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listeningin

Pension Promises, Promises

Larry Siegel Has A Perfect Solution, If Only Someone Sold It

Larry Siegel, whose genial mein adorns this page, is a veritable investment-thinking machine, and for the last few years one of his prime preoccupations has been retirement planning. (Wonder why?)

Well, Larry did retire from the No. 2 slot in the Ford Foundation’s investment operations a few years back, but he hasn’t slowed down a bit. He now serves as the Gary P. Brinson director of research as the CFA Research Institute, even as he’s publishing his own pieces at a pace that would put even an ambitious young tenure-track academic to shame.

Lately, not a few of Larry’s intellectual explorations have delved into the question of optimal retirement planning. And, being Larry, he hasn’t let little hurdles like the lack of an actual market in his ideal portfolio solution stump him. A deep and liquid market in fairly priced deferred annuities might not exist, yet. But Larry and coterie of other financial thinkers are providing plenty of intellectual tinder to spark some “spontaneous” combustion. Listen in.
Kate



Laurence Siegel

So, Larry, what’s this about you single-handedly solving the retirement funding crisis?

Hardly single-handedly. A lot of great minds have worked on it over a lot of years. It was actually “solved” once, when the Defined Benefit Pension Plan was designed in the 1870s. The insight back

RESEARCH SEE
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then was to treat retirement income like any other long-term debt — you set aside money to pay it and then you pay it.

Long-term debt?

Yes, a pension obligation is a long-term debt in the sense that instead of paying your employees a full salary while they are working, you withhold some of their compensation and obligate yourself to pay them when they are retired.

The trick to being able to do that is obeying a set of simple rules about how much to contribute to the pension fund and how much to take out of it to pay pensions.

They may be simple rules, but they have proven practically impossible to follow —

Well, that's correct.

Private sector DB plans are almost extinct, mostly because sponsors hoped, despite loads of evidence to the contrary, that stock market profits would substitute for adequate contributions —

And when they didn't, made haste to convert to defined contribution plans to mitigate balance sheet liabilities. Meanwhile, the politicians in charge of public sector defined benefit plans kept promising the moon to employees without funding those benefits. And now they find tax revenues insufficient to bridge the gap. See Illinois.

What has gone wrong is that the people making the pension promise are not the people responsible for keeping the promise. The people making the promise, I think, have the intention of paying it. But then a generation or two later, there's this pile of money and the people responsible for paying out on the promise find other uses for that money.

It would be illegal to just abscond with the funds, but it's not illegal to reduce contributions to a pension fund based on a theory of very high expected investment returns — and that has the same economic effect. It removes the money from where it's supposed to be and puts it toward some other use, which is just terrible. If I did it, I would go to prison.

Ahh, but you're not an elected official or —

Right. Politicians and public plan actuaries and so forth can do it, and not only do they not go to prison, but they get to use the pension money for purposes that help them buy votes. The fundamental problem is that they're allowed to *not* pay the debt. One thing we should have learned from the seemingly endless series of pension crises we've seen is that agency costs matter.

Agency costs? Like in corporate governance?

Yes, it's analogous to the friction created when business owners hire professional managers, who don't own the business, to run it for them. When one group makes a promise that a different one has to keep, the structure creates incentives for poor decision-making and, perhaps, crisis. That friction is categorized as an agency cost in economics.

In the public sector, the agency problem is made worse by a double

agency relationship, as I indicated earlier. Agency costs can do great damage to what should be, and can be, a very valuable benefit to public workers (and taxpayers) — a well-run pension plan.

Another fundamental problem is that whole nature of the employment contract has changed and almost no one — in the private sector, at least — works long enough for one employer to accrue benefits under a defined benefit plan. That is, if one were even available to them. This means today's pension crisis is a two-headed beast.

Two-headed?

Yes, public, defined benefit, pension plans are often massively underfunded, either because funds were diverted to politically expedient projects, or never even accumulated, because of pie-in-the-sky funding assumptions. Private sector defined contribution plans are likewise underfunded because of low saving rates and terrible investment performance. Which should be no surprise, since employers have abdicated

“The problem is that most people don't save enough, and even if they do, they don't know how to decumulate, or spend down, in such a way that they don't run out of money. So they live in fear of running out of money.”

the responsibility for making the necessary saving and investment decisions – pushing them down the food chain to folks who, all-too-frequently, I'm afraid, can't even explain the difference between a stock and a bond.

Well, there's actually a good argument to be made that defined contribution plans are *better-suited* to today's workforce than defined benefit plans would be — because of the portability of benefits as people switch jobs, if nothing else.

Granted, if portability were enough. There wasn't a lot of job-hopping when defined benefit plans were dreamt up. Portability wasn't an issue then, like it is today.

For many people back then, that's correct. A defined benefit plan was just the thing, if you actually wanted to work doing the same thing in the same place for 45 years. But that would be basically impossible today. My father did the same thing for 39 years. I always found it remarkable that he didn't kill himself, but he didn't seem to mind — and he got his pension.

But my father was in the lucky minority. Even at the peak penetration of defined benefit plans, which was around 1980, only about 48% of the population were covered by DB pensions. People would lose eligibility because they lost their jobs or walked away from jobs before they were vested, or any of a host of other reasons. Or they weren't covered by DB plans in the first place, because they worked for employers too small to offer them.

So the defined benefit plan was a social contract, essentially between the Fortune 500 and, to some extent, government, and working-class to upper-class employees. The lower class was never covered — or they wouldn't have been lower class. Even a large chunk of the middle class was never covered, because they ran a cigar stand or they were a plumber, or were any kind of small business



person, and the system just missed them.

Now pensions have been “democratized” I suppose – DC plans cover lots more workers – but almost no one has retirement income security – unless you count Social Security.

