

Disability Newsletter

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Editor's Note

Paul L. Correia, FSA, MAAA, CERA

I remember reading about pandemics as an actuarial student. The coursework included literature on the 1918 pandemic, and essays that discussed the risks to insurance companies if another pandemic were to occur. I'll admit that, as a student reading through this material, I never thought it would become a reality, nor could I have ever imagined its devastating impact.

As the end of 2020 draws near, the COVID-19 pandemic continues to affect the health and income of American workers and the operations of American businesses. Recently, Milliman surveyed the insurance industry about the impact of COVID-19 on individual disability income (IDI) insurance. This issue of the Disability Newsletter includes an article highlighting the key results from the survey, and provides a link for readers to obtain the full survey report on the Milliman website. The survey responses provide insights into how the pandemic has affected IDI claim experience and sales. They also shed light on how carriers have adapted to the pandemic, through changes in underwriting, distribution, and product design. The survey is the first in a series that Milliman will be conducting to monitor the impact of COVID-19 on IDI business.

This issue also features the results from the 2019 statutory non-cancelable (non-can) financial study. This study provides a longitudinal view of non-cancellable IDI experience from 2010 through 2019. We are pleased to report favorable trends in the profitability of non-cancellable IDI business over the past several years and very strong financial results from 2019. With so much uncertainty around COVID-19, however, we'll just have to wait and hope that these trends will continue in 2020 and beyond.

The third article in this issue covers the supplemental health insurance market. Specifically, it includes a summary of market research surveys related to critical illness, hospital indemnity, and accident insurance products.

Finally, I want to mention a change in the format and distribution of the Disability Newsletter. Starting spring 2021, the newsletter will be available on milliman.com and will no longer require a subscription or be published in hard copy. Go to the back page for details on how to receive the newsletter in the new format.

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Milliman's COVID-19 IDI Survey

Robert W. Beal, FSA | Daniel D. Skwire, FSA

The June 2020 issue of the Disability Newsletter included an article on the potential impact that COVID-19 could have on individual disability income (IDI). The article explored a number of ways that the virus could affect the IDI business:

- Direct impact of the virus on IDI morbidity
- Indirect impact of high unemployment on IDI morbidity
- Issues specific to the medical occupations
- Impact on new sales and underwriting practices

As a follow-up to the article, we surveyed 13 companies that are active in the IDI market. The intent of the survey was to capture how COVID-19 has affected IDI new sales and claims to date and what these companies expect will happen going forward. The survey did not attempt to quantify the impact on either sales or claims related to COVID-19. Rather, it summarized impressions and opinions from IDI companies and the steps they are taking now in response to the pandemic.

Readers can obtain a copy of the full survey report on the Milliman website at https://www.milliman.com/en/insight/Survey-on-the-impact-of-COVID19-on-individual-disability-income-insurance. This article highlights key results from the survey.

Scope of the survey

The survey consisted of a series of questions about the potential impact of COVID-19 on IDI insurance:

- What has been the impact of COVID-19 and related lockdowns or social distancing on companies' new premiums year-to-date in 2020?
- Have companies made any changes in their 2020 sales expectations, underwriting, or product provisions due to COVID-19?
- Have companies seen any new IDI claims in 2020 due to COVID-19?

- Do companies have any open IDI claimants who contracted COVID-19 while on claim?
- Have companies seen any open IDI claims that terminated from death due to COVID-19?
- Have companies taken specific steps to monitor new and open claims for COVID-19?
- What do companies think will be the ultimate impact on new IDI sales in the individual-billed and employersponsored markets?
- What do companies think will be the ultimate impact on IDI claims?

For many of these questions, participants were encouraged to provide comments that would clarify or expand their responses. Those comments have been included below.

Thirteen IDI insurance carriers participated in the survey:

Ameritas Northwestern Mutual

Assurity Ohio National
Guardian Principal
Illinois Mutual The Standard
MassMutual Thrivent
MetLife Unum

Mutual of Omaha

Survey highlights

IMPACT OF COVID-19 ON NEW IDI SALES

- Nine of the companies have seen a small negative impact on IDI sales in 2020 to date due to COVID-19, while three companies have seen no impact. One company believes its strong sales in 2020 may be indirectly related to the pandemic.
- Six companies have revised their new sales targets for 2020 due to COVID-19. Three companies are thinking about it.
- A majority of the companies expect that ultimately new individual-billed and employer-sponsored sales will be negatively affected by the virus.
- Lockdowns and social distancing are expected to impede sales to some extent, although this effect may be offset by electronic processes that will help to minimize the need for face-to-face selling.
- One company noted that it has become more difficult for employers to make decisions related to employee benefit offerings during the pandemic.

