2015 Insurance Asset Management Analytic

A Bridge to Corporate Profitability

An in-depth guide to the forces shaping general account portfolio management practices, and a look at the future of the industry

Meredyth Sneed **Amelia Lanfrankie**

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Insurance Asset Management –
A Bridge to Corporate Profitability

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Patpatia & Associates, Inc.

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Letter from the Editors

We are proud to present our 2014 analysis of the evolving insurance market and its influence on firms' asset management approaches for their general accounts. As business challenges mount, insurers are finding they must reevaluate the way they manage assets to use their investment portfolios as key profitability drivers. They are adopting a wide range of strategies, including optimizing in-house investment organizations, employing alternative asset classes, and increasing outsourcing to third-party investment managers, in order to successfully compete and grow in a changing marketplace.

As practitioners to both the insurance and asset management industries, we have seen many firms struggling to evolve to face these challenges and opportunities. To help the marketplace better understand the market dynamics that inform these diverse strategies, we have complemented over 10 years of global insurance asset management research with new in-depth interviews with key executives at insurance companies spanning all business lines and size segments, discussing challenges that range from remaking the client experience for sustaining premium growth to responding effectively to the prolonged low-yield environment. By combining these direct insights with diverse quantitative analysis, we have endeavored to present a comprehensive view of the marketplace.

While we focused primarily on the North American insurance market, this report also outlines the challenges and opportunities facing life, health, and property & casualty industry players in Europe and Asia. We also analyzed a wide array of asset managers, from global multi-asset institutions to specialized alternative managers, to learn from them about the changes they are seeing in their insurance clients, and the product and servicing capabilities insurance clients are demanding.

As experts in the insurance asset management marketplace, our aim was to create a substantive resource outlining the innovative ways in which insurers are developing & overseeing their investment strategies and asset managers are assisting them. We hope that you will find insights that are applicable to your own business as you seek to navigate the changing market environment.

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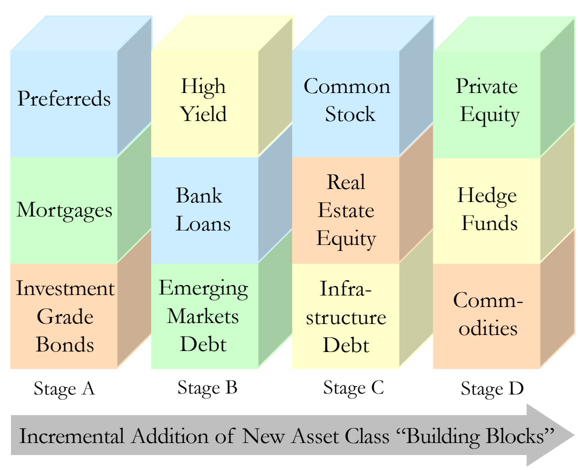
Executive Summary

The insurance industry is experiencing sustained growth, across North America, Europe, and particularly Asia, driven by an expanding need for retirement risk protection, continued healthcare expenses, and increasing global affluence. As the investment, banking, and insurance industries continue to converge, insurers are increasingly competing with the broader financial services market for consumers' financial wallet. This is leading innovative carriers to adopt new business models for growth, including deploying omni-channel servicing and digital client experiences, along with reinvestments in sales & servicing systems and infrastructure for convenience and true customer and advisor-centric relationships.

The Evolution of Insurance Investments

This has led to a concentration of over $18 T into insurance general accounts worldwide. However, insurers have faced numerous challenges as they have sought to maintain profitability in an adverse economic environment. With interest rates in many developed markets remaining low, insurers have been forced to search for yield from new sources, adding credit (e.g. high yield, bank loans), duration (e.g. extending debt investments out on the yield curve), and geographic risks (e.g. emerging markets debt). This has been complemented with the growth of focused exposures to equity and alternative strategies to add non-correlated asset diversification.

