many older retirees, who relied mainly or solely on DC plans and saved little else, are living longer or facing unexpected, significant medical or other expenditures, and a real risk of outliving their personal savings. With little or no family support, such retirees rely mainly on SS and/or welfare.
- Recent retirees are also "waking up" to the realization that not only did they save too little or spend their DC "windfall" too fast but that it may be too late for other options. For example, returning to work may be hindered by poor health or lack of employable skills.

1 Current participants were grandfathered in but DB plans were closed to new entrants.

2 Hilery Z. Simpson, "How Does Your 401(k) Match Up?" Bureau of Labor Statistics release, May 26, 2010, *https://www.bls.gov/opub/mlr/cwc/how-does-your-401k-match-up.pdf.*

- Older workers nearing retirement now face a similarly uncertain outlook, even as their saving horizon has markedly shortened and options to continue working or delaying retirement are no longer viable.

These factors lead to an increasing number of younger workers facing a change in their retirement prospects.

Given the new retirement "norm," the question becomes how we (individuals, employers and policymakers) can work together to help workers realize the "American dream" of retirement.

Testing Retirement Adequacy

Recent trends show that most Americans are unprepared for retirement.[3] Research by the General Accountability Office found that "among the 48 percent of households age 55 and older with some retirement savings, the median amount is approximately $109,000."[4]

Yet there are those who will argue that the DC system, particularly 401(k) plans, have the "potential" to provide adequate retirement income.[5]

Considering the potential to address the current "retirement gap," I decided to test this argument. Using a hypothetical example, I looked retrospectively at how someone born in the baby boom generation would have fared upon retirement if she were starting out on her career path and only had access to 401(k) plans and/or individual retirement accounts (IRA). DB outcomes are estimated for comparison.

Basic assumptions:

- Individual born in 1948, employed from age 22 until retirement age
- Annual wage earnings match the maximum taxable Social Security earnings (Federal Insurance Contributions Act, or FICA)
- Annual rate of return is set equal to historical yield on 10-year U.S. Treasuries, with inflation adjustment, and used to accumulate DC savings during the contribution period, until time of retirement
- Applicable taxes are disregarded
- DB minimum benefit formula: 2% of final five-year average earnings times years of credited service (number of years employed)
- DC participant does not cash out accumulated savings at retirement; rather she has option to either apply such savings toward the purchase of a fixed guaranteed lifetime income[6] or draw down on her DC balance under required minimum distribution (RMD)[7] rules in effect

Table 1 shows the DC test scenarios. Details can be found in the Appendix.

Tables 2 and 3 present a summary of test results.

Based on these findings, here are some observations:

- Expressed as a percentage of the individual worker's wage earnings, employee contributions under DC average 20% (compared to 0% employee share under DB). Employer contributions under DC are optional (unlike DB, when they were automatic or scheduled). This highlights the shift of the responsibility for one's retirement from the employer under the DB system to the employee under the DC system. The employee now must also bear the increased weight of such responsibility.

3 "Retirement Readiness: A Comparative Analysis of Australia, the United Kingdom and the United States," joint report of American Academy of Actuaries, Australian Actuaries Institute and the Institute and Faculty of Actuaries in the United Kingdom, October 2017, *https://www.actuary.org/files/imce/Retirement-Readiness.pdf.*

4 U.S. Government Accountability Office, "Most Households Approaching Retirement Have Low Savings," report to the Ranking Member, Subcommittee on Primary Health and Retirement Security, Committee on Health, Education, Labor and Pensions, U.S. Senate, GAO-15-419 (May 2015), *https://www.gao.gov/assets/680/670153.pdf.*

5 "Historical 401k Contribution Limits: Employer Profit Sharing is Significant," *Financial Samurai* (blog), accessed March 12, 2018, *https://www.financialsamurai.com/historical-401k-contribution-limits/.*

6 The amount of annuity income will depend on the then current market annuity purchase rates and the form of payment, among others. Using a retirement calculator (such as the one on the Employee Benefits Security Administration's website, *https://www.askebsa.dol.gov/retirementcalculator/UI/general.aspx*), estimated life annuity income amounts shown are current as of Oct. 10, 2017.

