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Perspectives from Anna: Learnings about FinTech from the 2018 Pension Research Council Symposium

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Each year the Pension Research Council sponsors a symposium on an important current topic in retirement system evolution. I love these symposia because I always learn something new, and they make me think. They include a combination of papers from academic, policy and business sources, and discussion by a diverse group of experts. The papers become available on the Pension Research Council website as working papers later in the year, and generally they are included in a book published the following year.

The 2018 topic is "*The Disruptive Impact of FinTech on Retirement Systems.*" As an actuary and phased retiree, I have personally seen the evolution of absolutely amazing technology in my lifetime, and the options available to me in my personal and professional life have changed completely because of access to technology. But there is always a lot of technology that I do not know about, and often it amazes me. So this symposium offers a great opportunity to learn about technology today and its impact on retirement systems.

Many different ideas/themes were discussed in the papers and symposium. They included a focus on the perspective of the consumer, robo advice services and what they offer, decumulation issues, the range of tools available in the market, big data and health, improving outcomes and regulation.

Some points that were of interest to me include:

A WIDE RANGE OF OPPORTUNITIES AND DEVELOPMENTS

- Technology is used in the financial industry in many different ways. Some services have been around for a long time, and some are new or evolving. Emphasis was primarily on the new or evolving.
- Investment advice has been supported by automated models for a long time, but today's robo advisers may offer a complete package and a front end that allows direct access by an internet-enabled device. Delivery may be fully automated or combined with interaction with an adviser.
- Retirement planning, saving and management require many decisions. Automated tools integrated with advice or free-standing can be very helpful, and they are evolving. Tool development may take into account where individuals are and how they see things, data analysis and retirement planning theory. Theory often is poorly matched to human behavior. Detailed information about tools was not provided in the symposium.
- Tools can be provided in the form of apps, as part of integrated services from robo advisers and other firms, by startups and from other sources. Tools can be provided directly to consumers, to customers of financial service companies, to employee benefit plan participants as part of plan administration services, to employees as part of financial wellness offerings from employers, etc. Some tools offer broader financial planning and others have much more specific solutions.
- A strategy or tools could operate on a particular pool of assets, or all of a person's or household's assets. There are approaches for aggregation of assets and information. They offer benefits and also risks with regard to data security.
- Support for decumulation is evolving and is much less well-developed than support for accumulation.
- Analysis of big data can assist insurance and other financial service organizations in improving their processes, products and services. Several examples were provided.
- There is a wide variety of tools that provide support with specific decisions. Some may be offered through robo services, some from specialized services and some may be free-standing. Examples of issues addressed by these tools include Medicare Part D analysis, Social Security optimization, retirement income, life insurance purchase, traditional vs. Roth IRA analysis, spend-down support, and annuity analysis. Tools are offered by a wide variety of different organizations.
- Consumers need a way to figure out which tools are suitable and reliable. Plan sponsors who want to provide tools to employees have the same challenge. The symposium pointed out the need for some type of independent evaluation of advisory services and tools, something like

a *Consumer Reports* for financial services. The Society of Actuaries (SOA) has conducted two studies of retirement planning software in the past and found wide variations in capabilities, assumptions and results. They also found that some software had problems.

- Cybersecurity in regard to employee benefit plans is a hot issue today.
- As processes become more automated, legal requirements may need to be clarified and/or adapted.
- The companies in the FinTech space include startups that are primarily in this space, big banks, partnerships, mutual funds and others. Some of the working papers present a review of multiple organizations in FinTech.