A Staged Evolution of Asset Strategies

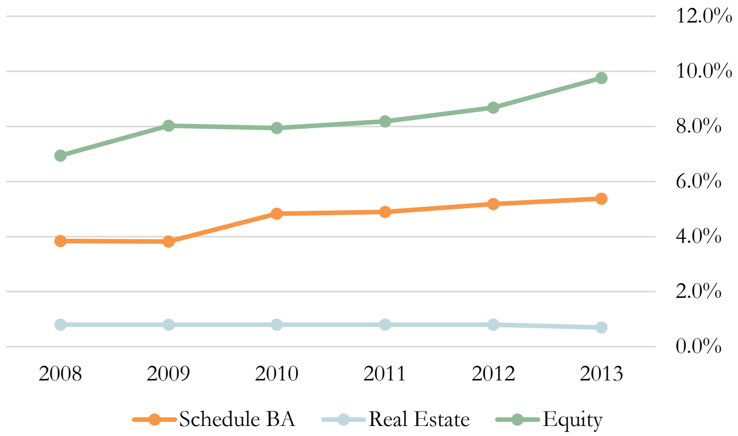


With the threat posed by expected rising interest rates, insurance companies are facing new challenges that will further change the way general accounts are managed. ALM-based portfolio construction principles, long in place in U.S. life & annuity carriers, will be further adopted globally, while capital appreciation-oriented investment strategies, including private equity,

Executive Summary

The Evolution of Insurance Investments (continued)

Allocation to Non-Fixed Income Investments, 2008-2013



hedge funds, and real assets will also increase. This is being further enhanced with the increasing use of mutual funds and ETFs to cost-effectively gain beta exposure, complemented with focused active management positions to implement core-satellite portfolio strategies.

New Regulatory Regimes

Insurance general account investment strategies are being further influenced by renewed regulatory focus on financial institution solvency, as governments seek to learn from the failures of the financial crisis. In Europe, Solvency II is finally approaching its long delayed implementation. Insurers in the EU being required to bring an economic capital modeling orientation to establishing their Solvency Capital Requirements. Core fixed income portfolios constructed via strict asset-liability management principles, complemented by small diversifying exposures to risk assets (e.g. high yield, EMD, hedge funds) are expected to optimize the general account risk & capital-adjusted returns.

In both the U.S. and in Europe, group supervision has also come to the forefront, as regulators seek to ensure that unsupervised activities of affiliates cannot threaten the solvency of insurers. Many insurers will now be required to conduct an annual Own Risk and Solvency Assessment. These ORSA analyses will be prepared by each insurer based on their own unique risk profiles. Results from this economic capital modeling may require certain insurers to change their investment & capital allocation strategies, due to the inclusion of activities off the insurer's own balance sheet, are expected to further spur reinsurance activities, hedging programs, and diversification of insurance business lines.

Executive Summary

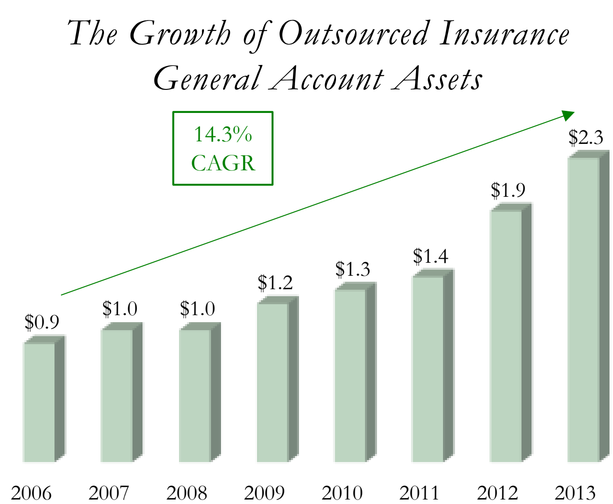
Insurance Company Investment Reengineering

Developing profitability and risk-optimized investment strategy processes are key to insurers seeking to deploy effective investment programs, and particularly, a core-satellite approach. Unifying product management, ALM, investments, and risk teams into a coordinated discipline allows inefficient organizations to focus on enterprise profitability & sustainability. Insurers must also properly balance internal and third party management, considering both economic and operational factors to maximize performance potential after accounting for the total cost of management.

To deliver upon these principles, many insurers are reorganizing their investment units, building up their investment departments and separating general account oversight functions from affiliated asset managers. Firms are also reinvesting in their investment systems infrastructure to support increasing economic capital modeling, risk management stress testing, and portfolio construction complexity.

