Office of the Superintendent of Financial Institutions Canada
Bureau du surintendant des institutions financières Canada

Low-for-long: The effects of a low interest rate environment on Canadian insurers

Remarks by Assistant Superintendent
Neville Henderson
Office of the Superintendent of Financial Institutions Canada (OSFI)

at the
2017 American Risk and Insurance Association Annual Meeting

Toronto, Ontario
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Introduction

Good morning and thank you for that kind introduction.

I'm honoured to have an opportunity to speak to you on your 85th anniversary. I have been asked to talk about the Office of the Superintendent of Financial Institutions (OSFI)'s perspective on the low-for-long interest rate environment, its effects and implications for the insurance industry and OSFI's supervision approach.

Distinct from many other regulatory agencies, OSFI is a principles and risk-based regulator, which means our approach to supervision is different. Since many of you are from outside of Canada, I will provide some background on OSFI's mandate and approach to supervision before I speak to the effects of the low-for-long interest rate environment.

About OSFI

The Office of the Superintendent of Financial Institutions (OSFI) is an independent federal government agency that regulates and supervises more than 400 federally regulated financial institutions and 1,200 private pension plans to determine whether they are in sound financial condition and meeting prudential requirements.

Federally regulated institutions include all banks in Canada, and all federally incorporated registered trust and loan companies, insurance companies, cooperative credit associations, fraternal benefit societies, and employer-sponsored private pension plans.

OSFI's scope of regulation does not include consumer-related issues or the securities sector, which are the responsibility of other agencies, both federal and provincial.

OSFI reports to Parliament through the minister of Finance. Various formal and informal processes are used to ensure effective execution of OSFI's mandate. OSFI also collaborates and consults with provincial counterparts and industry stakeholders in Canada and abroad regularly to help it understand and resolve potential issues.

A properly functioning, efficient financial system, in which Canadians can place their trust and confidence, is essential to Canada's economy. OSFI's regulatory and supervisory activities play a key role in contributing to public confidence in the Canadian financial system.

OSFI's activities are funded from fees charged to regulated entities; this helps to ensure a perspective that is independent of government financial constraints.

OSFI's mandate is to protect depositors, policyholders and other creditors by:

- developing guidance on risk management and mitigation;
- assessing the safety and soundness of financial institutions; and
- intervening promptly when corrective actions have to be taken.

OSFI also contributes to the development of new accounting, auditing and actuarial standards. All of this must balance the goals of safety and soundness with the need for institutions to be able to take reasonable risks and operate within a competitive environment.

OSFI supervises by analyzing financial and economic trends to identify emerging issues that could adversely affect institutions. It assesses an institution's financial condition, material risks and the quality of its governance, risk management and compliance. When weaknesses are identified, OSFI intervenes early and works with executive management, boards and pension plan administrators to correct matters.

Though OSFI plays an important oversight role, it does not manage the operations of institutions or pension plans. The executive management, boards of directors and trustees of these institutions are responsible for their success or failure. OSFI's supervision approach is risk-based to reflect the nature, size, complexity and risk profile of an institution. Financial institutions must be allowed to take reasonable risks and compete effectively both at home and abroad, while at the same time safeguard the interests of depositors, policyholders, beneficiaries and pension plan members. OSFI's goal is to balance competitiveness with financial stability, and international standards with Canadian market realities.

Though OSFI's mandate applies to all federally regulated financial institutions, I will restrict my remarks to the insurance sector.

The effect of low-for-long interest rates

Persistent low interest rates in North America were an aftermath of the 2008 financial crisis and affected insurers far longer than expected. Though there have been recent increases in U.S. Treasury rates — and more recently a rate increase in Canada — there are still potential economic headwinds that could cause future declines or potentially lead to negative interest rates. Low and/or negative interest rates challenge an insurer's value, profitability and solvency. They also affect an insurer's product strategy, pricing, product portfolio management, financial reporting, investment management practices and asset adequacy. The implications are far reaching and complex.

