Headline: NSE's Dr R H Patil Memorial Lecture by Nobel Laureate Prof Robert C. Merton	
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Times of India

Infra bonds can help funding after retirement: Merton

TIMES NEWS NETWORK

Mumbai: Robert C Merton, the Nobel Prize winning economist on Monday, suggested long duration bonds for infrastructure could be the right solution for the retirees in countries like India.

Merton is famous for his work on pricing of options that won him the Nobel Prize in Economics, jointly, in 1997.

He explained that the pay-in periods that prospective retirees look for during their working years fits well with the long gestation for infrastructure bonds till the payback from them starts.

Merton, who teaches at Massachusetts Institute of Technology, US, was in India at the invitation of the NSE to deliver the Dr R H Patil Memorial Lecture in the city.

Funding the retirees' need for funds, when they stop working, has been one of the biggest public policy challenges globally, and so is securing funding for long-term infrastructure projects. "By just changing the bond market design, we will be able to address these public policy challenges that are global," he said.

Merton's solution is the bond variation called SeLFIES (Standard of Living Indexed Forward-starting Income-only Securities). Here, the government issues bonds that will pay nothing during the initial period when the infrastructure is being built. The bonds will start paying only after, say 10-15 years after its issuance, which is once the infrastructure is built and the payback starts. This is also the time when the retirees' need money. So, the future retirees will buy these bonds now knowing well that they will not get anything when they are working, but will start getting higher payouts than the regular, interest paying bonds once they retire.

"Basically, we synthesise your pension but by doing this with a bond," he said. "What we are going to do here is you put your money in, you get nothing (during initial years and) then in a given year you get a level payments and then it stops at the end." The structure of SeLFIE bonds is such that it can protect retirees from both inflation and a fall in the standard of living after they retire.

Business Standard

Nobel laureate floats 'SeLFIE' as solution for infra funding

Deferred-coupon debt instruments could help address asset-liability mismatch

SACHIN P MAMPATTA
Mumbai, 15 October

Nobel Prize winner Robert C Merton, an economist famous for his contributions in developing ways to better determine the price of derivatives that helped in the development of the Black-Scholes formula, has suggested a bond-market solution for the funding problem plaguing infrastructure projects.

These projects often result in cash flows a decade or more after they are first initiated. Companies have to pay back loans taken for the projects before the project starts generating cash, which creates debt issues, further aggravating the situation if the projects get stalled.

Infrastructure can be funded by SeLFIE (Standard of Living Indexed, Forward-starting Income-only Securities) bonds, Merton, the keynote speaker at National Stock Exchange's RH Patil Memorial Lecture, said.

Merton has mooted this debt instrument as part of his recent work. It is a bond which is designed with no coupons for a number of years after it is bought. This is different from typical debt instruments which pay back interest and/or principal right after they are purchased - with varying frequency - often every year or every six months. The SeLFIE bond would not pay back principal at the end of the tenure. Instead it would be paid back with the coupons, designed so that they are deferred for the initial years.

Professor Robert C Merton interacts with the media in Mumbai on Monday
PHOTO: KAMLESH PEDNEKAR

Infrastructure financing has been in the news following the collapse of the Infrastructure Leasing & Financial Services. The company, which helped provide capital for infrastructure projects, defaulted on payments because of several reasons, including a mismatch between the time it had for repaying the loans versus the time it takes for projects to make money.

He said he had not had discussions with Indian policymakers on the issue of using such bonds for infrastructure financing. However, he has discussed SeLFIE bonds with various governments for the purpose of funding retirements. "Retirement solutions also involve a need for deferred cash flows," Merton said.

If people invest in bonds, intermittent coupons create reinvestment risk. For example, a fall in interest rates after the initial investment would mean lower returns on reinvesting a coupon payment. This could be addressed by only giving coupons many years after the investment, around the time that a person who has bought the bond retires. The absence of such a solution adds complexity and uncertainty to retirement planning in a world where many countries are dealing with ageing populations.

"You have a problem, you have a big problem, a global problem. This solution works in many countries. It's culture-independent, it's a global solution not unique or specialised to one country," he said.

The similarity in the structure of cash-flows between the two makes it possible to apply the same principle to infrastructure as well, he said.

Merton also spoke of capital convertibility as well as the impact of technology on the financial world.

He said Silicon Valley evangelists say technology and artificial intelligence will result in making parts of the financial services industry redundant, including in banking and insurance.

He believes otherwise. Technological solutions often depend on models which are 'black boxes'. This opaqueness in terms of the models that make decisions for consumers would be detriment to their success. There is not enough trust yet on these matters for customers to depend purely on technology. The models and the data that technological solutions depend on are not foolproof, and customers would be reluctant to rely on them.

Meanwhile, large financial firms are allowed to make decisions for customers as customers trust them. The advantage for large financial firms is that they have both their customer's trust and the resources to develop or purchase the technology needed to keep up with Silicon Valley firms. Many technology firms, which don't have customers' trust, also lack the resources to keep up with financial firms which can buy their way into technology - giving the latter an edge.

"You need trust, and technology can't do it by itself," he said.

EXPENSE ACCOUNT

MONIKA HALAN

We welcome your comments at
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ROBERT MERTON'S RETIREMENT ON A SeLFIE STICK

It is a little surreal to hear an economics Nobel laureate flag issues and provide solutions to some issues that personal finance writers across the world have been flagging for many years now. The occasion was the RH Patil Memorial Lecture to mark 25 years of the National Stock Exchange. Patil was the first Chairman of the exchange that was set up in the aftermath of the 1992 stock market scam. Delivering the lecture was Robert C Merton, Nobel Prize winning economist and professor of finance at MIT.

