

A new issue of interest for ACA risk adjustment payers and recipients

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The Patient Protection and Affordable Care Act (ACA) was enacted in 2010, and most of its key provisions took effect in 2014. Those dates occurred during an era of low interest rates, which for the most part continued until rates began rising sharply throughout 2022 and remained elevated throughout 2023.

In the health insurance market, interest rates are usually of greatest significance for long-duration products, such as long-term care or long-term disability coverage. Financial results for traditional medical insurance policies are less sensitive to interest rates because premiums can usually be reset annually, and the timeframe over which claims are paid is usually not that far removed from the period over which premiums are collected.

In the context of ACA-compliant individual and small group health insurance, however, the current interest rate environment has implications for some issuers that have not arisen during the history of the ACA. In particular, current interest rates could impact premium for issuers that expect to make or receive large risk adjustment transfers (potentially including high-cost risk pool collections), which occur near the end of the following plan year.

What is the time value of money?

Whenever money inflows and outflows occur at different times rather than simultaneously, the parties to a transaction are affected by interest rates. Arrangements of this sort are familiar in many everyday contexts, such as:

- A bank lends a consumer money now so the consumer can buy a home immediately, and the payments back to the bank occur over the next 30 years.
- A magazine publisher collects a fee from a subscriber in exchange for 24 issues of a magazine, and it must pay the costs of production over the next two years.
- A life insurer collects level annual premiums over the next 25 years in exchange for a death benefit if the policyholder dies during that time (payable whenever that may occur, but the likelihood of it occurring is much lower now than in 25 years).

In these examples, a stream of future cash flows (e.g., mortgage payments collected) will be less valuable today if interest rates are high than if interest rates are low. This is why someone wishing to make a \$1,000 monthly payment for a 30-year mortgage could obtain a loan of \$237,189 at 3% annual interest but only \$150,307 at 7% annual interest. This aspect of valuing future cash flows can also be of great importance to health insurance products.

History of interest rates, 2014-2023

Short-term (1-year) risk-free interest rates declined to below 1% in late 2008 and remained at those low levels for many years. Rates did not exceed 1% again until 2017, peaking to just below 3% in 2018 and then falling again—dropping to near zero around the beginning of the COVID-19 pandemic in 2020. Rates began rising sharply following a series of interest rate increases by the Federal Reserve that began in March 2022. Short-term interest rates today are at their highest levels since the beginning of the ACA markets and are much higher than they were even at their earlier peak in 2018. Figure 1 shows the progression of 1-year and 2-year U.S. Treasury yields between 2004 and 2023.

FIGURE 1: U.S. TREASURY YIELDS, 2004-2023



SOURCE: Daily Treasury par yield curves, U.S. Department of the Treasury. Downloaded from https://home.treasury.gov/resource-center/data-chart-center/interest-rates/TextView?type=daily_treasury_yield_curve (accessed December 28, 2023).

The Federal Reserve left rates unchanged at its most recent meeting in December 2023; while the future path of interest rates cannot be known with certainty, members of the Federal Open

Market Committee currently project rates to be lower than current levels by the end of 2024.¹

How do interest rates normally affect a medical plan?

In a traditional major medical plan, there is always some amount of disconnect between the timing of revenues and expenses, but it is much less extreme than with, for example, a 30-year mortgage. Consider the following example to illustrate this point.

Suppose a member is covered by a one-year policy (January 1 to December 31). If premiums are collected on the first day of each month, then the average premium collection date is June 16. If claims are incurred at random points throughout the year, the average claim incurred date is July 2. Claims are not all paid by an insurer the instant that they are incurred. If, on average, claims are paid 30 days after the date a medical service occurs, then the average claim payment occurs on August 1. And if an insurer's operating expenses are approximately equal throughout the year, then the average administrative expenditure occurs on July 2.

For a plan that expects to spend 80% of premium revenue on claims and 17% of premium revenue on administrative costs (leaving a projected profit margin of 3% of premium), this implies that 80% of its premium revenue must be disbursed 0.13 years (46 days) after receipt, and 17% of its premium revenue must be disbursed 0.04 years (16 days) after receipt.

Most observers would view these timeframes as small. Compared with a hypothetical insurer whose expense timing exactly aligned with its revenue timing, this insurer would be making its payments approximately 0.11 years (41 days) later during this policy term. At a short-term interest rate of 5%, this would amount to about 0.4% of premium and would be even smaller if the insurer receives some of its premium revenue later than the first day of each month.

