MILLIMAN RESEARCH REPORT

TERM LIFE INSURANCE ISSUES

2021 Survey: Key discoveries

December 2021

Carl A. Friedrich, FSA, MAAA
Susan J. Saip, FSA, MAAA

Milliman

Table of Contents

Background

In 2021, Milliman conducted its third biennial broad-based survey on term life insurance. The survey captured historical data for key industry competitors, as well as company perspectives on a range of issues pertaining to these products into the future. Survey topics and questions were determined based on input from participants in the 2019 survey, as well as Milliman consultants. The following sections were included in this year's survey:

- Term sales details
- Profit measures
- Target surplus
- Reserves
- Risk management
- Underwriting
- Product design
- Compensation
- Pricing

The survey was sent via email to term insurance companies on July 19, 2021; 34 companies submitted responses. Input from survey participants relates to the term insurance environment in mid-2021. Data does not reflect the current interest rate environment.

Nothing included in this document may be used in any filings with any public body, such as, but not limited to, the U.S. Securities and Exchange Commission (SEC) or state insurance departments, without prior consent from Milliman. Milliman relied upon the data provided by the survey participants and did not perform independent audits of the data, although we did review the data for general reasonableness and consistency. Any observations made may not necessarily be indicative or construed as representative of the entire term market.

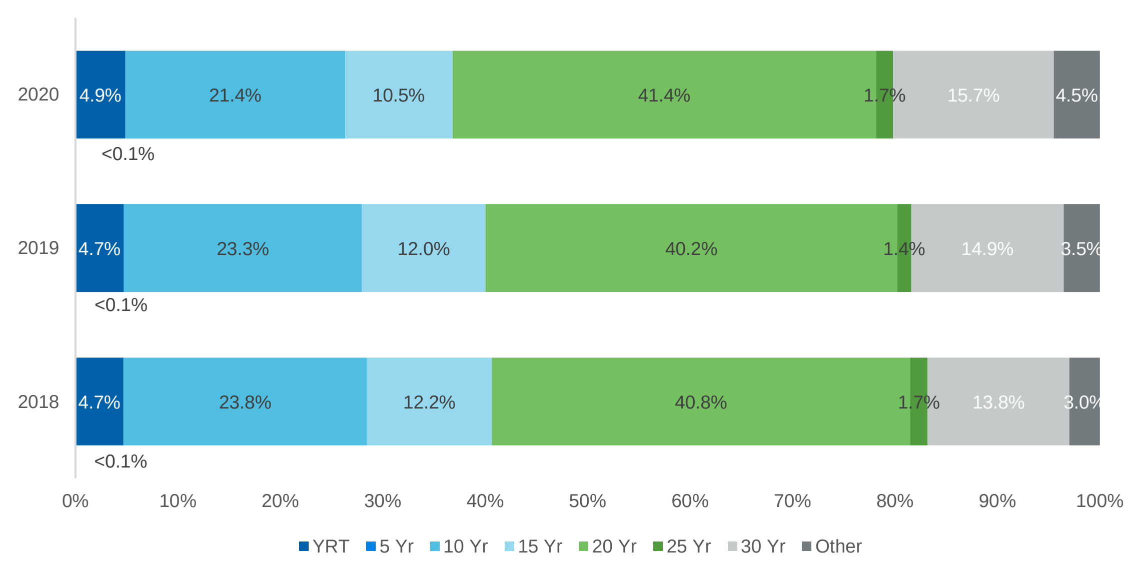
Survey information

TERM SALES DETAILS

Survey participants reported total term insurance sales for calendar years 2018 through 2020. Total sales were $1.30 billion, $1.35 billion, and $1.38 billion, respectively. Sales were measured by the sum of recurring premiums plus 10% of single premiums. (We believe the amount of single premium term sales is negligible.)

All 34 survey participants reported historical sales of term insurance products. Term sales were reported for yearly renewable term (YRT), 5-, 10-, 15-, 20-, 25-, and 30-year level premium term periods (LPTPs), as well as some sales in other LPTPs. Various term sales were included in the other category as shown in the body of the report. The graph in Figure 1 illustrates the term mix by LPTP as reported by survey participants from 2018 through 2020. The market share by LPTP was fairly stable for term products over the survey period, with the 20-year LPTP at about 41%, followed by the 10-year at 21% to 23%, the 30-year at 14% to 16%, the 15-year around 10% to 12%, and YRT at about 5%. The market share over the survey period primarily shifted from the 10-year term (-2.3%) and 15-year term (-1.7%) to the 30-year term (+1.8%) and other term category (+1.5%).

