Actuarial Risk Management
Global Actuarial Consultancy

Crossing Thin Ice
2Q2024 Issue 10

Contents

Sign up for our June 12 webcast where we will discuss these articles

+1 512-345-5200 | info@actrisk.com | www.actrisk.com | 5914 West Courtyard Drive, Suite 190. Austin, Texas 78730

To Our Subscribers

We want to thank our new subscribers and welcome everyone to the tenth issue of the ARM Crossing Thin Ice newsletter! We hope that you find this publication valuable. With a few short articles meant to provide unique and valuable insights, we present ideas about how to address specific issues related to ERM and introduce potential risks and opportunities that may not yet be on your radar.

The primary authors are Dave Ingram and Max Rudolph. We have been active participants in the risk management, actuarial, investment and insurance spaces for many years.

Subscribers are encouraged to suggest topics for articles and ask questions of the authors during our follow-up webinars and podcasts. Ever cognizant of regulatory requirements and leveraging them to add value in practical ways is our focus.

Sponsored by **Actuarial Risk Management (ARM),** Crossing Thin Ice is free to all readers and in all forms.

A free webcast and podcast with the same name are also available. If you would like to further engage the authors as consultants, for continuing education purposes or to join our Risk Management Discussion Group, please reach out. More info can be found throughout this newsletter. We hope to help you find a solution that meets your needs!

Please forward to others who study risk.
For more details
Visit **www.actrisk.com** and subscribe to
Crossing Thin Ice
on your favorite podcast platform

We hope you will join us on our journey!

Sign-up to receive future newsletters automatically at

https://www.actrisk.com/srse

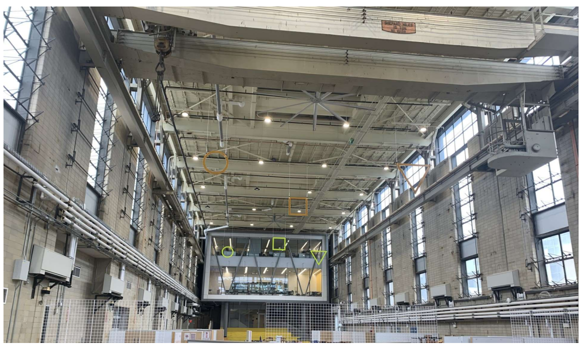
The content of this newsletter is meant to be educational and thought provoking.

Nothing in it should be interpreted as investment advice.

+1 512-345-5200 | info@actrisk.com | www.actrisk.com | 5914 West Courtyard Drive, Suite 190. Austin, Texas 78730

Is there a role for zero cash flow assets?

Whether a product of today's added complexity or a result of the recent reach for yield when rates are low, more assets are being held by insurance companies with irregular or deferred cash flows. Some find this a natural progression, while others never find it appropriate. The answer is somewhere in the middle. It depends, but often can add value when done in moderation. This article will walk us through examples that differentiate specific products between times of stability and stress.



Products and Methods

Let's look at two products. One is issued by a life insurer, a single premium deferred annuity (SPDA). One premium is received and earns interest based on the assets backing it in a segmented portfolio. The other is an auto insurance policy, issued by a property and casualty insurer, where a premium at the beginning of a period provides coverage for that period and is repriced each period. And a third situation will be assets that do not back a specific liability and are assigned to surplus.

For each of these three examples two scenarios will be presented. One will be a calm, stable, period where financial outcomes are strong. The second will be a stress scenario with high correlations between and within asset classes as market values drop.

Assets with no cash flows

Most asset cash flows are split between principal and income payments. As a simple example, you buy a bond, it pays interest periodically and the principal is repaid at maturity. There are a wide variety of options after that, with banks and shadow banks generating nearly any desired payment stream. Some assets, like non dividend paying equities, have no cash flows in perpetuity and bonds can build up principal rather than paying coupons.

SPDA

An SPDA is sensitive to interest rates. There is a guaranteed earned rate, so when rates fall the policy is more likely to persist. If rates are stable, or close to it, the block has a steady withdrawal rate. If rates rise quickly the policy holder can do better elsewhere so the insurer endures what resembles a run-on-the-bank.

Some insurers have invested in novel, illiquid asset classes like sports teams, venture capital or private equity. These have a wide range of structures and may rely on capital gains to provide future cash flows.

Assets are typically purchased to create cash flows, with some conservatism, that meet the time horizon of the liabilities. Some may need to be reinvested if income and principal arrive prior to the cash flow needs of the liabilities.

When markets are stable an SPDA is profitable, cash flows are manageable, and the assets are relatively liquid. While using all non-cash paying assets would make the block more fragile, the risk during these periods would be low.

