

Key Themes

- Few changes were announced in the latest Dividend Interest Rate after an unprecedented year of interest rate increases.
- It is important to fully understand how the Dividend Interest Rate, Mortality Experience and Expenses impact the performance of whole life policies over time.
- Astute policy owners should seek forthright, informed, competent insurance professionals to help them comprehend carrier policy communications and illustrations so they may properly steer their whole life policies through the uncertain waters ahead.

Introduction

Whole life products have consistently comprised almost one-third of all new life insurance premiums in the U.S. This form of life insurance that was created in the mid-1800s is still offered close to its original conception, mostly by mutual life insurance companies. The four large remaining mutual life companies (Northwestern, New York Life, Mass Mutual, and Guardian) collectively sell more than 50% of all whole life premiums in the U.S., more than all other companies combined! Most of the whole life policies issued by these companies are offered by their career agents, but New York Life and Mass Mutual have also made these products available through independent insurance brokers.

The mainspring that drives how these products work is the dividend paid at the end of the policy year. Whole life premiums are based on conservative guaranteed pricing assumptions, with a portion of the premium returned via a non-guaranteed dividend to the policy owners that is often accumulated in the policy. The sustainability of dividends ends up being the unknown "x factor" in evaluating any existing or proposed whole life contract.

This whitepaper attempts to provide an independent assessment of the impact higher interest rates and resulting falling bond prices will have on dividends.

Terms to Know

The following terms or acronyms are used frequently in the text, exhibits, and tables of this article.

DIR – Dividend Interest Rate which is the interest component of the Dividend Scale.

Dividend Scale – A combination of the DIR, expenses, and mortality experience used to determine the dividend payable to a given policy.

GLIC – Guardian Life Insurance Company

MM - MassMutual

NYL - New York Life

NML – Northwestern Mutual Life

The Impact (or Lack Thereof) of 2022 Interest Rate Increases

Despite the massive increase in interest rates in 2022, the announcement of life insurer 2023 whole life dividend scales brought little announced change in the most common quoted element – the Dividend Interest Rate (DIR). The Federal Reserve interest rate (fed funds rate) was increased at the fastest cycle in history in 2022 with seven increases totaling 4.25%. This pushed borrowing costs to a 15-year high while inflation was at a 40-year high. Yet as Exhibit A shows, only two of the announcements reviewed for this article increased the DIR. The bulk of the announcements held the DIR steady.

The lack of an uptick in DIRs for most companies is logical for multiple reasons:

The ALIRT Life Composite (consisting of 100 of the largest U.S. life insurers) indicated the net total return on investments in the first nine months of 2022 was just 2.80% on an annualized basis, reflecting lower investment yields and capital losses (i.e. reduced value of

Insurer	2023 DIR	Change from 2022
Northwestern Mutual	5.00%	0.00%
New York Life	5.80%	0.00%
Mass Mutual	6.00%	0.00%
Guardian	5.75%	0.10%
Metropolitan Life Ins Co Closed Block Open Block	4.00%-5.25% 3.80%-4.05%	-0.50% 0.00%
Ohio National Closed Block Open Block	4.00% 4.00%	0.00% 0.00%
Penn Mutual	5.75%	0.00%
Security Mutual	5.20%	0.00%
Nassau	4.90%	0.50%
Ameritas	4.60%	0.00%

Exhibit A - 2023 Dividend Interest Rate (DIR)

hedging derivatives). In addition, the annualized net investment yield equaled 4.01% in the first nine months of 2022 - a decline of 31 basis points from the full-year 2021 yield.

- Insurer average bond maturities have been on an increasing trend for a decade (Exhibit B^{iv}) which locked in the low interest rates of the past for longer time periods.
- The approximate rate of bond portfolio turnover is 10% or less each year (Exhibit C^v). Thus, only a portion of the portfolio will naturally mature, triggering a new purchase which creates the possibility of an increase in yield. Even then, there's no assurance the maturing bond yield is lower than new bond yields, especially for long duration bonds. If the maturing bond yield is higher than current yields, buying new bonds may still result in a drag on the portfolio yield.
- Dividend formulas incorporate undisclosed elements including mortality experience and expenses that may have a material impact on the actual dividend credited to a policy. Unfortunately, those elements aren't typically reported to the general public.

