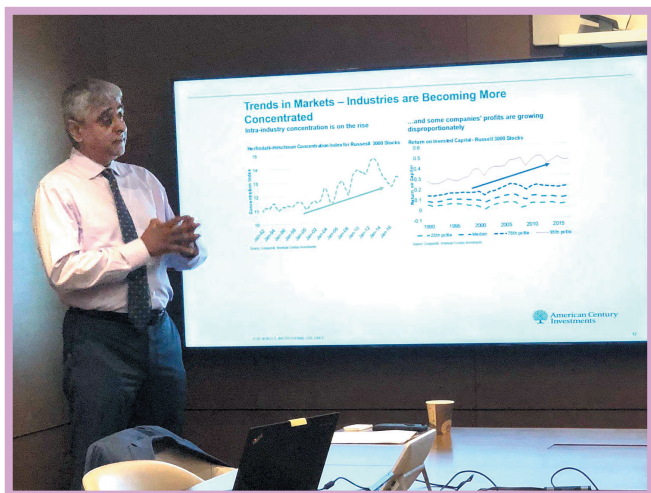


CIO Series - Episode 4:

What role can technology play in the management of Pension assets?



Vinod Chandrashekar, CIO of Quantitative Equity at American Century Investments (ACI), explains that while 15 years ago technology was used in asset management as a service function, today it can be an alpha engine.

Speaking as part of The Hong Kong Retirement Schemes Association's CIO Series, Chandrashekar points out that while asset management has traditionally valued fundamental analysis, the information published by companies is becoming less informative.

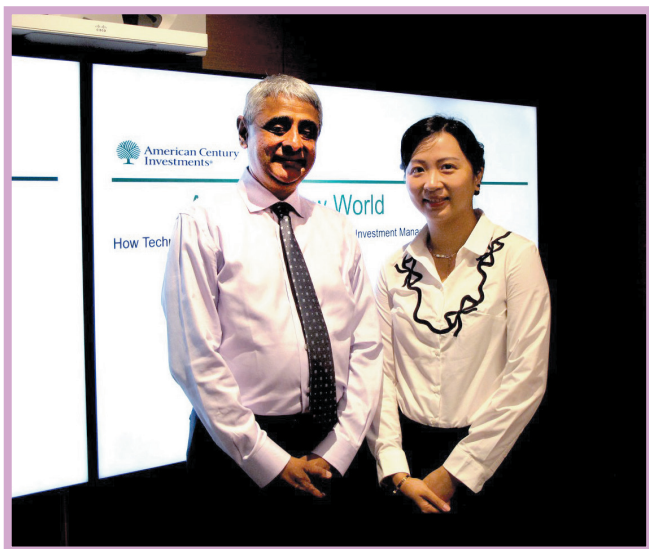
Investment management is undergoing a generational shift as the evolution of data and technology creates new solutions for retirement saving.

As a result, it is becoming increasingly important to use artificial intelligence (AI) to incorporate qualitative information into traditional analysis models.

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The Hong Kong Retirement Schemes Association (HKRSA) was established in 1996 to promote the interests and best practices of retirement schemes in Hong Kong including provident and pooled retirement funds. The HKRSA is a not-for-profit, non-political association, which represents retirement schemes and their members, providing a forum for discussion of issues of current and topical interest.



Chandrashekaran cautions that in order to successfully use AI in an asset management model, three elements need to come together, namely big data, technology and domain expertise.

He explains that the data has to be large enough to be meaningful, with data scientists talking about the four V's: volume, variety, velocity and veracity.

Asset managers also need to invest in new technology to store, process and extract valuable information from the data sets.

Finally, Chandrashekaran says domain expertise is key to the industry in order to make AI relevant to an investment context.

Harnessing AI

In response to a question on how the industry can use AI, Chandrashekaran, explains that ACI has created a programme to analysis transcripts from analysts' calls following companies' earnings announcements.

The programme reads transcripts from the calls and uses an algorithm to score the sentiment, based on analysis of the language used by analysts and management.

He showed a chart of Starbucks' financial results since the fourth quarter of 2015 and the tone of the analysts' calls as rated by the programme.

The sentiment was initially positive but became progressively more muted before turning negative in the first quarter of 2018.

The programme also analyses how the tone of management and analysts changes during the call, picking up on whether management is using speech patterns associated with trying to manipulate perception.

Product grouping inefficiencies

ACI is also using AI to analyse the 10-Q and 10-K reports US companies file with the Securities Exchange Commission.

Chandrashekaran explains that stocks with very different products are often classified as being in the same sector. Being able to identify trends like this creates opportunities for pensions to develop new products, such as a thematic product on disruptive trends.

Chandrashekaran explains that the problem of saving for retirement is a dynamic multi-period problem that can cover a time horizon of 40 to 50 years, and include other milestones, such as buying a house, along the way.

But he adds that the world is now on the cusp of having computers that are able to create full-blown mathematically rigorous, complete solutions to the problem of saving for retirement.