IMPACT OF COVID-19 ON UNDERWRITING RULES

 Seven of the 12 companies that are in the individual-billed market have made changes to their medical underwriting rules as a result of the pandemic. These changes address the difficulty in obtaining lab tests and other medical

- information. Companies have been lifting nonmedical limits and relying more on electronic data, such as prescription drug checks.
- One company indicated that it has observed some reluctance from applicants to meet with medical examiners during the underwriting process due to the pandemic.
- Four of these 12 companies have modified their financial underwriting rules due to the pandemic and the extension in filing 2019 tax returns to July.
- Of the seven companies that issue policies in the employersponsored market using voluntary guaranteed standard issue (GSI) underwriting, three have modified their GSI rules due to the pandemic. Three mentioned a greater utilization of mental/nervous limitations. One company has modified its actively-at-work requirement to allow employees who have been furloughed to enroll for coverage.
- Of the seven companies that issue policies in the employer-sponsored market using employer-paid (mandatory) GSI underwriting, only one has modified its GSI rules due to the pandemic.
- Two companies have modified their policy provisions due to COVID-19. One removed the option for elimination periods of 30 days or fewer. The other company relaxed its guidelines on benefit increases and grace periods.

HIGH UNEMPLOYMENT IN TARGET MARKETS

- Six of the 12 companies in the individual-billed market expect that their target markets will experience high unemployment. Several companies noted that medical occupations and practices that were labeled "nonessential" have experienced temporary higher unemployment.
- Seven companies in the employer-sponsored market do not believe that their target markets will experience high unemployment. One company mentioned that its target market was highly compensated executives who are less likely to suffer from high unemployment.

IMPACT OF COVID-19 ON IDI CLAIMS

- Twelve of the 13 companies have seen new claims due to COVID-19.
- Six companies said that they had IDI open claimants who contracted the virus while disabled for other reasons. Four companies said they did not, while three did not know.
- Twelve of the companies have had IDI claims terminate because the claimant died from COVID-19.
- All companies are tracking new claims. Some are monitoring open claims on a weekly or monthly basis. For some companies, tracking COVID-19 claims is more of a manual effort, e.g., using spreadsheets, while others have modified their claim systems.

- Six companies believe that new claims from COVID-19 will increase significantly over the next 12 months, and three companies do not. Four companies are not sure.
- Twelve of the 13 companies believe that elimination periods of 90 days or longer will effectively minimize the volume of new claims due to COVID-19. One company observed that higher claim volumes could be due in part to external factors such as economic and medical factors, rather than just contracting the virus.
- Twelve companies believe that claims in the medical occupations will spike due to fatigue and stress. Some companies noted that they have already seen an elevation of claims from medical occupations.
- One company is seeing claims from policyholders in medical occupations who have non-COVID-19 conditions but chose to file their claims during the lockdown. In these cases, claimants worked prior to the lockdown in spite of experiencing potentially disabling medical conditions, but only filed a claim during the lockdown when they could no longer work.
- Eight companies believe that recovery rates on open IDI claims will decrease as a result of the virus. Two companies disagreed, and three are not sure. Several companies attributed lower recovery rates in part to the inability of claimants to schedule the medical procedures they need, or from the fear of returning to work during the pandemic.

- All 13 companies agreed that high unemployment and other economic issues due to COVID-19 will reduce recovery rates among open IDI claims.
- Eight companies believe that COVID-19 will increase mortality rates for IDI claimants who contract the virus while disabled for other reasons, and one does not. Four companies were unsure.

Conclusions

The COVID-19 pandemic is still in its early stages, but all 13 IDI companies in the survey are monitoring their claims, and many are beginning to review and adjust their underwriting rules. The full impact of the virus on IDI insurance will not be known for a number of years, but it is critical that companies monitor all aspects of their operations (e.g., sales, underwriting, and claims) to identify the impact of COVID-19 and implement the appropriate changes. We plan to conduct a second survey of these companies in about six months to better understand how companies are being affected by the pandemic and the steps they are taking to adapt to it.

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Non-cancelable IDI: 2019 financial results

Robert W. Beal, FSA

This article presents key results and trends from the 2019 statutory non-cancelable (non-can) financial study, focusing on non-can individual disability income (IDI) experience over the last 10 years. The profit margin after dividends and before federal income taxes (FIT) was 15.5% of earned premium, up from 14.4% in 2018, and was the largest profit margin over the last 10 years.

Contributors and sources

The table in Figure 1 lists the 16 companies that now comprise the non-can IDI study.

