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Taking a closer look at SeLFIES: Added thoughts, clarifications

Robert C. Merton and Arun Muralidhar

A reaction to a recent *P&I* editorial about the Standard-of-Living indexed, Forward-starting, Income-only Securities) proposal.

We read your editorial, "Tackling the issue of lifetime income" (May 13) and have some additional thoughts and clarifications about our SeLFIES (Standard-of-Living indexed, Forward-starting, Income-only Securities) proposal.

People have a preference for pensions that provide retirement benefit payments for life and never outlive their assets. In contrast, globally, individuals are being called upon to take greater responsibility for their own retirement, as employer defined benefits and government pension plans are either capped at levels well below a good retirement or completely replaced by defined contribution plans. Moreover, in many countries including the United States, a significant proportion of the population do not belong to any retirement plan, but they still need to save for retirement. SeLFIES are designed specifically to address the challenges of this new responsibility faced by working- and middle-class individuals worldwide, the majority of whom are totally unprepared to do so, and do not have access to good quality financial advice.

SeLFIES are designed to mimic pension payments and can be purchased directly by anyone (to create a type of "individual DB"). To address widespread financial illiteracy, SeLFIES require only the most basic information and offer choices for buyers of any educational strata. The two required inputs are anticipated date of retirement (i.e., the SeLFIES payment start date) and target income goal for a good retirement, which determines the number of SeLFIES needed to reach this goal.

How would this work? The federal government would issue a special bond that would pay a standard-of-living-adjusted coupon of \$5 per year at retirement age for a period close to the average life expectancy of the economy, currently 20 years. Workers would fund their desired retirement income by buying a target number of SeLFIES, which would be determined by dividing the desired income by \$5.

A commonly accepted retirement goal for a healthy pension is to be able to sustain the standard-of-living enjoyed in the latter part of working life, during retirement. Since SeLFIES payments are indexed to per capita consumption, they protect against future inflation and standard-of-living uncertainties. The buyer must simply set their goal at the level they currently live on, a number they already know and relate to in their everyday decisions. Since SeLFIES do not make payments until the retirement date, the buyer does not need to make any further transactions or decisions to reinvest coupon or principal payments during the entire accumulation period. One transaction, one time, for each SeLFIES purchased minimizes costs, decision effort and errors.

For SeLFIES to provide the same pattern of payments as a pension, they must address the lifetime payment feature and protect against longevity risk as the editorial notes. Working- and middle-class citizens who reach retirement age (e.g., age 65) are a diverse group: Some have economic responsibilities for several people and need to bequeath money to take care of their heirs. Others have no one else for whom they are responsible and, hence, have no motive to bequeath assets. For the latter, the annuity or a life pension is ideal because they maximize the benefit payment with no risk of running out and leave no "wasted" assets when they no longer need money. When the person reaches retirement, they have the best information as to their health (such as personal life expectancy vs. the population), they will know who they are responsible for besides themselves, and what other assets and commitments they have. With this information, they are best positioned to make an informed decision on how much to annuitize or not, and thereby implement a personalized plan for decumulation. Few people would commit to a deferred annuity during their work life because they do not know what their situation and needs will actually be when they get to retirement.

SeLFIES do not directly provide an embedded annuity feature of payments for life as they offer a fixed set of payments. But they do contribute to longevity risk protection

for those who do eventually select full or partial annuitization at retirement, while providing decision flexibility to those who do not want to annuitize.

The design calls for the number of years of payout to equal a period somewhat longer than the life expectancy for the cohort population at retirement. For example, if life expectancy at age 65 is 20 years (age 85), then the specified-payment period on the SeLFIES might be set at 22 years (age 87). A well-run insurance company should be willing to exchange a life annuity with the same \$5 indexed real payment for the specified term of \$5 real payments on the SeLFIES. If so, then the retiree can simply exchange their SeLFIES for a life annuity with no extra payment and no reduction of retirement income level. Those retirees in different circumstances can adjust accordingly and potentially enjoy the built-in decumulation payments in SeLFIES with no further transactions.

Why would a well-diversified insurance company be willing to exchange one SeLFIES for a life annuity that pays \$5 real/year until death (ignoring profit and cost considerations)? If the insurance company has insured a large group of diverse individuals in one cohort, then its net longevity realization should be close to the economy average of that cohort, with relatively low risk. SeLFIES delivered in the exchange is the perfect hedging instrument for the insurance company's aggregate liabilities of this cohort. The somewhat longer payments on the SeLFIES than expected (22 vs. 20 years) provide compensation to the insurance company for cost and profit. It becomes more interesting if the insurance company is also diversified across multiple cohorts. Hence, SeLFIES with a maturity a touch above the economy average could facilitate a much more efficient annuity market to ensure individual longevity risk mitigation. Both insurance companies and pension funds would be natural institutional buyers of large denomination SeLFIES and create price discovery through their auction.