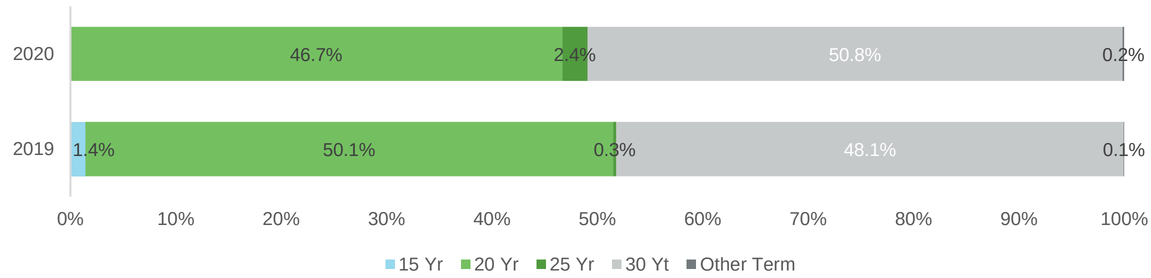
FIGURE 1: LEVEL PREMIUM TERM PERIOD MIX BY YEAR, ALL TERMS



The weighted average premium per policy for all term products with LPTPs combined equaled $1,051 for calendar year 2018, $1,055 for 2019, and $1,011 for 2020. The weighted average face amount per policy for all other terms with LPTPs combined equaled $509,460 for calendar year 2018, $528,859 for 2019, and $522,263 for 2020.

Return of Premium (ROP) term sales reported by 10 participants as a percentage of total term sales reported by all 34 survey participants were 3.8% in 2019 and 4.2% in 2020. For the 10 participants, ROP term sales as a percentage of their total term sales ranged from 3.5% to 28.6% in 2019, and from less than 0.1% to 59.3% in 2020. ROP sales were reported for 15-, 20-, 25-, 30-year, and “other” LPTPs, with the majority of sales in the 20-year and 30-year terms. The graph in Figure 2 illustrates the ROP mix by LPTP as reported by survey participants in 2019 and 2020. Overall, there was a shift in market share from the 15-year (-1.4%) and 20-year (-3.4) terms to the 25-year (2.1%) and 30-year (2.7%) terms from 2019 to 2020.

FIGURE 2: LEVEL PREMIUM TERM PERIOD MIX BY YEAR, ROP TERM



The weighted average premium per policy for all ROP LPTPs combined equaled $1,395 for calendar year 2019 and $1,346 for 2020. The weighted average face amount per policy for all ROP LPTPs combined equaled $258,240 for calendar year 2019 and $251,316 for 2020.

A new question in the survey provided the breakdown of 2020 term sales (premium) by LPTP and face amount band. Figure 3 shows this breakdown for all LPTPs combined. The bulk of sales fall in the $100,000 to $2 million face amount range.

FIGURE 3: DISTRIBUTION OF TOTAL TERM SALES BY FACE AMOUNT BAND

FACE AMOUNT BAND	ALL LEVEL PREMIUM TERM PERIODS
2020 SALES (PREMIUM)	
< $100 K	6.8%
≥ $100K AND < $500K	34.6%
≥ $500K AND < $1 MILLION	19.0%
≥ $1 MILLION AND < $2 MILLION	22.4%
≥ $2 MILLION	17.3%

In both 2019 and 2020, the brokerage, agency-building, and multiple-line exclusive agent (MLEA) channels were the most popular channels through which term products were sold based on both annualized premium and face amount issued. Term sales were also reported by survey participants in the personal-producing general agent (PPGA), wirehouse, direct, and bank channels, with a few sales in other channels.

The distribution of sales for 2020 by gender when sales were measured by premium was 70% male and 30% female. On a face amount basis, the distribution was 64% male and 36% female.

A weighted-average issue age was determined for sales of survey participants based on the midpoint of the issue age range, separately for male and female, and separately by sales based on premium and sales based on face amount. Results for 2020 sales are shown in Figure 4.