Central banks in many developed countries outside of North America have maintained rates at lower levels than Canada, and some have even set negative rates. Low rates have decreased anticipated returns on fixed income investments for all insurers and in a few developed nations, have led to rehabilitating some life insurers. Moreover, the UK plan to exit the European Union has increased economic uncertainty worldwide. Though the situation may appear more stable in Canada, companies have been facing similar issues with respect to their financial results and how they conduct their business. Companies have had to significantly increase reserves and capital on blocks of business with embedded guarantees or on business backed by a high proportion of fixed income assets. Return on equity has decreased on the inforce business, although other developments have mitigated the impact slightly such as mortality improvement on life insurance products, better expense management and lower unit costs due to merger and acquisition activity. However, institutions that were struggling with sales and other strategic issues prior to the financial crisis are facing increased challenges.

OSFI supervises three major lines of insurance business: life; mortgage; and general insurance. All three are adversely affected by low interest rates but how, and the degrees by which they are affected vary, depending on the line of business, the product composition of their portfolio, asset structure, etc. The duration that rates remain low is also important. A short term decline in interest rates is manageable but long-time low interest rates will cause many changes to how an insurer conducts its business.

The insurance market is very competitive and companies do not respond in unison to changes in the environment. The lag before companies respond to a change is frequently due to concerns that business may transfer to another carrier. As interest rates decrease, strategic decision-making becomes challenging and this may cause conflicting results. Increasing prices ahead of competitors, for example, may appear to restore profitability but could result in a significant loss of new business. This could cause a company to fall short of its business plan, its profit targets and potentially its longer term strategic objectives.

Low-for-long interest rates have caused insurers to seek yield by moving up the risk curve. Moving up the risk curve is acceptable as long as a company has effective risk management procedures, policies and oversight in place to manage the risk. Interest rates also influence the behaviour of policyholders, new purchasers of insurance and investors. I will speak to the first two groups when I discuss the effects by line of business.

Investors are not mentioned in OSFI's mandate but they are an important source of capital when it needs to be replenished. Low long-term interest rates decrease the return on investment and the longer they remain low, the greater the possibility investors may be incented to search for alternative, higher yielding options potentially impairing the insurers' future access to capital.

Life insurance

The effect of interest rates on life insurance products, especially those of long duration with guaranteed premium and benefit payments is complex, may be counterintuitive and affects both the asset and liability sides of the balance sheet.

The reserving method prescribed by the Canadian Institute of Actuaries is the Canadian Asset Liability Method. The method links the liability cash flows and the underlying asset cash flows with a margin for adverse deviation. Linking of asset and liability cash flows is a robust approach to reserving but can be challenging in a low-for-long interest rate environment.

The industry uses a conditional tail expectation (CTE) to quantify the expected value of loss given an event occurs outside a given probability level. For life insurance, reserves CTE of 60% to 80% is permitted by CIA standards of practice. Capital, which is OSFI's domain, aligns with a CTE of 99% over a one-year time horizon with a terminal provision.

Since the duration of the liabilities often exceeds the duration of assets, companies have developed asset/liability management strategies to deal with the reinvestment risk. When interest rates decline to low levels for a prolonged period of time, asset/liability management strategies become increasingly more difficult to apply and insurers search for enhanced long-term yield by investing in non-fixed income assets such as private placements, infrastructure, etc. These assets lack public ratings and attract a higher capital charge under OSFI's regulatory capital guidelines. Further, these assets are bespoke, which limits their liquidity. Hence, low-for-long interest rates have the potential to influence the liquidity profile of the insurer. To date, we have not seen a significant increase in alternative long-term assets but the interest and incentive for these assets is increasing.

The interest rate assumption is critical in pricing any life insurance product and its importance varies directly with the duration of the liability as well as the interest rate guarantees embedded in the product. Low interest rates have resulted in significant reserve and capital increases for the life insurance industry for inforce business and caused companies to de-risk their product portfolios by

- ceasing sales of products with higher embedded guarantees;
- lowering the interest rate assumption in new products;
- reducing or eliminating interest rate guarantees in new products;
- divesting of troubled legacy business; and/or,
- developing adjustable and participating products that transfer some of the investment risk to policyholders and offering shorter term products.

Since benefits and premiums under many life insurance contracts are guaranteed, the legacy block of business offers higher value to existing policyholders than the de-risked new business. This results in lower lapses than were priced for the legacy block, resulting in further strain on earnings as reserves are strengthened. Lower lapses have a positive effect of increasing premium income but have the negative effect of increasing claims above what was expected in pricing the product.