"The entire trajectory of pension panning will change with the advent of some of these newer techniques," he says.

Pension milestones

China, Hong Kong, Taiwan and Macau take key steps in 2018



Pension experts from China, Hong Kong, Taiwan and Macau exchanged views and shared best practices on pensions and retirement savings issues across the region at the 10th Annual Cross Strait Pension Forum hosted by Hong Kong Retirement Schemes Association (HKRSA). The implementation of a Central Provident Fund (CPF) in Macau and the introduction of a tax deferral scheme for private pensions in China were among key milestones in 2018 for the pension sector, according to Janet Li, Chairman of HKRSA.

Themed “InnoPension” this year, the annual forum was held on October 22 in Hong Kong with an aim to find ways to help cater for the needs of retirees through innovation on structure, product, new concepts and technology fronts. The one-day forum was attended by senior representatives from industry bodies and associations from China, Hong Kong, Taiwan and Macau, government officials, asset managers and service providers.

Ms. Li, who was among industry experts and officials who spoke at the forum, said she is



hopeful the pace of reforms for the pension sector will gather momentum on the back of government-led initiatives. In addition, she believes recent advances in finance and technology that are now shaping the industry will have a significant impact on pensions.

She described the creation of the Greater Bay Area plan as a “game changer”, with the opening of new markets expected to underpin pension developments. The Greater Bay Area Plan is a cross-border initiative to build a world-class city cluster across the Guangdong-Hong Kong-Macau region by 2030.

Hu Xiao Yi, Chairman of the China Social Insurance Association, noted that Beijing unveiled several measures in 2018 to facilitate pension reform in a move to lower fees for small- and mid-sized enterprises and improve retirement protection coverage throughout the country.

But ongoing pension reform in Taiwan, including reduced monthly pension payments for civil servants, have not been well received, according to Jennifer Wang, Chairman of Taiwan’s Pension Fund Association (PFA). She said there is a lot of work to be done to address the issue.

“Also, the long-awaited member choice platform for Labor Pension Fund (LPF) is expected to be introduced to the Legislative Yuan for approval in the near future,” she said. She was referring to the fact that LPF, the largest retirement scheme in Taiwan, is planning to introduce a platform where its members can select the fund choices best suited to their risk tolerance.

Hong Kong’s Chief Secretary for Administration Matthew Cheung said retirement protection in the city has to be a shared responsibility between families, employers, government and individuals.

He pointed out that the Hong Kong government has increased cash outlays under its various social welfare schemes in recent years. He said the government currently spends an average of approximately HK\$85 billion (US\$10.8 billion) a year on seniors, accounting for about one-fifth of its overall spending.

He added that the government is taking steps to promote social security by granting additional funding for the elderly in the city’s latest annual





budget, such as the formation of a HK\$1 billion rehabilitation fund to provide financial support for the disabled and seniors in rehabilitation.

The government will take into account multiple factors, including financial sustainability, the ageing population, and resource distribution, to define future retirement policies, Mr. Cheung said.

Retirement protection

At the forum's first panel discussion, Qi Tao, Vice Minister of China Social Insurance Association, said assets in China's fundamental pension market has grown almost 45-fold since 2000 to 4.38 trillion RMB (US\$631.9 billion) at the end of 2017.

He urged Beijing to tackle challenges such as the fast growing ageing population, over-urbanisation, and the shift in the economic structure from export-oriented to one that is focused on domestic consumption.

Meanwhile, Hong-Chih Huang, Vice Chairman of PFA, offered a grim assessment of Taiwan's pension funds for civil servants, the military and public school teachers, predicting that they will go

bankrupt by 2030 because of insufficient pension funding to cover withdrawals.

Although many reforms, such as reducing the funds' replacement ratio, have been introduced, they are not enough to completely resolve the problem, according to Mr. Huang. As such, he suggested that the government should introduce other measures, including raising the official retirement age from 60, and converting pension plans from defined-benefit to defined-contribution schemes.

Macau's Social Security Fund Vice Chairman Un Hoi Cheng said the launch of the non-mandatory CPF, a supplementary defined-contribution pension plan, in January 2018 is a milestone towards building a two-layer pension system in the Chinese territory.

"The CPF, coupled with the first-tier Social Security Fund (SSF), will significantly help strengthen the city's retirement protection," she said.

In Hong Kong, the government is pressing ahead with reforms, including reviewing the maximum and minimum income levels for contribution to the Mandatory Provident Fund (MPF), the city's largest public retirement plan, and abolishing the offsetting mechanism where



employers use their MPF contributions to offset employee's long service and severance payments. Law Chi-kwong, the city's Secretary for Labour and Welfare, said.

Although more retirement products such as public annuity and reverse mortgages have been available in recent years, many don't know how to invest in them, according to Dr. Law.

At another panel session chaired by Ka Shi Lau, Forum Convenor and Managing Director & CEO of BCT Group, how to integrate multiple pillars to make the entire pension system works effectively in different regions was discussed.