+1 512-345-5200 | info@actrisk.com | www.actrisk.com | 5914 West Courtyard Drive, Suite 190. Austin, Texas 78730

Is there a role for zero cash flow assets? (Cont'd)

But markets don't remain stable forever. If rates change materially, in either direction, what had been a reasonable ALM duration or cash flow match demonstrates its convexity risk and the mismatch grows. For the SPDA, if rates rise, more cash is needed to pay withdrawals and the assets are less valuable, even if they are liquid. For an insurer with a concentrated block in SPDA this can lead to insolvency, especially if there was already an ALM mismatch. So if rates fall, an insurer bleeds slowly, and if rates rise quickly the insurer either becomes insolvent or survives and moves forward.

Auto insurance

An auto policy has premiums that offset claims and expenses. This is referred to as float and can be invested in longer duration and less liquid assets since most policies are retained due to auto insurance being legally required.

A competitive market-place provides few advantages for the car owner to constantly shop a policy. Having a non-cash generating asset in the portfolio is reasonable during both stable and stressed times. Liquidity, however, remains essential if cash claims rise due to parts/labor inflation or social inflation since there is a lag before premiums can catch up.

Surplus assets

Assets in a surplus portfolio have less need for cash flows or conservatism, but still must be available during times of stress such as following a natural disaster, market implosion or pandemic. The insurer's own building, along with illiquid assets and asset classes inconsistent with product investment strategy, is often found in the surplus portfolio. There are few restrictions, but it should be remembered that a form of leverage called enterprise, or surplus, duration includes these assets so can be used to double down or offset effective duration mismatches created elsewhere. It generally is a good home for the insurer to add yield including some non-cash paying assets.

Sign up to be the first to know about newsletters and surveys.

+1 512-345-5200 | info@actrisk.com | www.actrisk.com | 5914 West Courtyard Drive, Suite 190. Austin, Texas 78730

Is there a role for zero cash flow assets? (Cont'd)

Balance with other risks

Risk management is all about balancing risk and return, and part of that is managing risks so strong correlations in stressful times don’t overwhelm an asset portfolio. Interactions between interest rate risk, liquidity risk and credit risk should be balanced so a bad scenario doesn’t push an insurer into insolvency. Stress testing can identify where these overlaps occur.

Other risks of concern deal with concentration and thinly traded markets.

In a liquid market you can sell an asset easily and at the market price without a haircut. But liquidity is typically needed most when risks have increased, buyers are few and correlations high. Short term liquidity, especially when everyone knows you have a problem independent of the market, can be costly.

Credit risk tends to have high correlations during market stress, and earned rates are higher for more risky fixed income instruments. Spread can also be earned by accepting risk tied to other variables, but these generally increase yield by less than 0.10%.

Conclusion

There is not a single one-size-fits-all investment strategy for an insurance company. Each is unique based on products and risk appetite. Some have expressed concern when assets with no recurring cash flows are included in an investment strategy. As we saw with SPDA this can be a problem but, as always, the situation is more nuanced than that.

Insurers typically have expertise in some areas and not in others. They may be very good at managing short-term liabilities, and prefer a conservative portfolio, or they may view home and auto liabilities as float, like a loan, and focus on their investment expertise. Others understand complex financial instruments or reinsurance transactions. A balance between all these interacting risks using narrative scenarios can, with some redundancy and conservatism, result in reduced risk overall.

Are you following the work Dave and Max are doing about scenarios and regime change?

+1 512-345-5200 | info@actrisk.com | www.actrisk.com | 5914 West Courtyard Drive, Suite 190. Austin, Texas 78730

Actuarial Risk Management
Global Actuarial Consultancy

Crossing Thin Ice

Now providing three ways for you to get insights, strategies and solutions from ARM consultants to help resolve your risk issues.

Newsletter

- 3 to 5 articles quarterly
- Written by Dave Ingram, Max Rudolph and other ARM consultants focusing on risks faced by insurers and risk management strategies
- Available on the ARM website

Webcast

- One-hour live webcast once each quarter following the newsletter publication
- Webcast includes brief presentations, interviews with authors and live Q&A with your questions answered regarding the newsletter topics

Podcasts

- Two per month
- Delivered by Dave Ingram & Max Rudolph
- Presenting material from the newsletters, webcasts and current topics in a totally audio format.
- Available wherever you download podcasts

* No charge for subscriptions to any of the three services

“

Insurers have faced challenges from inflation, high interest rates, high turnover and shrinking candidate pool, and the next few years will see a radically changing environment for insurers. We will be using the Crossing Thin Ice platform to identify emerging risks and delve into what we see as the drivers of future success.

”

+1 512-345-5200 | info@actrisk.com | www.actrisk.com | 5914 West Courtyard Drive, Suite 190. Austin, Texas 78730