Well, yes, what you're saying is that we replaced defined benefit plans, an extraordinarily well-engineered system, which treated deferred compensation as a type of long-term debt, with a system that can't properly be described as a pension plan at all. A defined contribution plan is a savings plan. You save money and then, when you retire, you spend that sum of money.

And most people can only pray they have saved enough to last a lifetime.

Well, as you alluded to, the problem is that most people don't save enough, and even if they do, they don't know how to decumulate, or spend it down, in such a way that they don't run out of money. So they live in fear of running out of money; they may spend too little or too much, but their spending is almost never just right.

What we need is a way to allow real people to be comfortable — first, with saving enough and then, spending their savings over an uncertain lifetime. That is not an easy problem to solve, but I think we

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Stuart Schwartz
Stu@WellingtonWallSt.com
(914)768-3133

have come up with some answers.

Do tell. My own view is that defined contribution plans have been way oversold. They've proved a bonanza for the financial services industry, but have delivered only spottily to their intended beneficiaries. The actuaries and sponsors of old-fashioned DB plans had a much better chance of delivering on pension promises.

DB plans *were* great, no argument, for the lucky few. But take me. I had two corporate jobs for 15 years each. If it had taken 20 years to vest in each of those plans, I would never have had any pension plan at all, if I didn't have a DC plan.

A 20-year wait to vest is a very long requirement.

Yes, that is a long requirement and it's a little unusual. But because the size of a defined benefit pension payout is usually heavily dependent on your salary in your final years of service, even if I had vested in two pensions with 15 years of service each, the combined payouts from them wouldn't have equalled anything like the probable payout from a 30-year DB pension.

True enough.

So the incentive when you have a DB plan is to stay in a job way beyond when you should have left to pursue a much bigger paycheck. I mean — no disrespect intended to my first employer — but when I left, I got a 143% raise in my base. The reason was the same thing that happens to everybody. At any given employer, you get a 4% raise for good performance and a 3% raise for bad performance. But meanwhile, you are building a reserve of human capital that other people — if given a chance to bid on it — could put a much higher price on.

Sure. That is why it makes sense, in any kind of decent economic environment, to make some career-enhancing moves.

Absolutely, and my point is that you shouldn't waste time pining for a virtually extinct defined benefit plan. Even in the public sector, defined benefit plans are rapidly disappearing. So let's talk about solving the problem that *now* is faced by far more people: How to handle first, the saving, and then the spend-down or decumulation of assets in a defined contribution plan.

My ideas about the accumulation of pension assets are pretty well outlined in a *Financial Analysts' Journal* article called, "A Pension Promise to Oneself," written by me and Steve Sexauer, who is

now the CIO of San Diego County.

Steve left Allianz for a bigger challenge?

You said that. But yes, he left Allianz Global Investors in NYC, where he was CIO, U.S. multi-asset, to go to San Diego County.

Let's just briefly recap your ideas about fixing DC pensions, for those who haven't read your scholarly piece in the *FAJ*. You basically contend that DC plans could be structured to be as good for workers as well-run DB plans were?

Yes. Because at bottom, they are very similar. Money is neither created nor destroyed in either a DB or DC plan. What you get out is what you put in, plus or minus investment returns, after fees. While there are return smoothing and redistributive aspects to DB plans that aren't included in DC plans, the only *major* differences between DB and DC plans are 1) who makes the contributions and 2) who manages the process.

Those are not insignificant matters, I'd venture — and fees can make a huge difference in long-term returns.

They can, but they don't have to. There are lots of options available to investors today that entail very little in the way of fees. In economic terms, fees are a frictional cost, and any economist will tell you that for a given set of payouts, and ignoring such frictions as fees, there is no difference, in terms of overall cost, between employers making pension contributions directly (DB plans) and employers giving the money to employees to invest (DC plans). That's not to say, in the real world, there aren't economies of scale that need to be addressed to bring down the costs of DC plans.

It's also true, as you imply, that in DB plans, there are professional sponsors, who perform the savings and payout functions, and sometimes guarantee benefits on their balance sheets. These sponsors also are responsible for making adjustments to the fund as investment gains and losses arise or other changes in the environment, such as lengthening life expectancies, become apparent.

In defined contribution plans, by contrast, the individual investor acts as the "sponsor" of his own plan. The investor handles the saving, the investing, makes the adjustments along the way, and finally, spends the DC funds in retirement.

Like I said, that's a tall order, for your average doctor, lawyer, nurse, realtor, or

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Stuart Schwartz
Stu@WellingtonWallSt.com
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plumber – not to mention hourly workers.

True, but Steve and I identified in our piece three basic principles that *both* DB and DC plans have to follow if they're to succeed economically. Plans that play by these rules, whether they are DB or DC, succeed. Those that try to cut corners, fail. And our work shows that, by using them, individuals can provide pensions for themselves almost as easily as employers can.

Some very large corporations have argued that providing pensions was too much for them to take on. How can you talk about individuals doing it, almost as easily?

There's no magic to providing pensions. We say "almost as easily" because there are some economies of scale — mostly having to do with longevity pooling — involved in providing pensions to a large group that aren't strictly available to investors in DC plans. Those economies, however, could pretty much be replicated — if individual DC plan participants took part in what we think *could be* a deep and liquid national market for deferred annuities. And that's what I most want to elaborate on today. We can greatly simplify the retirement problem by depending on an inexpensive deferred annuity to take care of the potentially open-ended length of time you'll live, so that your savings only have to cover, say, the first 20 years of your retirement.

"Only" 20 years, you say?

