

# How Competitive Are Income Annuity Providers Over Time?

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### **Abstract:**

The 2019 SECURE Act provides safe harbor protections to employers who evaluate the costs of providing guaranteed income including gathering information on competing providers. Annuities can be more difficult to evaluate than mutual funds because annuity expenses can be opaque, financial strength matters, and insurer competitiveness can change over time. We find significant variation in the payout rates across providers over time. While the payout rankings of annuity companies (e.g., best to worst) are fairly sticky over the short-term, over the full period of the analysis the correlation declines effectively to zero (versus the initial rankings). This suggests individuals or institutions who choose a single annuity provider based on income payout should revisit the decision regularly to ensure the quotes are still competitive. Companies for which immediate annuities are a higher fraction of total sales tend to rank higher and remain so more persistently over time.

Keywords: Retirement, Retirement Policy, Annuities, Insurance Companies

JEL Codes: J26, J32, G22

## **How Competitive Are Income Annuity Providers Over Time?**

The Setting Every Community Up for Retirement Enhancement (SECURE) Act, passed in late 2019, provides safe harbor protections to employers who add annuities to qualified retirement plans. Since the Act was passed, 59% of plan sponsors indicate that they are either very or moderately interested in adding annuities in their defined contribution plan and 30% indicate that cost is a major barrier to adoption (Alight, 2021). The SECURE Act provides safe harbor protections if the plan sponsor evaluates the costs of providing guaranteed income including gathering information on competing providers (Reish, 2019).

Among annuity products, income annuities such as a single premium immediate annuity (SPIA) or deferred income annuity (DIA) are the easiest to compare since they provide a guaranteed lifetime income stream in exchange for a lump sum. Plan sponsors can evaluate the cost of buying \$1 of lifetime income among providers and select a provider with a minimum threshold of credit risk that offers income at the lowest cost.

The costs of traditional investments such as a mutual fund are generally set as a percentage of invested assets, for example 0.1% of monies invested. Costs of annuities are not static. Competition among insurers and assumptions about costs of manufacturing a lifetime income product - for example, assumed returns on the general account portfolio or expected longevity of annuitants - can change over time resulting in variation in price competitiveness among insurers (Harrington and Danzon, 1994).

We investigate variation in historical price competitiveness of SPIAs using annuity payout rates for a variety of gender and age combinations from a large pricing information exchange. The results suggest there are significant variations in the payout rates across providers over time, where the average difference, by company, from the best quote available quote is 4.2% (over the entire period), ranging from 1.9% to 9.2% across the 14 companies. The shifts in the attractiveness of rates from individual companies are especially noteworthy, where some companies go from providing relatively higher (or the highest) payout rates to lower (or the lowest) payout rate over a short period.

While the payout rankings of annuity companies (e.g., best to worst) are fairly sticky over the short-term, over the full period of the analysis the correlation declines effectively to zero (versus the initial rankings). This suggests individuals or institutions who choose an annuity provider based on income payout need to revisit the decision regularly because the best company today is unlikely to be the best in the future. We do find that companies for which immediate annuities are a higher fraction of total sales tend to rank higher and remain so more persistently over time.

Overall, these results suggest that the decision to select a single annuity provider (rather than several) needs to be weighed against the possibility of that company's rates will become relatively less attractive over time. There are certain "signals" that would appear to help with the decision, such as a commitment from the insurer to maintain competitiveness within a line of business. Nevertheless, historical evidence suggests that payouts can shift significantly in over time, even over short-run periods.

## **Data**

Data for this analysis comes from CANNEX, an independent research and analytics business that provides an online marketplace for annuities both in the U.S and Canada. The data set includes weekly life-only annuity payout rates for 30 U.S. companies from November 3, 2013 to August 12, 2020 for five ages (60, 65, 70, 75, and 80) for three household types (male, female, and joint). The joint payout annuity is for a male and female the same age with a 100% benefit continuation. Of the 30 companies, there are rates for 14 over the entire period and 16 start or stop at some point during that time. In addition, we correlated the quotes with quarterly sales data provided by LIMRA<sup>1</sup> over the same period.