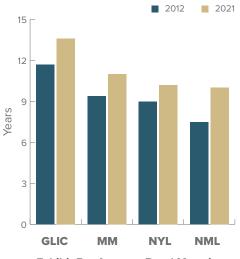


Exhibit B - Average Bond Maturity

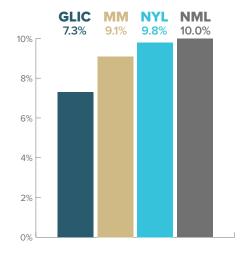


Exhibit C - Estimated Annual Bond Turnover Rate

Dividends Aren't Simply Interest

If you ever bought a whole life policy, you were likely told all about the "dividend". The insurers promoting participating whole life have numerous studies, brochures, and marketing materials that list out the dividend interest rate year by year. The natural consumer inference is that the "dividend" is the dividend interest rate being touted in sales materials. That's a mistaken inference. Dividends primarily are comprised of the dividend interest rate (DIR), mortality experience, and expenses. The insurers rarely broadly disclose the positive or negative impact that mortality experience or expenses have on the dividend calculation. Press releases typically announce the total estimated dividends to be paid (i.e. \$1.8 billion) and possibly the single element of the Dividend Interest Rate (i.e. 5.00%). This results in policy owners having incomplete information regarding their policy.

Exhibit D shows basic whole life earnings math using values taken from a MassMutual brochure. In this simplified example, you can see the reduction of the earnings by the policy and mortality expense components of the dividend. The net effect will vary for any given policy, but this example shows how those components matter.





Yes, 6.00% interest is applied (part of which was guaranteed). The net year-over-year growth in the cash value when adjusting for the new premiums paid is 3.57%. Therein lies the issue. An insurer's marketing materials will likely showcase the 6.00% DIR, but the net effect in this specific example is far less than 6.00%. The net effect will fluctuate from year to year based on the aforementioned factors.

Insurer marketing materials speak in generalities while a specific policy's dividend calculation reflects its unique facts and circumstances. The dividend formula may be based on several factors including the product series, age of the insured, gender, length of time policy has been in effect, face amount, use of policy loans, loan interest type elected (fixed vs. variable rate), the existence of certain riders or additional benefits, underwriting classification, and the dividend option selected. The total of those variables and what they yield after the smoke clears is what matters to the policy owner. Thus, two policy owners may have very different results. The results may even differ materially based on choices a policy owner makes. For example, in an early 2023 review of an in force whole life policy, illustrations reflected annual dividends of just under \$2,000 when the policy owner elected to pay the premium each year. An alternative illustration showing the policy owner electing a reduced paid-up option (where no premiums are due) reflected all future years of dividends as \$0. Fortunately, the owner was able to make an informed decision by reviewing the in force illustrations and understanding the tradeoffs of each path.

There are footnotes and disclaimers in sales material, statements, and illustrations that state other factors are at play, but they aren't particularly helpful in terms of enlightening the consumer on the impact of choices. Industry jargon is confusing, and consumers are exposed to so many disclosures in their daily lives that disclosures can get ignored. A competent agent who actively services the policies can go a long way toward bridging the understanding gap, but the well-documented attrition of agents in the insurance business leaves many consumers as orphan policyholders.

What's the Harm in Only Referencing the DIR?

Only referencing the DIR may unintentionally mislead a policy owner about the long-term vitality of their policy. Disclosures don't necessarily equate to consumer understanding and may not overcome marketing that highlights only the DIR. It's akin to the end of radio commercials spewing forth all sorts of mandated disclosures at quadruple the speed of the rest of the commercial. It doesn't register because consumers' attention has been focused elsewhere. Using the values from Exhibit D, would the consumer feel the same if they knew the mortality and expenses could drag down the after-expense impact of the DIR by 39%? That doesn't mean they don't value their policy or that it's worth less in their eyes. That information just gives them realistic expectations for growth in their policy over time and helps them understand the other factors at play.

Another significant problem is the potential for the policy owner to act (or fail to act) on misunderstood data. Would the average consumer understand that their policy could be negatively impacted if the only thing they were told is the DIR stayed the same? It's doubtful. How many policy owners regularly get in force illustrations showing them the long-term direction of their policy under the current or reduced dividends? How many know they may have to start paying premiums again because dividends are insufficient down the road or because of accrual of policy loans used to pay premiums?

The Example You Already Missed

This paper already contains a perfect example of why the DIR is misleading compared to the net dividend paid to the consumer. Look back at Exhibit A. Can you identify which of those insurers' 2023 dividend will only be "at least equal to 75% of the 2022 dividend, prior to loan adjustments"? You can't tell which insurer because the information presented in Exhibit A only discusses the DIR – just like many insurer marketing brochures. The carrier that may be giving some people a 25% reduction in dividends is Nassau - the same insurer that is increasing the DIR by 50 basis points! To the credit of Nassau, they disclosed on their website that they were adjusting the mortality component to reflect recent experience and that some policyholders would be detrimentally impacted. "I As a policy owner, wouldn't you rather know that you might be impacted negatively by being given a full disclosure instead of only being shown the DIR increase and perhaps incorrectly assuming all is well? You would at least have the option to investigate further and determine the best course of action for your policy, goals, and resources.