Yes. That's still a big number, of course. Think of it this way. What we're trying to do with a "Pension Promise to Oneself" is distribute the income from your life's work over your *whole life*. The challenge is that life is long and getting longer, while work years are short and getting shorter, with growing educational requirements on the front end, and increasing desires for work-free golden years beginning at 65 or earlier. Yet we're charged with creating some sense of economic security for old age, the part of life when the option to materially change one's financial well-being through work is largely gone — and the part that could last 40 years or more. If we reduce the span of time savings have to cover to 20 years, that's a big help.

Even so, when it comes to retirement security, there's no getting around the importance of savings. Both DB and DC plans require saving *a lot of money* — the same amount, in fact (if individuals take advantage of opportunities to pool longevity risk in a DC plan) as it takes to fully fund and pay out a DB promise. Which reminds me of another important point: If the amount of money needed to

fund a DB plan is made available to DC plan investors, that amount will be enough to make the DC plan work.

That's crucial, it strikes me. But many companies have used switching to DC plans as a way to lower the actual level of their contributions to employee pensions.

A DC is a way for employers to lower their costs, if they don't mind also lowering their benefits. Our work is based on the presumption that employees mean enough to companies, in terms of the output they produce and the profits they help generate, that companies *want* them to be enthusiastic and satisfied workers who don't lose sleep worrying whether they can survive in their old age. How to do that is no mystery. Our work, among rafts of other financial research, lays it out. So companies owe it to their valued employees to tell them what they should do to create retirement security — and they should help them follow up on that advice.

What are these rules you say all successful pension plans follow?

The first is that liabilities must be appraised and discounted back to present value. That is what actuarial firms do for DB plans. Now, before you say anything, we're well aware that most individuals don't have access to the actuarial firms that institutions routinely call upon. So we came up with a simple procedure people could follow to estimate their liabilities (how much money they'll need to fund their retirements), and also a short cut they could follow to arrive at the amount of money they'll need to save to fund that amount.

A simple procedure? Don't you have to estimate future inflation or deflation and a whole host of other complex variables?

Simplicity is paramount in our thinking. For a couple of reasons. While it's never a good idea to make generalizations about humans, even sophisticated financial practitioners often suffer from illusions of precision when it comes to return expectations — overweighting prospects of favorable ones and underweighting the variance of real-life outcomes. And those are the pros. So any complex strategy involving fancy math and intricate statistical simulations simply won't be widely adopted — or, if it is, it will be twisted in ways that hurt investors.

Our other reason for stressing simplicity is that humans routinely experience declining cognitive skills as they age, so the last thing investors need is a retirement plan freighted with complexity and risk-taking.

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Stuart Schwartz
Stu@WellingtonWallSt.com
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Stu@WellingtonWallSt.com
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Okay, what's your procedure for putting all of those actuaries out of business?

It's quite elementary, actually. To determine the income stream that an investor needs in retirement, we can simply make an educated guess — as a rule of thumb, say, 70% of his pre-retirement income. Then we deduct from that the expected Social Security payments he will get, and arrive at an estimate of the yearly amount that the investor's personal savings will have to generate.

That still doesn't tell you how much somebody has to save to generate that amount of income, years and years in the future.

That's where what we call the "retirement multiple" comes in. We determine what *multiple* of that annual income number the saver needs to accumulate to eventually throw off that income — by investing risklessly (or as close to risklessly as markets allow), where income isn't your current pay but the cash flow you need to generate, over and above Social Security benefits, in retirement. As an example, using current market rates, somebody needing to generate \$50,000 a year in retirement would need assets of almost 21.5 times that amount, or a bit over \$1 million. So in this case the retirement multiple is about 21.5.

I assume that number doesn't come out of thin air?

No, though for most investors, the retirement multiple would have to be calculated by a data provider, on the basis of interest rates and other market data. The beauty of it, though, is that once given that multiple, calculating the amount of savings anyone will require for retirement becomes a simple 5th-grade multiplication problem.

A million dollars isn't chopped liver. Suppose I were inclined to take a little investment risk with my retirement assets, in the hope of perhaps not having to save as much — or living higher on the hog in my golden years?

Well, in "Pension Promises," we started with the assumption that the DC plan participant wants to *guarantee* a certain desired income level, not merely have a good chance of achieving it. I know that almost no one invests that way, but the riskless strategy can be understood as a benchmark. If someone in a DC plan decides to take more risk, they can do so, provided they realize that they will still need the same amount upon retiring; their retirement multiple doesn't change. In practice, this is where what we call personal financial adjustments come in.

What sort of adjustments?

In every period, you have to "true up" your DC plan savings for the difference between the returns you actually receive and those you had planned for — either increasing your future savings or decreasing your expected income in retirement, if your investment returns lag your plan.

That leads me to elaborate on the second of our principles that all successful pension plans follow: Assets must be built up via an economically sound plan, one in which wishful thinking about investment returns is not allowed to substitute for rational savings rates. Not even all professional DB plan sponsors have been responsible enough to do this, I'll admit, but the successful ones play by this rule and are nearly fully funded. DC investors have to do the same if they want to guarantee their own futures. Hope is neither an investment strategy nor a retirement plan, and this principle applies to both DB and DC structures.

This whole discussion has been remarkably devoid of talk about investment skill — making retirement goals much easier to reach via investment gains.

Another thing our long careers in finance have taught Steve and me is that investment skill is in no way a panacea for the retirement problem. Sure, it would be swell if skillful investing could generate huge excess returns relative to average investing. But that's not today's reality, with most remaining DB portfolios pretty well diversified and close to the efficient frontier, and many DC investors pretty well on their way toward it, via target-date funds and the like. So our experience tells us that a quest for a perfect portfolio is likely to be less rewarding than searching for behavioral, institutional and policy changes that could help pension beneficiaries.