Quantifying lapse effects are complex. Life insurance policies typically have a break-even duration of eight to twelve years due to the amortization of the up-front costs of distribution, underwriting, policy issue, etc. A decrease in actual lapses, versus pricing that occurs prior to the break-even duration, accelerates the amortization of up-front costs and improves profitability as claims are low during this time due to underwriting selection. Lower lapses following the break-even duration increase premium income but introduce more claims than expected in pricing. This may deteriorate profitability on the block of legacy business.

The sales of the newer de-risked products may also be affected if these products are perceived to offer less value to consumers. A decrease in new business may create an expense gap or — as has been the case of pay-out annuities, the several decades of longevity improvements compiled with low interest rates brought the sale of these products to a virtual stand-still.

There are fully adjustable products which are ostensibly immune to an interest rate or other assumption changes until the renewal date. At that time, the policyholder can elect to adjust the face amount or the premium level. However, policyholders don't react well when the value of their policy is decreased so lapses at renewal tend to increase as policyholders seek value elsewhere.

If interest rates increase, the whole dynamic will reverse. As rates rise gradually over a period of time, profitability will improve and reserves and capital will be released. During that period, the profitability of the new business is also improved, as earned rates will be better than assumed at pricing. However, the recently de-risked products that do not provide for risk sharing become less competitive and may experience increased lapses.

General Insurance (Property and Casualty or P&C)

P&C insurers are coping with reduced interest margins and contend with a highly competitive environment. They will suffer an immediate loss in income in the year that interest rates are less than priced for, and there will be an impact on longer term liabilities such as personal injury. However, the total amount of these long duration claims across the line of business is generally immaterial.

Though P&C companies re-price much of their business annually, they face competitive pressures that may limit how much of the lost interest rate margin they can re-price into the product. Further, the P&C companies are very efficient in administering their business, which leaves them with few alternative sources of margin.

Over time, reduced profitability may reduce their access to capital markets in times of need.

Re-pricing to recover lost margins may have repercussions. Companies do not usually respond in unison so competitive pressure may result in the transfer of business between carriers. Some products may simply be seen by the consumer as over-priced and lose their appeal. Other products, such as auto insurance, are subject to provincial pricing limitations that may further increase the difficulty of recovering profitability.

The P&C industry has been resilient and has coped with the low interest rate environment though it continues to be a challenging environment on other fronts such as the recent large catastrophe losses.

P&C insurers are actively seeking ways of enhancing yield. Accomplishing this will require establishing appropriate risk management practices, policies and limits to manage the risk effectively.

Mortgage Insurance

Low interest rates have a significant but very different effect on the mortgage insurance business than the other two lines of business.

In Canada, there are two private sector mortgage insurance companies and a state owned or Crown corporation (the Canada Mortgage and Housing Corporation, or CMHC.) CMHC manages the premium level for high ratio (over 80%) loan-to-value mortgage default insurance, which creates a difficult situation for the private sector companies when their profit margins are reduced. The effect of low interest rates on mortgage insurers creates unique risks for the insurers and potentially systemic risk for the Canadian economy.

Low interest rates have decreased the carrying costs of mortgages but increased demand, which has led to rising house prices. Coupled with other consumer trends, the ratio of debt to income is the highest it has ever been, leaving borrowers vulnerable to a significant and sustained interest rate increase or a material decline in employment rates.

Continuing low interest rates have accelerated the growth in the mortgage market and continue to drive the debt ratio higher. Consequently, federal government agencies have introduced measures to contain the growth in the higher risk segment of the market.

Due to the potentially systemic importance of the mortgage insurance market, OSFI has implemented a new capital standard for mortgage insurers. The required capital for mortgages varies with credit scores, loan-to-value ratios, local geographic market conditions at origination, and other relevant factors. It will require companies to hold more capital for new business in the higher risk locations such as Toronto, Vancouver and Alberta.

The mortgage insurers have been very good at managing their expenses; hence, there is little room to recover the lost interest margin. As mentioned, the cost of high ratio insurance is controlled by the CMHC so private insurers cannot increase premiums unilaterally. Ultimately, the decline in profitability may decrease their access to capital if investors look for higher rates of return elsewhere in the market.