The annuity payouts represent the annual lifetime payout per \$100,000 of premium. We provide some context on the "fair value" of an annuity. This is especially important given the significant decline in interest rates over the period of the analysis. To evaluate the cost of producing an annuity, we use mortality rates from the Society of Actuaries 2012 Immediate Annuity Mortality table with improvement to the respective year of the quote and a 10% mortality load. We

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<sup>1</sup> Data provided by The Secure Retirement Institute® (SRI™)

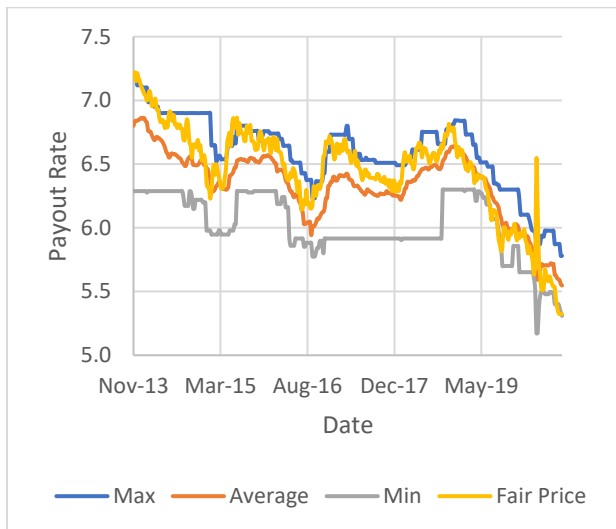
assume a 5% sales load for final pricing and the discount rate is based on daily AAA bond yields, obtained from the FRED website<sup>2</sup>.

### Overall Payout Rates

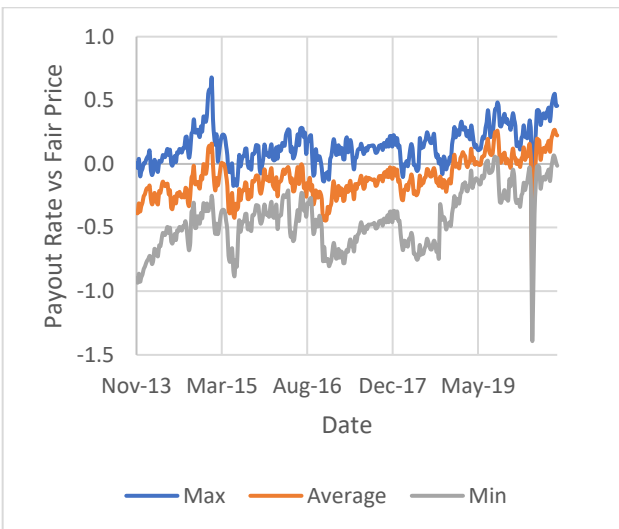
Exhibit 1 provides some context about how the payout rates have evolved over the analysis period. Panel A includes payout rates for a 65-year-old male and Panel B includes the difference in the respective quotes compared to the fair price quote, to provide some relative context over the period.

#### Exhibit 1: Payout Rates for a Life-Only Immediate Annuity for a 65-Year-Old-Male

Panel A: Absolute Values



Panel B: Rates Minus Fair Price



There are a few trends evident in Panel A of Exhibit 1. First, and perhaps most notably, there is a significant decline in the payout rates from an average of 6.29% to 5.31% over the period that reflects changes in bond yields. For example, the yield on AAA bonds was 4.67% on November 13, 2013 and declined to 2.17% by August 12, 2020.

Second, there is a notable spread in the highest (max) and lowest (min) payout rates over the period, averaging 0.59%. While this difference may seem small, it represents \$590 more per year for life from a \$100,000 premium.