FIGURE 1: 16 COMPANIES INCLUDED IN THE NON-CAN IDI STUDY BY ASSIGNED STATUS, ACTIVE AND CLOSED

COMPANY	STATUS
GUARDIAN LIFE (BERKSHIRE LIFE)	ACTIVE
MASS MUTUAL	ACTIVE
MET LIFE	ACTIVE
MUNICH RE	ACTIVE
NORTHWESTERN MUTUAL	ACTIVE
PRINCIPAL FINANCIAL	ACTIVE
PROVIDENT COMPANIES	ACTIVE
RIVERSOURCE	ACTIVE
STANDARD LIFE	ACTIVE
EQUITABLE LIFE	CLOSED
MASS CASUALTY	CLOSED
MONARCH	CLOSED
MUTUAL OF NEW YORK	CLOSED
NATIONAL LIFE (VT)	CLOSED
PAUL REVERE	CLOSED
UNUM COMPANIES	CLOSED

These 16 companies represent over 90% of the non-can IDI market in terms of in-force premium. The sources of the financial data consist of the Analysis of Operations by Line of Business, Exhibit 6, Schedule H and, in some cases, Schedule S, from the companies' National Association of Insurance Commissioners (NAIC) Annual Statements. Some companies have reinsurance arrangements under which large portions, if not all, of their IDI business have been reinsured with either affiliated or unaffiliated entities. We have taken steps to present the financial results for these companies before these financial reinsurance arrangements in order to maintain consistency in the results from year to year.

Of the 16 companies included in the financial study, only nine are still actively selling new business, and seven are closed as a result of consolidations of IDI blocks during the 1990s and early 2000s. Figure 1 shows the status of the 16 companies that we included in our analysis. Of the three entities that now comprise Unum (Paul Revere, Provident Companies, and Unum Companies), the active status was assigned only to the Provident Companies, which are the only Unum entities with increasing premiums.

Why non-can IDI and not all IDI?

The scope of this financial study includes only non-can IDI business due to limitations in the reporting of IDI results in the NAIC Annual Statement Blank. The Analysis of Operations by Line of Business, which includes IDI business (Accident and Health - Other), often includes non-IDI business such as individual health insurance. Limiting the study to non-can IDI does not materially reduce its value because approximately 90% of the in-force IDI premium today is non-can. Schedule H provides a separate column for non-can business from which much of the data for our study is obtained but does not include net investment income (NII). Consequently, the portion of the NII found in the Analysis of Operations that is attributable to non-can IDI is estimated. We have tried to maintain consistency in our estimation methodologies from year to year in order to observe profitability trends within the non-can IDI business.

Annual statutory results for 16 companies from 2010 through 2019

The table in Figure 2 provides details of the combined non-can IDI annual statutory results for the 16 companies from 2010 through 2019. The combined earned premiums for the 16 companies exceeded \$4.2 billion in 2019, which was essentially level with the 2018 earned premium. Earned premium has grown by 9.1% over the last 10 years, resulting in an average annual growth rate of 0.9% per year. The margin after dividends and before FIT as a percentage of earned premium reached 15.5% in 2019.

Not surprisingly, incurred claims, which equal the paid claims plus the increase (or decrease) in claim reserves, have been the major contributor to the fluctuations in the profitability. Generally, incurred claims have been decreasing over the last three to four years, although this favorable trend is dampened by decreasing interest rates on the invested assets backing the reserves. Incurred claim trends are discussed in more detail later in this article.

This year, estimates of federal income taxes (FIT) are no longer included, as the method used to allocate FIT to noncan did not to produce meaningful results. The focus of the profitability analysis in prior studies has been on statutory gains before FIT.

The chart in Figure 3 compares the profit margins (as percentage of earned premium) after dividends and before FIT for the 16 IDI writers to a linear regression of the profit margins from 2010 through 2019.

During the 2010-2015 period, the profit margins were quite volatile, ranging from a high of 13.9% in 2010 to a low of 6.6% in 2011. Since 2016, the profit margins have been more stable. As the regression line in Figure 3 indicates, profit margins as percentage of premium have been generally improving over the 10-year period.

Active versus closed blocks

The percentage of the total earned premium for the seven closed IDI blocks dropped from 20% in 2010 to 9% in 2019. Companies that are active in the IDI market may prefer to focus on the results of the active blocks as financial benchmarks because there are noticeable differences between the financials of the active and closed blocks.

The table in Figure 4 on page 6 splits financial results for years 2010 through 2019 between active and closed IDI blocks.

- Because claim reserves are significantly larger in terms of earned premium for closed blocks than active blocks, net investment income as percentage of premium is significantly larger for closed blocks than active blocks.
- Incurred claim ratios for closed blocks are more than 2.5 times the incurred claim ratios for active blocks, reflecting the relative maturity of the closed blocks.
- The active life reserves for the closed blocks are decreasing at a fairly fast rate, reflecting the maturity of the closed blocks, while the active life reserves for the active blocks have remained generally flat relative to earned premium.

