Marris Miller

The Future Tech of Pensions

The Pension Papers™

Over the last few years, FinTech companies, namely those who have invented new techological solutions for the financial services industry, have transformed the financial services space. Pensions are their big target, and we've already been observing how some FinTech tactics have mane pension management less expensive and easier to implement.

Can we leverage FinTech for the betterment of all of our pesions, both for organizations and for investors? All the present time, event though these tools sound like assets on the surface, not all of the options are clear. Experts in the field suggest that it may be risky to leap into FinTech when many of its services are new and untested. Even so, doing so may be revolutionarily positive for pension management in the coming decade.

This paper discusses the high-tech scope of future retirement options, the possibility of increasing flexibility for pension funds through more avenues of investment targeting younger workfcrces, and the use of end-to-end digital processes to decrease costs for the future of pensions. These options, if the risks can be mitigated, could drive up revenues for companies and savings for pension investors.

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Can pension plans survive and even thrive in an environment of rapid change, and, at the same time, the rising demand for cost-effective old-age finance?

FinTech players, namely those companies that create technological solutions for the financial services industry, have transformed the financial services space in the last five years. These players have brought extensive reach, agility, innovation and low-cost operating models to address the varied problems and pain points of the industry, all the while driving up efficiencies.

Can pensions benefit from accelerated collaborations with FinTech players? It may be possible to develop innovative solutions which may help improve awareness and increase reach for pension products through these options. While, as pension plan managers and organizational leaders know, technology has long been an important part of the delivery of financial solutions, what is different about what we call FinTech is arguably that its efforts allow software to play a larger and more comprehensive role in that of traditional pension or financial services. It's about broadening what we use data for, how we integrate it into decision making, and how we individualize opportunities at a granular level, driven by a belief that technology can create pathways to success that can't be operationalized in any other way.

Should leaders in pension management consider these new and, in some cases, untested pathways? In this paper, we'll discuss the high-tech scope of future retirement options, the possibility of increasing flexibility for pension funds through more avenues of investment targeting younger workforces, and the use of end-to-end digital processes to decrease costs for the future of pensions. We'll also discuss the risks of FinTech as it currently stands.

Can we leverage this technology for the betterment of all of our pensions, both for organizations and for investors? Let's find out.

FinTech And Pensions: A New Alliance

Pension funds, as major long-term investment management tools, are going to be a major part of the Fintech transformation of money exchanges that are expected to take place over the next few decades.[1]

In essence, FinTech is connected to the ways in which individual and group investment accounts are created. That much everyone knows: most if not all pension clients are now able to login to systems which allow them to see where their money is, how it is growing, and how they can make changes to beneficiaries, mutual funds, and other options.

But the way that this field is changing at the present time is that FinTech companies are aiming to increase the ability of pension managers to securely segregate client accounts in a way that allows these accounts to be individually customized. By linking them to financial markets and payment options, pension plans will be both transparent and flexible. Pension holders will be able to not only see what they have invested, but also make choices more concretely. They will be able to look at their own data, such as their currently pension value, and compare it to other options available to them. In addition, any potential trade-offs between taking money out now and leaving it in a plan for a longer period of time should be more visible.

This does not mean, of course, that forecasting fund performance will be any easier than it is at the present time. But what it does mean is that FinTech will make it possible for companies and individuals to be better informed about their choices at a moment's notice. It will allow for better tracking of actuarial data for companies' pension managers, and it will allow for big data integration so that individual organizations can assess where they are in pension value and viability in comparison to others in their industry. Finally, FinTech will create a more streamlined means by which back and mid-office pension services teams can work with all of this data in order to make better decisions going forward.

All of this suggests that FinTech players have developed a deep expertise in the areas of credit and payments, which could be leveraged and channelled into retirement savings.

[1] Peat, J., Kelly., O., & Broby., D. (2017). *Fintech: hype or reality?* International Public Policy Institute (IPPI), University of Strathclyde..

The High-Tech Scope Of Future Retirement Options

In Peru, a whole new level of opportunity has been created for private pension funds based on FinTech strategies, that has the potential to change the game for all of us worldwide.

In the opinion of Jorge Mogrovejo, who is the Deputy Superintendent of Private Pension Funds Supervision, Superintendence of Banking, Insurance and Pension Funds Administrators for the country of Peru, strategies to increase retirement savings are a major priority. [2] The reason that this is the case is that, as he explained to his audience at the International Organisation of Pension Supervisors (IOPS) conference for the OECD, is that millennials in his country are lagging behind their elders when it comes to saving for the future, and he is working hard to prevent long term poverty.

But instead of instituting forced pension investments, which are on the table for some countries such as the UK, Mogrovejo is taking an inventive, private pension model that has all of the hallmarks of long term success.