SeLFIES could also serve a key role in implementing Professor Richard Thaler's recent proposal for using Social Security to provide annuity-like benefits as it will offer a liquid benchmark price for any real annuity offering, including one from Social Security. Furthermore, for retirement funding strategies that engage in risk-taking, one can easily see how a well-run asset management company can use a dynamic allocation strategy between risky assets and SeLFIES, with SeLFIES as the "risk-free" asset that locks in guaranteed retirement income — a highly desirable

result. Current products today, including those with legal "safe harbor," offer no guarantee of achieving either a target wealth at retirement or a target retirement income. So, SeLFIES can greatly improve retirement funding security by completing the market. SeLFIES need to be created.

This leads to another clarification: SeLFIES can be issued by entities other than the federal government. For example, many states are launching so-called Secure Choice retirement plans for private-sector workers who don't have access to such plans through their employer — these states and municipalities could easily issue SeLFIES as part of their debt refunding or expansion, and we have discussed this with one state. SeLFIES offer synergistic cash flows to fund infrastructure — a challenge for most states — thereby allowing state and local governments to address two challenges with one innovation. The federal and state tax exemption would make their issuance for retirement funding in personal taxable accounts. We envision other (lower credit) issuers of SeLFIES, but the benefit of government issuance of SeLFIES is that credit risk is mitigated. With our aging population and "50 States of Gray," maybe this innovation emanates from one of these forward-thinking states, as opposed to "Waiting for DC." SeLFIES are designed to work in any country with a bond market.

The time to act is now — the longer the delay, the higher the cost of ensuring retirement security for future generations. SeLFIES are the new and improved "a-new-ity."

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Inline Play

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journey from government debt silo attached to a giant pension scheme to fully-fledged investment powerhouse has involved one of the most fundamental decisions in pension investment management – whether to build internal investment capability or to buy it in.

This remains a key question for pension organisations, large and small, to this day, including Norway's GPF. The Norwegian fund has increased its internal investment capabilities over recent years, with external managers now running about 6%. It remains overwhelmingly exposed to equity market risk, with an overall equity allocation of 62.5%.

By the time of an early IPE interview in 1998, ABP was, like hundreds of other pension funds, on the cusp of large-scale asset diversification prompted by the launch of the European single currency the following year. ABP then held about 20% in equities, up from 8% before privatisation. Jean Frijns, ABP's CEO, told IPE's founding editor Fennell Betson that the approach would be to manage European and US equities in house, for instance, with Asia-Pacific and emerging markets strategies outsourced to specialists. Recast as a pension delivery organisation in 2008 under the APG name, it now acts as a standalone fiduciary management and pension servicing company with the ABP scheme as its largest shareholder and client.

As a sizeable institutional investor with an international profile, APG now competes with sovereign wealth funds and sophisticated pension funds across the board for talent and scarce yield-focused investment opportunities in areas like private markets. More recently it has increased internal management to around 70% of equity assets (as reported by APG in 2015).

Adaptable model

Goldman Sachs' 1996 acquisition of CIN Management, which ran the two British Coal pension schemes, meant it took on the right to run

80% of the schemes' assets for six years. (Cinven, another arm of the former British Coal, has become an established private equity house while CIN Property Management was sold to La Salle, also in 1996.)

Yet when the contracts expired the schemes adopted a more orthodox outsourcing route, informed by the core-satellite approach, as advised by Watson Wyatt, Coal Pension Trustees' then CEO David Morgan told IPE in 2004. This was combined with active governance through an investment risk committee and some delegation to the management arm, but only in areas like stock lending, commission recapture, transaction costs and corporate governance. Barclays Global Investors (since merged with BlackRock) ran a third of the assets in passive equity and bond mandates following the reshuffle while Goldman Sachs retained a low-risk bond mandate.

Since then the schemes have edged back towards their old model, having increased internal resources with the creation of a new entity called Coal Pension Trustees Investment Services, which was authorised by the then Financial Services Authority in 2011 to provide investment advice and management services to the coal schemes. New staff were subsequently hired to boost investment resources in areas like asset allocation and portfolio construction, but with investment management still outsourced to outside managers. Would the coal schemes have been better off following a different trajectory, building up in-house resources from the start? Perhaps, but they would have been swimming against the tide given the widespread faith in fully outsourced pension investment models in the late 1990s and 2000s.

What's new?

Tony Dye's call on the FTSE, the seeding of Norway's Petroleum Fund, ABP's privatisation and Goldman Sachs' purchase of CIN Management all took place within the same 12 months and all

reflect different models of pension and investment management. The travails of Dye's PDFM coincided with the demise of balanced management. The other three entities have had to make mission critical decisions about outsourcing since the year in question.

In common with other pension funds that outsourced much or all of their investment function in the 1990s or 2000s, including some of the early proponents of fiduciary management in the Netherlands, entities like the UK coal schemes have since sought a balanced median between the extremes of full outsourcing and extensive in-house management.

Building up internal resources, particularly in en vogue areas like private markets is a slow and expensive game – Canada Pension Plan awarded its former CEO Mark Wiseman direct compensation of C\$4.5m (£3.2m) in the fiscal year 2016, only to see him depart for BlackRock. Private markets and infrastructure portfolios take years to build and can result in heavily concentrated direct portfolios.