FIGURE 2: ANNUAL NON-CAN IDI STATUTORY RESULTS, 2010-2019 (ALL DOLLAR AMOUNTS ARE PER MILLION)

ITEM	2010	2011	2012	2013	2014
EARNED PREMIUM	\$3,868	\$3,883	\$3,923	\$3,981	\$4,002
ANNUAL PREMIUM GROWTH RATE	-0.1%	0.4%	1.0%	1.5%	0.5%
GAIN/(LOSS) AFTER DIVIDENDS AND BEFORE FIT	\$539	\$257	\$350	\$486	\$279
	FIG	URES BELOW ARE	PERCENTAGES O	F EARNED PREM	IUM
INVESTMENT INCOME	52.5%	52.2%	51.7%	50.6%	49.9%
INCURRED CLAIMS	101.6%	105.0%	105.5%	100.9%	105.2%
INCREASE IN POLICY RESERVES	-3.2%	-1.1%	-3.2%	-2.2%	-2.7%
INCURRED BENEFITS	98.4%	103.9%	102.3%	98.7%	102.5%
COMMISSIONS	12.9%	13.4%	13.2%	13.8%	13.4%
EXPENSES	18.5%	19.1%	17.8%	16.2%	17.2%
TAXES, LICENSES, FEES	2.7%	2.7%	2.7%	2.7%	2.4%
COMMISSIONS-EXPENSE-TAX	34.1%	35.2%	33.7%	32.7%	33.0%
MARGIN BEFORE DIVIDENDS	19.9%	13.1%	15.7%	19.2%	14.4%
DIVIDENDS	6.0%	6.5%	6.8%	7.0%	7.4%
MARGIN AFTER DIVIDENDS & BEFORE FIT	13.9%	6.6%	8.9%	12.2%	7.0%
ITEM	2015	2016	2017	2018	2019
EARNED PREMIUM	\$4,041	\$4,044	\$4,125	\$4,217	\$4,226
ANNUAL PREMIUM GROWTH RATE	1.0%	0.1%	2.0%	2.2%	0.2%
GAIN/(LOSS) AFTER DIVIDENDS AND BEFORE FIT	\$482	\$423	\$550	\$607	\$653
	FIG	URES BELOW ARE	PERCENTAGES O	F EARNED PREM	IUM
INVESTMENT INCOME	49.1%	48.2%	46.1%	44.7%	43.7%
INCURRED CLAIMS	97.9%	97.0%	91.1%	90.5%	85.7%
INCREASE IN POLICY RESERVES	-2.7%	-2.1%	-1.2%	-3.0%	-1.4%
INCURRED BENEFITS	95.2%	95.0%	89.9%	87.5%	84.3%
COMMISSIONS	13.7%	13.4%	13.5%	13.0%	13.2%
EXPENSES	18.0%	18.4%	18.6%	18.8%	18.7%
TAXES, LICENSES, FEES	2.5%	2.8%	2.6%	2.6%	2.5%
COMMISSIONS-EXPENSE-TAX	34.2%	34.7%	34.7%	34.5%	34.5%
MARGIN BEFORE DIVIDENDS	19.7%	18.6%	21.5%	22.7%	25.0%
DIVIDENDS	7.7%	8.1%	8.1%	8.3%	9.5%

FIGURE 3: PRETAX PROFIT MARGINS AS % OF EARNED PREMIUM, 16 NON-CAN WRITERS, AFTER DIVIDENDS AND BEFORE FIT

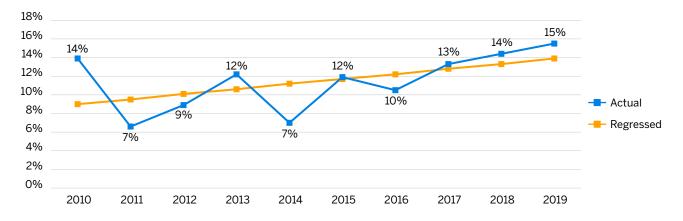


FIGURE 4: STATUTORY INCOME RESULTS, ACTIVE VS. CLOSED NON-CAN IDI BLOCKS (ALL FIGURES ARE PERCENTAGES OF EARNED PREMIUM)