In essence, he's created a program in which building retirement savings could be based on consumption rather than income, amalgamating the consumption habits of millennials with new digital pension offerings. Through a driving partnership model with various financial institutions and leading corporations and public organizations, Mogrovejo has allowed private pension plan administrators to partner with commercial institutions such as retail businesses, pharmacies, and supermarkets. Each of these institutions offer discounts on purchase of goods and services, and a portion of every transaction gets credited in their customers' pension account. If that account is managed through their employer, it's topped up through matching funds. No matter what the origin of the funds, however, the country has invested in the pension infrastructure with its FinTech partners to make the plan available to all citizens and, in turn, to top up funds themselves for poorer community members and provide instant tax benefits.

The results are outstanding. According to the World Bank, this approach has spurred a renewal of pension investing in Peru as well as the widespread opening of bank accounts created specifically for collecting pension monies, accounting for almost one million new

[2] http://www.iopseweb.org/iops-international-conference-pension-supervision-regulation-2019.htm

pension plan investors in that country. [3]

The Peru initiative is only the tip of the iceberg. Currently, FinTech options in the private sector allow for low-cost alternatives for small- and medium-sized businesses, for example. Web platforms and mobile applications can also allow pension investors to instantly top up their monthly funds to encourage participants, especially younger workers, to start planning for their future. [4]

Increasing Flexibility For Pension Funds

Increasing flexibility for pension funds through more avenues of investment targeting younger workforces is increasingly possible through FinTech.

In fact, in a recent study in Europe presented at the International Organization of Securities Commissions (IOSCO) conference, it was found that pension fund management would, over the long term, benefit from a behavioural approach to both fund creation and individualization, based on pension investors' personalities. [5] Personalities have immense impacts on the way that people participate in pensions, beyond what we may have assumed in the past, and this ought to be taken into consideration when we plan pension rollouts and internal learning schemes.

As noted in the findings from this study, which matched indicators from a Myers-Briggs personality test with pension behaviours,

> Financial personality has implications for financial behaviour. Extraverts are willing and ready to talk to financial advisors – and more in general to counsellors – about their needs and wants. They do not like written material, they prefer to talk and often they hear what they want to hear. However, they are open to change a financial plan, following someone else advice. On the contrary, introverts prefer written material and want the time to read it and reflect on it in order to contribute to the advisors' proposals.

[3] Word Bank. (2017). The Global Finxex Database. Washington DC: Author.
[4] Leong, K., & Sung, A. (2018). FinTech (Financial Technology): What is It and How to Use Technologies to Create Business Value in FinTech Way?, *International Journal of Innovation, Management and Technology*, 9(2), 74-78.
[5] Alemanni, B. (2017). From nudging to engaging in pension. *Challenges in ensuring financial copetencies.* International Organization of Securities Commissions (IOSCO) conference, 2-8 October, Rome, Italy.

> Sensing people like to deal with facts and want information presented in a linear way. Intuitives, instead, prefer to see the big picture. They are open to new possibilities and but they are not interested in the details of the plan. People characterized by Thinking preference are the closest to the ideal of homo oeconomicus: they manage their money in a rational, impersonal way. People with Feeling preferences, instead, select alternatives in a personal way, and may be interested in socially responsible investments. Individuals with Judging preferences like planning, while those with Perceiving preferences like a wide range of information and ideas, prefer to remain open to many alternatives, are spontaneous, and do not like plans.

When we look at all of these different personality types and how they make financial decisions, it is clear how and why pension managers struggle at ensuring that everyone in their company understands their pension, its impact, and their choices. This is something that, as we have discussed in past papers, has emerged as a leading concern for organizations in Canada, no matter what plan structure is in place. Because individuals have emotional, rather than purely factual and rational, ties to their money and their future planning, we cannot ignore the importance of these kinds of findings.

In turn, these findings are linked to FinTech because, as noted in this conference report, FinTech can use operational and survey data to create an individual user engagement plan that is flexible to both their needs and their investment preferences. This approach is not a be-all-and-end-all structure, but rather is a way for pension managers to hone their employee offerings in a way that will allow for better individual outcomes on Defined Contribution plans, for example, and which will decrease the risk for investors and increase their ability to work towards certain outcomes. These kinds of options are only available, note the IOSCO conference leaders, when there is an integration of the big data used by FinTech into individual pension plans. By using big data and providing their employees with digital assessments of their choices and preferred behaviours, organizational leaders may be able to create more balance, commitment, and comfort for their teams.

At present, only a few leading companies like Microsoft are delving into pension management products in this space, with their Intelligent Banking platform. But as we see these offerings expanded and increased, they may become more readily available to all pension managers and business leaders.

End-To-End Digital Processes

The use of end-to-end digital processes can also decrease costs for the future of pensions.

At the core, FinTech can decrease costs in all of the ways that we might expect in terms of lowering transaction costs, and enabling new financial alternatives for those participating in pensions. It can also increase compliance throughout pension management and individual employee engagement, in that it can allow for better tracking of systems, participation, and risks. These are all factors of any financial technological tool that we are likely to already understand, because they have become part of our day to day understanding of banking transactions in the modern world.