<sup>2</sup> <https://fred.stlouisfed.org/series/DAAA>

Third, while there was a spike in the “fair price” payouts during the end of the first quarter of 2020<sup>3</sup>, average annuity prices actually declined during the period. This is likely due to the fundamental uncertainty regarding mortality expectations and future long-run bond returns during the time period consistent with “sluggish” annuity price reaction found in Charupat, Kamstra and Milevsky (2016).

### **Individual Company Competitiveness**

In this section we focus on how the payout rates for individual companies vary over the period of analysis. For this analysis we only include those insurers for which data are available for the entire period of analysis. This reduces our sample to 14 companies and ensures a consistent ranking order, where 1 is best and 14 is worst.

When analyzing individual company payout rates we are most interested in rank persistency and rank volatility. Exhibits 2 through 4 provide information about three companies that demonstrate how these two measures can vary over time.

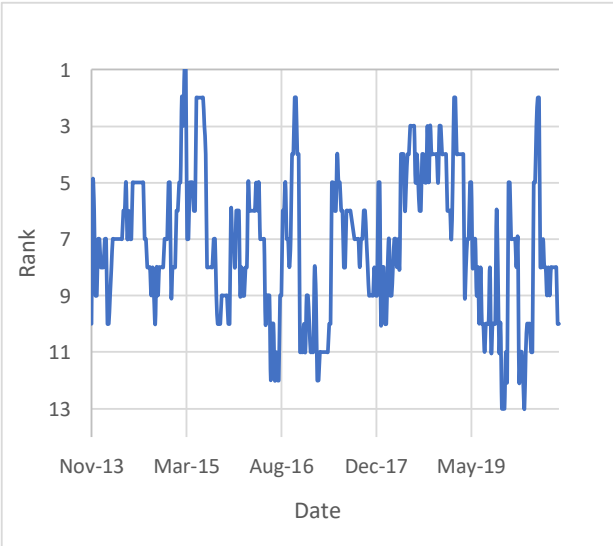
The respective payout ranking is illustrated in Panel A. Panel B shows the difference between the company’s payout rate and the maximum available payout rate.

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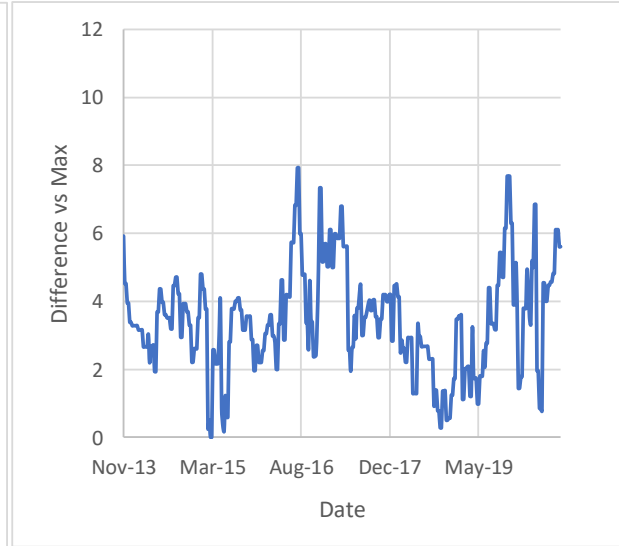
<sup>3</sup> The fair price payout rates, by date are: 5.79% on 03/11/20; 6.54% on 03/18/20; 6.15% on 03/25/20; 5.77% on 04/01/20