ITEM	2010	2011	2012	2013	2014	2010-2014
NET INVESTMENT INCOME						
ACTIVE	40.3%	39.6%	38.9%	37.7%	36.5%	38.6%
CLOSED	99.4%	105.7%	110.9%	116.6%	127.5%	111.1%
INCURRED CLAIMS						
ACTIVE	81.6%	82.7%	82.8%	78.5%	80.5%	81.2%
CLOSED	179.3%	199.2%	210.7%	215.4%	247.9%	208.3%
INCREASE IN POLICY RESERVES						
ACTIVE	-0.6%	1.5%	-0.3%	1.1%	0.3%	0.4%
CLOSED	-13.4%	-12.5%	-16.9%	-19.0%	-20.3%	-16.1%
COMMISSIONS						
ACTIVE	13.7%	14.2%	14.0%	14.6%	14.2%	14.1%
CLOSED	9.8%	10.0%	9.8%	9.4%	9.0%	9.6%
EXPENSES						
ACTIVE	19.8%	19.7%	19.3%	17.2%	18.1%	18.8%
CLOSED	13.4%	16.5%	10.5%	11.1%	12.1%	12.8%
TAXES, LICENSES, FEES						
ACTIVE	2.8%	2.8%	2.8%	2.8%	2.3%	2.7%
CLOSED	2.5%	2.4%	2.3%	2.5%	2.6%	2.5%
DIVIDENDS						
ACTIVE	7.5%	8.0%	8.2%	8.3%	8.7%	8.2%
CLOSED	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MARGINS AFTER DIVIDENDS & BEFORE FIT						
ACTIVE	15.5%	10.6%	12.0%	15.2%	12.3%	13.1%
CLOSED	7.9%	-10.1%	-5.5%	-2.8%	-23.9%	-6.1%
ITEM	2015	2016	2017	2018	2019	20105-2019
I I LIVI	2013	2010	2017		2013	20103 2019
NET INVESTMENT INCOME	2013	2010	2017	2010	2013	20103 2019
	35.5%	34.0%	31.9%	30.8%	30.7%	32.5%
NET INVESTMENT INCOME						
NET INVESTMENT INCOME ACTIVE	35.5%	34.0%	31.9%	30.8%	30.7%	32.5%
NET INVESTMENT INCOME ACTIVE CLOSED	35.5%	34.0%	31.9%	30.8%	30.7%	32.5%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS	35.5% 137.2%	34.0% 150.1%	31.9% 162.9%	30.8% 176.1%	30.7% 177.4%	32.5% 158.7%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE	35.5% 137.2% 75.6%	34.0% 150.1% 71.8%	31.9% 162.9% 70.2%	30.8% 176.1% 70.8%	30.7% 177.4% 66.1%	32.5% 158.7% 70.8%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED	35.5% 137.2% 75.6%	34.0% 150.1% 71.8%	31.9% 162.9% 70.2%	30.8% 176.1% 70.8%	30.7% 177.4% 66.1%	32.5% 158.7% 70.8%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES	35.5% 137.2% 75.6% 242.1%	34.0% 150.1% 71.8% 278.5%	31.9% 162.9% 70.2% 262.5%	30.8% 176.1% 70.8% 277.9%	30.7% 177.4% 66.1% 287.0%	32.5% 158.7% 70.8% 267.9%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES ACTIVE	35.5% 137.2% 75.6% 242.1%	34.0% 150.1% 71.8% 278.5%	31.9% 162.9% 70.2% 262.5%	30.8% 176.1% 70.8% 277.9%	30.7% 177.4% 66.1% 287.0%	32.5% 158.7% 70.8% 267.9%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES ACTIVE CLOSED	35.5% 137.2% 75.6% 242.1%	34.0% 150.1% 71.8% 278.5%	31.9% 162.9% 70.2% 262.5%	30.8% 176.1% 70.8% 277.9%	30.7% 177.4% 66.1% 287.0%	32.5% 158.7% 70.8% 267.9%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES ACTIVE CLOSED COMMISSIONS	35.5% 137.2% 75.6% 242.1% 0.3% -22.0%	34.0% 150.1% 71.8% 278.5% 0.8% -23.1%	31.9% 162.9% 70.2% 262.5% 1.5% -23.2%	30.8% 176.1% 70.8% 277.9% -0.8% -24.5%	30.7% 177.4% 66.1% 287.0% 0.8% -24.8%	32.5% 158.7% 70.8% 267.9% 0.5% -23.4%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES ACTIVE CLOSED COMMISSIONS ACTIVE	35.5% 137.2% 75.6% 242.1% 0.3% -22.0%	34.0% 150.1% 71.8% 278.5% 0.8% -23.1%	31.9% 162.9% 70.2% 262.5% 1.5% -23.2%	30.8% 176.1% 70.8% 277.9% -0.8% -24.5%	30.7% 177.4% 66.1% 287.0% 0.8% -24.8%	32.5% 158.7% 70.8% 267.9% 0.5% -23.4%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES ACTIVE CLOSED COMMISSIONS ACTIVE CLOSED	35.5% 137.2% 75.6% 242.1% 0.3% -22.0%	34.0% 150.1% 71.8% 278.5% 0.8% -23.1%	31.9% 162.9% 70.2% 262.5% 1.5% -23.2%	30.8% 176.1% 70.8% 277.9% -0.8% -24.5%	30.7% 177.4% 66.1% 287.0% 0.8% -24.8%	32.5% 158.7% 70.8% 267.9% 0.5% -23.4%
NET INVESTMENT INCOME ACTIVE CLOSED INCURRED CLAIMS ACTIVE CLOSED INCREASE IN POLICY RESERVES ACTIVE CLOSED COMMISSIONS ACTIVE CLOSED EXPENSES	35.5% 137.2% 75.6% 242.1% 0.3% -22.0% 14.4% 8.7%	34.0% 150.1% 71.8% 278.5% 0.8% -23.1% 14.1% 8.4%	31.9% 162.9% 70.2% 262.5% 1.5% -23.2% 14.1% 8.9%	30.8% 176.1% 70.8% 277.9% -0.8% -24.5% 13.4% 9.6%	30.7% 177.4% 66.1% 287.0% 0.8% -24.8% 13.6% 9.7%	32.5% 158.7% 70.8% 267.9% 0.5% -23.4% 13.9% 9.0%
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- Administrative expenses as percentage of earned premium are higher for the active blocks because of marketing and underwriting expenses, which are not incurred by the closed blocks.
- Policy dividends have been paid on participating active blocks over the last 10 years.