But introduce risk adjustment, and...

Under the ACA, individual and small group health plan issuers either pay or receive risk adjustment transfers based on how the characteristics of their enrolled population (health status measured by risk score, age, metallic tier selection, etc.) vary from the characteristics of the statewide risk pool. Compared with the value of floating health claims as described above, there is a much bigger timing difference between the midpoint of the policy

year and when the Centers for Medicare and Medicaid Services (CMS) settles those risk adjustment transfers. As above, the midpoint of the plan year would be July 2. Risk adjustment transfers are calculated based on a full year of data and are published on June 30 of the *following* year. The transfers themselves occur closer to the *end of the following year*.² In other words, a risk adjustment transfer occurs approximately 1.25 to 1.50 years after the midpoint of the plan year.

Issuers vary widely in the magnitude of their risk adjustment transfers as a percentage of premium. For some, it is small, and in those cases the time-value-of-money impact is also small. But others may pay or receive 20%, 30%, 50%, or even more of their premium in risk adjustment transfers. When short-term interest rates were near zero, as was the case for much of the history of the ACA, the time delay between the plan year and risk adjustment transfer was of lesser importance, as having to wait 1.25 years to collect 50% of premium at a 0.2% interest rate represents a cost of only 0.1% of premium. But if the relevant interest rate is instead 5%, then the delayed risk adjustment payment or receipt would be worth far more—approximately 3.1% of premium. The results hold for a risk adjustment payer, except that higher interest rates create favorable outcomes for that issuer.

Many ACA plan issuers target a profit margin somewhere around 3% of premium. In other words, a carrier that anticipates a risk adjustment receipt of 50% of premium would, at 5% interest, confront an opportunity cost approximately equal to its entire target profit margin. Because it must pay claims well in advance of when it will receive a significant portion of the revenue needed to pay those claims, it must finance those claim payments from other sources (e.g., by borrowing and paying interest, or by forgoing the opportunity to invest an amount of money and earn interest). By contrast, an issuer with low claim payments during the plan year and a large risk adjustment payment of 50% of its premium that will occur near the end of the following year would see a substantial benefit from a high-interest-rate environment.

The example in Figure 2 compares two carriers that each will eventually achieve a loss ratio of 80%, but one does so with high claims and a large risk adjustment receipt and the other does so with low claims and a large risk adjustment payment. When measured in raw dollars (not discounted to account for the time value of money), both carriers are projected to achieve the same profit. But when accounting for the time value of money by discounting all cash flows to their present value (at a rate of

¹ Federal Reserve, Chair Powell's Press Conference, December 13, 2023, pages 3-4, retrieved December 28, 2023, from <https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20231213.pdf>.

² CMS. Key Dates for Calendar Year 2023: Qualified Health Plan (QHP) Data Submission and Certification; Rate Review; Form Review; and Risk Adjustment. Retrieved December 28, 2023, from <https://www.cms.gov/files/document/final-key-dates-tables.pdf>.

5.00%), the projected profit is much higher for the carrier that makes a risk adjustment payment (Carrier B).

FIGURE 2: ILLUSTRATION OF IMPACT OF DISCOUNTING

	Time (years)	RAW		DISCOUNTED	
		Carrier A	Carrier B	Carrier A	Carrier B
Premium	-0.04	\$500	\$500	\$501	\$501
Claims	0.10	\$650	\$275	\$647	\$274
Risk adjustment payment (receipt)	1.25	(\$250)	\$125	(\$235)	\$118
Admin cost	0.00	\$85	\$85	\$85	\$85
Projected profit		\$15	\$15	\$4	\$25
Projected profit (% premium)		3.00%	3.00%	0.88%	4.94%

Note: Present value columns are discounted at 5.00% per year to the midpoint of the plan year. Time is measured in years and assumes that premiums are paid on the first of each month, that the average claim lag is 0.10 years, and that risk adjustment transfers occur on October 1 of the following year. All dollar values are per member per month (PMPM).

Pricing considerations

Rate filing regulations and instructions in some states mention taking into account either the time value of money or investment income when setting premiums. Independent of regulator instructions, Actuarial Standard of Practice (ASOP) No. 8 (regarding regulatory filings for health benefit plans) states that actuaries “should consider whether to reflect investment earnings and the time value of money in the calculations used” in a filing.