The Third Party Insurance Asset Management Business

Nearly $2.3 T in insurance general accounts are now outsourced to third party asset managers. This business has also taken on a truly global nature. While outsourcing is most established in North America where the practice exceeds $1.1 T in assets, both European ($680 B in outsourcing) and Asian ($455 B) insurers are also incorporating the practice.



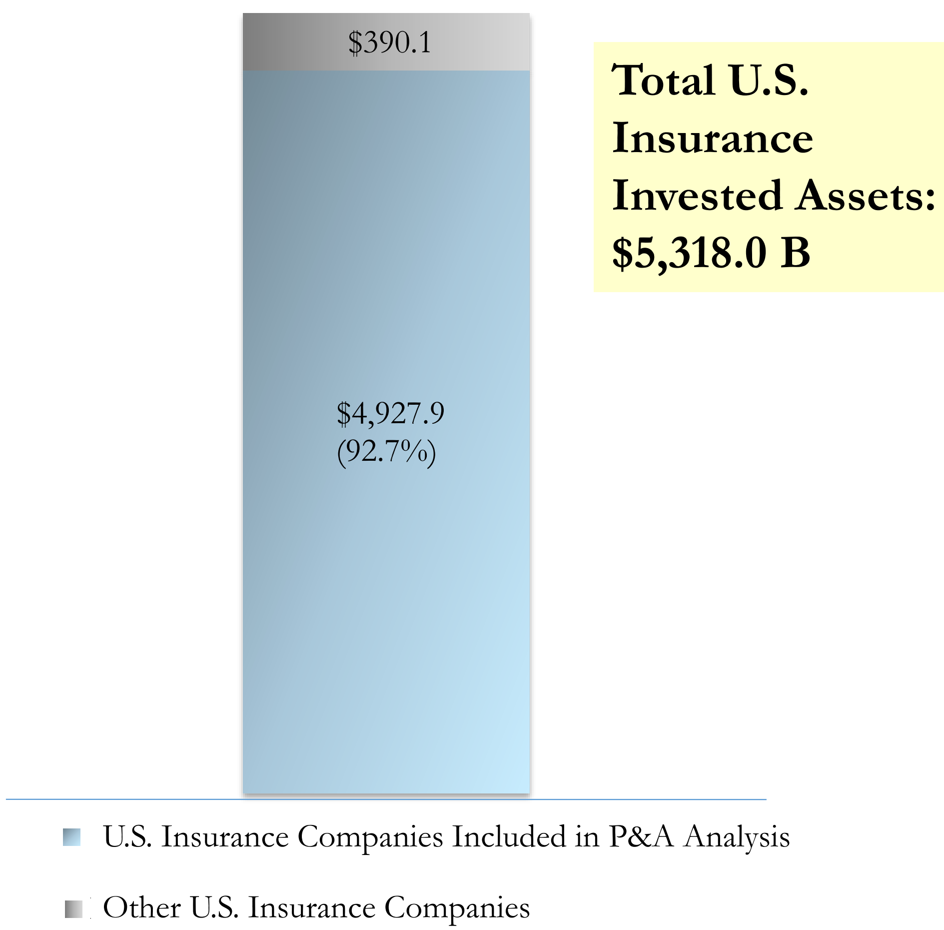
Opportunities exist for both core fixed income managers and firms with specialized expertise (e.g. munis, bank loans, hedge funds). However, specialized portfolio management, sales, and servicing capabilities are required to be successful. Successful firms will adhere to a discrete insurance business approach, integrating knowledgeable insurance specialists, an investment in systems, and tailored investment workflows. This will require either organic buildout within established institutional business operations, or the acquisition and due diligence of boutique insurance investment practices.

Chapter 1 – Scope of the 2014 Analysis

Background

Insurance Asset Management – A Bridge to Corporate Profitability endeavors to present a holistic analysis of insurance companies' investment practices – from the business challenges that must inform insurers' changing investment strategies to the specific tactics that they are employing to improve returns. To accomplish this, Patpatia & Associates has drawn on over 15 years of experience assisting insurance companies to optimize their investment programs and organizations. We also initiated a wide range of primary quantitative and qualitative research, including in-depth interviews with insurance companies' business and investment executives, individualized analysis of insurance companies' strategic and investment approaches, and detailed profiling of leading traditional and alternative asset managers active in the insurance market.