FIGURE 4: WEIGHTED AVERAGE ISSUE AGES

GENDER	ALL LEVEL PREMIUM TERM PERIODS 2020 SALES	
	PREMIUM	FACE AMOUNT
MALE	49	42
FEMALE	46	39
TOTAL	48	40

Total term sales were reported by underwriting approach and underwriting class. Underwriting approaches were defined as follows:

- Simplified issue (SI) underwriting: Less than a complete set of medical history questions and no medical or paramedical exam.
- Accelerated underwriting (AU): Any fully underwritten life insurance program that allows some applicants to forego having a medical or paramedical exam and providing fluids if they meet certain requirements and/or meet a certain pre-determined threshold.
- Fully underwritten: Complete set of medical history questions and medical or paramedical exam, except where age and amount limits allow for nonmedical underwriting.

The distribution of 2020 term sales by underwriting approach based on policy count was 18.3% SI, 36.3% AU, 44.9% fully underwritten, and 0.5% other underwriting approach.

Term sales by application type (paper versus e-app) and issue age range were reported by 25 survey participants based on premium and face amount. For 2020 sales, 19 of the 25 reported sales from both paper and e-apps, one from paper applications only, and the remaining five from e-apps only. *Paper applications accounted for 48% of total applications (based on premiums) in 2020. On a face amount basis, paper applications accounted for 45% in 2020. This compares to 58% of applications (premium) and 53% (face amount) reported by survey participants in 2019.*

Based on 2020 sales by premium, the average issue age for paper application sales was 56 and for e-app sales was 50. Based on sales by face amount, the average issue age for paper application sales was 47 and for e-app sales was 43. The average ages were generally the same as those reported for 2019 sales.

DRIVERS OF UL/IUL/VUL PRICING

Survey responses included information about the following key drivers of term pricing:

1. Profit targets and measures
2. Target surplus
3. Reserves
4. Reinsurance
5. Investment yields
6. Expenses

Profit measures

The predominant profit measure reported by survey participants relative to the pricing of new term sales issued today was an after-tax, after-capital statutory return on investment/internal rate of return (ROI/IRR). The average term ROI/IRR targeted by survey participants was 8.9%. Profit margin was also a popular profit metric used by survey participants for term insurance. The average profit margin was 4.8% on an after-tax, after-capital basis.

Survey participants reported their actual results relative to profit goals for 2020. For all term products, 3% of the participants were exceeding their profit goals, 44% were meeting or close, and 53% were short. *The primary reason reported for not meeting profit goals in 2020 was expenses.*

Target surplus

The majority of survey participants set target surplus pricing assumptions as a percentage of the National Association of Insurance Commissioners (NAIC) company action level. The overall NAIC risk-based capital (RBC) percentage of company action level for all term products ranged from 250% to 900%, with an average of 380% and a median of 350%. The full report includes details about the overall NAIC RBC percentage, broken down by component.

The NAIC will be changing bond factors for the life risk-based capital formula beginning with 2021 filings, with a change to 20 designations from six. Survey participants were asked whether the company has tested the difference in C1 RBC as a result of moving from six to 20 classes. Sixteen of the 34 survey participants indicated they did test the difference in C1 RBC. Responses from participants reporting the differences ranged from 0.06% to 14.00%, with an average of 3.03% and a median of 0.20%.

Reserves

The majority of participants reported that the ratio test under the stochastic exclusion test (SET) was the most common option used by survey participants. Twenty-three of 26 participants responding used this test. In addition, 20 of the 26 responses indicated that SET results were consistent for both pre-reinsurance and post-reinsurance.

The calculation of deterministic reserves for term insurance must not reflect gains after the LPTP, but any losses after the LPTP must be reflected. Although the deterministic reserve (DR) is an aggregate reserve, this requirement around post-level term profits/losses is applied seriatim. Survey participants were asked what approach they were using to satisfy this requirement. Twelve participants referenced calculations at the seriatim level. Four participants lapsed all policies at the end of the LPTP, so this issue did not apply to them. Three participants used an aggregate approach and two used a plan-level approach. Other approaches were reported by the final three respondents.

Twenty-six of the 34 survey participants provided a description of the aggregation of mortality segments for purposes of credibility under Valuation Manual Chapter 20 (VM-20). The majority of participants expected to aggregate mortality segments across broad categories, such as all life products, all permanent products, or all fully underwritten products.