It was surreal because personal finance writers have flagged issues around trust, asymmetric information, product design, retirement planning being rocket science, to name a few. Surreal because the financial sector, regulators and policy makers have pushed back at ideas around product design and other supply side solutions to focus on disclosure and financial literacy—or the demand side solutions. Inherent in their push back is the tossing of responsibility to consumers of retail finance. I have long believed that it will take product design and supply side solutions to solve this problem.

Merton's entire talk was about solving some of these issues from the supply side. He was dismissive of financial literacy saying that it is better to design a car that you can just drive rather than teach details of internal combustion to the driver. He says that it is better to design products that an average person can plug and play rather than hold them accountable to learn finance and evaluate products—especially for retirement. This is important because academia informs policy. Policy directs regulation. Regulation constructs markets. Markets design products that you and I buy.

Merton's latest work is around product design in a government bond that will allow an average person to target her retirement. The solution is called the Standard of Living indexed, Forward-starting, Income-only Securities —or SeLFIES. This is a government bond that begins to pay interest after a certain number of years, for a certain number of years. The buyer targeting her retirement will have to make two assumptions—the year of retirement and how long she will live. Assume that a 40-year-old in 2018 decides that she will retire in 2038. She currently spends ₹12 lakh a year and would like to maintain this standard of living in real terms when she turns 60. She would also like to have a product that looks after inflation during the 30 years she plans to live post retirement. Merton's solution is to have a deferred interest paying bond that you can buy in 2018, with the payouts beginning at retirement. The payouts will be indexed to a standard of living index so that buyers don't see a drop in their lifestyle. The payout of these bonds, says Merton, is exactly the cash flows that a typical infra project throws up—a long investment period with no cash returns and then an annuity of returns over the life of the project. Long term infra projects can be funded by these bonds. What about the hedge for the cost of living? Merton believes that the GST will provide a natural hedge for the product. You can read more about the product here: *bit.ly/2pVR41S* and here: *bit.ly/2OpDm6i*

What if the government sold us a standard of living indexed pension bond?

One issue I have with such a product is the proclivity of a government in a pre-election year to use the money to build sub-optimal infra products that don't generate the returns needed to fund the cash outs in 20 years. Take for instance the pushing forward of bank NPAs by the UPA government. Merton says that governments always tend to make good their promises. But I would still worry about a moral hazard of kicking the can down by an irresponsible government.

Another issue flagged at the lecture was of trust. Post 2008, retail investors in the US have lost trust in the financial sector and managed funds. $1 trillion have switched from managed funds to passive funds over the past few years. Merton believes that the time for fee-only advice is here and that is the only way trust can be re-established. Commissions, whether in cash, kind or any other way, open the advisor to conflicts of interests and it is only the pure fee for advisor that will win the trust of investors. The Indian market regulator has been grappling with the issue of advice versus incidental advice in distribution for a while now. Inputs from Merton may give more clarity on the way the academic world is looking at the issue now. As I said earlier—the impact of academia is finally on market design.

The next step in this story will be to turn the market from buyer beware to seller beware in retail finance. We wait for that to happen as academia gives us the evidence to something we know from practice.

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ISTOCK

Indian Express

Merton suggests bond innovation for individuals in China, India

ENS ECONOMIC BUREAU
MUMBAI, OCTOBER 15

NOBEL PRIZE winning economist, Robert C Merton on Monday suggested a bond innovation called SeLFIES (Standard of Living indexed, Forward-starting, Income-only Securities) for retirement funding of individuals and infrastructure funding for countries such as the US, China and India.

Merton, while delivering the first annual Dr RH Patil Memorial Lecture in Mumbai, organised by the National Stock Exchange (NSE), said funding of retirement is one of the biggest global problems and individuals need to become more responsible for their retirement and rely less on the government pension plan.

Merton said SeLFIES start paying investors upon retirement and pay real coupons only-indexed to aggregate per capita consumption – for a period equal to the average life expectancy at retirement. 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 said Merton.

Robert C Merton, in Mumbai on Monday. *Ganesh Shirsekar*

"SeLFIES minimises the cost and the people who use this could include those that don't have enough pension or people who don't have pension. It is a good bond not only for an individual but also great for institutions such as insurance firms," said Merton. "SeLFIES are designed to pay people when they need it and how they need it, greatly simplify retirement investing".

Merton said that infrastructure spending mostly requires large cash flows upfront for capital expenditure, followed by delayed, inflation-indexed revenues, once projects are online. SeLFIES, according to Merton, is the perfect way of funding infrastructure projects.

On Fintech, Merton said that truth is essential for Fintech to succeed and Fintech's success will enhance the value of trust. " Fintech is going to happen and it will be useful but it's not true who are going to be the big winners in this and how will it evolve," said Merton.

Merton, who won the Nobel Prize in 1997 for a new methodology to value derivatives (Black-Scholes-Merton model), is currently actively associated with various fund houses including Arbitrage Management Company (AMC), Long Term Capital Management which he founded and Dimensional Fund Advisors Pte Ltd. His research focuses on finance theory including life cycle finance, optimal inter-temporal portfolio selection, capital asset pricing, pricing of options, risky corporate debt, loan guarantees, and other complex derivative securities.

The Dr R H Patil Memorial Lecture is organized in the honor of its founder and Managing Director, of NSE, Patil, who played a pivotal role in transforming India's capital markets.