Exhibit 1: Scope of Insurance Company Analysis



Source: Patpatia &Associates' Research & Analysis, AM Best

Insurance Companies

Patpatia & Associates interviewed insurance industry business managers and investment personnel, including Chief Investment Officers, investment strategists, and ALM & enterprise risk management specialists. These individuals represent both domestic and international firms, spanning business lines and size segments. This approach has allowed us to gain a deep understanding of the unique business pressures that will continue to shape insurance companies' investment practices into 2015.

In conjunction with the interviews discussed above, Patpatia & Associates individually analyzed the business and investment strategies of all U.S. insurance companies with over $250 MM in invested assets, representing nearly 93% of the total U.S. market's invested assets. This effort pulled from a wide variety of sources, including statutory filings data from the NAIC. At the same time, Patpatia & Associates interviewed key personnel at European and Asian insurance companies to develop a global perspective and understand the market, investment, and regulatory drivers differentiating regional approaches to the insurance business.

Insurers' responses to the prolonged low-yield environment are of particular interest in 2014, but there are a host of other issues with deep implications for insurers' balance sheets – and, therefore, for how leaders are adapting their investment strategies. From the imperative to revamp the client experience for omni-channel sales & servicing to the necessity of complying with emerging regulatory regimes, we present a comprehensive view of the challenges that currently face insurance industry decision-makers and the full breadth of different investment tactics being deployed to better compete in the marketplace.

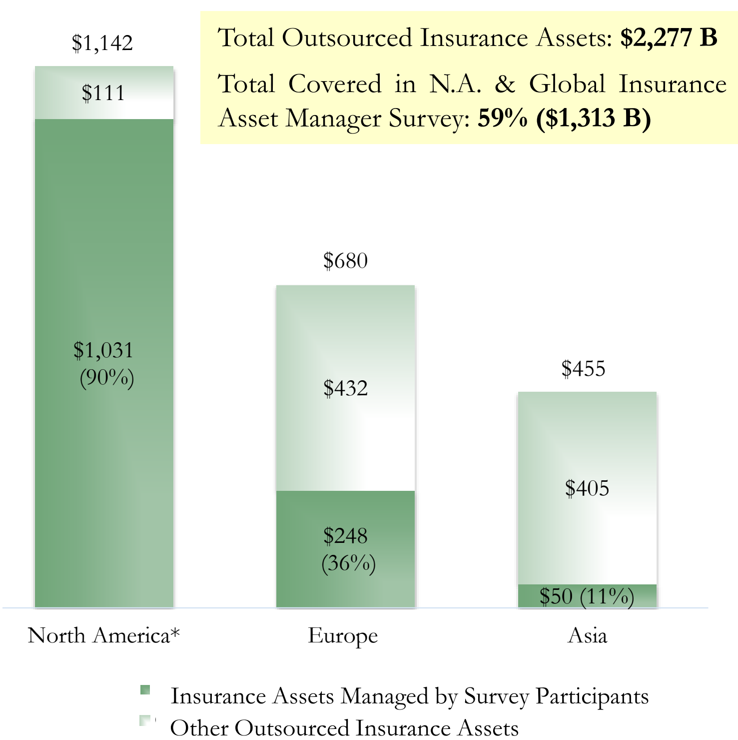
"Insurers' responses to the prolonged low-yield environment are of particular interest in 2014, but there are a host of other issues with deep implications for insurers' balance sheets – and, therefore, for how leaders are adapting their investment strategies."

Chapter 1 – Scope of the 2014 Analysis

Asset Managers

Patpatia & Associates also incorporated our understanding of the insurance asset management marketplace, having assisted a breadth of investment providers, including both traditional money managers and alternative investment firms, to tap the insurance market. We conducted extensive conversations with key decision-makers in leading managers' insurance asset management practices, to learn about the unique challenges facing their insurance clients in 2014. Additional quantitative data, including detailed information on managers' investment strategies, insurance-specific service offerings, and asset allocations for insurance clients, was collected as part of the 2014 North American & Global Insurance Asset Manager Survey, published in October 2014.