7 Assumed age 70 RMD factor of 27.4 based on "Required Minimum IRA Distribution," The Money Alert, accessed March 12, 2018, *http://www.themoneyalert.com/RMD-Tables.html.*

Table 1 DC Test Scenarios

Test Scenario	Employment Period	Contributions	Contribution Period
1	Age 22–69	Up to the maximum employee (EE) and employer (ER) contribution limits	Every year since inception of 401(k) in 1978 and IRA in 1974
2		Up to the maximum EE contribution limits, plus 3% ER match	Same as scenario 1
3		Up to the maximum EE contribution limits; no ER contribution	Same as scenario 1, but starting only in 1986 for 401(k)
4	Age 22–65	Up to the maximum EE contribution limits; no ER contribution	Same as scenario 3

Table 2 DC Only: Estimated Annual Life Income vs. Initial RMD

Test Scenario	Accumulated 401(K) Contributions at Retirement	Accumulated Contributions at Retirement	Annual Life Annuity Income	Initial RMD Age 70
Employed Age 22–69				
1	$2,006,908	$2,270,345	$166,464	$84,773
2	$2,137,392	$2,400,828	$176,028	$89,645
3	$709,592	$973,029	$71,340	$36,332
Employed Age 22–65				
4	$587,761	$806,233	$51,468	$33,160

Table 3 DB Only: Estimated Annual Life Annuity Income

Test Scenario	Credited Service (Years)	Annual Life Annuity Income
Employed age 22–69	47	$111,842
Employed age 22–65	43	$93,602

- Under the DC system, accumulated savings at assumed retirement age vary under the three scenarios of assumed 401(k) contribution levels. They are significantly higher under the first and second scenarios, which include employer contributions (profit sharing, match), compared to the third and fourth scenarios, which represent employee contributions only. These results highlight the impact of employer contributions and 401(k) in general, as a major source of DC savings, as well as the length of the contribution period.
- A comparison of DC to DB income shows mixed results.
  - Expressed as a life annuity, DC income under the first and second scenarios appears to be significantly higher than corresponding DB income, but lower under the third and fourth scenarios. The former may be due to very high employer contributions prevailing in the early years of 401(k). The high income of DB also shows the beneficial effect of long-term service under DB.
  - The initial RMD under DC appears lower than DB income. Note that DB income is level for the lifetime of the annuitant, whereas the level of the RMD will fluctuate each year, depending on the applicable RMD factor and the investment performance of the remaining DC balance.
- Expressed in terms of a replacement ratio (RR)[8] and accounting for Social Security benefits[9] for workers

8 Aon Consulting, "Replacement Ratio Study: A Measurement Tool for Retirement Planning," 2008, *http://www.aon.com/about-aon/intellectual-capital/attachments/human-capital-consulting/RRStudy070308.pdf.*

9 Retirement benefits vary by year and age of retirement under Social Security, as illustrated for workers with maximum taxable earnings. See Social Security Administration, "Workers With Maximum Taxable Earnings," accessed March 12, 2018, *https://www.ssa.gov/OACT/COLA/examplemax.html*.

with maximum taxable earnings, a result upward of 70% under all DC scenario was obtained.

I do not profess to have solutions based on these tests. Rather I hope that by this simplified, idealized example, insights can be provided that help us to understand the current system better and optimize the tools available to employees under such system, and to encourage continued support from employers and society working toward a secure retirement for American workers.

Filling the Retirement Gap

Following are some ideas for research and policy consideration.

- **Financial literacy.** This has been a constant challenge, but a basic understanding of the need to save is a start toward changing one's view of today's complex retirement and regulatory landscape.
- **System platform.** The employer-based system is a major administrative and financial resource to facilitate and optimize a disciplined retirement savings plan for each employee. The Social Security system is a potential resource that can address coverage for many who may not have access to workplace tools and also address worker mobility and portability issues under an employer-based system. Social Security may also be considered for a nationalized retirement system to augment social insurance benefits. The pros and cons of either system will need to be explored.
- **Voluntary vs. mandatory.** New DC features, such as auto enrollment and default contribution rates, are promising. Perhaps similar automatic ways of maximizing savings can be developed that go beyond nudging. Any approach needs individual focus, accounting for gender and income differences and factoring in net disposable income.
- **Lump sum vs. RMD vs. annuity.** Restricting lump-sum withdrawals ensure that DC balances can remain as a resource during retirement.[10] While an annuity may be considered for basic spending needs, the RMD may be viewed as providing a safe and efficient way to draw down DC savings during the retirees' remaining lifetime. A DB-like deferred life annuity arrangement may also be considered.
- **Education.** Training for necessary and employable skills is key to a successful career, earnings growth and financial independence.
- **Planning tools.** There has been a plethora of such commercial tools alleged to help with one's saving plans. Regulating such tools and/or providing a noncommercial, transparent and standard tool for this purpose may be considered.[11]
- **Transitioning from work to retirement.** The changing work and retirement environment calls for new ways to phase into part or full retirement.
- **Tax policy.** There needs to be an equitable consideration and treatment of all Americans when allocating government resources for the long term. Encouraging Americans to save can help with sustainability of social insurance and welfare programs.