**Exhibit 2: Company A (Little Change)**

**Panel A: Payout Ranking**

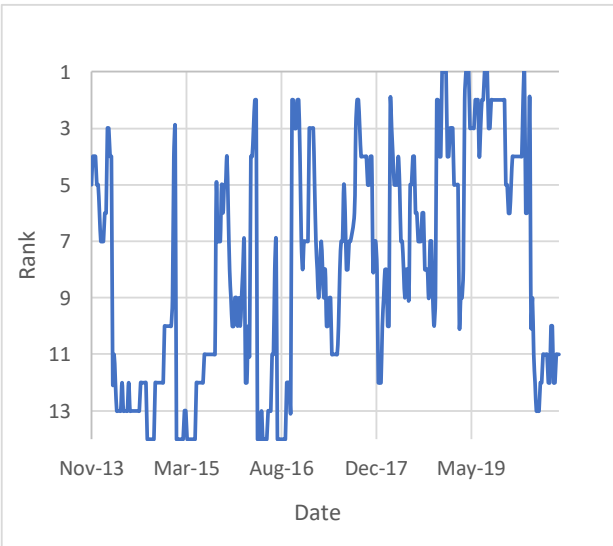


**Panel B: Payout Rate vs Max Payout Rate**

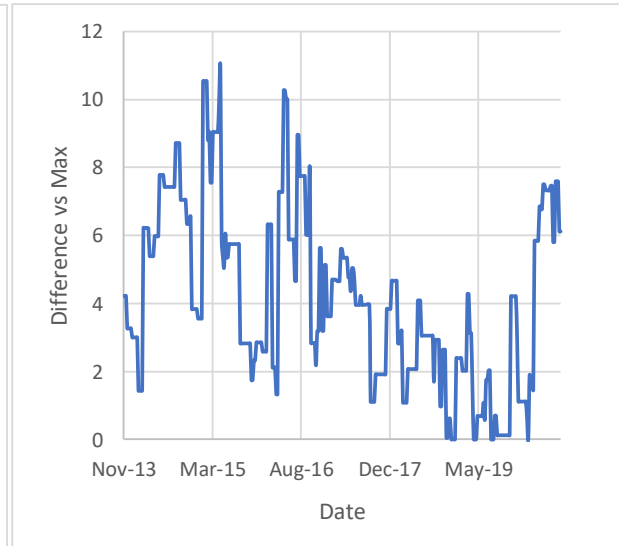


**Exhibit 3: Company B (Highly Volatile)**

**Panel A: Payout Ranking**

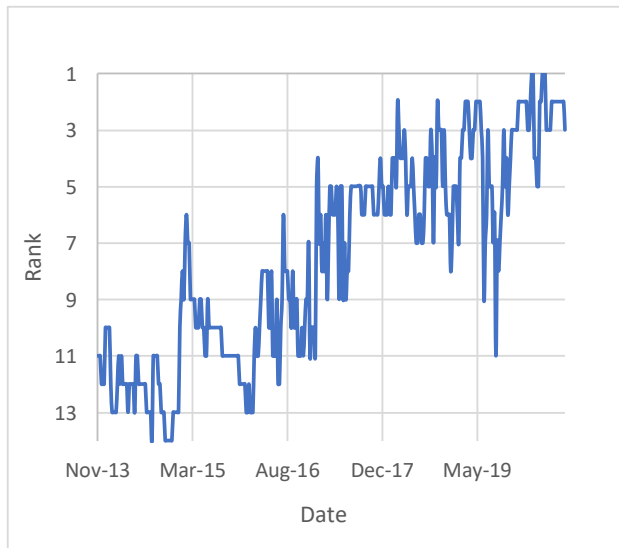


**Panel B: Payout Rate vs Max Payout Rate**

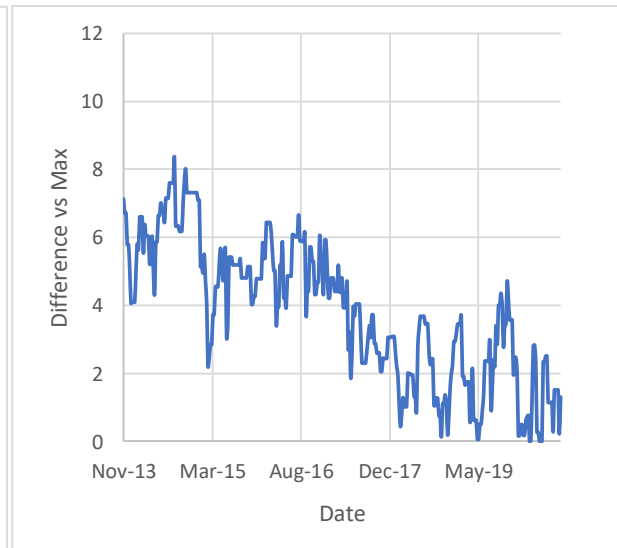


#### Exhibit 4: Company C (Increasing or Decreasing Competitiveness)

Panel A: Payout Ranking



Panel B: Payout Rate vs Max Payout Rate



We can see from the ratings in Exhibits 2 through 4 that the individual rankings shift over time and to varying degrees. The 14 companies can generally be categorized as those whose rank changes little over time (such as Company A), whose rank is extremely volatile (such as Company B), and whose ranking is gradually improving or declining (such as Company C).

This analysis demonstrates there are significant deviations in the relative ranking of companies over time.

#### The Cost of Using a Single Insurer

In this section we aggregate the differences in payouts over time to understand the cost of sticking with a single insurer over the period. Changing providers on a regular basis may not be easy or operationally feasible, but having some flexibility may go a long way given the magnitude of ranking shifts we were able to observe in the previous section.

Exhibit 5 shows the average costs relative to the highest quotes for each of the 15 different quote types for the 14 companies with full data over the period. If the company consistently provides highly competitive quotes for a category of annuitant (for example a 65-year old female), the deviation from the most competitive quote will be closer to zero. Higher average deviations mean that quotes are less consistently competitive over time.