OSFI’s supervisory approach

OSFI’s mandate in a low interest rate environment is a challenge. A balance must be struck between ensuring companies hold enough capital to protect their policyholders and other creditors from significant financial loss and allowing companies to compete and take reasonable risks. The effect that low-for-long interest rates exert on an insurer’s financial results and the knock-on impacts on other assumptions is complex and can be counterintuitive. The most effective approach to understanding the impact of these complex relationships is through comprehensive modelling involving multiple scenarios and stress testing.

OSFI’s risk assessment process begins with an evaluation of the inherent risk within each significant activity of the insurer and the quality of risk management applied to mitigate these risks. A significant activity could be a major line of business, a process such as asset/liability management, or a unit such as a subsidiary. After considering this information, OSFI determines the level of net risk and direction (increasing, stable or decreasing) of the rating for each significant activity. These are then considered by their relative importance to arrive at an overall net risk (ONR) for the insurer. The ONR is a consolidated rating or assessment of the potential adverse impact that the significant activities collectively could have on the insurer’s earnings performance and capital adequacy. OSFI then develops a Composite Risk Rating (and its anticipated future direction) for the insurer after considering the assessments of earnings and capital in relation to the ONR, and the assessment of liquidity.

Other factors considered in OSFI’s capital assessment criteria include:

- adequacy of capital to support the insurer’s risk profile and business plan, including risks that are not fully captured in the regulatory capital guidelines;
- ability to access capital at reasonable rates to meet projected needs;
- quality of capital;
- quality and strength of the insurer’s capital management policy and processes; and,
- roles and responsibilities of senior management and the board for the processes.

Regulatory capital is set so that the total capital that a financial institution needs to meet its contractual obligations aligns with a contingent tail expectation. In applying this measure, we consider the ratio of available capital to required capital that must meet certain minimum levels before OSFI intervenes. However, supervisors may require an additional margin based on their risk assessment of the organization.

In late 2015, OSFI introduced a guideline to assist financial institutions in tailoring the appropriate amount of capital to their specific risk profile. This is referred to as *Own Risk and Solvency Assessment* or ORSA, and requires significant scenario and stress testing. The internal capital level should be above the supervisory minimums to provide additional margin. If a company's testing indicates that its capital will fall below its internal targets, it is required to alert OSFI and provide plans on how it expects to manage the risks and/or restore its internal targets within a short period of time.

Insurers must have a capital management policy that defines the ongoing process of determining and maintaining the quantity and quality of capital to support its planned operations. Capital should be managed to maintain financial strength, absorb losses to withstand adverse economic conditions, allow for growth opportunities and meet other risk management and business objectives. It should be managed so that in extreme cases, such as imminent insolvency, there will be sufficient assets to transfer or run-off policyholder obligations and pay creditor claims.

The Future

Recent trends in the U.S. and Canada suggest interest rates are on the rise. The Bank of Canada recently increased its key interest rate by 25 basis points with the expectation there will be further, gradual increases. All insurance segments will benefit from this increase. However, sustainability is yet to be proved as national and personal debt levels continue to rise and global geopolitical issues, such as Brexit.

Though the recent increase in interest rates is somewhat comforting, nothing in the economy is for certain and, as supervisors, we continue to be cautiously sceptical. There are a number of reasons to assume interest rates will remain at low levels, with some increases along the way, and there seem to be good reasons to believe interest rate will remain below pre-2008 levels for some time.

The reasons include:

- an abundance of worldwide capital pushing rates down;
- increased supply chain efficiency, causing demand for capital to decline and pushing rates down;
- significant unused production capacity in developing nations, especially China;
- newer high profile firms require less start-up capital; and
- developed world economies slowing down due to aging, which results in less expansion; fewer new businesses; and less demand for borrowing.

Conclusion

The level and duration of low interest rates has exerted a significant impact on all segments of the insurance industry. Due to the long duration nature of their liabilities and assets, the life insurance line is the most affected. Over time, we may see long term products and guarantees abandoned, similar to what has transpired in Europe.

Though there have been recent signs that rates may increase, there are indications that there could be further declines and continued volatility.