The profit margin for the active blocks in 2019 was 18.4%, which is the highest profit margin over the prior 10 years. Average profit margins (after dividends and before FIT) as percentage of earned premium for the active blocks has increased from 13.1% during the years 2010 to 2014 to 16.4% during the years 2015 to 2019.

The profit margin for the closed blocks in 2019 was -14.3% in 2019, decreasing from -3.8% in 2018. The average profit margins after dividends and before FIT as percentage of earned premium for the closed blocks has decreased from -6.1% during the years 2010 to 2014 to -11.5% during the years 2015 to 2019. Some companies with closed blocks have strengthened their claim reserves throughout the last 10 years, actions that led to higher losses for the combined closed blocks in certain years. Claim termination rates used to value claim reserves held on claims with lifetime benefit periods have continued to decrease as older tables overstated the emerging experience. Claims with lifetime benefit periods represent a much larger portion of claims of closed blocks than claims of active blocks.

Interest-adjusted incurred claims and incurred losses

Annual incurred claims, shown in Figures 2 and 4, are defined as the paid claims plus the change in claim reserves and liabilities. The ratios of incurred claims to earned premium artificially inflate the underlying claim costs because the change in the claim reserves includes an interest component based on the valuation interest assumptions used by the company. The interest component is not directly related to earned premium. A more appropriate indicator of the underlying incurred claim

experience during the year is obtained by subtracting this interest component from the incurred claims, producing an "interest-adjusted" incurred claim ratio (IAICR).

For this analysis, an average valuation interest rate of 4.00% is assumed each year in order to observe potential trends in the annual IAICRs over time. This assumed valuation interest rate estimates the actual average valuation interest rates, which vary by issue year for policy reserves and by incurrence year for claim reserves.

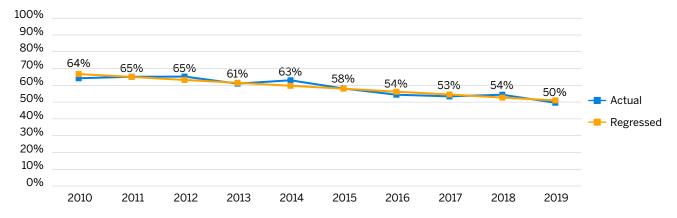
The table in Figure 5 shows the annual IAICRs from 2010 through 2019, separately for the active blocks, closed blocks, and all blocks combined.

FIGURE 5: COMPARISON OF INTEREST-ADJUSTED INCURRED CLAIM
RATIOS. 2010-2019

YEAR	COMBINED BLOCKS	ACTIVE BLOCKS	CLOSED BLOCKS
2010	79.5%	64.2%	138.9%
2011	82.7%	65.1%	157.1%
2012	83.0%	65.2%	165.8%
2013	78.5%	61.0%	167.9%
2014	82.6%	63.0%	196.1%
2015	75.3%	58.1%	186.5%
2016	74.5%	54.4%	219.0%
2017	69.1%	53.4%	198.7%
2018	69.2%	54.4%	210.0%
2019	64.5%	49.6%	217.9%
5-YEAR AVERAGES			
2010-2014	81.3%	63.7%	163.3%
2015-2019	70.5%	53.9%	205.4%

The IAICRs for the active blocks are moving closer to the IAICRs for the combined blocks as the impact of the closed blocks diminishes. To observe trends in the IAICRs, linear regression was applied to them for the active, closed, and combined blocks. The chart in Figure 6 compares the actual and regressed IAICRs for the active blocks. The combined active blocks exhibit downward-sloping IAICRs over the 10-year period that are very close to the regression line.





In comparison, the chart in Figure 7 shows an increasing slope in the IAICRs for the closed blocks. This slope is expected because the closed blocks age faster than the active blocks as no new business is entering them. Also, the closed blocks have higher percentages of claims with lifetime benefits, where attained ages exceed 65 and premiums are no longer payable. There are material variations in the IAICRs for the closed blocks occurring in years 2014 and 2016, which are most likely attributable to claim reserve strengthening in some of the closed blocks.

The chart in Figure 8 compares the actual and regressed IAICRs for all blocks combined over the 10-year period. Figure 8 is similar to Figure 6 above in magnitude and slope, which is due to the decreasing impact of the closed blocks on the overall incurred claims.

New developments

Companies with IDI reserves must migrate to the new 2013 IDI Valuation Table by the end of 2020 for new policies and new claims. The new valuation table was developed from industry experience in years 1990 through 2007, replacing the obsolete 1985 Commissioners Individual Disability A Table.