Exhibit 2: Asset Manager Survey Participation by Global Region ($ in B)



**Includes offshore domiciles such as Bermuda as well as miscellaneous markets*

The 2014 North American & Global Insurance Asset Manager Survey focuses on North America-based firms and managers with global scope & extensive participation in the U.S. market. This excludes managers of principally European, Asian, or other regional focuses. The participating managers advise a total of $1.3 T in assets for unaffiliated insurance companies. This represents approximately 59% of the estimated $2.2 T in global outsourced insurance assets.

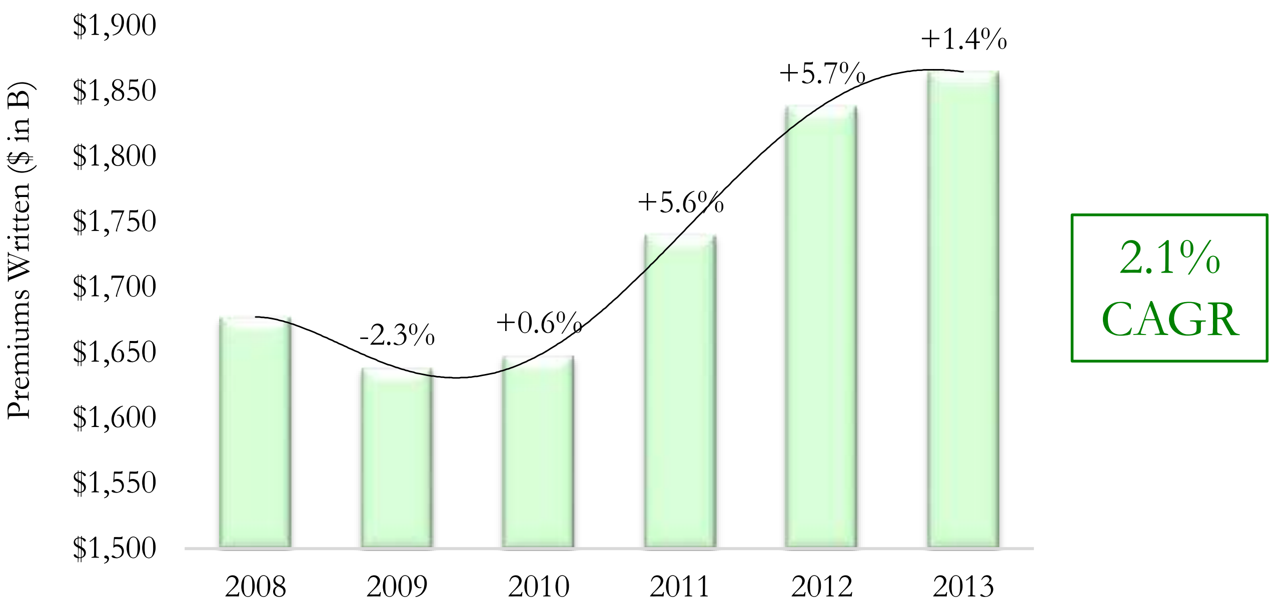
These managers account for approximately 90% of the North American and offshore marketplace ($1,031 B). However, these managers also have significant business in the European ($248 B) and Asian ($50 B) markets, holding 36% and 11% of market share respectively.

Chapter 2 – Insurance Market Trends

Section A: U.S. Market Summary – Continued Growth

At year-end 2013, U.S. insurers reported $1.9 T in premiums. This represents a 1.4% increase from the previous year, slightly lower than the five-year CAGR of 2.1%. Although certainly a departure from the dramatic growth rates seen during the industry's period of post-financial crisis recovery, 2013's year-end numbers were nevertheless indicative of a return to steady growth fueled by rising demand and sustained demographic change.

Exhibit 3: Year-on-Year Change in U.S. Insurance Premiums Written, 2008-2013



Despite overall industry growth, however, developments at the business line level were more varied. Life and annuity (L&A), property and casualty (P&C), and health companies each reported year-end results that varied significantly in the sustainability of their premium growth over the past five years. This reflects the distinct challenges and opportunities that have been facing each business line as insurers seek to position themselves for growth.