Dye's value management approach ironically embodies many of the characteristics of patient capitalism that are fashionable these days, even if value equity styles can underperform for years, as they have done recently. Many investment organisations and their professionals still share Dye's dilemma – that taking a long-term view and outperforming over longer time horizons can be useless if your stakeholders or clients do not share that long-term view.

Just as with many others in real-life business situations, institutional investment professionals and pension trustees are still prone to focus on the short-term at inopportune points, while a seemingly opportune long-term strategy can easily prove itself to have been inopportune over time.

Liam Kennedy is editor of Investment & Pensions Europe

Time for retirement 'SeLFIES'?

Robert Merton & Arun Muralidhar

To address the looming retirement crisis, many governments are introducing new pension programmes tied to employment for uncovered workers (NEST in the UK and Secure Choice in some US states). These attempt to improve access to pensions, and continue a trend of transferring responsibility for retirement security from governments and employers (via defined benefit [DB] plans) to the individual (via defined contribution [DC] plans), as neither governments nor companies are willing to bear the liabilities associated with pension obligations. This shift requires new thinking about how portfolios are managed and which instruments are available to investors. Our proposed SeLFIES (Standard of Living indexed, Forward-starting, Income-only Securities) make individuals self-reliant and are also advantageous for governments.

For optimal portfolio management, members of DC plans should focus on maximising funded status or retirement income (not wealth, as in

traditional investment approaches)¹. Further, unlike multi-generational DB plans, DC plans must achieve their objectives in a single lifetime, and it is hard to pool risks because these plans are inherently flexible: (a) participation is often voluntary; (b) participants may require liquidity; (c) retirement ambitions, risk tolerance and life expectancy vary; and (d) employment patterns change over time (ie, the gig economy does not tether an individual to a single company). A new financial instrument is needed to enable financial security for retirees in the current environment.

DC investors seek to ensure a guaranteed, real income, ideally from retirement to death. It is also reasonable to assume they would want to lead a lifestyle comparable to pre-retirement. Investing in existing assets (stocks, bonds, or REITs) is risky because these do not provide a simple cash flow hedge against desired retirement income. For example, viewed through the retirement income lens, a portfolio of traditional, 'safe' government securities, unless heavily financially

engineered, would be risky because of the cash flow (and potential maturity) mismatch between traditional bonds and the desired income stream.

There is thus a need for governments to issue a new 'safe' bond instrument, which we call SeLFIES. These will ensure retirement security and the government is a natural issuer².

The innovative SeLFIES design

A default-free bond offers certainty about two characteristics critical for DC retirement portfolios: (i) a commitment to pay over a particular time horizon (how/when one is paid); and (ii) a specific cash flow (what is paid). DC investors require a guaranteed cash flow that protects their real purchasing power in retirement. Two simple innovations could create the 'perfect' instrument.

The first innovation addresses (i) 'how/when one is paid' by creating forward-starting, income-only bonds. These would start paying investors upon retirement, paying coupons-only for a period equal to the average life expect- ▶

← tancy at retirement (eg, US bonds would pay for 20 years)³. Investors saving for retirement do not need coupon payments while still employed (which have to be re-invested and thereby engender interest rate risk), or a stub principal payment at the end, but rather a smooth stream of real cash flows. SeLFIES are designed to pay people when and how they need it. SeLFIES blend accumulation and decumulation by incorporating the retiree's desired annuity-like cash flow profile in the payout phase.

The second innovation addresses (ii) 'what' is paid, by indexation to per-capita consumption. Preserving standard of living requires inflation-protected payments. With increasing longevity, a fixed standard of living may not be adequate, because cumulative increases in the standard of living can leave a retiree feeling 'left behind', much like inflation causes nominal fixed income retirees to experience a decline in standard of living. So, instead of a Treasury inflation protected securities (TIPS)-like adjustment, solely focused on inflation, SeLFIES would cover both the risk of inflation and the risk of standard of living improvements. This coupon would be ideal for people who assess their economic well-being on the basis of their standard of living relative to those around them.

How SeLFIES foster self-reliance

In effect, SeLFIES would pay the holder annually for 20 years, starting at a fixed future date, a fixed amount (say \$5 [€4.72]), indexed to aggregate per capita consumption⁴. So, 55-year-olds today would buy the 2027 bond, which would start paying SeLFIES coupons upon retirement at 65 in 2027, and keep paying for 20 years, through 2047.

These innovations ensure even the most financially illiterate individual can be self-reliant with respect to retirement planning (without requiring a forecast of expected returns, optimisers/retirement calculators, or even intermediaries). For example, if investors want to guarantee \$50,000 annually, risk-free for 20 years in retirement, to maintain their standard of living, they would need to buy 10,000 SeLFIES (50,000 divided by 5) over their working life.

The complex decisions of how much to save, how to invest, and how to draw down are simply folded into a calculation of how many to buy. In addition to being simple, liquid, easily traded, and with low credit risk, SeLFIES can be bequeathed to heirs, unlike high-cost, inflexible and illiquid annuities. The inheritability of SeLFIES overcomes investor fears that premature death means leaving money on the table. Buying SeLFIES would be similar to creating an individual DB scheme, with the guaranteed pay-out determined simply by the number purchased.

