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INDIVIDUAL DISABILITY INCOME VERSUS CREDIT DISABILITY

Within the discussion of the role of credit disability insurance in providing loan protection, industry critics often argue that credit disability premium rates are too high and consumers would be better served by purchasing other types of disability insurance policies to cover their loan protection needs.

These same critics also argue that credit disability insurance provides lower consumer value because the historical loss ratio may be lower than some other types of insurance products which they believe provide better consumer value, in terms of loss ratio, than a credit disability policy.

The facts do not support either of the above positions. While the demonstration below is not an exhaustive study nor does it purport to recommend a course of action for any given borrower, the conclusion is that, relative to other available disability products, credit disability is a reasonably priced product and – if loss ratio is in fact a valid measure of consumer value – credit disability provides comparable value to consumers.

Premium Cost Comparison

Critics of credit disability insurance make claims that there are other less costly and higher value alternatives; however, they do not offer valid comparisons for perhaps a variety of reasons.

- There is a lack of easily accessible public information regarding prices for comparable disability income products.
- Disability income products are not as readily available in the market place as life insurance products.
- When they are available, disability income products tend to have far more complicated policy characteristics in the form of benefit amounts, waiting periods, maximum durations of benefits (short term or long term), eligibility provisions, and underwriting/pricing differences such as age, gender, health, income, occupation, and/or industry.
- Credit Disability insurance is sold in amounts restricted by regulation to only cover the exposure created by the consumer loan for which the coverage is sold. Conversely, other disability income insurance products can be purchased at much larger face amounts that can greatly exceed the amount of coverage needed to protect a consumer loan transaction. The cost per $100 of monthly benefit can be lower but the overall premium cost is still substantially higher. This concept of increased pricing efficiency with increased volume is not unique to insurance but it is an important consideration when comparing different types of disability income products and **should be kept in mind as you review the discussion below about the non-claim margins available in the different premium rates.**

Overall, non-credit insurance disability income products are not as simple, convenient, or suitable for protecting loan transactions as traditional credit disability products. Despite these challenges, we have performed a comparison using available information.

In order to find comparable products, we began by exploring the typical consumer buying decision process. When a consumer borrows money, they take on a financial risk that they will not be able to repay the loan if an unexpected disability occurs leading to a loss of income. If that borrower wishes to protect themselves from this increased risk exposure, the most convenient approach is to purchase the credit disability coverage generally available through the lender.

If credit disability coverage is not available through the lender, what are the alternatives? Some borrowers could look to their employer who may provide some disability coverage offered on a voluntary basis. These plans, when they are offered, provide a good source of income protection; however, they are limited to replacing only a portion of income; generally, 50-65% of pre-disability income. This leaves a substantial income replacement gap.

Alternatively, a consumer may look to the individual disability income market for products to reduce this gap – and cover the new exposure – but individual disability income products typically have income replacement limits as well, so that even after combining these layers of protection the income gap is not completely eliminated. Credit disability insurance can be very helpful in reducing this gap.

For purposes of this paper, we have reviewed both worksite voluntary supplemental income products as well as individual disability income products and compared them to credit disability products relative to price and loss ratios.

Worksite Voluntary Supplemental Disability policies are offered by employers directly to their employees. Coverage is designed to supplement any employer-provided short term disability coverage, and in some cases, long term disability coverage. Pricing generally reflects age and, since this is coverage offered at the worksite, the premiums also usually reflect the industry of the employer. For policies in force during 2014-2015 the average premium amount for all group short term policies was $523. Public information combines data for both employer-provided and voluntary plans, so a separation of the statistics is not possible. However, while the average premium for voluntary supplemental programs is not available, the average premium would generally be higher than for non-contributory plans to reflect the adverse selection that will occur for a voluntary program as well as higher administrative costs for these products. In other words, the average premium for voluntary supplemental products is likely to significantly exceed $523.