## Exhibit 5: Average Percentage Difference in Payout Rate versus Highest Payout Rate

Type	Age	Company#														Std		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Avg	Dev	Range
Male	60	4.5%	1.8%	2.8%	3.0%	8.8%	3.7%	5.3%	2.9%	2.4%	2.7%	4.3%	3.0%	3.2%	3.5%	<b>3.7%</b>	<b>1.7%</b>	<b>7.1%</b>
Male	65	3.3%	1.1%	3.5%	3.0%	7.5%	4.1%	5.6%	3.2%	1.6%	4.1%	3.8%	5.3%	3.4%	3.1%	<b>3.8%</b>	<b>1.6%</b>	<b>6.4%</b>
Male	70	4.0%	1.8%	4.1%	2.4%	8.7%	4.3%	5.8%	3.1%	0.6%	4.3%	3.8%	6.9%	3.4%	2.9%	<b>4.0%</b>	<b>2.0%</b>	<b>8.1%</b>
Male	75	6.8%	3.1%	5.5%	2.2%	9.5%	4.6%	4.9%	2.8%	0.3%	6.6%	4.4%	6.9%	2.6%	4.0%	<b>4.6%</b>	<b>2.3%</b>	<b>9.2%</b>
Male	80	6.1%	6.2%	6.6%	3.0%	9.0%	4.0%	3.7%	1.0%	1.0%	6.5%	4.2%	6.0%	n/a	5.4%	<b>4.8%</b>	<b>2.2%</b>	<b>8.0%</b>
Female	60	4.6%	2.0%	2.9%	3.8%	10.7%	3.8%	5.4%	2.1%	4.8%	3.2%	4.5%	2.6%	4.0%	5.0%	<b>4.3%</b>	<b>2.1%</b>	<b>8.7%</b>
Female	65	2.8%	1.1%	3.3%	3.6%	9.3%	3.7%	5.3%	2.1%	3.8%	4.2%	4.2%	3.8%	4.0%	4.3%	<b>4.0%</b>	<b>1.8%</b>	<b>8.2%</b>
Female	70	2.2%	1.1%	3.0%	2.2%	9.6%	3.7%	4.5%	1.3%	2.0%	4.1%	3.6%	5.0%	3.8%	3.3%	<b>3.5%</b>	<b>2.0%</b>	<b>8.5%</b>
Female	75	5.1%	1.8%	4.3%	1.6%	10.3%	4.3%	3.6%	1.0%	1.2%	6.4%	4.3%	4.6%	3.5%	3.3%	<b>4.0%</b>	<b>2.3%</b>	<b>9.3%</b>
Female	80	7.4%	6.4%	6.9%	3.7%	10.7%	4.8%	4.0%	0.5%	2.6%	9.0%	6.3%	5.2%	n/a	4.6%	<b>5.5%</b>	<b>2.6%</b>	<b>10.2%</b>
Joint	60	5.9%	2.1%	3.7%	2.7%	12.1%	4.2%	5.8%	2.5%	5.4%	2.7%	4.9%	4.0%	3.8%	5.6%	<b>4.7%</b>	<b>2.4%</b>	<b>10.0%</b>
Joint	65	5.2%	1.2%	4.0%	2.6%	10.4%	3.9%	5.5%	2.4%	4.3%	3.2%	4.0%	4.9%	3.7%	4.9%	<b>4.3%</b>	<b>2.1%</b>	<b>9.2%</b>
Joint	70	4.4%	1.2%	4.0%	1.8%	8.4%	3.8%	4.9%	2.0%	2.8%	2.7%	3.2%	6.2%	3.2%	3.9%	<b>3.8%</b>	<b>1.8%</b>	<b>7.2%</b>
Joint	75	4.3%	1.6%	5.1%	1.0%	6.7%	3.7%	3.2%	1.5%	1.8%	5.7%	2.9%	5.4%	2.6%	3.8%	<b>3.5%</b>	<b>1.7%</b>	<b>5.7%</b>
Joint	80	5.0%	6.7%	7.6%	2.7%	5.8%	4.2%	3.1%	0.3%	3.4%	6.8%	3.7%	5.6%	n/a	5.4%	<b>4.6%</b>	<b>1.9%</b>	<b>7.2%</b>
<b>Average</b>		<b>4.8%</b>	<b>2.6%</b>	<b>4.5%</b>	<b>2.6%</b>	<b>9.2%</b>	<b>4.1%</b>	<b>4.7%</b>	<b>1.9%</b>	<b>2.5%</b>	<b>4.8%</b>	<b>4.1%</b>	<b>5.0%</b>	<b>3.4%</b>	<b>4.2%</b>	<b>4.2%</b>	<b>1.7%</b>	
<b>Std Dev</b>		<b>1.4%</b>	<b>2.0%</b>	<b>1.5%</b>	<b>0.8%</b>	<b>1.6%</b>	<b>0.4%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>1.5%</b>	<b>1.8%</b>	<b>0.8%</b>	<b>1.2%</b>	<b>0.5%</b>	<b>0.9%</b>	<b>0.5%</b>		
<b>Range</b>		<b>5.2%</b>	<b>5.6%</b>	<b>4.8%</b>	<b>2.8%</b>	<b>6.3%</b>	<b>1.2%</b>	<b>2.7%</b>	<b>2.9%</b>	<b>5.1%</b>	<b>6.3%</b>	<b>3.3%</b>	<b>4.3%</b>	<b>1.5%</b>	<b>2.7%</b>			

There is significant variation in the cost of selecting a single provider across providers and age bands. Carrier mortality and investment assumptions may vary across age, and insurer competitive practices may change. While some insurers provide consistent competitive pricing within this time period (Company 13), others exhibit far more variation (Company 10).

An important consideration when selecting an insurance company is financial strength rating. While annuity payouts are backed by state insurance guaranty funds, insurer default would result at the very least in delayed repayment or even a loss of principal if premiums exceed the guaranty limits.