Source: NAIC, Patpatia &Associates' Research & Analysis

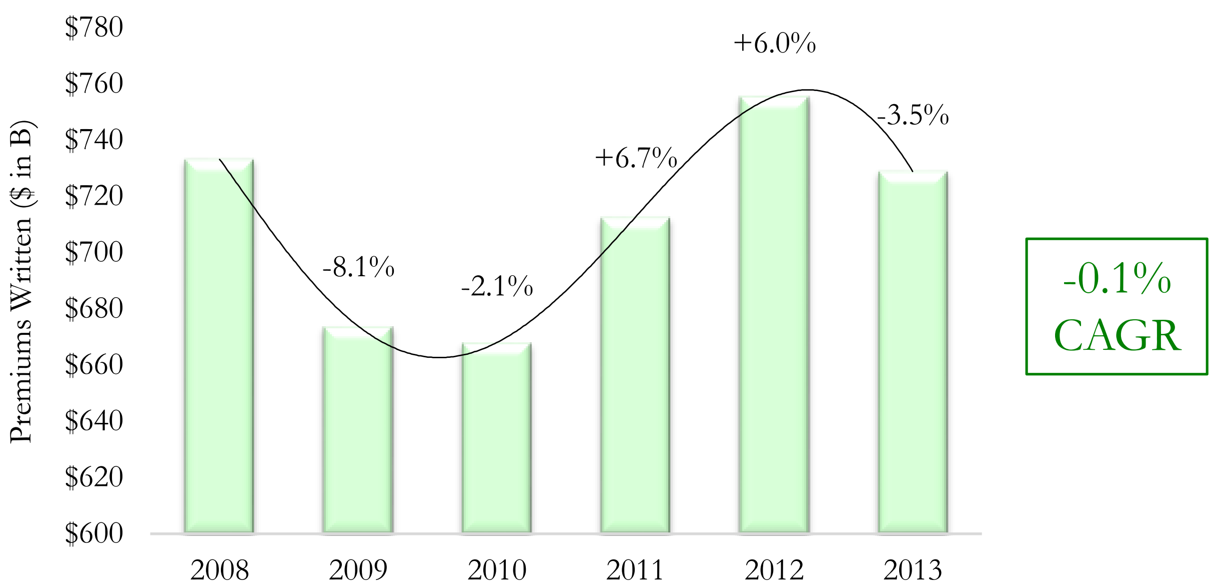
Chapter 2 – Insurance Market Trends

Section A – U.S. Market Summary (Continued)

Life & Annuity Insurers

Comprising the largest of the three major insurance business lines, life and annuity (L&A) insurers have found it most difficult to maintain the momentum of the post-2008 recovery. After rising to a high of $756 B in 2012, L&A premiums dropped by 3.5% in 2013, for a total of $729 B. The declines in 2013 were concentrated in life and particularly annuity & deposit contracts, where continued low interest rates made attractive pricing challenging. During this same time, the less interest rate sensitive accident & health lines actually experienced year over year growth.

Exhibit 4: Year-on-Year Change in L&A Insurance Premiums Written, 2008-2013



The volatile premium growth experience (-0.1% CAGR over 5 years) is not purely structural; it is also indicative of a business line that has struggled to respond effectively to far-reaching changes in the insurance marketplace. In general, L&A insurers have lagged behind leading P&C and health insurers in their efforts to serve a population that is tech-savvy, research-oriented, and suspicious of opaque financial products.

Source: NAIC, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section A – U.S. Market Summary (Continued)

Life & Annuity Insurers *(Continued)*

The untapped market opportunity for L&A insurers remains great: four in ten U.S. adults currently lack any form of life insurance coverage, a low not seen since the 1960s. If they wish to capitalize on this opportunity, L&A insurers must make more serious efforts than they have to date to connect with underserved consumer segments, such as minorities, recent immigrants, Millennials, and the elder market. The middle market has become particularly underserved, as insurers have preferentially focused on affluent consumers.

To do this, L&A insurers will need to recruit a younger, more diverse sales force, while simultaneously experimenting with omni-channel distribution models. Insurers will also need to be adaptable in engaging with new third party sales channels that can effectively access the middle market. With self-directed brokerages, such as Charles Schwab, along with banks & other financial advisor channels increasingly building insurance capabilities to meet consumers' risk protection needs within total financial relationships, insurers will need to be flexible to avoid disruption (discussed in greater detail on p. 20).