Need another example? How about an excerpt from an in force policy statement stating a decline in a dividend amount when the insurer's dividend announcement^{ix} only mentioned they "maintained a 6.00% dividend interest rate"? This was from 2022, but again it highlights the need to look beyond the DIR.

"...has declared a new dividend schedule for 2022. Under the new schedule, one or more of the dividend amounts for the current and future policy years that is attributable to your current basic policy coverage and fully paid additional insurance coverage is lower than it was under last year's dividend schedule."

Kudos to the insurer for letting the policy owner know the policy was impacted. That's a step in the right direction, but why must the consumer be left to interpret that statement? There's no guidance as to how the DIR impacts the policy long-term or how it may create risk for the policy owner. Fortunately, this policy owner had a competent trustee who engaged an insurance professional to help investigate and evaluate the implications to the policy.

Future Mortality Expectations

With mortality experience a key component of dividends, it's logical to question expectations of favorable mortality results considering the ongoing mental and physical health challenges from COVID-19. However, it's important to recognize that mortality outside of COVID-19 has risen substantially as well. American life expectancy declined by over seven months in 2021, which followed a decline of 1.8 years in 2020. Life expectancy for someone born in the United States is now at its lowest level in nearly 20 years.*

Actuaries will continue to study the direct and indirect impact of COVID-19 on mortality, but it will take 5-10 years to have sufficient data to begin to better understand the impact. Little is known about postacute sequelae of COVID-19 (PASC) - best known as "long COVID", but it is on the minds of actuaries and underwriters. Until such experience data is available, we can look at a few other data points:

- Exhibit E^{xi} shows the rapid rise in benefits paid to beneficiaries by U.S. life insurers in 2020 and 2021, according to CNBC. The 15% increase in 2020 is the largest year-over-year percentage increase since the 1918 influenza epidemic. There has been a 28% jump in benefits paid since 2019.
- CNBC also reported that long COVID-19 has affected as many as 23 million Americans and may cost the U.S. economy \$3.7 trillion.
- A Milliman study^{xii} reported total mortality increases over "normal" mortality were 20% for 2021 with the largest increase in the 25-54 age ranges. In the 35-44 age range, the increase over normal mortality was over 50% for males and 45% for females with less than half of the extra mortality linked to COVID-19.
- The same Milliman study noted long COVID-19 "may turn out to be a substantive phenomenon and, in turn, may cause future mortality rates to be higher than otherwise expected" and that delays in elective screening and healthcare "may have led to reduced diagnoses" which "may cause future mortality rates to be higher than otherwise expected".



Exhibit E - Benefits Paid to Beneficiaries

• An expert opinion surveyxiii by the Society of Actuaries Research Institute regarding the short-term impact on future U.S. mortality indicated an expectation for increased excess mortality through 2030.

An interesting element of the Milliman research was the potential need to reconsider pandemic modeling and requisite economic capital. The 1918 influenza pandemic was thought to be a one-in-400-year event, but COVID-19 has produced excess mortality similar to the 1918 pandemic. That's two pandemics of similar severity in just over 100 years (not 400 as thought). If actuaries determine pandemic modeling needs to be adjusted for greater occurrence frequency, it could lead to additional capital requirements which could also be a strain on the dividend calculations for insurers.

Even though the exact path and outcomes are yet to be determined, clearly future mortality is a legitimate and significant concern. The Nassau dividend announcement implied unfavorable mortality experience. Will other insurers adjust to reflect their own worsened experience? Have insurers already adjusted but not informed policy owners of the changes? The lack of disclosure on mortality elements makes it nearly impossible to know.

A Prudent Approach: Request In force Illustrations Annually

Dividends will continue to face the headwinds of low bond yields from investments already held. Will interest rates continue to rise, or will they decline? It's impossible to know, but only a small portion of insurer investments will turn over each year to take advantage of any increases that may occur. Current high inflation would seem to cast a shadow on expense elements of a dividend formula. Mortality results appear to have been generally unfavorable with potential storm clouds on the horizon. The future path of dividends is uncertain, but it's clear that relying on nothing more than an announced change in the DIR is a perilous path.

Prudent owners and prospective purchasers will demand detailed information on the after-expense results so they may make informed buying decisions. They will request and carefully examine illustrations at current and reduced dividend scales to better understand the potential path of their policy and identify any corrective actions required. Astute owners will seek forthright, informed, competent insurance professionals to help them comprehend carrier policy communications and illustrations so they may properly steer their whole life policies through the uncertain waters ahead.