Taking investment prowess pretty much out of the equation, implies that someone with a DC plan has to do a lot of saving —

It does imply a lot of saving, but not an impossible amount. This is where retirement planing is a bit like dieting. With our "Pension Promise" plan, it is easy to understand, but it's still not easy to *do*, because it requires saving a very large fraction of personal income.

That would seem a very hard sell, especially in this environment in which middle class incomes have been flat to trending down for quite a while. Also contrary to

experience. All the stats I've seen show that Mr. Average Joe with a DC plan has managed to save pitifully little.

Yes, the statistics on how many people in defined contribution plans have anything approaching sufficient savings when they're close to retirement are really dismal. Or more precisely, the medians are really dismal. One 2007 study reported that the median DC plan participant was retiring with an investment balance of \$44,000; the mean balance of \$150,000, skewed by a few affluent retirees, was not much better. The Federal Reserve's 2010 Survey of Consumer Finances showed little improvement, with households that are approaching retirement having a median DC balance of \$63,000; when IRAs were included, the median balance was \$120,000. Assuming a 4% withdrawal rate, those balances, as of 2010, would support monthly spending of \$210 and \$400, respectively.

No one is going to live large on that, even with Social Security added in.

Right. They are hardly pensions at all; they are more like "beer money" savings plans. Companies simply have to do better for valued employees. But people in the top 10% or 15% of the income distribution are doing better. It's not just the top 1% or fraction of 1%, though that's what the media likes to talk about. I can't point to specific statistics, but there are a lot of golf resorts selling a lot of real estate and McMansions to retired people for prices ranging from a half million to \$5 million — and they're getting the money from somewhere. Savings and Social Security, I'd suggest. Which goes to my point that it's not impossible to accumulate significant savings.

It's also generally under-appreciated how much Social Security has to do with securing the lifestyles of — call it the upper middle class. I mean, I've paid in the maximum, my wife has not, but she's going to get half of what I get, and I'm going to wait until 70 to start drawing Social Security. According to the tables on Social Security's website, that means we're going to get \$62,000 a year. It wouldn't be a lavish lifestyle, with just that, but I wouldn't run out of money, either. But when you can add to that another, say, \$62,000 of annual income from savings, there's really no problem. I have more than enough assets to generate that, but I'm not going to rely on more than that.

That amount of expected income from savings sounds like an impossible dream to lots of folks today.

Wait, how did I get into this situation? How have

other people gotten here? It has been by saving 15% to 30% of income over the long haul. In the abstract, 30% may seem unachievably high. But in fact, the cross-sectional data that we're getting from the government shows that people in their late-50s and early-60s are saving about that. It isn't a practical target when you're in your 30s or 40s, when it would count more, in terms of compounding an investment. But in those years just prior to retirement, saving 30% of income is *not* an unachievable goal.

In "Pension Promises" we also showed that the introduction of "Save More Tomorrow" programs into DC plans, Thaler and Benartzi's trademarked scheme in which employees commit to putting increasing portions of future raises into savings, has clearly worked in places like midwestern manufacturing plants. It has demonstrably boosted relatively low-income employees' formerly minuscule savings rates into realistic ranges to fund the first parts of employees' pension promises to themselves.

So people can and do save more in DC plans, when the information, structures, *and incentives* to do so exist. In one test, "Save More Tomorrow" raised the savings rate from 3.5% to 13.5% in just four years. And if you're saving 13.5% across the whole employee population, you're going to get pretty close to the kinds of accumulations that I'm talking about as necessary. You just need a few more points.

Are you suggesting employing behavioral economic incentives to get there?

Absolutely. People respond to incentives, and behavior matters, *a lot*, in retirement planning. As Nobel Prize winning psychologist Daniel Kahneman has demonstrated, human behavior differs considerably from that of the perfectly rational "Econs" predicted by conventional economics — in saving and investing, as well as in virtually every aspect of life.

What needs to be done differently?

Seemingly little things, like designing DC plans that feature, for example, auto-enrollment, auto-escalation, and qualified default investment alternatives have proven themselves effective behavioral nudges. They are small, subtle influences that convey big behavioral benefits. I actually think that sponsors should have to include those features in every qualified DC plan.

I'd couple those behavioral strategies with strong support from the employer in a DC plan to make them even more effective. In other words, I'd like to see matching funds made available to employees that don't get cut off after they save the first few percent of

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Stuart Schwartz
Stu@WellingtonWallSt.com
(914)768-3133

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Stu@WellingtonWallSt.com
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their income. Strong financial education programs offered to employees, and access to portfolios that are not just the S&P 500 and a bunch of target-date funds. The portfolio options should include laddered TIPS portfolios for people about to retire — I wish interest rates were a little higher, but they will be. The portfolio options also should include globally diversified equity portfolios to mix in with those bond portfolios. In sum, just a bit of creative thinking about how to engineer a post-retirement asset mix, plus behavioral strategies on the front end to get people to save more.

I would also really like to see the tax laws changed — the contribution caps removed — so that you can save as much as you can for retirement on a tax-deferred basis. The government seems to have a clue that this might be a good idea, since the SEP-IRA contribution cap, which applies to the self-employed, has already been raised to a realistic level, \$53,000 annually. If you save \$53,000 a year for 18 years, that's \$1 million. You'll need more than that, but you'll have longer than 18 years to do it, too. And it wouldn't cost the Treasury a fortune. Because of required minimum distribution rules, taxes eventually will be paid on those balances. If the self-employed can get a tax break like that, why not everybody?

Follow the lobbyists! And political donations... But not too fast, I need one.