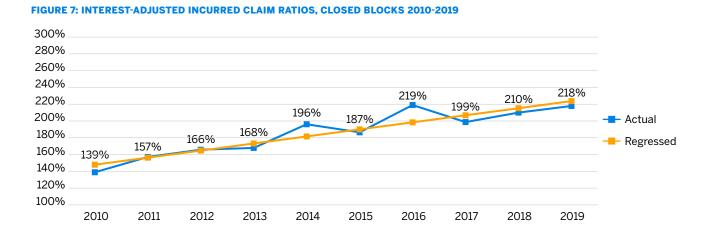
However, IDI claim experience was certainly not static over this 1990-2007 study period, and it has continued to change significantly since then.

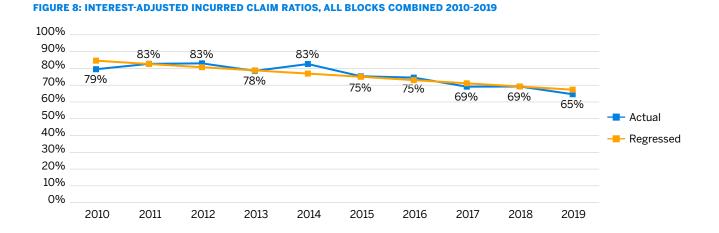
By the end of 2020 or early in 2021, the Society of Actuaries will release an in-depth report from the Individual Disability Experience Committee (IDEC) on the IDI industry's claim termination trends from 2006 through 2015 relative to the 2013 IDI Valuation Table. The study complements the claim incidence trend study released by the IDEC in 2019. These studies provide critical information to IDI companies on how IDI claim experience has evolved since the mid-2000s.

Conclusions

Non-can profit margins for the 16 IDI writers have continued to improve as interest-adjusted incurred claim ratios trend downward. The impact of the closed IDI blocks on the overall profits is decreasing at a rapid rate. The improvements in profitability have been the most noticeable and steady over the last five years.

The catastrophic financial losses that were characteristic of the IDI industry during the 1990s have long disappeared. Today, we see a market with stable profitability albeit with essentially





level premiums, and despite the challenges of sustained low interest rates. At present, the impacts to the economy and the health profession from the COVID-19 pandemic may be the biggest threat to the profitability of the IDI business. At a minimum, it increases the degree of uncertainty facing this business and emphasizes the importance of steadfast monitoring of sales, claims, and underwriting practices.

Welcome Doug Taylor

I am very pleased to announce that Doug Taylor will be joining the annual Non-can Profitability Study going forward. Doug recently retired from MassMutual, most recently serving as the head of MassMutual's Valuation and Modeling Department and appointed actuary. He brings considerable experience in IDI insurance, having previously held a number of actuarial and financial roles in the IDI field in both the United States and Canada.

Doug and I cochaired both the Individual Disability Experience Committee (IDEC) of the Society of Actuaries (SOA) for many years and also cochaired the joint SOA and Academy of Actuaries Individual Disability Tables Working Group, which developed the 2013 IDI Valuation Table.

The author welcomes any questions or observations the reader may have regarding the results of the 2019 Non-can Profitability Study or IDI in general.

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A brief overview of the Milliman 2020 Accident, Critical Illness, and Hospital Indemnity surveys

David Bahlinger

Overview

In 2020, Milliman conducted a wide variety of research projects to provide insight into the state of the U.S. supplemental health insurance market. As part of that research, we have published reports on three different insurance markets: Accident, Critical Illness (CI), and Hospital Indemnity (HI). Each of the published reports provides insights into their respective markets, delving into the unique facets of their corresponding products. This article provides a brief overview based on select questions from these comprehensive market surveys.

RESPONDENTS

Invitations to participate in the surveys were sent to 98 carriers active in these supplemental insurance markets. Figure 1 shows the number of respondents and the total reported in-force premium for each report.

FIGURE 1: SURVEY RESPONDENTS

MARKET	NUMBER OF RESPONDENTS	OF RESPONDENTS (IN \$ MILLIONS)
ACCIDENT	39	\$3,485
CRITICAL ILLNESS	38	\$1,799
HOSPITAL INDEMNITY	32	\$1,798

SALES GROWTH

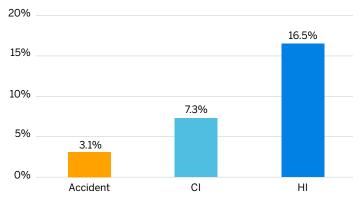
All three products experienced sales growth over the period of 2017 to 2019. Based on annualized premium, the Hospital Indemnity market showed the largest growth with a 16.5% compound annual growth rate (CAGR) from 2017 to 2019. The Critical Illness product experienced a CAGR of 7.3%, and Accident experienced a CAGR of 3.1% over the same period.