As an older baby boomer now retired, I count myself among the disappearing ranks of beneficiaries of the DB system. Like most Americans, especially as a parent and grandparent, I have concerns about the next and future generations of workers and retirees. However, I am optimistic we can all work together, as a nation, to come up with solutions.

10 Steve Vernon, "How to 'Pensionize' Any IRA or 401(k) Plan," Stanford Center on Longevity, research paper, November 2017, *http://longevity.stanford.edu/wp-content/uploads/2017/12/How-to-pensionize-any-IRA-401k-final.pdf.*

11 Employee Benefits Security Administration, "Lifetime Income Calculator," accessed March 12, 2018, *https://www.dol.gov/agencies/ebsa/laws-and-regulations/rules-and-regulations/advanced-notices-of-proposed-rulemaking/lifetime-income-calculator.*

Appendix

		DC Contribution Limits[1]					DC Contribution Scenarios					
Year	Age	401(k) EE Max	401(k) EE + ER Max	401(k) EE Catch-up 50+	IRA Limits Under Age 50	IRA Limits Age 50+	401(k) EE Max + Catch-up + ER max	401(k) EE Max + Catch-up + ER 3% Match	401(k) EE Max + Catch-up	IRA EE Max + Catch-up	Assumed Return[2]	Assumed Wage Earnings[3]
2017	69	$18,000	$54,000	$6,000	$5,500	$6,500	$60,000	$27,816	$27,885	$6,500	–0.07%	$127,200
2016	68	$18,000	$53,000	$6,000	$5,500	$6,500	$24,000	$27,555	$27,623	$6,500	0.68%	$118,500
2015	67	$18,000	$53,000	$6,000	$5,500	$6,500	$24,000	$27,555	$27,622	$6,500	1.98%	$118,500
2014	66	$17,500	$52,000	$5,500	$5,500	$6,500	$23,000	$26,510	$26,576	$6,500	1.24%	$117,000
2013	65	$17,500	$51,000	$5,500	$5,500	$6,500	$23,000	$26,411	$26,476	$6,500	0.31%	$113,700
2012	64	$17,000	$50,000	$5,500	$5,000	$6,000	$22,500	$25,803	$25,867	$6,000	–0.90%	$110,100
2011	63	$16,500	$49,000	$5,500	$5,000	$6,000	$22,000	$25,204	$25,267	$6,000	1.76%	$106,800
2010	62	$16,500	$49,000	$5,500	$5,000	$6,000	$22,000	$25,204	$25,266	$6,000	0.81%	$106,800
2009	61	$16,500	$49,000	$5,500	$5,000	$6,000	$22,000	$25,204	$25,265	$6,000	2.52%	$106,800
2008	60	$15,500	$46,000	$5,000	$5,000	$6,000	$20,500	$23,560	$23,620	$6,000	–0.54%	$102,000
2007	59	$15,500	$45,000	$5,000	$5,000	$5,000	$20,500	$23,425	$23,484	$5,000	2.61%	$97,500
2006	58	$15,000	$44,000	$5,000	$4,000	$5,000	$20,000	$22,826	$22,884	$5,000	0.40%	$94,200
2005	57	$14,000	$42,000	$4,000	$4,000	$4,500	$18,000	$20,700	$20,757	$4,500	1.18%	$90,000
2004	56	$13,000	$41,000	$3,000	$3,000	$3,500	$16,000	$18,637	$18,693	$3,500	2.21%	$87,900
2003	55	$12,000	$40,000	$2,000	$3,000	$3,500	$14,000	$16,610	$16,665	$3,500	1.41%	$87,000
2002	54	$11,000	$40,000	$1,000	$3,000	$3,500	$12,000	$14,547	$14,601	$3,500	3.90%	$84,900
2001	53	$10,500	$35,000		$2,000		$10,500	$12,912	$12,965	$2,000	1.41%	$80,400
2000	52	$10,500	$30,000		$2,000		$10,500	$12,786	$12,838	$2,000	3.86%	$76,200
1999	51	$10,000	$30,000		$2,000		$10,000	$12,178	$12,229	$2,000	2.97%	$72,600
1998	50	$10,000	$30,000		$2,000		$10,000	$12,052	$12,102	$2,000	3.88%	$68,400
1997	49	$9,500	$30,000		$2,000		$9,500	$11,462	$11,511	$2,000	3.48%	$65,400
1996	48	$9,500	$30,000		$2,000		$9,500	$11,381	$11,429	$2,000	2.87%	$62,700
1995	47	$9,240	$30,000		$2,000		$9,240	$11,076	$11,123	$2,000	4.84%	$61,200
1994	46	$9,240	$30,000		$2,000		$9,240	$11,058	$11,104	$2,000	3.17%	$60,600
1993	45	$8,994	$30,000		$2,000		$8,994	$10,722	$10,767	$2,000	3.19%	$57,600
1992	44	$8,728	$30,000		$2,000		$8,728	$10,393	$10,437	$2,000	4.32%	$55,500
1991	43	$8,475	$30,000		$2,000		$8,475	$10,077	$10,120	$2,000	2.26%	$53,400
1990	42	$7,979	$30,000		$2,000		$7,979	$9,518	$9,560	$2,000	2.86%	$51,300
1989	41	$7,627	$30,000		$2,000		$7,627	$9,067	$9,108	$2,000	4.19%	$48,000
1988	40	$7,313	$30,000		$2,000		$7,313	$8,663	$8,703	$2,000	4.49%	$45,000
1987	39	$7,000	$30,000		$2,000		$7,000	$8,314	$8,353	$2,000	5.50%	$43,800
1986	38	$7,000	$30,000		$2,000		$7,000	$8,260	$8,298	$2,000	5.09%	$42,000
1985	37	$30,000	$30,000		$2,000		$30,000	$31,188	$0	$2,000	7.61%	$39,600
1984	36	$30,000	$30,000		$2,000		$30,000	$31,134	$0	$2,000	7.17%	$37,800
1983	35	$30,000	$30,000		$2,000		$30,000	$31,071	$0	$2,000	6.52%	$35,700
1982	34	$30,000	$30,000		$2,000		$30,000	$30,972	$0	$2,000	5.71%	$32,400
1981	33	$45,475	$45,475		$2,000		$45,475	$46,366	$0	$2,000	0.69%	$29,700
1980	32	$45,475	$45,475		$1,500		$45,475	$46,252	$0	$1,500	–2.72%	$25,900