Yes, I have one and yes, I fill it up. To repeat, retirement planning is not a science problem; it's an engineering problem. You're taking existing parts and building a new car. You may think that requiring very high savings rates is a compliance problem in DC plans, but they're only very high compared to what people are used to doing. They're not high compared to what companies had to put into their DB plans in order to make good on their DB payment promises.

But the numbers are stark today. At a zero real return, you need to save close to 30% (work 35 years to pay for 70-plus years!). And even at higher returns, the savings requirement still approaches 30% in peak earnings years.

Some countries, Australia for one, have mandatory retirement savings plans. Is that something the U.S. should consider?

Do you mean beyond the huge bite Social Security and Medicare already take out nearly everyone's paycheck? That's a combined 15.3% maximum tax rate and to me, at least when I'm paying it, I feel that it's more than enough. On the other hand,

when it comes time to collect that \$62,000 a year, I'll be very happy — if it's still there to collect.

But I'm glad I live in a voluntary society — and there are aspects that I wish were more voluntary.

Australia and Singapore still have a lot of freedom and they're not exactly communist countries. But they do have universal mandatory savings programs. Singapore's saving requirement is the highest in the world — 20% from the employee, 16% from employers. But it's supposed to cover housing, health care and retirement. In Australia, I believe the number being phased in is 12%, by 2020, for a mandatory savings program and then there's a voluntary one on top of that.

That's not enough choice for you?

The downside to mandatory programs is that everyone's situation can be different. Maybe you have unusual expenses during your working years — a sick child, or whatever. Or maybe nobody in your family has lived past 55, so retirement savings have little value to you. Or maybe you're scraping by on very little, waiting for your grandmother to die and leave her riches to you — there are lots of scenarios where someone could really use extra money while he's making it, instead of being forced to save it.

But people come up with all those excuses — and more — not to save in voluntary plans, too.

Yes, but despite saving way too little and investing poorly, people do get by. People survive with available resources and sometimes make more resources available. They muddle through. They do what has distinguished the human species since it began its time on earth: They adapt. Work longer hours, take second jobs, send spouses into the workforce, etc.

While much effort goes into looking for bulletproof systems and turnkey solutions that will make retirement “work” *without the need to make ongoing adjustments*, there aren't any.

The retirement establishment acknowledges this by calculating the probability of failure. Most income solutions are framed exactly this way, as though failure were an acceptable outcome. We know that an adult lifetime can encompass 80 years, which is a very long time; over such time frames, forecasts are almost completely useless. However, what we always do have is the ability to make adjustments, adapt, and go forward.

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This is an invariant component of human behavior and is the hidden option on the personal balance sheet that keeps it in balance. It makes the personal pension plan work when other methods fail.

Okay, let's grant that, one way or another, someone manages to save that million-plus in his DC plan. How does he make it stretch to cover the possibility he'll live 40 years beyond 65, not just 20?

That's where the third rule of successful pension plans, which Steve and I laid out in "Pension Promise" comes in. When retirement finally comes, assets must be decumulated (spent or paid out) in a sensible manner — one that brings the tremendous value of longevity pooling into play for individual participants in DC plans.

Come again, longevity pooling? Where does any kind of pooling come into individuals' DC plans?

What you do is, for funding the first 20 years of retirement, you rely on conventional investing, and then for the rest of your life — let's call it from age 85 to when you expire — you rely on income from a deferred annuity. If bought around the age of 65, deferred annuities that begin to pay out at age 85 should be surprisingly cheap. Using them, you can guarantee yourself an income without worrying about how long you're going to live. The income is just there, paid for by the annuities that can be bought for around 12% of your liquid net worth at retirement age.

Only 12%? That seems surprisingly reasonable —

That number has fluctuated between 9% and 17%, depending on how far back you go. But we can price the deferred annuities back historically and the cost is always a small amount — because most people don't live to collect those annuity payments and people who do live to collect them usually don't collect them for very long. All of which means it's a fantastic deal for people who live much longer — to 95, 100, 105.

For example?

Suppose you need \$50,000 a year (real) from age 65 to 110. Assume a real interest rate of 0%. That would cost you, without pooling, 45 years times \$50,000, or \$2.25 million. With longevity pooling however, in a fairly priced real annuity, that would only cost about \$1.25 million. In other words, you need 80% more savings without pooling.

Irving Kahn, the guy who wrote a biography of his mentor, Ben Graham — and he was a billionaire, so he didn't have to worry about this — just expired at 109, and I have a friend whose mother just died at 110. If you live that long, and your name isn't Irving Kahn, you just can't pay for it. You wind up dependent on your kids and your grandkids. But your own kids don't even remember you, because they are in their 80s, and your grandkids are putting their kids through college. It's just a terrible situation when you get a letter from your bank saying that you have run out of money at age 103 — and you live six more years.

That's where the deferred annuity comes in, you're saying —

Yes, deferred annuities have tremendous value as part of a DC plan decumulation strategy, and the price is not terribly high. With the open-ended nature of retirement then taken care of by a deferred annuity, the first 20 years of retirement is an easier investment problem. With your investment horizon now fixed, you can spend a 20th of your money every year — more, if you are earning a real interest rate higher than zero — and we have a formula for calculating how much more. This makes retirement a much more manageable problem. I mean, I feel that I can live for 20 years on 80-some percent of what I have saved — simply divide that amount by 20, and that's what I can spend each year, on top of Social Security. So the rest of my savings could go into buying those deferred annuities.

Why not just buy an immediate annuity and not have to worry about nursing your investment portfolio — even in theoretically safe laddered TIPS — through those first 20 years of retirement?

That's a very good question. There's an article by Jason Scott of Bill Sharpe's firm, Financial Engines, published in the January-February issue of FAJ, which proves that there's no reason you should ever buy the front end of an annuity.

