2017 Investment Symposium

Session 2: Interest Rate Uncertainty – Managing a Portfolio in an Evolving Interest Rate Environment

Moderator:
Erik J. Thoren, FSA, CERA, MAAA

Presenters:
Dariush A. Akhtari, FSA, FCIA, MAAA
James G. Stoltzfus, FSA, CERA, MAAA
Session 2: Interest Rate Uncertainty – Managing a Portfolio in an Evolving Interest Rate

Dariush Akhtari
March 9, 2017
Agenda

1. Market Overview
2. Market Outlook
3. Low Interest Rate Environment
4. Different Investment Philosophies in Wealth Management vs. Insurance
5. How ALM Plays a Role in Investment
6. Final Thought
Market Overview
2016: A year of surprises

» The year was characterised by political rather economic/financial volatility

» Economic growth was stronger than many would have expected but still lower than long term averages

» Yields in developed economies remained close to historic lows but with signs of movement upwards
  – In fixed income markets the End of 2016 looked an awful lot like the End of 2015!
  – Fed Funds rate increased by 25bps
  – The BOE chose to increase its QE programme in light of the Brexit referendum result
  – The ECB is holding steady

» Asia suffered a wobbly year but growth remained solidly higher than in Western Economies (no sign of the much discussed Asian Debt Crisis)
America Is Great Again?

» While the election result may have been somewhat unexpected, markets responded positively

» The last quarter of 2016 saw US equity markets rise higher and treasury yields jump relative to the previous quarter

» The Fed raised rates another 25bp, despite lower than expected GDP growth in 2016 inflationary pressures are likely to lead to further increases in 2017

» It remains to be seen what impact the new legislative agenda will mean for markets in 2017
Market Outlook
Market Outlook

» Global economic growth will stabilize in 2017, but remain at historically low levels
  – Moody’s forecasts G20 growth of around 3.0% in 2017, up from an estimated 2.6% in 2016

» “Low for longer” rates will support borrowing and refinancing conditions, but negative side effects are becoming more visible
  – Expect borrowing and refinancing costs to remain supportive of global credit conditions in 2017

» Political risk will remain an enduring challenge for global credit
  – Political risk will remain elevated in 2017, thereby representing a potential source of volatility for global financial markets

» The recovery in global trade will remain slow, due to the lack of global demand and increasing protectionist sentiment
  – According to data from the World Trade Organization, global merchandise trade grew by just 1.3% per annum on average in US dollar terms between 2009 and 2015, well below the 14.6% annual average clip recorded between 2002 and 2008

Source: Moody’s Analytics “Cross-Sector – Global Credit : 2017 Outlook: Global Credit Conditions to Remain Uneven, Despite Stabilizing Growth” 16 November 2016
US GDP growth will remain in a low range

Slow rate rise in short term

Source: Federal Reserve Board; Moody’s Investors Service
Market Outlook – Global GDP Growth

Real GDP Growth, %

-3% -2% -1% 0% 1% 2% 3% 4%

2012-2016 Range  5-Year Average  2017 Growth Forecast

Italy  Japan  UK  Euro area  France  Germany  G-20 Advanced  Canada  US  South Korea  Australia
Low Interest Rate Environment
Bank of England Signals Interest Rate Rise

Denmark Central Bank Cuts Rates

Australia Cuts Interest Rate To Record Low

Riksbank Cuts Key Rate

Warning: Bond rates are going negative

China Cuts Interest Rates to Stimulate Slowing Economy

Bank of Canada Cuts Key Rate

FIERCE STORMS
Negative Rates Are the New Norm

Negative rates to shake up financial system, say experts

Switzerland becomes first to sell 10-year debt at negative yield

How negative can interest rates go?

Germany sells five-year debt at negative yield

Euro swaps benchmark fixed at a negative rate

Titles from Financial Times
Short Rates Are Not New
Low Forward Rates Suggest Low Expected Future Rates
Yield Curves Have Flattened Significantly

Selected 2s-10s Sovereign Spreads, basis points
How High Would the Interest Rate Grow?
Different Investment Philosophies in Wealth Management vs. Insurance
Different Investment Philosophies in Wealth Management vs. Insurance

» Wealth management: Capital appreciation

» Insurance: Inclined to defease the liabilities
  – Insurers are not in the habit of betting on the interest rate
  – Profits in general should be derived from underwriting and expense management
    » Premium should be determined based on the prevailing interest rate
    » Need great interaction between pricing, investment, ALM and risk management
  – Investment should lock in rates they can achieve today
    » Enhance cash flow match by bifurcating the liability cash flows to those that can be back by fixed income vs. longer term
    » Yield pick up is achieved through SAA and possible increase in investing in structured assets and certain alternative assets (not all alternatives are equal)

Source: Moody’s Analytics “Cross-Sector – Global Credit : 2017 Outlook: Global Credit Conditions to Remain Uneven, Despite Stabilizing Growth” 16 November 2016
How ALM Plays a Role in Investment
Investment, ALM and strategic planning

- Gaining alpha while playing in the sandbox but revert to tight immunization once getting close to the warning levels
- Enhanced ALM metrics (e.g., key rate durations) and robust balance sheet projection capabilities are required

Source: Risk appetite - Linkage with strategic planning by SOA
Strategic Asset Allocation (SAA)

SAA plays a key role in determining portfolio’s overall risk and return

Study (Brinson et al. 1986) concluded that asset allocation is the primary driver of a portfolio’s return variability\(^1\)

Recent study (Vanguard 2012) found that active management has reduced a portfolio’s return and increased its volatility on average

Investment decision must take liability and other business requirements into consideration; this is an important component of ALM

- Investment opportunity set;
- Expected return, variances, and correlation across assets classes;
- Business constraints (liability cash flows);
- Risk constraints (duration, liquidity, and diversification requirements);
- Investment return/risk target [e.g., total return vs. net investment income (NII), book yield; variance vs value at risk (VAR)]

\(^1\) Determinants of Portfolio Performance
Maintain Competitiveness While Matching Assets and Liabilities

» Segment assets by insurance products

» Define risk tolerance ← this is key

» Use efficient frontier approach to allocate assets with optimal risk/reward profile

» Consider various approaches to efficient frontier
  – Whole portfolio or a portion
    » Consider tax, deferred acquisition cost (DAC) unlocking, NII, etc.
  – Portfolio allocation vs. managing to the duration of optimal portfolio
Final Thought
Final Thought

Insurers should try to increase profit through process improvement and underwriting profit as opposed to betting on interest rate environment. Adherence to a well developed ALM will allow you to achieve this goal while minimizing market risk.