For more information on benefit plans, see the following symposium paper:

- Benefit Plan Cybersecurity Considerations: A Record-keeper and Plan Perspective

For a summary of multiple organizations or comments about specific advisers, see the following papers:

- The Economics of Complex Decision Making: The Emergence of the Robo Adviser
- Matching FinTech Advice to Participant Needs: Lessons and Challenges
- Decumulation and the Regulatory Strategy for Robo Advice

INFORMATION ABOUT ROBO ADVICE

- The use of robo advisers offers the chance to automate part or all of the investment management decisions, and potentially other planning decisions. Robo advisers have packaged tools that advisers and investment managers have been using for many years and offer increased access. There are a variety of business models and services offered. All of the services use computer-driven algorithms to make decisions. The most common are investment decisions. Some decisions are made automatically and others allow some choices.
- Robo advice can be viewed as part of a continuum. This is a different perspective than the idea that it is a revolutionary and abrupt change.
- Some of the trends affecting robo advice include
  - More firms entering the market and international growth
  - Traditional firms entering the market
  - Hybrid models
  - Use of own firm investment products within the accounts managed
  - Growing diversity in specific offerings
- Robo advice is considerably cheaper than conventional in-person advice, but the cost of investment management still includes the charges in the underlying investments. There is a wide variation in the costs of different services. One paper compares charges and finds a range of 0 to 89 basis points, with 25 to 30 basis points as typical.
- A big question with regard to robo advice is the extent to which it is digitizing delivery, analysis and implementation. It was observed that the more successful models use higher-touch delivery with more analysis.
- Robo advice as a separate service has evolved into robo advice as a component of integrated services. They are today often combined with advice provided by an adviser.
- While these services have grown, they still represent only a very small fraction of the total investment management business.
- Providing automated services for the decumulation period is much more challenging than for the accumulation period. There are about 1,000 firms providing some type of service in the U.S. in the accumulation period but many fewer for the decumulation period. There are a few firms in other countries as well.

A big question with regard to robo advice is the extent to which it is digitizing delivery, analysis and implementation.

- Robo advice is a way to bring investment advice services to investors with very low balances, but the investor must be motivated to seek the advice. It should also be noted that the individual with a very low balance needs to invest the funds, but they also have a variety of other household financial management and planning issues and questions not related to investing the funds.

- There is variation in what services are included in automated advice packages, how they interact with advisers in hybrid models, in the investments used and in the underlying algorithms that are used to choose the asset mix.

- There is variation in the span of advice. Some approaches consider the specific account only, whereas others allow for aggregating information about other assets, sometimes only for the individual and sometimes for the household. Some focus on investments only and some on a broader range of issues. Some consider the accumulation period only while others consider decumulation also.

- The customer for the robo advice may be the consumer directly, a benefit plan, or a financial adviser. Some of the robo programs are available to advisers from different firms and some are provided by a single firm only.

- Robo advisers are subject to legal requirements for fiduciaries.

- Robo advisers have limitations, and we should be realistic in thinking about the role that they might play.

- Target date funds may be viewed as a parallel to the investment portion of a robo adviser.

For more information, see the following symposium papers:

- The Economics of Complex Decision Making: The Emergence of the Robo Adviser
- The Transformation of Investment Advice: Digital Investment Advisers as Fiduciaries
- Matching FinTech Advice to Participant Needs: Lessons and Challenges

ADDRESSING DECUMULATION ISSUES

- There is no consensus among experts about the right approach for the decumulation period.

- Many people who have had money in a 401(k) plan (or other employer plan) during the accumulation period will move their money out of the plan at retirement. They were never responsible for their own investments without a structured set of options until retirement, making it more challenging to manage assets post-retirement. In the future, there may be more money that stays in employer plans during the retirement period.

- Individuals are faced with many decisions at the beginning of the decumulation period. This is a challenging time for consumers. They need to consider assets from all sources as well as the family situation. Situations like family members needing help are rather common and can be easily overlooked in planning. Social Security claiming is a very important decision for many households. All this means complexity, and it can be difficult to understand interacting decisions. Holistic thinking is important for a good result.

- The individual has time to learn during the accumulation period and to change strategies as they go along. In contrast, there are decisions needed at the time of decumulation that must be made at one time. Some are irreversible and can't be changed.

- Individuals who had longer-term employment in organizations with benefits are in a very different situation when they are on their own without an employer and without employer-provided benefits. Not only do they need to provide for their own insurance and investments, but they also no longer have the employer to preselect and monitor vendors, design programs, etc. They are faced with dealing with a huge and bewildering marketplace.