That's a pretty sweeping statement —

Okay, more specifically, he proves that an immediate annuity makes sense only with a very large budget — in which case, you don't need an immediate annuity anyway. Besides, people tend to resist the idea of buying them, anyway, because they don't like the idea of transferring virtually all of their liquidity to an insurance company and being locked into that decision. You're giving up all your capital, so you lose any liquidity or flexibility that you have accu-

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mulated over the years, and you're losing a big benefit, which is the ability to change your mind. To buy the family business or take care of somebody when they're sick. Also, if you've made it to age 65, the mortality tables say you have a very high chance of making it to 85. That means you're not getting any real mortality risk pooling benefit for those first 20 years because no one dies and leaves you their credits, so you definitely don't want to buy the front end of that annuity. There can also be issues of credit and counterparty risk — and pricing in the market is essentially opaque and therefore it's suspect of being overpriced. You just shouldn't do it.

That is what Jason Scott's argument comes down to: The only reason to buy an annuity instead of conventional investments is mortality risk-pooling, and over those first 20 years, almost nobody dies. So the buyer gets very little benefit. In fact, over the first 5 or 10 years, you get literally no benefit because the annuity assembly charge — what it costs to participate — is more than the mortality risk credits that you're going to get.

But that changes as you get older?

Right. So the right way to build an annuity program is from the tail end forward. What Jason Scott showed is that if you had a budget for how much to spend on annuities — and you thought you were going to live to 110 at the outside — you would buy a guarantee for your 110th year first, then buy a guarantee for your 109th year, then your 108th year — in that order — continuing to buy deferred annuities, year-by-year, until you ran out of money in your budget.

You'd just have to decide what's the break point, where the cost to buy the annuity is larger than the benefit you get from mortality pooling. In our work, we're saying that is around age 85. The reasons are partly regulatory. I don't think you can find a deferred annuity that starts at a later age.

Isn't Scott's exercise largely theoretical? Finding the kind of reasonably priced annuities he suggests is quite difficult.

There are a few on the market, but it is difficult to find them. We would like to change that. The deferred annuity is superior to a regular life annuity in retirement planning. It's the only annuity that anybody who's done this analysis would want and the trick then is to get it. We'd actually even suggest that DC plan sponsors should be required to help create a deep and viable market for these annuities by defaulting all their participants, within 10 years of retirement, into a some sort of quali-

fied deferred life annuity contract with all or most of their savings. That way, the participants would gain access to longevity pooling — lifetime income — at institutional pricing. And they'd gain administrative efficiency and ERISA protection, to boot.

Glad you brought that up – annuities are not an easy market to navigate –

Well, there hasn't been a bankruptcy of an annuity provider since the early '90s. That was a relatively long time ago.

But it's not exactly ancient history. Or outside the realm of possibility.

You're right. Regulations are in place now to make sure the insurance companies hedge their risks, but I'm still not completely satisfied with that.

"Regulations are made to be broken"?

It has happened. And there is also some credit risks and some counterparty risks in an annuity contract, as I mentioned. That's why I'd suggest buying more than one annuity — and doing so very carefully.

In other words, splitting your coverage among several companies?

Yes, although bankruptcies in the industry are very few and far between, we all probably remember Executive Life and Mutual Benefit Life — but even policyholders of those insurers, which went bust in 1990-1991, were able to collect partial payments from the state guarantee pools.

I think "partial" is the key word there.

Yes, but if the annuity is very small, maybe you'd get a full payment. Then again, the people who are likely to pursue this strategy aren't likely to have an annuity that's very small, and you'd expect there to be caps on a guarantee pool payment. But if the cap is \$50,000 a year, and you add that to your Social Security payment, it sure beats nothing.

Okay, but sending people out to buy annuities isn't nearly as simple as it sounds. Outside the realm of derivatives, I don't know of a more opaque financial products.

Yes, it's not exactly a liquid and transparent market. Which means it's most likely overpriced. I'm trying to change that. I have a website now, called PensionPromise.com. There's not much on it yet, beyond a few magazine articles. However, one of my projects is to build that out with a few friends who will actually be business partners.

You're becoming a web entrepreneur?

Well, the business has yet to be officially established. But the idea is to assemble resources for defined contribution plans on our platform, so we can actually have employers use the platform to give their employees access to the strategy we outlined in the “Pension Promise” article, including fairly priced deferred annuities.

So far the website is barely a skeleton, put up by me working at home with a kid who codes in HTML. But imagine what an organization like Vanguard or TIAA-CREF could do with this concept, if they put real resources behind it.

You want them to steal your ideas?

I want them to. I don’t expect to make any money by creating this web platform — although, if I do, I’ll use our “Pension Promise” strategy to invest it.

The plain fact is that it’s not rocket science. The only hard part is identifying and analyzing the offerings in the deferred annuity market.

But participants in a DC plan wouldn’t have to deal with that until retirement?

You can do it at retirement or you can do it a few years earlier.

One interesting idea — if you’re giving some of the money away no matter what — is to look at universities and their charitable giving programs. Almost every university with an endowment fund offers a charitable gift annuity priced according to a standard that the universities share among themselves. They’re not competing with each other, they’re colluding with each other, but that means you don’t have to shop it very carefully. They all give you the same deal — at least they say they do.

Let’s say that I donate a million dollars to the University of Chicago. At my age, which is 60, they would pay me 4.4% if I wanted to collect annuity income starting now. That’s a good rate because it’s mostly a return of my own capital. Since I already have my own capital, giving it away in order to get part of it back is not a very good deal — but it is a nice gift, if my intention is to give the money away.