SeLFIES greatly simplify retirement investing by allowing participants to be self-reliant in managing their portfolios. It is easy to see why these bonds would be preferable to inflation-linked or GDP-linked bonds⁵, the current practice of investing in target-date/lifecycle funds (which rotate into traditional bonds or annuities with age). Asset pricing models greatly simplify when the numeraire for measuring returns is consumption (versus either wealth or real wealth)⁶. So bonds denominated in consumption units are a natural asset for investors.

Moreover, SeLFIES could become the safe asset in these target-date strategies. They could also be used as safe, liability-hedging assets in dynamically managed target-income strategies – allowing investors to target a higher retirement standard of living/income by investing in risky assets early in their life cycle, but dynamically locking in gains by investing in SeLFIES. Further, simple statements would illustrate the level

of real, locked-in retirement standard of living, based on the number of bonds purchased. In today's DC plans statements focused on wealth accumulated give investors no sense of retirement standard of living or what to do to achieve their retirement objectives.

Advantages for governments

SeLFIES would be advantageous for governments, making them efficient issuers. First, SeLFIES will give governments a natural hedge of revenues against the bonds, as revenues earned from value-added-taxes (VAT) are essentially proportionate to consumption. This means less risk, more control, and perhaps higher ratings for the government (with a VAT system) to issue consumption-linked rather than inflation-linked or GDP-linked bonds. Investors from all parts of the lifecycle would find them attractive.

Second, as governments struggle to finance infrastructure, bonds with steady payments and

"A new financial instrument is needed to enable financial security for retirees in the current environment"

forward-starting payment dates offer an effective mechanism to finance such needs. Cash flows from SeLFIES offer governments an effective way to collect monies today for upfront capital expenditures for infrastructure projects, and pay these back in the future, once the projects generate revenues.

Third, if DC plan investments do not facilitate safe and adequate outcomes, governments will be forced to bail out participants, thereby privatising gains but socialising risks. SeLFIES potentially reduce those costs and risks to governments.

There are other benefits. Many US DC corporate and endowment pension plan sponsors are being sued for allegedly costly or risky investment and pay-down options. There is a danger that many sponsors may choose not to offer any plans (DB or DC) to avoid legal risk. This inconveniences employees who would have to make their own arrangements, and the uncertainty raises the cost of ensuring retirement security for governments. The design of SeLFIES provides plan sponsors with a low-cost, low-risk default option for participants, and a safe harbour from legal risk. Furthermore, SeLFIES could be valuable to the insurance industry, since it allows them to offer new low-cost annuities, with an improved ability to hedge liabilities.

Additional issues

Simple or dynamic investments in SeLFIES will not solve issues like insufficient savings (resulting in low retirement income), insufficient income growth (which locks in a low standard of living in retirement), or hedging longevity risk. Longevity risk is potentially handled through complex measures, such as trading longevity swaps or bonds. However, since longevity for cohorts changes slowly (low-frequency), it may be adequate to periodically review the change in longevity and adjust the portfolio goal. SeLFIES hedge the relatively rapidly changing (high frequency) interest rate, inflation, and standard of living growth risks, which are important as one nears retirement, until the retiree chooses to

purchase a life annuity, providing longevity risk protection. For longevity risk protection, participants could purchase long-deferred annuities that pay out beyond the age of 85. The deferred annuity approach combined with SeLFIES, would be an efficient way to hedge individual longevity risk while preserving financial flexibility and control, and can be incorporated into a well-designed target income product.

SeLFIES would require an appropriate measure of consumption to be articulated for the index; specifically, how consumer-durable purchases are treated and whether or not to include leisure time, not normally included in consumption. This is the same challenge embedded in TIPS. In any case, SeLFIES are materially closer to covering inflation and standard of living changes than nominal bonds. Of course, further work is needed to establish other technical design details of SeLFIES (eg, are they paid quarterly or annually? Are bonds re-opened monthly, quarterly or less frequently when DC contributions are collected? Is \$5 an optimal size of real coupon or should it be double that to make calculations simpler and require fewer purchases?).

These are not insurmountable, given the potential benefits of the bonds to the concerned parties. As an initial solution, the current technical approach used in TIPS can be adopted.

To thine own SeLFIES be true

The potential global retirement crisis needs to be addressed by timely innovation, because the longer governments wait, the higher the cost will be. SeLFIES are a safe and sound solution for governments.

But, equally importantly, SeLFIES give investors more control over their retirement planning and lower costs, complexity, risks, and illiquidity of retirement outcomes relative to existing or other conceived options. It is critical to ensure effective retirement outcomes, and to paraphrase William Shakespeare's Hamlet: 'This above all, to thine own SeLFIES be true.'

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Footnotes

1 R.C. Merton (2014). The Crisis in Retirement Planning, Harvard Business Review, July–August 2014.

2 Governments frequently serve the function of completing financial markets. Two examples related to meeting retirement funding needs are Japan's issuing of a 40-year ultra-long bond in 2007 to provide a hedging instrument for pension funds and insurance companies, and UST issuing TIPS in 1997 to allow hedging of inflation risk.

