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Are Low Interest Rates Here to Stay?

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THIS ARTICLE SUMMARIZES RESEARCH TITLED "SUSTAINED LOW INTEREST RATE ENVIRONMENT: CAN IT CONTINUE? WHY IT MATTERS" which can be found at <https://www.soa.org/Research/Research-Projects/Risk-Management/research-2014-sustained-low-interest.aspx>.



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Interest rates are at generational lows, but could they go lower? Interest rates cycle, so many assume they will go up from these levels. But that considers only

historical data from our collective working lifetimes. Periods of deflation occurred starting in 1836, 1870 and 1930. Contraction of the supply of money and credit can lead to bank insolvencies and reduced trust in the financial system. There are similarities to today's environment, and reasons why slower growth could drive deflation. It is important for anyone modeling interest rates to consider scenarios with low and even negative interest rates, recognizing that slowly rising rates often represent a best case scenario.

Rarely has there been so much discussion of low and high rates at the same time. Large budget deficits and an increasing money supply point to higher rates, while unemployment (along with underemployment) and productivity improvements put downward pressure on rates. Uncertainty reigns. Mitigating both a potential rate spike and perennially low interest rates is cost prohibitive in the marketplace. Options include mass mitigation strategies that increase price and preclude sales; making a market bet on the direction of interest rates (e.g., shortening/lengthening duration); credit risk; equity risk; or paralysis and inaction. Risk managers should make conscious decisions about these potential strategies and approaches based on an entity's unique risk profile, culture and appetite for risk.

DRIVERS OF LONG-TERM LOW NOMINAL INTEREST RATE SCENARIOS

Few financial firms have developed models to provide

risk managers with information regarding exposures to sustained low interest rates. If they are possible, what are the drivers? The key is to recognize scenarios where nominal growth is low or could slow in the future. What follows are sign-posts of low or slowing economic growth, which drives demand for funds and interest rates.

Velocity of money

The velocity of money (VM) measures how frequently a unit of currency is spent during a given time period (so is a measure of the economy's health). Its drivers are not well understood by economists and it currently is at historically low levels. This metric has been known to mean revert over time, and even a return to average levels would provide an inflationary push to nominal gross domestic product (GDP). Velocity is often driven by behavioral responses and trust in the "system." VM is very hard to predict, especially when interacting with expansionary federal monetary policy. When it is low, monetary tools tend to be less effective.

Demographics

Worldwide demographic trends show an aging population for many years into the future, especially in developed countries. Each geographic region has its own pattern, with Japan the first to age and shrink in size. The United States is younger than many developed nations and may be able to learn lessons from others through observation.

Sustainability

Human survival requires us to interact with nature in ways that endure over a long period of time. This process balances ecological elements, climate change, and resource depletion with economic growth and living conditions. A risk manager's role is to consider tail events that could occur, without placing bets on which events actually will occur. Many of these risks evolve very slowly, or happen infrequently. Historical data going back 500 years is considered limited. With so much noise in the data confusing the signal, it is hard to recognize trends but easy to manipulate the data to support nearly any conclusion. The economic downside to ignoring a climate change scenario is large.

“Each company’s exposure to a continued low interest rate environment will be unique.”

Solutions that correct previous environmental imbalances would position world economies for growth moving forward, but could be costly if not consistently managed. An example of this is pollution, where a buildup of toxins was not included in the existing accounting system. Delays cleaning air and water become more costly, taking money away from other projects, reducing growth and putting downward pressure on prices and interest rates.

Economic growth could also slow due to environmental changes driving structural additions such as levees, dikes and gates to manage storm surges. These structural investments add to current Gross Domestic Product but don’t expand future capacity, so they reduce demand and interest rates.

Non-repeatable events

Professor Robert Gordon of Northwestern University views the industrial age as unique, with “headwinds” expected to slow growth. He expects nominal GDP growth to return to the 0.2 percent rate present prior to 1700. While this seems drastic, ramifications of growth rates below 3 percent should be considered.

Gordon has identified six headwinds that will impact future growth. They include:

1. Female workforce participation rates increased in the last century and were a one-time event.
2. College graduation percentages are past their peak.
3. Rising inequality, as growth in real income bifurcates between “haves” and “have-nots.”
4. Jobs move to lower-cost regions and eventually back to developed countries as machines replace humans.
5. New processes required to maintain sustainability.
6. High debt leads to higher taxes, lower services and currency devaluations.