If, however, I defer the annuity payment to age 85 — 25 years from now — the rate of return is about 40%. The million dollars becomes an income of \$400,000 a year in 2039. Now, it’s not inflation-adjusted, but if we don’t have hyper-inflation, \$400,000 a year would still be a nice income, even if it will cost \$32 to buy a cheeseburger. So that’s a place to start to think about the problem.

Isn’t there also a tax angle to those university giving/annuity programs?

Yes, they mostly work for high-income people. First of all, the universities want a pretty good chunk of money in order to enter into an annuity deal in the first place. And secondly, you get a big tax deduction — which only has value if you pay a lot of taxes.

But looking at those programs is a way to begin to think about getting more volume into the annuity marketplace. Suppose I went to the University of Chicago and said, “I have a client. The employees don’t each have \$1 million, but between all the people in the company, they could donate \$10 million. Is there a way you could issue deferred annuities to them?”

Of course, I recognize that each person dies at a different time and there’d be a lot of record-keeping and administration involved in the business. Also, I don’t know all the applicable laws and regulations. Figuring that out might take more resources than can be mustered by a small group of retired financial professionals, working from home. So it may have to get done by a large organization.

I’m just thinking out loud. But my point is that you need access to some sort of longevity risk-sharing arrangement, whether it’s a commercial annuity, a charitable annuity, whether it’s the government issuing more units of Social Security at an actuarially fair price — that’s an idea proposed every few years that doesn’t go anywhere, but should. We’ll have a different administration in a couple of years and the government has heard this proposal over and over — from luminaries including Yale’s Will Goetzmann, one of the most famous finance professors in the world. So there is at least the beginning of an intellectual movement on this topic. More and more people understand that mortality risk-pooling is — other than saving more — the most powerful tool available for guaranteeing a secure retirement.

Once an intellectual movement takes hold, you begin to get movement in the commercial space and eventually things happen. Remember, index funds were conceived of in the ’60s, and were invented in the ’70s. By the ’80s, anybody could buy one, but they didn’t really catch on until the beginning of this century. Now, it seems that index funds and smart beta are all anybody wants. So it could take a while — maybe into the 22nd century — but longevity risk-sharing will be embraced.

Not to rain on your parade, but there's an elephant in the room. All the fees the financial industry generates selling less optimal retirement "solutions." I imagine the margins on opaque annuities are but the tip of the iceberg –

Oh, sure. But it's like when options were introduced in the '70s. The banks absolutely screamed bloody murder when the Chicago options exchanges wanted to standardize the contracts and lower the commissions to essentially nothing. The banks were making huge profits on each customized option deal back then — but they weren't doing many.

I remember.

Now, they make on volume thousands of times more than they ever lost on pricing — more than that. Options volume has gone from essentially nothing, albeit with a large profit baked into each deal, to a mass market where the margins are thin but the volume is gigantic. This has also happened with index funds and I think it's going to happen with annuities. I'm sure it can happen; I want it to happen.

Somebody will figure out that there's a profit to be made in selling a trillion dollars worth of annuities at thin spreads. Now, the total annuity market is only in the low billions — just shockingly little. And people are sold crazy things like variable annuities in which the fees can sometimes reach 3% annually, if you add together the money management fees, the risk charges and commissions and so forth. If you give somebody 3% of your money every year for 33 years, the money's gone.

But try to explain that to someone who's dazzled by simulations of potential – not guaranteed – investment returns.

That's right. If the market is going up at 20% a year and you only get 17%, the money's not gone in 33 years. But show me a simulation where the stock market goes up at 17% a year from here and I'll show you exactly what's wrong with it!

Dream on! That's what's wrong with it.

Well, we've just lived through a very long bull market; are still in it. So people tend to think, "Oh that proves that it can happen." Well, it can happen *if you start at a really low price*. Today, the market is at a really high price. Do you get it?

Of course. Buy when there's blood running in the streets – but that's easier said than done.

The reality is that, from here, you can't realistically plan on generating much more than 3% or 4% (real) in the stock market — nothing that will support the fees that people are accustomed to paying on annuities or high-fee investment pools like hedge funds.

We've overbuilt our financial sector. It got corrected a little bit in '08-'09, but where it's still collecting monopoly profits, there's room for more competition. We could certainly withstand fewer people being drawn into working in finance. Do we really want all of our smartest people working for Wall Street? They should go and invent something — work on electric cars or something no one has thought of yet. I'm uncomfortable with finance being the only really high-paying profession in the country.

Careful, those are my clients! Let's just recap what you're saying is the best approach to achieving retirement security with a DC plan today. The Street has been selling them for quite a while –

Yes, but the industry hasn't done a very good job of designing them. Until recently, deferred life-income annuities have been very hard to find or to analyze. But now the U.S. government has created a safe harbor in 401(k) and IRA accounts for what it calls QLACs, or qualified longevity annuity contracts, and several websites have been created allowing investors to find and compare these annuities. My friends and fellow retirement theory authors — Dan Cassidy, Mike Peskin and Steve Sexauer — in an article in the FAJ called "Making Retirement Income Last a Lifetime," (also available at www.PensionPromise.com) suggested a conservative decumulation plan to help investors spend down their defined contribution plans, which incorporated the laddered TIPS portfolio and longevity risk-sharing elements I've mentioned. Their article came out about a year before "A Pension Promise to Oneself" and specifically proposed a decumulation benchmark comprising a laddered portfolio of TIPS for the first 20 years (consuming 88% of available capital) and a deferred life annuity purchased with the remaining 12%. That portfolio could be directly employed by an investor or used as a benchmark for evaluating the performance of a more aggressive strategy.

How did you all come to be working on, essentially, the same idea?