Conclusion

There's no denying the long history of insurers paying dividends to whole life policy owners. Whole life policies may provide a sound life insurance option depending upon the owner's risk tolerance and long-term goals. Whole life policies have strong premium and death benefit guarantees. Cash value growth, above any guaranteed amounts, will be tied to dividends. Dividends provide valuable growth in policies and may give the policy owner options and flexibility down the road. The DIR will be tied largely to bonds owned by the insurer, and mortality and expense experience will influence the net dividends.

It is critical to recognize that each policy is unique in the level of reliance on dividends. Newer whole life policies have less robust guarantees due to changes in IRS Code 7702 in December of 2021. These policies will have a greater reliance on the dividend for growth in cash values and death benefits as the guaranteed growth is lower. Policy structure plays a role as well. When premiums are paid each year, a pure whole life policy will be positively impacted by the dividend. However, a policy that is a mixture of whole life and dividend-funded term insurance will be very reliant on the dividends to cover the escalating cost of the term over time. If dividends fall, it will adversely impact the policy. In addition, the approach to paying premiums matters. A policy owner who wishes to avoid out-of-pocket outlays for premiums may be reliant on the dividend to cover the premium amount or policy loans to cover the premium. Either path necessitates a certain level of dividend performance for long-term success.

Given the distinctive nature of each whole life policy and varying reliance on dividends, policy owners need to avoid focusing on the sound bite of Dividend Interest Rates. They must recognize that the policy needs to be monitored and managed over time. This starts with routine in force illustrations at varying dividend assumptions to help understand and recognize the role of dividends in the policy. For most policy owners, competent guidance is needed to ensure the policy will be in sound shape when benefits are needed. If the agent is no longer around or the relationship has faded over time, a policy owner can choose to work with an independent life insurance professional who will help them evaluate their current policy options and other options in the marketplace when policies are distressed. Information and understanding are key, starting with going beyond the Dividend Interest Rate.

- ¹ Federal Reserve Interest Rates and How They Affect You. David Change Updated Dec. 19, 2022, https://www.fool.com/the-ascent/federal-reserve-interest-rates/
- Dividend interest rate information discussed herein is taken from insurer press releases, field bulletins, FAQs, emails, and marketing materials in 2023 and other years.
- Data for the ALIRT Life Composite; U.S. Life Insurance Industry Review: Nine Months 2022, November 29, 2022 ALIRT Insurance Research. The ALIRT Life Composite consists of 100 of the largest U.S. life insurers representing 88% of industry general account invested assets.
- Insurer statutory data filings for 2021. 2022 data not available at the time this report was created. Assumes weighted average bond duration assuming 0.6 year duration for bonds < 1 year maturities, 3 years for bonds 1-5 year maturities, 7.5 years for bonds 5-10 year maturities, 15 years for bonds 10-20 year maturities, and 25 years for bonds >20 year maturities.
- Derived from the estimated weighted average bond maturities. Assumes weighted average bond duration assuming 0.6 year duration for bonds < 1 year maturities, 3 years for bonds 1-5 year maturities, 7.5 years for bonds 5-10 year maturities, 15 years for bonds 10-20 year maturities, and 25 years for bonds >20 year maturities.
- vi A Simplified Look at How the Dividend Interest Rate is Applied, © 2022 Massachusetts Mutual Life Insurance Company; LI7159 1022 MM202311-302951
- vii \$27,651/(\$23,703 + \$2,995)-1
- viii Information from Nassau website on 1/3/2023. Dividend Scale. How we calculate dividends. https://nfg.com/how-we-set-our-dividend-scale.html
- https://www.massmutual.com/about-us/news-and-press-releases/press-releases/2022/11/record-policyowner-dividend-announced-bymassmutual Excerpt from an inforce MassMutual policy communication.
- * American Life Expectancy is Now at Its Lowest in Nearly Two Decades, NPR.org, Yuki Noguchi, December 22, 2022. https://www.npr.org/sections/health-shots/2022/12/22/1144864971/american-life-expectancy-is-now-at-its-lowest-in-nearly-two-decades
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- ***How does our experience with Covid-19 impact the life insurance industry going forward? Us.milliman.com, Stuart Silverman, Justin Li, and Chelsea Wang, June 7, 2022 https://us.milliman.com/en/insight/how-does-covid-19-impact-the-life-insurance-industry-going-forward
- xiiiCovid-19 and the Short-Term Impact on Future U.S. Mortality, August 2022, SOA Research Institute, Ronora Stryker, ASA, MAAA