- There is support for the idea that people should have access to a "retirement paycheck." There was little discussion of annuities in the papers, but some of the floor discussion focused on the importance of annuities and the possibility that they can play a big role for some people. In any case, service providers should offer approaches to retirement paychecks.

- Some firms are working on how to support the decumulation period. Some have been working on this for several years. Most robos are not focused on this area now. Some expect to add services in the future. The paper "Decumulation and the Regulatory Strategy for Robo Advice" includes a listing of a number of different services that provide support for the decumulation period.

- Some of the specialized automated tools available at the time of retirement include Social Security timing evaluation, Medicare Part D plan evaluation, annuitization support and spend-down support. There was discussion of the types of tools available.

- Today a small number of firms offer specialized services for decumulation, and this may increase. A firm interviewed for one of the papers had a service to pay out income that can be turned on and off.

- Hybrid approaches that include an adviser are particularly well-suited for the decumulation period. This seems to be the most likely model for decumulation.

- Decumulation generally happens when people are older. Many people are faced with cognitive decline during the period of retirement.

- For accumulation, there is widespread acceptance of fees based on assets under management. There are big questions about the appropriate business and compensation models for the decumulation period.

For more information, see the following symposium papers:

- The Big Spend Down: Digital Investment Advice and Decumulation
- Decumulation and the Regulatory Strategy for Robo Advice

A DECUMULATION CASE STUDY

One of the panelists in the panel on retirement startups was Elizabeth Kelly from United Income. *UnitedIncome.com* is a hybrid service targeted on helping retirees manage their assets in the decumulation period. There are three levels of service—one free, a self-service approach with a $10,000 asset minimum for 0.50 percent of assets, and a full-service approach with a $300,000 asset minimum for 0.80 percent of assets. Fees are adjusted for higher asset levels.

The free service includes financial planning and Social Security advice, self-service and online support. The self-service approach adds investment management, a United Income paycheck and technical support. The full-service support adds access to a personal financial adviser, an annual check-up with financial adviser, and financial and retirement concierge services.

For more information, see *UnitedIncome.com*.

IMPROVED OUTCOMES, FINANCIAL RESPONSIBILITY AND DECISION-MAKING

- One of the big questions today on which there will be future study is whether robo advice improves outcomes. Future studies will provide more insight and data. Today it is hard to find evidence and challenging to get data about the firms. One difference in services observed is that they are very different in their inclusion of international investments. One study found that any advice improved outcomes. Prior research showed that saving more is the biggest factor in improving retirement outcomes.

- Efforts to improve decision making can be embedded with robo advice or separated.

- It is important to start with a clear understanding of what decisions need to be made.

- While robo advisers offer the ability to reach underserved populations and people with relatively low asset balances who would usually not be served by traditional advisers, there is a big problem of how to reach them. Many such people are unlikely to seek out this advice. In addition, if the advice is primarily focused on investments, many in this group have household daily financial management problems that are a barrier to doing well with retirement savings and longer-term financial management.

For more information, see the following symposium paper:

- Matching FinTech Advice to Participant Needs: Lessons and Challenges

TECHNOLOGY, BIG DATA, HEALTH AND ETHICS

- Big data enables genetic testing, and the cost of testing has dropped dramatically. Technology and big data enable a variety of health research that can improve health treatment and outcomes and also can enable improved underwriting by insurance companies.

- Fear of the consequences of negative information may lead some people to decline to get tested.

- Genetic testing and research are an area of information that raises ethical issues related to the use of genetic information in underwriting and for other purposes. Individuals can anti-select when they have information. There is a big question about the extent to which insurers may obtain and use genetic information. They may even be able to require testing. Under current federal law, genetic information is banned from use in health underwriting, but not in underwriting of life, disability and long-term care policies. This is an evolving area.

- Ethical issues related to data and privacy are not limited to health.