3 See A. Muralidhar (2016). An Inventive Retirement Solution. Investment & Pensions Europe, June 2016.

4 A variation of this idea was first addressed in Robert C Merton (1984). On Consumption Indexed Public Plans. Financial Aspects of the US Pension Systems. Eds. Z. Bodie and J. Shoven, National Bureau of Economic Research, Cambridge, MA.

5 Admittedly, this is not a fair comparison as proponents of GDP-linked bonds have tried to use this bond to create pay-as-you-go like pension plans, and ensure counter-cyclical payments (ie, high returns when market rates of interest are low or negative). See J. Pijns, T. van der Klundert and A. van Nuenen 2016. Why the Netherlands Should Issue Retirement Bonds. Investment & Pensions Europe, August 2016.

6 D.T. Breeden (1979). An Intertemporal Asset Pricing Model with Stochastic Consumption and Investment Opportunities. Journal of Financial Economics, 7 (September): 265-96.

SeLFIES Can Improve the Nation's Retirement Security

Robert C. Merton, Ph.D., and Arun S. Muralidhar, Ph.D., discuss how Standard of Living indexed, Forward-starting, Income-only Securities can address the call for in-plan retirement income solutions.

By Robert C. Merton, Ph.D., Nobel Prize winner in Economics, and Arun S. Muralidhar, Ph.D.

Last month, the Government Accountability Office (GAO) issued a stunning report, “The Nation’s Retirement System: A Comprehensive Re-evaluation Is Needed to Better Promote Future Retirement Security” (GAO-18-11SP), on the U.S.’ retirement preparedness. In the report, it notes, “The U.S. retirement system, and the workers and retirees it was designed to help, face major challenges. ... individuals are increasingly responsible for planning and managing their own retirement savings accounts ... [M]any households are ill-equipped for this task and have little or no retirement savings.” The report ends with a very strong recommendation, or plea, that, “Congress should consider establishing an independent commission to comprehensively examine the U.S. retirement system and ... improve how the nation promotes retirement security.”

Coincidentally, the U.S. Treasury also issued a report, “A Financial System That Creates Economic Opportunities,” that makes the case for in-pension plan retirement income options and the importance of funding infrastructure. The U.S. government can have an immediate impact on the retirement challenge, create a liquid in-plan retirement income option, and raise funding for infrastructure by issuing a new type of long-term bond, one we call SeLFIES—Standard of Living indexed, Forward-starting, Income-only Securities. SeLFIES address many of the challenges raised in the GAO and U.S. Treasury reports and are also advantageous to the U.S. Treasury.

Individuals seek a guaranteed, real income, ideally from retirement through death, and to lead a lifestyle comparable to pre-retirement. At the same time, the Treasury seeks to ensure that individuals can make independent, informed financial decisions and accumulate a retirement nest egg. The GAO notes three main challenges to achieving this goal: access to retirement plans; insufficient savings; and the complexity of investing and decumulating. Typically, low-income or part-time employees work for firms that neglect to offer retirement plans—and even if they do, many of these employees cannot participate for a host of reasons. A number of states, Oregon being the first, are stepping into the breach to create plans that offer access to uncovered private-sector workers.

Inadequate savings disproportionately affects women and some minorities and is caused by insufficient real wage growth, high debt levels and increased longevity. Further, the complexity of retirement planning leaves many confused about what constitutes adequate savings. They are overwhelmed by the information provided and the absence of a robust and uniform method to calculate income replacement rates. The attempts by Richard Thaler, Ph.D., winner of this year's Nobel Memorial Prize in Economic Sciences, to nudge individuals into pension plans and increase savings over time, via automatic enrollment and automatic escalation, help; however, they fail to address the "how much is adequate" question.

Finally, there is uncertainty over what to invest in and how best to decumulate. Most adults can barely answer questions about compound interest, the effects of inflation or the benefit of diversification. The Department of Labor (DOL) provided safe harbor guidance about appropriate investments, but investing in existing assets is risky relative to the retirement objective, because these assets fail to provide a simple or low-cost cash-flow hedge against desired retirement income. Even a portfolio of traditional, "safe" government securities, unless heavily financially engineered—at some cost—would be risky because of the cash flow, and potential maturity, mismatch between traditional bonds and the desired retirement income stream.

The Treasury report notes, "Because annuities are the only financial services product that can provide a guaranteed lifetime income stream ... [they] are an important contributor to the Core Principle of empowering Americans to save for retirement." However, many hesitate to buy annuities because they can be complex, opaque and illiquid; investors fear not being able to bequeath the annuities to heirs.

SeLFIES address many of these issues. Governments could issue a new, low-cost, liquid and safe ultra-long bond instrument. SeLFIES start paying investors upon retirement and pay real coupons only—say, \$5—indexed to aggregate per capita consumption—for a period equal to the average life expectancy at retirement, e.g., another 20 years. Instead of current bonds that index solely to inflation, SeLFIES cover both the risk of inflation and standard-of-living improvements.