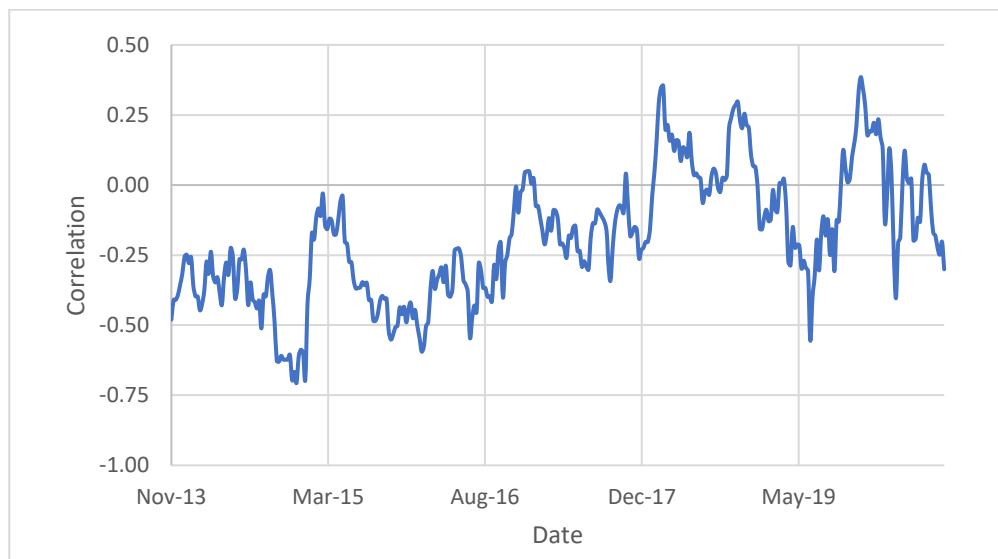
We gathered financial strength ratings from A.M. Best, Fitch, Moody's and S&P, when available, and found that they were relatively constant over the period. Financial strength ratings are not available from all insurers over the entire time period and they are aggregated to include all potential available information.

We expect that financial strength ratings to be negatively correlated with payout rates to compensate annuity buyers for the potential risk that annuity payments will be disrupted if the insurer experience insolvency. To the extent an insurer with a higher financial strength rating

offers a higher payout suggests there is a “free lunch” to annuitants since they would have the potential to receive more income with more safety. While financial strength ratings are imperfect, especially at the individual company level, they have been able to predict the cumulative probability of impairment and liquidation monotonically (A.M. Best 2019).

Relations between financial strength rating and annuity payouts are presented in Exhibit 6. Although generally negative, the relation between financial strength rating and payout rate has evolved over the period of analysis. Exhibit 6 shows the correlation between financial strength rating and payout rate for all companies with complete data for the full period of analysis.

### Exhibit 6: Financial Strength and Payout Rate Relation



The correlation is generally negative, averaging -0.19 over the period; however, the relation was more consistently negative before 2018 and there are recent periods where the financial strength and payout relation is *positive*. This means companies with higher financial strength ratings had higher payout rates, on average, than those with lower financial strength ratings.

### Predicting Future Payout Rate Ranking

Is it possible to predict whether companies that have higher payout ratings today will have higher payouts in the future?

Exhibit 7 shows the correlation between the company rankings as of November 13, 2013 to their future payout rankings over time for all 15 payout types.

## Exhibit 7: Financial Strength and Payout Rate Correlation by Date



The correlation between offering a competitive annuity rate today and in the future declines with the time period of evaluation. This research suggest that most competitive annuity providers become relatively less competitive over a sufficiently long time period.

### Conclusions

The SECURE Act reduces barriers to offering annuities within defined contribution plans but expects plans sponsors to evaluate the quality of annuity providers. Results from these analyses suggest that selection of a price competitive annuity provider is complicated by variation in price over time.

Our findings also suggest that there are periods where insurers with greater financial strength ratings have higher payouts on average, indicating significant value to evaluating both relative pricing and financial strength when selecting annuity providers. It is possible to find companies that offer both financial stability and more generous lifetime income payments.

Since there is variation in the competitiveness of annuity quotes over time and among providers, a single insurer may not consistently provide the highest annuity quotes. While the average cost of selecting a single annuity provider was only 4%, it exceeded 9% for certain providers and 12% for certain age and household type combinations. This cost of selecting a less competitive

provider is evidence that plan sponsors must evaluate multiple annuity providers over time rather than simply selecting the lowest cost provider today. If a plan relies on a “shelf” of annuity products, each provider should be re-evaluated and highly-rated insurers that have consistently competitive quotes over time may be more attractive.

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