For more information, see the following symposium papers:

- Ethics, Insurance Pricing, Genetics and Big Data
- FinTech Disruption—Opportunities to Challenge Financial Responsibility
- How Medical Advances and Health Interventions Will Shape Future Longevity

ADDRESSING CUSTOMER NEEDS/UNDERSTANDING CUSTOMER SEGMENTS

- It is important to recognize where people are. Much of the theory assumes that people are "Econs." The reality is that few people are "Econs"; many people have problems with financial literacy, and it is not uncommon for people to have problems doing basic tasks such as balancing their checkbooks.

- The basic problems for many households include managing regular spending, managing debt, household budgeting and saving modestly. Until people get some of these issues under control, they are not really ready for retirement planning and investment advice. Many employers have recognized this and adopted financial wellness programs. Some have integrated retirement planning into financial wellness. These are not technology issues but set the context for the challenges to be addressed.

- While robo services offer the potential to reach a great deal of the underserved market as well as people not in employer plans, there is a great problem getting them to sign up for these services.

- People have different needs depending on life cycle status, recent events and personal challenges. They have different capabilities and interests based on their personal literacy and the extent to which they focus on financial issues longer term. It was not specifically discussed at the symposium, but SOA research indicates that many retirees plan for the short term, focusing primarily on having cash flows to pay for regular bills.

- Some individuals are accustomed to making purchases and travel arrangements using the internet and others are not. Some are accustomed to banking over the internet.

- There are particular challenges in using technology-based solutions with an aging population.

- Some of the algorithms are pretty standard for all or most customers. Others are tailored to the customer situation. Products vary with regard to how much tailoring they do.

- Some of the specific issues with regard to an older population include:

  - A lack of trust leads to non-adoption of financial online opportunities.
  - They are more likely to have cognitive issues.
  - Many seniors feel socially isolated.
  - A number do not drive or have cars.
  - Some are digitally marginalized.
  - A lack of digital confidence heightens concerns with regard to fraud.
  - Digital literacy is a problem for some.
  - Mental models influence what each individual is comfortable with.

Note that the SOA research with individuals age 85 and older confirms the lack of trust and reluctance to use different approaches to handling financial matters.

For more information, see the following symposium paper:

- Designing for Older Adults: Overcoming Barriers toward a Supportive, Safe, and Healthy Environment

REGULATORY QUESTIONS/ISSUES

Several of the discussions included a focus on legal issues, and how the law applies to automated approaches. The papers offer analysis, but also raise questions. Some key points:

- Fiduciary rules apply to robo advisers.
- Two major areas of regulation are fiduciary rules and disclosure. Conflicts of interest can be a concern, but it is not as big an issue as with traditional advisers.
- The Securities and Exchange Commission (SEC) regulates Registered Investment Advisers (RIAs). Robo advisers must register just as human advisers must register. FINRA does not have jurisdiction over many of the robo advisers.
- It was asserted that the regulations allow flexibility to accommodate multiple business models.
- Regulatory compliance guidelines were issued by the SEC for robo advisers on Feb. 23, 2017. The SEC focused on the need for adequate disclosure about the robo adviser and the services it provides, the need to ensure that the services provided are suitable for the customers, and the need to adapt compliance programs to the automated environment. The SEC has defined areas of disclosure.
- Data security/privacy issues create regulatory concerns and challenges. Employee benefit plan sponsors are fiduciaries and are subject to specific legal requirements that apply. The Department of Labor is involved in addition to securities regulators.
- There should be something like an airline "black box" that generates a record that can be reviewed with regard to the advice given and processes used. Such records would allow regulators to audit the systems and the advice given.
- There are some big general questions: What is different about automated approaches? Should there be more or different supervision of the algorithm(s) for robo vs. traditional advice and why? It was noted that the potential to look at outcomes is different for different approaches.

There are particular challenges in using technology-based solutions with an aging population.