We all developed it collaboratively. In a project as large as it was, different authors get their names on different papers. Now Allianz has established a website called DCDBBenchmark.com which uses survey data to report live quotes on deferred annuities. They actually survey five potential deferred

annuity providers every month, to get quotes. Those are live prices, but they're not transaction prices. So if you went to those companies to actually buy a deferred annuity, you might not get exactly that price, but you'd like to think it'd be close. They survey well-rated insurers with very recognizable names, so they're trying to provide some transparency that way, and the ability to benchmark various portfolio options.

I have to say, a laddered portfolio of TIPS for the first 20 years of retirement, at today's yields, sounds pretty unappetizing. It amounts to consigning yourself to pretty small beer.

At the front end of retirement, as you know, there are a lot of theories about how people should invest. The TIPS portfolio amounts to investing at today's riskless rate. The lowest risk investment for somebody who needs to make their money last for 20 years is not cash today. It's a 20-year portfolio of laddered TIPS. While the interest rate on that right now is less than 1%, that's not zero. It's better than not having the money. If you invested in cash now you would get exactly zero.

The TIPS ladder gives you about three-quarters of a point above the inflation rate, and I think inflation will go higher, and you'll get a better return from the TIPS, a worse return from the ordinary Treasuries. So in CAPM terms, that's the riskless portfolio.

But if you're inclined to roll the dice a bit more to maybe grow your retirement assets?

Then, as Barton Waring and I discussed in an FAJ article called, "The Only Spending Rule Article You Will Ever Need," published at the beginning of the year, you can blend risky assets in the form, say, of a global equity index fund, with that riskless portfolio to find a mix you're comfortable with. Then we explain how you can annually recalculate the amount you can spend each year so that you never run out of money.

Never say never.

Well, we essentially propose treating your portfolio like a virtual annuity — a fairly priced, zero fee annuity. Each year, one should spend (at most) the amount that a freshly purchased annuity — with a purchase price equal to the then-current portfolio value and priced at current interest rates and with the number of years of required cash flows remaining — would pay out in that year.

Essentially at current low rates, that would mean you're mostly spending your own capital and not

the investment return. But if investment returns move higher, then you'd be getting a big raise and be spending mostly the investment return. In very round numbers, it works out to being a little better than just spending a 20th of your money every year, assuming you can earn a little something in the market. When you combine that with an actual deferred annuity kicking in at age 85 — and perform the recalculation annually and don't overspend — you won't run out of money until the deferred annuity starts paying. Of course, I would strongly suggest not spending every possible penny annually, even with this arrangement, because you don't know how your needs will change. But ideally, you want your last investment dollar coming out of your retirement account the day before the first one comes out of your deferred annuity. (Meanwhile, collecting Social Security the whole time.)

You make it sound awfully clear-cut.

It's standard finance — except nobody does it. Blending the riskless asset and the risky asset is what you learn in the first day of your MBA-level investments course, yet nobody does it.

What they really sell a lot of now are target-date funds, which means investors pay an extra level of fees for somebody to reduce the amount of stocks in their portfolios over time.

Taking less risk is only supposed to be prudent, as you get older —

I agree, but the equity percentage for retirees is too high in most target-date funds. So the "all-equities all the time" philosophy, which is suspect, creeps into portfolios intended to preserve capital and pay a steady income to people who can't go back to work to make up for market losses. And now they're adding "alternative strategies" to some target date plans — isn't that sweet?

Sweet?

I will grant you that there are good alternative strategies out there, and they have a place in some portfolios. But as a general rule, to put them into a run-of-the-mill target date fund amounts to taking your money, then charging you a fee to charge you an even bigger fee on the alternative part of your portfolio — and basically do things you could accomplish yourself with plain vanilla index funds that anyone can buy — no matter what label they put on it. You're not going to get the alternatives that available to Harvard with its \$35 billion portfolio.

Unless, perhaps, you're a partner at Goldman Sachs. But you've also admitted

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Stuart Schwartz
Stu@WellingtonWallSt.com,
(914)768-3133

to me that the far less esoteric deferred annuities that are central to your retirement plan really aren't being marketed to folks like you and me.

True, but the five insurance companies that are being surveyed every month at the website, DCDBBenchmark.com, will sell you a deferred annuity with the payout beginning at age 85. That doesn't make it a good deal or a bad deal at their offering prices, but they will sell it.

And my fellow authors and I — though we all seem to have other jobs that keep us from making this a top priority — have had discussions with other companies. So it could become a priority quickly. I'm talking, for instance, not to an annuity provider, but to a DC plan sponsor that wants to provide these kinds of deferred annuities to their employees. We're trying to figure out how to help them. And, if a sponsor is a big enough employer — well, that's another way to jump-start the process. If a big enough pool of potential business materializes, I suspect annuity companies will compete to acquire it. But that's all I can say at this juncture. It's a marathon not a sprint.

Put me in the cheering section.

If this were easy, it would have been done already, but it's not impossible and conceptually it's easy. The engineering problem is getting somebody to wake up and see the profit opportunity in doing this in sufficient volume — even though the volume isn't there right now. It will be. Whoever wants to

step up and do the legal and regulatory work, will put themselves in a great place.

As the tidal wave of us baby boomers tries to survive in retirement.

Sure, because most of us don't have the \$15-\$20 million it takes to not even have to worry about out-living your assets. I certainly don't have that kind of money, so I'm right in the sweet spot for somebody to sell me a deferred annuity costing 15% of my liquid net worth.

That's what I'm planning to do, and it might not even be an awesome deal yet, when I have to do it. But I just don't want to go to bed at night thinking about how I'm going to make a living when I'm 93 or 107. I probably won't get there, but that optionality is worth something. If I don't need it because I'm dead, I won't care whether I got a good deal. But if I do need it because I'm alive, I won't really care whether I got a great deal. It will just have to be pretty good.

I hear you. Thanks, Larry.

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