Individual Disability Income policies are purchased directly by the individual; however, benefits are often integrated with employer provided policies, social security, and other disability income benefits in order to minimize the risk of over-insurance[1]. A by-product of this integration process is that the individual disability income policy rarely eliminates all the income lost when a disability occurs. In

[1] Over-insurance occurs when disability income benefits exceed pre-disability income thereby creating incentives to malinger and extend the disability recovery in order to receive these higher benefits. The greater the replacement ratio, the greater the incentive to malinger.

addition, fewer people qualify for individual disability income than credit disability income. Individual disability income products are complex products that are fully underwritten along with pricing that reflects age, gender, health status, occupation, and avocations. Coverage amounts are generally higher than credit-related coverage and so are average premiums. The average premium amount for policies in force during 2014-2015 was $638.

Credit Disability products are purchased in smaller amounts than either worksite voluntary or individual plans at rates that are the same for all insureds and do not vary by age, gender, or type of employment. These products are designed to be convenient to purchase, provide broad eligibility, with coverage amounts that best match the terms of the loan transaction, and do not consider other coverage relative to the borrower's income. For policies in force during 2014-2015, the average premium amount was only $102 which is considerably lower than either voluntary disability income or individual disability income products.

The Premium Comparison Procedure:

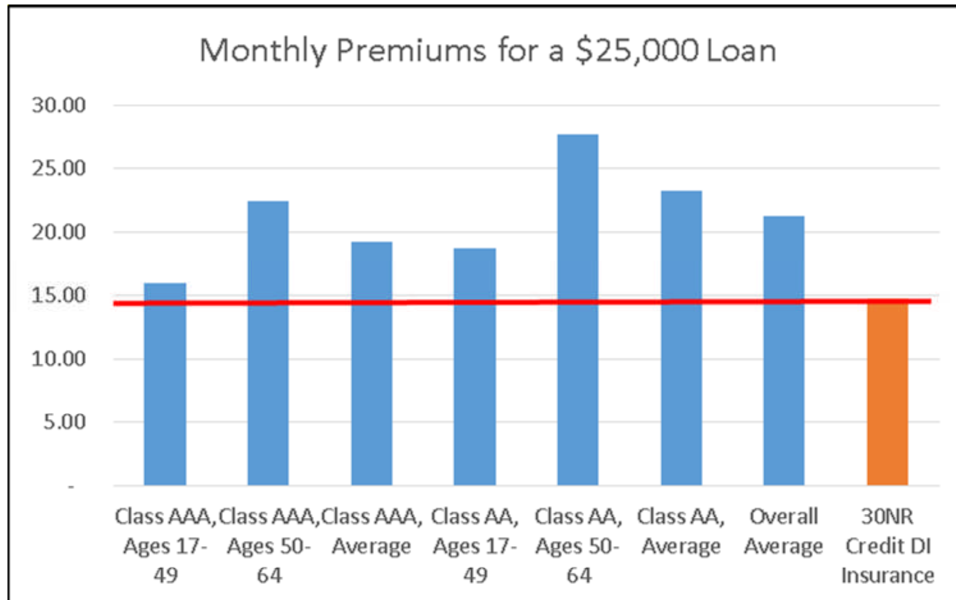
Worksite Voluntary Short Term Disability

Public information is not widely available for voluntary worksite disability income policies; however, we were able to download policy and rate information of the two leading carriers in the market. Based on an average of industry classes and ages, we determined that an average monthly premium rate for a comparable 30-day elimination, 24-month benefit period was $4.82 per $100 of monthly benefit.

For comparison purposes, suppose an individual took out a 48-month, $25,000 loan at 6% to purchase a new automobile. Based on a nationwide average 30-day elimination period credit disability rate for a 24-month critical period benefit of $2.17 per $100, we calculated that disability coverage would add $14.72 per month to the cost of the loan including the cost of financing that premium.

Maintaining voluntary disability income coverage in the amount of the loan payment ($587.13) and adjusting coverage to reflect decreasing critical period coverage after 24 months produces a monthly premium of $21.52 – or 46% higher than the cost of credit disability coverage. If the minimum issue amounts available under a voluntary worksite disability program are greater than required to cover a given loan transaction, the actual out-of-pocket cost to the consumer would be even greater. Based upon this analysis, credit disability insurance is a better consumer value.