Francine Wu, Director of PFA and Chief Executive Officer (CEO) of Schrodgers Investment Management Taiwan, said it's important for people to define their "retirement journey" and take steps to protect their savings from inflation for the ten years prior to their retirement.

And Li Daobin, Director and CEO of Bank of China Investment Management, said China's mutual fund industry will play a key role in the country's third pillar pension reform by providing more products and promoting investor education.

Ms. Li, who is Mercer's Asia Wealth Business Leader, expanded on why Netherlands was ranked first in the annual Melbourne Mercer Global Pension Index. She said Netherlands' pensions are large and well-structured, and that the Dutch and other European governments have done well in spreading risks of their local pension schemes. This is effective for risk redistribution and investment diversification, Ms. Li said.

Pension governance and ESG

Pat Woo, a Partner at KPMG, said environmental, social, and governance (ESG) has become

a global investment trend. Many companies have become aware that they cannot just focus on maximising returns but also have to take a balanced approach on "externalities" such as climate changes and wealth distribution, according to Mr. Woo.

Ginni Wong, Head (Supervision) at the Mandatory Provident Fund Schemes Authority, which supervises Hong Kong's MPF industry, said a lot of work has been done to raise awareness of corporate governance because MPF trustees are responsible for protecting members' retirement savings. The MPFA hosted its first workshop for governance in 2017 and launched a governance charter for MPF trustees in 2018.

In Taiwan, more institutional investors are eager to integrate their investments with ESG factors because the government requires financial institutions, including insurers and asset managers, to comply with responsible investing requirements, said Ming-Hua Hsieh, a Professor at the National Chengchi University who is also a member of the PFA. More importantly, he noted, the LPF, the island state's largest public pension, is investing \$2.4 billion in its first ESG mandate.

Product innovation

Edmond Lau, Executive Director and CEO of Hong Kong Mortgage Corporation Annuity Limited (HKMC Annuity), said the government mortgage company introduced the first public annuity product in Hong Kong in 2018.

The majority of private pension products in Hong Kong are focused on the accumulation phase, so the public annuity, which is focused on the decumulation phase, will fill the void, he said.

According to Mr. Lau, "readiness for retirement is still not very high" in Hong Kong and users of

pension and annuity products should have a better understanding of their objectives.

Wilton Kee, Vice President and Chief Product Officer for individual financial products at Manulife (International), added that “the annuity market landscape is evolving” in Asia.

The fact that the HKMC Annuity is taking the lead to promote the annuity market development, coupled with tax incentives recently introduced by the government, will motivate more insurance companies to develop private annuity products, he said.

Meanwhile, Ricky Chau, Vice President and Portfolio Manager of Franklin Templeton Multi-Asset Solutions Hong Kong, said multi-asset solutions are becoming more common for pension asset allocation as they can mitigate credit default and inflation risk.

And Christian Lemaire, Global Head of Retirement Solutions at Amundi Asset Management, highlighted the significance of technology for

pension product development. He said the company’s robo-advisor has “significantly improved” the efficiency of its savings and retirement plans in terms of client profiling, scenario simulation, and investment recommendations.

Xi Heng, a Professor at Xian-based Northwest University, noted that utilisation of big data has become more common for pension product development in China.

However, he said the country’s pension industry should put more effort into data collection, especially on salaries, social mobility, geographical and pension participation, in order to develop more customised products.

In face of the coming demographic challenges and changing investment environment, Ka Shi concluded the forum by reiterating pension innovation is needed in response to growing sustainability concerns on pension systems.

Presentations of the Forum can be downloaded at the members’ login area of the HKRSA website



We are pleased to inform you that the Executive Committee of the HKRSA for the year 2018 – 2019 was elected at the Twenty-Second Annual General Meeting (AGM) on 14 June 2018. At the first meeting (230th meeting) of the new Executive Committee held on 12 July 2018, office bearers of the Executive Committee were elected.



Below is a list of the 2018 – 2019 Executive Committee:

Executive Committee 2018 – 2019

Chairman	Janet Li	Mercer
Immediate Past Chairman	Vanessa Wang	Amundi
Vice-chairman	Lowana Yick	CLP Power Hong Kong Limited
Honorary Secretary & Legal Adviser	Cynthia Chung	Deacons
Honorary Treasurer	Doris Ho	Hospital Authority Provident Fund Scheme
	Tony Archer	American Century Investments
	Calvin Chiu	Manulife Asset Management (Hong Kong) Limited
	Rosemarie Kriesel	RBC Investor Services Trust Hong Kong Limited
	Ka Shi Lau	BCT Group
	Hayly Leung	Jardine Matheson Limited
	Candy Ng	MTR Corporation Ltd
	Peter Wong	Individual Member

Upcoming HKRSA event

Seminar: Ready for Retirement?

29 January 2019

Upcoming external events

Asia Financial Forum, HKTDC

14-15 January 2019

Members who are interested in the external events can register with the respective organisers. More details to the above events can be found in HKRSA's website.

Produced by the Member Communication Sub-committee