Only two survey participants reported using or are considering using third-party mortality consistent with the underwriting of their term business in order to increase credibility of the company experience. Both have used reinsurer mortality.

Thirty-one participants reported the basis of reserves reflected in term pricing for new term designs under Principle-Based Reserving (PBR). Eighteen of the 31 reported the basis of reserves, 12 reported no new designs were developed, and one reported that PBR was not applicable. Fourteen of the 18 based reserves on the maximum of the net premium reserve (NPR) and the DR. Three participants based reserves on the NPR only, and one on the maximum of the NPR, DR, and stochastic reserve (SR).

Reinsurance

For new term products under VM-20, 11 participants made changes to their reinsurance structures in light of PBR. Twenty-two participants did not make any changes. One of the 22 noted that it filed for total company exemption. The final participant reported this question as not applicable.

Retention limits ranged from $250,000 to $30 million for survey participants, with a median limit of $2.0 million and an average of about $6.1 million.

In 2020, the percentage of new term business that was ceded ranged from 1% to 90%, with an average of 47%. The median was 50%.

Investment yields

Figure 5 shows the split between respondents assuming a new-money investment income strategy approach versus a portfolio approach in pricing term products. Overall, 17 of 32 participants assumed a portfolio approach and 14 assumed a new-money approach. The 32nd participant assumed both a new-money and a portfolio approach for all LPTPs it offered. The full report includes details about net earned rates assumed in pricing term products by LPTP and by investment income strategy.

FIGURE 5: TERM INSURANCE INVESTMENT INCOME STRATEGIES

LEVEL PREMIUM TERM PERIOD	% ASSUMING INVESTMENT INCOME STRATEGY IN PRICING	
	NEW-MONEY	PORTFOLIO
YRT	43%	57%
5 YEAR	0%	100%
10 YEAR	47%	53%
15 YEAR	54%	46%
20 YEAR	47%	53%
25 YEAR	42%	58%
30 YEAR	46%	54%

Expenses

Actual expense levels and those assumed in pricing term products vary widely among survey participants, with details provided in the full report. For comparison purposes, we converted acquisition and maintenance expenses to a dollar amount for a representative sample term policy for each participant. The calculation was done for both pricing expenses and actual (fully allocated) expenses excluding and including premium taxes. We assumed a 20-year level premium term policy with an average face amount of $500,000 issued at age 40, and premiums of $2.00 (high premium) and $1.50 (low premium) per $1,000 of face amount. The tables in Figure 6 show statistics relative to dollars of pricing and actual expenses for the representative sample policy.

FIGURE 6: PRICING AND ACTUAL EXPENSES FOR A REPRESENTATIVE SAMPLE TERM POLICY

PRICING EXPENSES	NUMBER OF RESPONSES	AVERAGE	MEDIAN	MINIMUM	MAXIMUM
HIGH PREMIUM – PRICING					
ACQUISITION	31	$684	$692	$70	$1,449
MAINTENANCE (WITHOUT PREMIUM TAXES)	31	$51	$40	$11	$220
MAINTENANCE (WITH PREMIUM TAXES)	31	$65	$52	$28	$234
LOW PREMIUM – PRICING					
ACQUISITION	31	$636	$655	$70	$1,277
MAINTENANCE (WITHOUT PREMIUM TAXES)	31	$50	$40	$10	$214
MAINTENANCE (WITH PREMIUM TAXES)	31	$60	$48	$25	$224

ACTUAL (FULLY ALLOCATED) EXPENSES	NUMBER OF RESPONSES	AVERAGE	MEDIAN	MINIMUM	MAXIMUM
HIGH PREMIUM – ACTUAL					
ACQUISITION	26	$901	$803	$201	$2,035
MAINTENANCE (WITHOUT PREMIUM TAXES)	26	$98	$69	$18	$300
MAINTENANCE (WITH PREMIUM TAXES)	26	$114	$89	$41	$300
LOW PREMIUM – ACTUAL					
ACQUISITION	26	$818	$740	$201	$2,000
MAINTENANCE (WITHOUT PREMIUM TAXES)	26	$96	$68	$18	$300
MAINTENANCE (WITH PREMIUM TAXES)	26	$108	$84	$35	$300

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

milliman.com

CONTACT

Carl Friedrich
carl.friedrich@milliman.com

Sue Saip
sue.saip@milliman.com