As graphically illustrated in the following table, credit disability insurance premiums were actually the lowest of all the age and industry options we examined.



Individual Disability Income Insurance

Public information for individual disability income policies is rare. However, the following table of values was extracted from a publicly available quote engine published by one provider of individual disability income. Their product is offered in a variety of configurations; one of which is a 30NR elimination period with a 24-month benefit period which makes it comparable to a 30NR credit disability policy. Pricing is variable based upon age, gender, occupation, and benefit period; however, benefit amounts do not appear to be available below $1,000 per month which would over protect most typical consumer credit transactions. For this comparison, we used the current average issue age of 42 for a credit disability policy along with a reasonable blend of gender and occupation and a benefit period of 24 months. These assumptions produced an average monthly premium per $1,000 of monthly benefits is $65.79 or $6.58 per $100 of monthly benefits.

Occupation Class	Male	Female	Blended (60/40)	Weightings
Labor	$ 83.89	$ 105.83	$ 92.67	20%
Light Labor	$ 63.76	$ 80.43	$ 70.43	40%
Technical	$ 50.33	$ 63.50	$ 55.60	20%
Professional	$ 38.59	$ 48.68	$ 42.63	10%
Executive	$ 33.56	$ 42.33	$ 37.07	10%
Average	$ 59.56	$ 75.14	$ 65.79	100%

Using the same loan example that was used for the voluntary supplemental disability income analysis with the same adjustment for decreasing coverage need after 24 months, if this type of coverage were available, the premium to protect the monthly loan payment of $587.13 would be $29.37 per month or 100% greater than the average cost for a similar credit disability policy of $14.72. If the minimum issue amount is $1,000, the actual premium cost for the smallest available individual disability income policy would be 347% higher than the average cost for a similar credit disability policy. Based upon this

limited analysis, credit disability insurance can be a significantly better consumer value for typical consumer loans.

Policyholder Return Comparison

Critics of insurance in general – and credit disability insurance in particular – often maintain that the value of an insurance policy to the consumer can be measured solely in terms of the aggregate amount of claims paid to consumers in relationship to the premium paid by those consumers, i.e., the loss ratio[2]. In the view of the critics, the higher the loss ratio, the greater the consumer value regardless of average premium amount per policy, product features, and other product characteristics. The minimum acceptable value for such loss ratio (the benchmark loss ratio) is oftentimes chosen without consideration for specific product characteristics, reasonable margins for the distribution and administration of the insurance product, or other consumer decision making criteria. Critics state that the loss ratio reported for credit disability products is too low based upon their chosen benchmark loss ratio. However, **it is not that simple.**

The Procedure

The data source for our analysis is the NAIC Accident & Health Experience Reports for 2015 and 2016. These reports provide information for all health insurance products in force during the years 2014-2015.

Short Term Disability income - Countrywide (2014-15) All Annual State Types	Earned Premiums	Incurred Claims	Calculated Loss Ratio	Number of Policies or Certificates In/Force as of 12/31/15	Average Annual Premium per Policy or Certificate	Premium margin available for non-claim components	Premium adjusted Benchmark Loss Ratio
IndividualShort Term Disability Total	$4,561,051,886	$2,115,243,607	46.4%	7,148,648	$638.03	$342.14	50.0%
Credit Disability (Individual & Group)	$1,949,337,212	$673,261,270	34.5%	19,112,934	$101.99	$66.77	36.6%
Source: NAIC Accident & Health Experience Report for 2014 published in 2015 and the report for 2015 published in 2016.							

There are several important observations that can be made based upon this data in order to avoid false conclusions.