These provisions would seem to provide justification, all things equal, for a carrier (to whom it is material) requesting higher premiums if it is expecting to receive a large risk adjustment transfer, or lower premiums if it is expecting a large risk adjustment payment. Doing so would reflect the reality that, in the words of ASOP No. 8, “an amount of money available at an earlier point in time has different usefulness and value than the same amount of money has at a later point in time.”

At the same time, such an approach could be viewed as running directly counter to a key principle of the ACA, which is the goal that a carrier’s premiums should reflect the risk of the statewide risk pool rather than the risk of the particular individuals enrolled (i.e., rating for the morbidity of your specific population). It could be viewed as problematic if carriers with lower-cost enrollees would systematically be able to have lower premiums than carriers with higher-cost enrollees. This is precisely the outcome that risk adjustment is intended to avoid. But in a high-interest-rate environment, the design of the program imposes higher costs on carriers that must wait to collect a large portion of their

revenue compared to carriers that are able to defer making a large payment. The magnitude of risk adjustment transfers does not, under current regulation, vary with fluctuations in interest rates.

Omission from the MLR formula

The ACA imposes a minimum medical loss ratio (MLR) standard on issuers in the individual, small group, and large group markets (the latter of which is not subject to risk adjustment). This minimum is 80% in the individual and small group markets, although some states impose a higher minimum. Many adjustments and nuances to the MLR formula are beyond the scope of this article, but one item that is *not* considered in the MLR formula is the time value of money.

Risk adjustment is factored into the MLR formula as the actual paid or collected amount, without accounting for the transfer timing. This means that, for the two carriers described in Figure 2 above, the calculated MLR would be the same. The MLR for a risk adjustment recipient, under the federal formula, is lower than what the MLR would be if it were calculated on a present-value basis (i.e., discounting all amounts in the formula to a fixed point in time using a relevant discount rate). The opposite is true for an issuer responsible for a risk adjustment payment.

If a carrier that expects to receive risk adjustment makes an upward adjustment to its premium to account for the capital costs of the late timing of the payment, its calculated federal MLR would decrease. For issuers operating well above the MLR minimum, this is likely of no consequence. However, at or near the MLR minimum, the consequences could be significant. In a persistent high-interest-rate environment, one could think of the lack of consideration of the time value of money as imposing a higher MLR minimum on carriers that repeatedly receive risk adjustment and increase their premiums than on carriers that pay into risk adjustment.

Considerations for stakeholders

ACA individual and small group plan issuers are, unlike in prior years, materially affected by interest costs if they expect to collect or pay a substantial amount under the risk adjustment program. As described above, this arises from the time lag between when a plan year occurs and when the associated risk adjustment transfer occurs. At a minimum, an issuer in this situation needs to consider this issue during internal budgeting exercises. It may potentially be raised in the rate-setting and rate-filing process, although regulatory constraints need to be considered as well. In a typical medical plan, the relatively short lag between premium receipt and claim payment creates the opportunity for a relatively small amount of investment income.

However, high short-term interest rates may lead to substantial investment income in an insurer's total investment portfolio.

The analysis above focuses on U.S. Treasury yields for approximately the same terms as the lag between the midpoint of a plan year and the settlement of risk adjustment transfers. Treasury securities are highly liquid and generally viewed to be free of credit risk. However, each carrier would need to analyze what the most relevant discount or interest rate is for its situation. For example, a carrier that expects to make a large risk adjustment payment may realize even higher amounts of investment income if its investment policy favors higher-yielding securities (though this could be associated with differences in other risks, including but not limited to credit risk).

Certain features of the ACA (namely, the lack of consideration of interest costs in the MLR formula and the expectation that carrier premiums should not be higher for carriers enrolling high-morbidity populations) have not previously been tested in a period of high interest rates. By longer-term historical standards, today's interest rates are certainly not as high as they have

sometimes been, and so today's situation should not be viewed as an outer limit on what could happen. For example, in the early 1980s, short-term risk-free interest rates exceeded 10%. Carriers that expect to receive large risk adjustment transfers may be able to absorb the opportunity cost of the delayed payment at today's interest rates. At some higher interest rate, however, it may no longer be viable for such carriers to even participate in these markets if that rate environment lasted long enough and if the MLR and risk adjustment transfer formulas continued to disregard the time value of money.

The situation described here also is a good example of how actuaries who focus on a particular product, such as medical insurance coverage, should be careful to pay attention to risks even if they have not manifested in recent memory (or ever). Interest rate risk is usually given little attention in short-duration products, but sometimes it can still be important. Sound risk management requires some amount of concern about what is happening in the world at large.



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