IMPACT ON INSURERS

Life insurance company margins are stressed in low interest rate scenarios when nominal returns on assets

are insufficient to support interest rate floors. A low interest rate scenario that extends beyond tactical business plans, meaning longer than three to five years, will have a strong negative financial impact as assets roll over and are reinvested at lower rates. Depending on asset and product mix, each company’s exposure to a continued low interest rate environment will be unique. Products with the ability to reprice regularly, like casualty, term life, and health insurance products, should be able to adjust.

Stress testing specific risk exposures and strategies realistically is the key. If interest rates spike, some insurers may become insolvent due to policyholder disintermediation, asset capital losses and ALM/liquidity issues, but a low rate scenario could systemically doom the entire life insurance industry if regulators do not provide relief from contractual rate guarantees. As the Federal Reserve considers systemic risk applicable to insurers, the implication of a low interest rate “Japan” scenario, and the regulatory role in creating it, should be considered.

Recent experience for Japanese insurers, with low interest rates for an extended period, led to changes in product mix (away from offering interest guaranteed products), cost cutting, and a willingness to consider alternative investment asset classes. Guaranteed interest rates have been lowered on existing policies, but not abolished. Testing of reserve adequacy has been weakened, with insurers now required to show liability support for ten years rather than the full run out of cash flows.

IMPACT ON ASSET CLASSES

Many asset classes include options where the borrower can select against the lender. Prepayments of bonds or mortgages are a common feature for these asset classes. While liability options are rarely efficiently exercised, sophisticated borrowers are expected to send money back to lenders when it is financially prudent. Even home mortgages exhibit the “*USA Today* effect,” where a newspaper article triggers a run on home loan refinancings.

Market liquidity risk is rarely tested prior to a crisis. Discontinuities can occur when buyers become aware

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that an individual seller has cash needs, or the entire market for a specific asset or asset class can become illiquid.

Those who outsource alternative asset class investment decisions need to include a strong oversight process. Additional yield goes hand in hand with additional risk. Particular care should be taken to understand tail scenarios with little historical data. Discontinuities can be driven by changes in central bank policy or liquidity shortfalls, among others. One recent example is residential mortgage backed securities (RMBS) that combined liquidity, credit and contagion risk before blowing up in 2008.

Some think that central banks, as they implement monetary policy, inadvertently create asset bubbles through subsidies and bailouts (creating moral hazard). Low interest rates incent speculators to borrow money at low cost. Decisions are made that would differ in an environment with higher borrowing costs. The recent decision by the Swiss National Bank to allow its currency to rise against the Euro above a self-imposed cap, along with the drop in oil prices in late 2014, are examples where market forces were not allowed to balance between supply and demand. Eventually this type of mispricing corrects itself and balance is restored. Risk builds when government policy is loose, and borrowers become overextended as the policy is unwound.

CONCLUSIONS

There are multiple reasons why interest rates may stay low. The velocity of money may remain low as individuals and businesses fear personal risk more than they distrust the financial system. Aging demographics and shrinking populations may combine to stress economic growth, and the combination of resource depletion and climate change make the environment volatile and challenging. Surprises will be everywhere for the unprepared as interactions evolve in new and unexpected ways. Long-term trends toward low interest rates might be disturbed by short-term pressures toward higher interest rates. How it will all play out is quite uncertain. Preparation and proactive risk management are the keys to survival.

Some risks are too big, timing too uncertain and options

too costly to mitigate. The events described here are not that far into the tail of possible outcomes. Initial qualitative analysis can lead to a more thorough review as the likelihood increases. The current era relies on just-in-time science to continually overcome Malthus-style forecasts of resource depletion and overpopulation. One misstep could be disastrous. Analyses with long time horizons are necessary in order to reasonably consider alternative futures. Metrics like value at risk that are designed around short time horizons and typical result distributions may lead to poor decision making.

It is vital that the insurance industry proactively look at the possibility of a continued low interest rate environment and take action now. By managing risk holistically and considering a range of potential outcomes, financial institutions will improve their resiliency as they manage through most future scenarios. It is the risk manager's job to anticipate potential problems and build resiliency within the firm. You can't anticipate every crisis, but you can build a risk culture that allows a firm to react when the inevitable poor scenario arrives. ■