- The volume of credit insurance premium is much smaller than individual short term disability income;
- The reported incurred loss ratio for credit disability insurance is lower; however, the average premium per policy is also substantially lower for credit insurance policies as compared to the other forms of disability income coverage;
- As documented in Exhibit II, this most recent experience period represents a relatively low point in the historical loss ratio patterns for disability insurance. Experience tends to follow economic cycles such that current loss ratio values do not represent the long term averages;
- Even with a lower loss ratio, the dollar amount of premium per policy that is available for the non-claim components is significantly lower for credit disability policies and makes covering all non-

[2] The loss ratio is generally defined as the ratio of claims incurred divided by premiums earned. It is a measure of the tangible benefits and does not include the intangible benefits received such as “peace of mind”.

claim components such as product manufacturing, distribution, administration, taxes, and risk management more difficult for credit disability policies than individual disability income policies;
- The NAIC based *premium adjusted benchmark loss ratios* are different, with the low average premium credit disability policy having the lowest benchmark loss ratio. The following discussion further explains this difference and the source for the calculations.

NAIC Benchmark Loss Ratios

The National Association of Insurance Commissioners (NAIC) Consumer Credit Insurance Model Regulation, Section 4A (adopted in October 1994) includes the following provision for a component rating[3,4] approach to credit insurance regulation.

> *"Benefits provided by consumer credit insurance policies must be reasonable in relation to the premium charged. This requirement is satisfied if the premium rate charged develops or may reasonably be expected to develop a loss ratio of not less than sixty percent (60%) or such lower loss ratio as designated by the Commissioner to afford a reasonable allowance for actual and expected loss experience, general and administrative expenses, reasonable creditor compensation, investment income, the manner in which premiums are charged and other acquisition costs, reserves, taxes, regulatory license fees and fund assessments, reasonable insurer profit and other relevant data."*

This provision gives the insurance commissioner the latitude to set a lower benchmark loss ratio that considers all of the various margins that the insurance premium must cover in a way that meets the Actuarial Standards of Practice.

Beyond the component rating guidance offered by the NAIC, there is further loss ratio guidance presented in the *NAIC Health Insurance Model Act – Guidelines for filing of rates for individual health insurance forms.* This model regulation (see Exhibit I) provides different benchmark loss ratios ranging from 45% to 60% based upon renewability provisions of the policy as well as adjustments for unusually low or unusually high average premiums. These adjustments reflect higher/lower risk factors and higher/lower administrative costs for different insurance products.

Individual disability income insurance policies generally are not cancellable but do allow for periodic adjustments in premiums, according to experience and subject to state approval; i.e. guaranteed renewable. Based upon these assumptions, the preliminary benchmark loss ratio used for this analysis is 50% for individual DI products. After adjusting for average premiums, the formula produces an adjusted benchmark loss ratio of 50% as well. For credit disability policies, about 45% of the business is on a single premium basis which would be considered non-cancellable (45% preliminary benchmark loss ratio) and about 55% of the business is on a monthly premium basis which would be considered conditionally

[3] *Loss Ratio versus Component Based Pricing - In the Regulation of Credit-Related Insurance Products* published in March 2016 by Christopher Hause and Keith Nelson.

[4] *Component Based Pricing Methodology -For the Regulation and Pricing of Credit-Related Insurance Products* published in August 2016 by Christopher Hause and Keith Nelson.

renewable (55% preliminary benchmark loss ratio). The weighted average NAIC benchmark loss ratio, after adjusting for the low average premium size, is 36.6%.

Product and Premium Payment Mode	NAIC Minimum Loss Ratio Benchmark	Loss Ratio Benchmark adjusted for low average premium	Actual Loss Ratio for 2014- 2015	Ratio of Actual LR to Adjusted Benchmark LR
Individual Short Term DI	50%	50.0%	46.4%	92.8%
Single Premium Credit	45%	32.6%		
Monthly Premium Credit	55%	36.7%		
Weighted Average Credit	51%	36.6%	34.5%	94.5%

Comparing historically low actual experience for the years 2014-2015 to these premium adjusted benchmark loss ratios, credit disability actual experience is about 94.5% of the NAIC Premium Adjusted Benchmark Loss Ratio while for individual disability income, actual experience is about 92.8% of the NAIC Benchmark. Based upon this measure and relative comparisons, credit disability provides a return that is reasonably consistent with that of individual disability income products available in the marketplace.