SeLFIES are designed to pay people *when* they need it and *how* they need it, and greatly simplify retirement investing. A 55-year-old today would buy the 2027 bond, which would start paying coupons when he turns 65, in 2027, and keep paying for 20 years, through 2047.

In this way, even the most financially illiterate individual can be self-reliant with respect to retirement planning. For example, if investors want to guarantee \$50,000 annually, risk-free for 20 years in retirement to maintain their current standard of living, they would need to buy 10,000 SeLFIES—i.e., \$50,000 divided by \$5—over their working life. The complex decisions of how much to save, how to invest, and how to draw down are simply folded into an easy calculation of how many bonds to buy.

Besides being simple, liquid, easily traded at very low cost and with low credit risk, SeLFIES can be bequeathed to heirs. SeLFIES do not address all issues, including longevity, but go a long way toward improving retirement security.

These securities are a good deal for governments, too. In fact, governments are the biggest beneficiaries. SeLFIES not only improve retirement outcomes for all defined contribution (DC) plans, but also have spill-over benefits for the current administration and future ones. First, cash flows from SeLFIES reflect synergistic cash flows for infrastructure spending: namely, large cash flows upfront for capital expenditure, followed by delayed, inflation-indexed revenues, once projects are online. Financing infrastructure has been a challenge and a priority for the current administration. Second, SeLFIES give governments a natural hedge of revenues against the bonds, through value-added taxes (VATs).

The looming retirement crisis needs to be addressed by timely innovation, because the longer that governments wait, the higher the cost to the taxpayer. SeLFIES improve retirement security, fund infrastructure and can be created immediately, at low cost, without waiting for an independent commission or changing regulations!

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<https://www.plansponsor.com/selfies-can-improve-nations-retirement-security/>

SeLFIES For India

These long-term bonds can fund India's infrastructure needs and improve retirement security

Robert C Merlan and Arun S Muralidhar



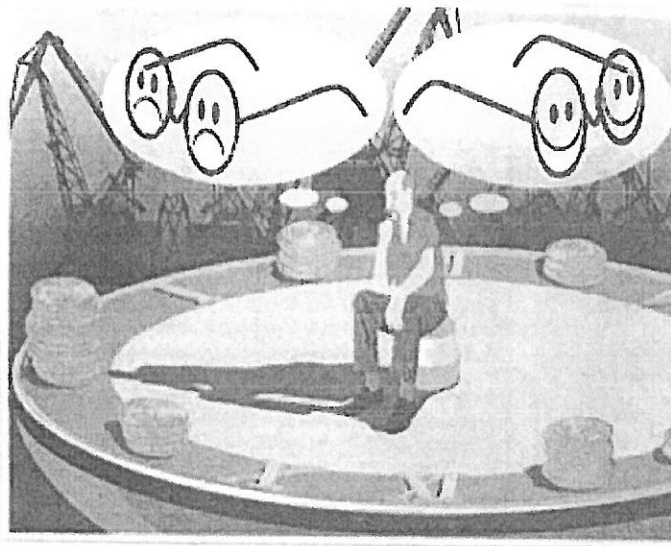
The Indian government unveiled its Budget and recognises that the infrastructure sector needs investments of Rs 5 lakh crore to boost GDP (allocating Rs 5 lakh crore as a primary step). Simultaneously, certain provisions in the Budget seek to improve the lives of retirees, and finance minister Arun Jaitley specifically noted that, "A life with dignity is a right of every individual, in general, more so for the senior citizens."

One of the major challenges that India will face is ensuring the income security of its senior citizens, especially in a country where financial literacy is relatively low. The government can easily fund infrastructure, especially since it has given permission to the National Highways Authority of India (NHAI) and other institutions to issue bonds, and have an immediate impact on the retirement challenge by issuing a new type of long-term bond, one we call SeLFIES - Standard of Living Indexed, Forward-starting, Income-only Securities.

SeLFIES address many of the challenges raised in the Budget and are also advantageous to the ministry of finance, especially in light of the recent implementation of a Goods and Services Tax (GST).

"A life with dignity" would ideally include guaranteed, real income, from retirement through death, and the ability to lead a lifestyle comparable to pre-retirement. The Indian government would probably like to ensure that individuals can make intelligent financial decisions, and accumulate a retirement nest egg without being dependent on the government for support.

Typically rural workers, low-income, or part-time employees are unable to save for retirement because of the absence of simple retirement schemes, and even those who participate in retirement plans are often not sure about the decisions they have to make about accumulation



and decumulation because they are largely financially illiterate.

The complexity of retirement planning leaves many confused about what constitutes adequate savings for retirement. Individuals are overwhelmed by the information provided and the absence of a robust and uniform method to make these calculations. Moreover, there is uncertainty over what to invest in and how best to decumulate. Most adults can barely answer questions about compound interest, the effects of inflation or the benefits of diversification. Investing in existing assets is risky relative to the retirement objective, because these assets fail to provide a simple or low-cost cash-flow hedge against desired retirement income.