MARKET SHARE

All three product markets were reported to be top-heavy, with only a few carriers dominating a significant portion of the market. Consequently, sales trends seem to be driven by only a handful of carriers.

The top three carriers from the Accident and Hospital Indemnity markets reported nearly two-thirds of the in-force premium (64.5% and 63.6.%, respectively), whereas for Critical Illness, the top three carriers accounted for half of the reported in-force premium (50.3%).

FIGURE 2: COMPOUND ANNUAL GROWTH RATE SALES, 2017-2019



Market segments

For deeper insight, the surveys segmented each market's sales and in-force premium results in a number of different ways. The primary market segmentation was by product type: group, worksite individual (WSI), and non-worksite individual (NWSI). For the Accident, CI, and HI markets, group products represented the largest segment in terms of 2019 in-force premium.

Average in-force premium

Our reports also examined numerous financial components of our surveyed products, including average in-force annual premiums. HI had the highest average annual in-force premium at \$568. Next was CI at \$359 followed by Accident at \$303. Average annual in-force premiums from 2019 are shown in Figure 5.

Commissions

As broker relations are instrumental in the distribution of supplemental insurance products, commissions are a key consideration for market participants. We examined commission structures and the associated commission percentages for each market. Both commission structures—i.e., level versus heaped (higher first-year and reduced renewal-years) commissions—and the average commission percentages varied by product.

The Accident, CI, and HI markets all used a mixture of level and heaped commission structures, with heaped commissions being more popular than level commissions for all three products.

Risks and competition

TOP THREE PERCEIVED RISKS

Premiums and commissions are both affected by a carrier's need to stay competitively viable, particularly in top-heavy markets. Competition, however, is not the only risk that carriers must manage. All products and carriers experience a variety of risks in their respective markets. The first step is to identify these risks, after which a plan can be formulated to manage them. We asked carriers to indicate the top risks to product success. The top three risks for each product are shown in Figure 7.

FIGURE 3: MARKET SHARE, TOP 3 CARRIERS

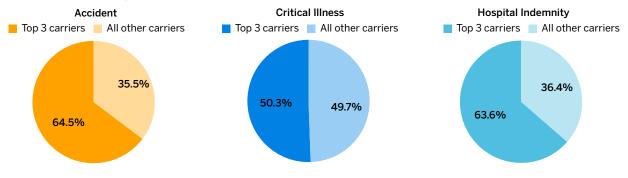


FIGURE 4: 2019 IN-FORCE PREMIUM BY MARKET TYPE

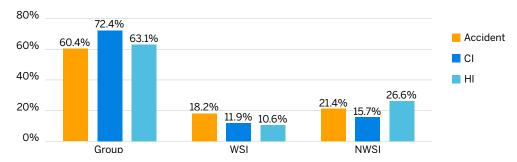


FIGURE 5: 2019 AVERAGE IN-FORCE PREMIUM



FIGURE 6: COMMISSION STRUCTURES

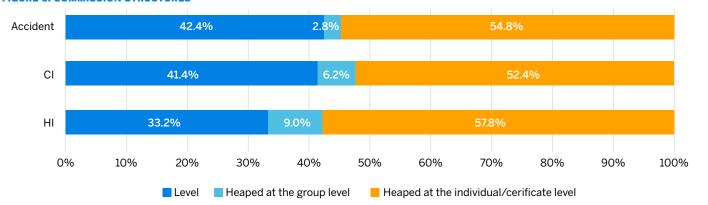


FIGURE 7: TOP 3 RISKS

ACCIDENT	CRITICAL ILLNESSS	HOSPITAL INDEMNITY
Elevated expense margins	Competition	Elevated expense margins
Competition	Adverse lapse experience	Adverse lapse experience
Adverse lapse experience	Elevated expense margins	Premium rate pressure

TOP THREE COMPETITORS

The highly competitive nature of the supplemental market is a clear thread through our reports. In each survey, respondents were asked which carriers they consider to be their top competitors. The responses are summarized in Figure 8.

FIGURE 8: TOP 3 COMPETITORS

ACCIDENT	CRITICAL ILLNESSS	HOSPITAL INDEMNITY
Aflac	Aflac	Aflac
Colonial	MetLife	Colonial
Allstate	Colonial	MetLife

Future research

We are currently concluding our 2020 research projects. If you have ideas for future surveys or feedback about past surveys, we would love to hear from you.

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Moving online: spring 2021

For 40 years, Milliman has published disability insurance insight from leading experts and served as a forum for professionals in the disability income field. To ensure we're sharing insightful articles and studies on disability and supplemental benefits with the widest audience possible, we'll publish the Disability Newsletter on milliman.com next year and no longer require a subscription. Past issues will also be available on **milliman.com**. This change to a digital format also supports Milliman's continuing goal to create more environmentally sustainable business practices.

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We look forward to sharing our thought leadership in this new format.



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