But, on top of these benefits, FinTech can also support the improvement of information sharing processes and better financial decision making. [6]

When large scale databases where first being developed, the focus of their creation for business protocols was customer relationship management. The purpose of this effort was to break up customers demographically into microsegments, and, later, into psychographic groups, so that they could target market to each of these groups in turn, and, as a result, increase revenues and decrease costs because efforts were not wasted in certain demographic and psychographic sectors of business engagement. This can happen in more depth with FinTech data when it comes to pensions. Meeting the needs of a set of employee investors, or any other group, requires the automation of processes. In using the amalgamated data from each step in these processes, both public and private organizations can create demand for pension services, which can also include ease of use, streamlined interactions, and more customer loyalty. Information including internal and external data, consumer, supplier and competitor data can be merged to increase revenue or decrease costs.

[6] Leong, K., & Sung, A. (2018). FinTech (Financial Technology): What is It and How to Use Technologies to Create Business Value in FinTech Way?, *International Journal of Innovation, Management and Technology*, 9(2), 74-78

As a whole, this means that FinTech presents:

- A unified database and set of pension oriented algorithms
- A system that can store and synchronize real-time information from individuals, suppliers and organizational leaders and government entities
- The opportunity to help organizations to build efficiencies and increase pension service delivery and reach
- The support necessarily to ensure that everyone can engage with external stakeholders, like investment platforms, easily
- The ability to increase compliance to the regulations of their industry
- A more flexible and focused means to create the foundation for long term growth

Think about it. We may not be doing all of this data management at the present time, but we will be able to use these tools in the future in order to plan differently, and hopefully in a way that will better benefit all stakeholders, because, with more information, better decisions can be made.

The Risks Are Still Apparent, However

We are only just beginning to explore the ways in which FinTech can have an impact on our pension futures, according to field research and practical tests. What is happening in Peru, for example, is part of a concerted effort and investment process on the part of a federal level government, which means that it's not necessarily going to be available in Canada any time soon. As well, many of the tools discussed in this paper are only just beginning to be developed for the pension market.

So what risks are we facing at present?

FinTech's big data itself may not be valuable until a few more years have passed. For example, the privacy of data mining processes for pensions are still being addressed. This is because financial initiatives, especially those linked to government regulations and data, are likely to include the highest level of protocols for data protection. As well, whichever data solution an organization chooses to merge data from throughout its disparate entities, there are going to be gaps. This is because of shifts in the ways that data is used and challenges in technological solutions that can adapt themselves to multiple forms of data.

In addition, to realistically use data effectively for pension management and planning, there is a need for a computational framework which allows for the collection, visualization, retention, ability to obtain, and repackaging of data in different ways. It is important to look at pension design and service delivery, and external stakeholder engagement in order to begin imagining how data can be used. It is also necessary to ensure that the organization is prepared to manage this data in an effective way in concert with stakeholders, and what this is physically going to look like going forward. For a pension data mining project to work well, for example, individual client or population needs, internal organizational capabilities and the aims or strategic goals of the organization all need to be taken into consideration when developing a data plan, and that this needs to be done before a project is put into action.

While, as noted by the Canadian Public Pension Leadership Council, FinTech companies are backed by significant venture financing, and are challenging traditional financial services business models in banking, insurance, wealth management, and investment management, these real life risks have to be managed if pensions will successfully integrate their process with this large scale data.

Forging Ahead

We need to pay attention to FinTech.

As the Canadian Public Pension Leadership Council suggests, FinTech integration into pension management is a foregone conclusion, but prudence is still necessary. Even though "exploration is already underway about how blockchain or some other form of distributed ledger technology could be used to improve transparency, efficiency, and trust in pensions,"[7] we are still years away from capacity when it comes to achieving these goals. We're still not sure of how all of the FinTech industry and these kinds of global economy dynamics are going to affect pension planning in the next few years.

[7] Maze, A. (2018). The future of pensions in uncertain time. 2018 CPPLC Pension Forum Rapporteur's report. Ottawa: Canadian Public Pensions Leadership Council.

With FinTech, the core value proposition that pensions offer people – the ability to meet their retirement income needs in an efficient manner – can be maintained more readily than ever before. But we can't move in that direction without a great deal more research, testing, and confidence building with these tools.

Despite the need for clarity on some of these issues, at Marris Miller we're hopeful that this kind of technology will eventually present a new level of opportunity for pension managers across Canada, even in as few as five years. These technological solutions may be able to provide us with deeper data, better engagement, and more successful plans for companies and pension investors alike. We've already been observing how some FinTech tactics have made present-day pension management less expensive and easier to implement. In the future, end-to-end digital processes will likely help drive up pension growth opportunities, and do so in a way that is increasingly easy for all stakeholders.

It's not a great leap to imagine just how successful pension management might be in the future if we can move confidently, and carefully, towards a tech-informed pension environment.

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December 2019

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Printed in Canada.