Even a portfolio of traditional, "safe" government securities, unless heavily financially engineered - at some cost - would be risky because of the cash flow and potential maturity mismatch between traditional bonds and the desired retirement income stream.

Other countries struggle with similar issues. Annuities are typically the only financial services product that can provide a guaranteed lifetime income stream, but

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SeLFIES address many of these issues. The Indian government could issue a new, low-cost, liquid and safe ultra-long bond instrument. SeLFIES start paying investors upon retirement and pay real coupons only - say, Rs 100 - indexed to aggregate per capita consumption - for a period equal to the average life expectancy at retirement, eg, another 20 years. Instead of current bonds in global markets that are either nominal or indexed solely to inflation, SeLFIES cover both

the risk of inflation and standard of living improvements.

SeLFIES are designed to pay people when they need it and how they need it, and greatly simplify retirement investing. A 55-year-old baby would buy the 2020 bond, which would start paying coupons when he turns 65, in 2020, and keep paying for 20 years, through 2040.

In this way, even the most financially illiterate individual can be self-reliant with respect to retirement planning. For example, if someone wants to guarantee Rs 50,000 annually, risk-free for 20 years in retirement to maintain their current standard of living, they would need to buy 50 SeLFIES - 1e, Rs 50,000 divided by Rs 100 - over their working life.

The complex decisions of how much to save, how to invest, and how to decumulate are simply folded into an easy calculation of how many bonds to buy. SeLFIES do not address all issues, including longevity risk, but go a long way toward improving retirement security.

These securities are a good deal for governments, too. In fact, governments are the biggest beneficiaries. SeLFIES not only improve retirement outcomes for all citizens saving for retirement, but also have spill-over benefits.

First, cash flows from SeLFIES reflect synergistic cash flows for infrastructure spending: namely, large cash flows upfront for capital expenditure, followed by delayed, inflation-indexed revenues, once projects are online. Financing infrastructure has been a challenge and a priority for the current government, especially given the current Budget. Second, SeLFIES gives the Indian government a natural hedge of revenues against the bonds, through GST.

The looming retirement crisis needs to be addressed by timely innovation, because the longer that governments wait, the higher the cost to the taxpayer. Coincidentally, India has identified the critical importance of investing in infrastructure to improve GDP growth, but may face challenges funding these needs. SeLFIES fund infrastructure, improve retirement security, and can be created immediately at low cost.

Robert Merlan is a Nobel Laureate in Economics. Arun Muralidhar is Adjunct Professor of Finance at George Washington University.

'I have rarely seen so much anger against a government ... Congress will come back to power in Rajasthan'

The Congress party's success in Rajasthan's recent bypolls suggests a more competitive political environment is building up. Ashish Gehlot, Congress general secretary in charge of Gujarat who was earlier Rajasthan's chief minister, talks to Sanjeev Singh about it.

■ What were the main reasons behind Congress's win in Rajasthan bypolls?

The ground for this win was laid during the 2014 assembly elections.

BJP government weakened schemes of the previous government which provided pension, food, free medicines, benefits to tribals and 1.25 lakh laptops to students. Instead they focussed on retaining 9,000 Rajiv Gandhi seva kendras as Atal seva kendras. They were rapped by the high court which set aside their decision last month. The Barmer refinery was kept closed for three years on the ground that 26% (state) government share was too much. Now they have gone ahead with the same 26%

trying to harass the victims by filing cases against them. This is happening across the country and leading to more tension in society. These days they are taking out tiranga yatra when they had tried to do it earlier. When Janata Party formed the government in 1977 with Morarji Desai as prime minister, they demanded to change the tiranga. I was a district president of the Indian Youth Congress then and I still remember I had taken a petition to the President of India, Neelkanth Sanjivani Reddy, that tiranga

same with Indira Gandhi. They threw the Bofors gun and foreign exchange issues on Rajiv Gandhi and Sonia Gandhi respectively. They know that if they can change Rahul, then Congress will suffer. But Gujarat changed all that and people are seeing Rahul in a new light.

We have put our inputs of the Gujarat campaign and given a PPT presentation to Rahul. The focus is on ticket distribution, how to do damage control, ensure access to each booth level worker, how to check EVMs, door-to-door campaigning.

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SeLFIES for India: These long-term bonds can fund India's infrastructure needs and improve retirement security

February 5, 2018, 2:00 AM IST Robert C Merton in TOI Edit Page | Economy, Edit Page, India | TOI

By Robert C Merton and Arun S Muralidhar

The Indian government unveiled its Budget and recognises that the infrastructure sector needs investments of Rs 50 lakh crore to boost GDP (allocating Rs 5.9 lakh crore as a primary step). Simultaneously, certain provisions in the Budget seek to improve the lives of retirees, and finance minister Arun Jaitley specifically noted that, "A life with dignity is a right of every individual, in general, more so for the senior citizens."

One of the major challenges that India will face is ensuring the income security of its senior citizens, especially in a country where financial literacy is relatively low. The government can easily fund infrastructure, especially since it has given permission to the National Highways Authority of India (NHAI) and other institutions to issue bonds, and have an immediate impact on the retirement challenge by issuing a new type of long-term bond, one we call SeLFIES - Standard of Living indexed, Forward-starting, Income-only Securities.