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Appendix (Continued)

Year	Age	DC Contribution Limits					DC Contribution Scenarios				Assumed Return	Assumed Wage Earnings
		401(k) EE Max	401(k) EE + ER Max	401(k) EE Catch-up 50+	IRA Limits Under Age 50	IRA Limits Age 50+	401(k) EE Max + Catch-up + ER max	401(k) EE Max + Catch-up + ER 3% Match	401(k) EE Max + Catch-up	IRA EE Max + Catch-up		
1979	31	$45,475	$45,475		$1,500		$45,475	$46,162	$0	$1,500	–0.18%	$22,900
1978	30	$45,475	$45,475		$1,500		$45,475	$46,006	$0	$1,500	1.09%	$17,700
1977	29				$1,500					$1,500	1.91%	$16,500
1976	28				$1,500					$1,500	0.97%	$15,300
1975	27				$1,500					$1,500	–3.85%	$14,100
1974	26				$1,500					$1,500	–2.20%	$13,200
1973	25											$10,800
1972	24											$9,000
1971	23											$7,800
1972	22											$7,800

1 Data from PK, "The Complete History for 401(k) Plans from 1978 Until Today," Don't Quit Your Day Job ..., *https://dqydj.com/the-complete-history-of-the-401k-contribution-limit/*, copyright © 2017, reprinted by permission; "What Were Traditional IRA and Roth IRA Contribution Limits in the Past?" eXtension, Feb. 7, 2017, *https://articles.extension.org/pages/44579/what-were-traditional-ira-and-roth-ira-contribution-limits-in-the-past*.

2 Data calculated as [{(1+10yTsy)/(1+inflationJanYr)}–1]. See "10 Year Treasury Rate by Year," multpl.com, accessed April 10, 2018, *http://www.multpl.com/10-year-treasury-rate/table/by-year*.

3 See Social Security Administration, "Contribution and Benefit Base," accessed April 10, 2018, *https://www.ssa.gov/OACT/COLA/cbb.html*.

Zenaida Samaniego, FSA, MAAA, is actively involved in Society of Actuaries and American Academy of Actuaries research. She is retired from her role as chief actuary, Employee Benefits Security Administration, at the U.S. Department of Labor. She can be reached at *zsamaniego70@gmail.com.*