For more information, see the following symposium papers:

- The Transformation of Investment Advice: Digital Investment Advisers as Fiduciaries
- Decumulation and the Regulatory Strategy for Robo Advice
- The Big Spend Down: Digital Investment Advice and Decumulation
- Benefit Plan Cybersecurity Considerations: A Recordkeeper and Plan Perspective
- The Economics of Complex Decision Making: The Emergence of the Robo Adviser

CHALLENGES

- There is no accepted quality metric for financial services.
- Individual consumers have trouble comparing what different services provide, their costs and their limitations. They do not have a good way to evaluate different services. It may be challenging to compare costs. Even experts may find understanding the differences in services to be difficult.
- There can be a tension between working to make things more efficient vs. "walking in the customer's shoes" and trying to make the approach most useful to the customer.
- When things do not work out well, it may be the result of the service and its algorithms, the customer's decisions or the market.

I see a strong link between the 2018 symposium and the 2016 symposium, "Financial Decision Making and Retirement Security in an Aging World." Some of the issues and challenges raised in 2016 included recognizing and dealing with cognitive decline, conflicts of interest, and advice being available to only a part of the population.

SOME PERSONAL PERSPECTIVES AND A WISH LIST

I started to study to be an actuary in 1958 and became an FSA in 1963. During my career, technology has enabled many advances in the retirement system, but there remain many gaps in providing a secure retirement that works for all Americans.

Many of the advances are not considered when we talk about FinTech today because they are well-established and accepted. Some examples of the advances include:

- Defined contribution management including daily valuation, a wide range of investment options and the ability of the individual to process transactions online automatically is all dependent on technology.
- Many of the investment strategies available today are dependent on modeling that is totally dependent on having large computational capability. The strategies that were first used for defined benefit plans, and later to help develop target date and other funds, are now used in robo advisers and can be directly accessed by smaller investors.
- Computing power has been made available to individuals through personal computers, tablets and cellphones.
- Planning and support tools are technology-dependent.

These are just a few examples.

As I look at the retirement system today, some of the gaps that remain include:

- Many people do not have access to employer-provided retirement savings.
- Many people have no or small amounts of retirement assets.
- Not enough planning for the post-retirement period.
- Many people do not have the knowledge to manage well for the long term and they are not using any advice.
- Of those who wish to use advice, they are not well-prepared to know what is good and what is not.
- Many people are unprepared for major shocks and particularly major long-term care risk.

Technology will not solve any of these challenges, but it can enable solutions that would not be feasible without technology. It can often enable much more economical solutions, but they are not always best fitted to individual needs.

MY WISH LIST

This is a personal list, partly inspired by the papers and discussion, and also inspired by where I am and the work that I have done. One of the benefits of participating in a Pension Research Council symposium is being able to add new ideas to what we know and believe, and to integrate them into our dreams.

- I would like to see more people planning for the longer term and planning in a way that takes their total household situation into context.
- I would like to see tools structured so that seniors find them easier to use. (To me, a lot of technology and particularly cellphones, are designed as if there are no seniors or technology-challenged individuals.) It is sad to see tools that are not user-friendly to the people who need them most.
- I would like to see more people covered by employer-sponsored plans, and more people without such coverage saving for retirement on their own.
- Since Social Security is all that many people have, we need to keep it strong and recognize the need to serve lower-income Americans. I would like to see most Americans considering the range of options before they claim Social Security. I would like to see all of them having good information about the options.
- I would like to see more people using advice that they can get at a reasonable price, which is relevant to their needs, and which they can be confident about.
- I would like a way for the average person to be able to see a catalogue or directory of tools and robo advisers with information vetting them from a neutral source. This would be something like a *Consumer Reports*.
- I would like to see much more policy focus on addressing the gaps in the retirement system today, and a focus on the details that are important.
- I would like to see a realistic assessment of what can be expected of the average person and what can not. I would like to see decent solutions for those who can't properly prepare for retirement.

I believe that technology can help enable solutions to some of these challenges. It does not provide magic solutions, but some of the applications that exist today seem like magic compared to what was available when I started out as an actuary. I also have a personal wish that it be easier to understand much of this technology. ■

Anna Rappaport, FSA, serves as chairperson of the Committee on Post- Retirement Needs and Risks. She is a past president of the SOA and a globally recognized expert on both financial and nonfinancial aspects of retirement.