SeLFIES address many of the challenges raised in the Budget and are also advantageous to the ministry of finance, especially in light of the recent implementation of a Goods and Services Tax (GST).

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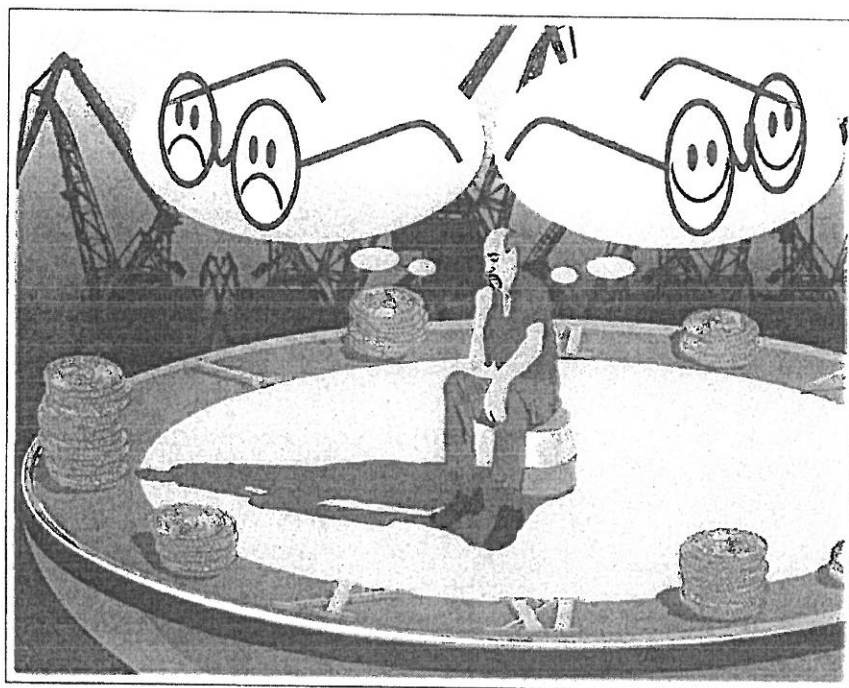


Illustration: Ajit Ninan

"A life with dignity" would ideally include guaranteed, real income, from retirement through death, and the ability to lead a lifestyle comparable to pre-retirement. The Indian government would probably like to ensure that individuals can make intelligent financial decisions, and accumulate a retirement nest egg without being dependent on the government for support.

Typically, rural workers, low-income, or part-time employees are unable to save for retirement because of the absence of simple retirement schemes, and even those who participate in retirement plans are often not sure about the decisions they have to make about accumulation and decumulation because they are largely financial illiterate.

The complexity of retirement planning leaves many confused about what constitutes adequate savings for retirement. Individuals are overwhelmed by the information provided and the absence of a robust and uniform method to make these calculations. Moreover, there is uncertainty over what to invest in and how best to decumulate. Most adults can barely answer questions about compound interest, the effects of inflation or the benefit of diversification. Investing in existing assets is risky relative to the retirement objective, because these assets fail to provide a simple or low-cost cash-flow hedge against desired retirement income.

Even a portfolio of traditional, "safe" government securities, unless heavily financially engineered - at some cost - would be risky because of the cash flow, and potential maturity, mismatch between traditional bonds and the desired retirement income stream.

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SeLFIES address many of these issues. The Indian government could issue a new, low-cost, liquid and safe ultra-long bond instrument. SeLFIES start paying investors upon retirement and pay real coupons only – say, Rs 100 – indexed to aggregate per capita consumption – for a period equal to the average life expectancy at retirement, eg, another 20 years. Instead of current bonds in global markets that are either nominal or indexed solely to inflation, SeLFIES cover both the risk of inflation and standard-of-living improvements.

SeLFIES are designed to pay people when they need it and how they need it, and greatly simplify retirement investing. A 55-year-old today would buy the 2028 bond, which would start paying coupons when he turns 65, in 2028, and keep paying for 20 years, through 2048.

In this way, even the most financially illiterate individual can be self-reliant with respect to retirement planning. For example, if someone wants to guarantee Rs 50,000 annually, risk-free for 20 years in retirement to maintain their current standard of living, they would need to buy 500 SeLFIES – ie, Rs 50,000 divided by Rs 100 – over their working life.

The complex decisions of how much to save, how to invest, and how to draw down are simply folded into an easy calculation of how many bonds to buy. SeLFIES do not address all issues, including longevity risk, but go a long way toward improving retirement security.

These securities are a good deal for governments, too. In fact, governments are the biggest beneficiaries. SeLFIES not only improve retirement outcomes for all citizens saving for retirement, but also have spill-over benefits.

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The looming retirement crisis needs to be addressed by timely innovation, because the longer that governments wait, the higher the cost to the taxpayer. Coincidentally, India has identified the critical importance of investing in infrastructure to improve GDP growth, but may face challenges funding these needs. SeLFIES fund infrastructure, improve retirement security, and can be created immediately, at low cost.

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