Overall, despite the lower observed loss ratio for credit disability, by NAIC standards for individual contracts, the numerical value of the loss ratio is reasonable in comparison to other available products. Furthermore, the average credit disability premium margin of $66 available per year for non-claim components sets an exceptionally efficient administrative standard for these products compared to other disability products available to the consumer. To squeeze this margin further by applying a higher benchmark loss ratio would further decrease accessibility to these valuable consumer products.

The argument as to whether alternative sources of disability income coverage is a better option than credit disability insurance relative to rates and loss ratio will likely go on; however, the supposed superiority of comparable disability income products in terms of providing value to the policyholder in terms of cost and loss ratio is not supported by the facts.

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About the Author

Christopher Hause is the President of Hause Actuarial Solutions, Inc. in Overland Park, Kansas. Hause Actuarial is an actuarial consulting firm providing a wide range of consulting services to the insurance industry including product design/pricing, policy and claim reserves, financial statement opinions, regulatory advocacy, and actuarial software programs that assist insurance actuaries in evaluating, pricing and modeling life, health and annuity products.

Exhibit I

NAIC Model Health Insurance Rate Regulation Loss Ratio Benchmarks

(1) With respect to a new form under which the average annual premium as defined in Paragraph (5) below, is expected to be at least as large as the maximum $X in Paragraph (3) below but not more than the minimum $X in Paragraph (4) below, benefits shall be deemed reasonable in relation to premiums provided the anticipated loss ratio is at least as great as shown in the following table:

Individual Disability Income				
Renewal Clause	OR	CR	GR	NC
Loss Ratio Benchmark	60%	55%	50%	45%

(2) Definitions of Renewal Clause

OR - Optionally Renewable: renewal is at the option of the insurance company.

CR - Conditionally Renewable: renewal can be declined by class, by geographic area or for stated reasons other than deterioration of health.

GR - Guaranteed Renewable: renewal cannot be declined by the insurance company for any reason, but the insurance company can revise rates on a class basis.

NC - Non-Cancelable: renewal cannot be declined nor can rates be revised by the insurance company.

(3) Low Average Premium Forms

For a policy form, including riders and endorsements, under which the expected average annual premium per policy is low (as defined below), the appropriate ratio from the table above should be adjusted downward by the following formula:

$$RN = R \times \frac{(I \times 500) + X}{(I \times 750)}$$

Where: R is the table ratio

RN is the resulting guideline ratio

I is the consumer price index factor

X is the average annual premium up to a maximum of I x 250.

The factor I is determined as follows:

$$I = \frac{\text{CPI-U, Year (N-1)}}{\text{CPI-U, (1982)}}$$

Where;

(a) (N-1) is the calendar year immediately preceding the calendar year (N) in which the rate filing is submitted in the state;

(b) CPI-U is the consumer price index for all urban consumers, for all items, and for all regions of the U.S. combined, as determined by the U.S. Department of Labor, Bureau of Labor Statistics;

(c) The CPI-U for any year (N-1) is taken as the value of September;

(4) High Average Premium Forms

For a policy form, including riders and endorsements, under which the expected average annual premium per policy is high (as defined below), the appropriate ratio from the table above should be adjusted upward by the following formula:

$$RN = R \times \frac{((I \times 4000) + X)}{(I \times 5500)}$$

Where: R is the table ratio

RN is the resulting guideline ratio

I is the consumer price index factor (as defined in

Paragraph (3) above), or

X is an average annual premium exceeding I x 1500.

In no event, however, shall RN exceed the lesser of:

(a) R + 5 percentage points, or

(b) 63%

(5) Determination of Average Premium

The average annual premium per policy shall be estimated by the insurer based on an anticipated distribution of business by all significant criteria having a price difference, such as age, sex, amount, dependent status, rider frequency, etc., except assuming an annual mode for all policies (i.e., the fractional premium loading shall not affect the average annual premium or anticipated loss ratio calculation).

Exhibit II

Historical Loss Ratios for Credit Disability Insurance