At the same time, L&A insurers need to develop both mortality & longevity products that are designed and priced to be relevant to evolving market demand & actively balance contrary demands for upside potential & risk protection in an affordable, simple package. Innovative L&A insurers that tailor differentiated products to diverse market segments will be well placed to capitalize on emerging trends in the marketplace.

In the face of these challenges, to sustain premium growth L&A insurers will be forced to rely even more heavily on further innovations in their investment strategies to drive an attractive earnings growth trajectory.

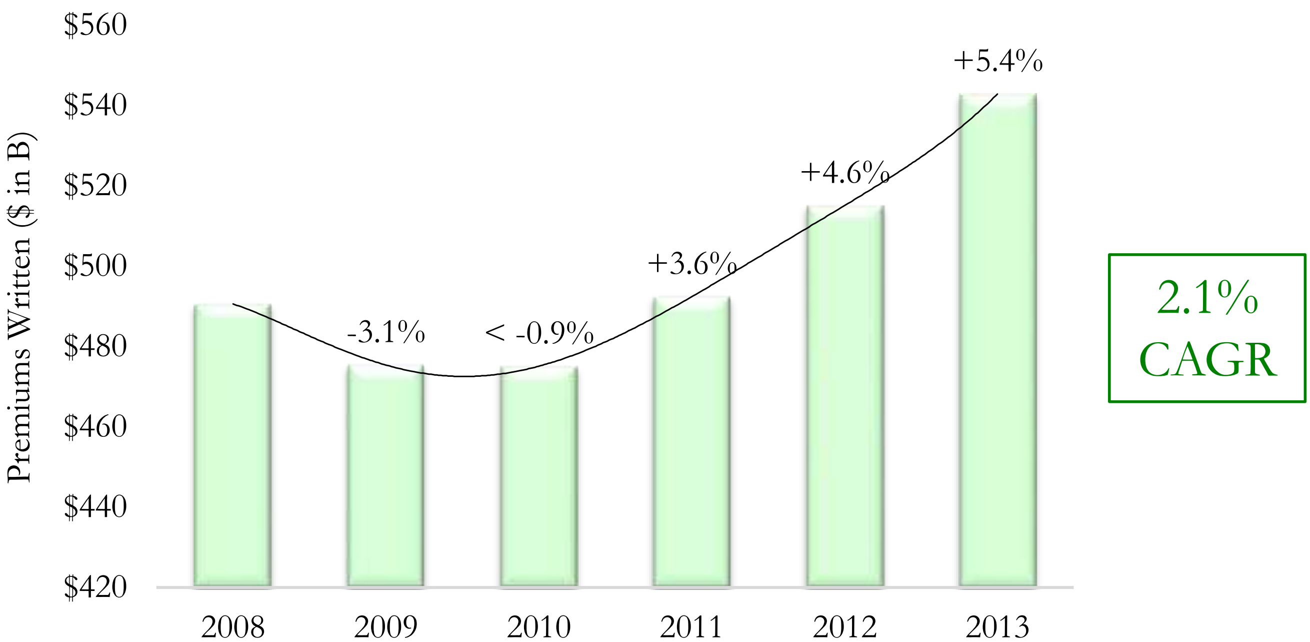
Chapter 2 – Insurance Market Trends

Section A – U.S. Market Summary (Continued)

Property & Casualty Insurers

Although P&C insurers struggled in the immediate post-Crisis period, they have since returned to steady growth since, alongside the beginning of the economic recovery in 2010. Premiums totaled $543 B in 2013. This represents a year-on-year increase of 5.4%, exceeding the P&C industry's 2.1% CAGR over the prior 5 years.

Exhibit 5: Year-on-Year Change in P&C Insurance Premiums Written, 2008-2013



P&C insurers benefited in part from relatively forgiving weather patterns in 2013, which contributed to the business line's first underwriting profit in four years. Continued innovation in products and pricing also contributed to growth. For instance, telematics devices, which are gradually gaining acceptance with consumers, are enabling usage-based auto insurance which allows for increased granularity and critical transparency in pricing.

Source: NAIC, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section A – U.S. Market Summary (Continued)

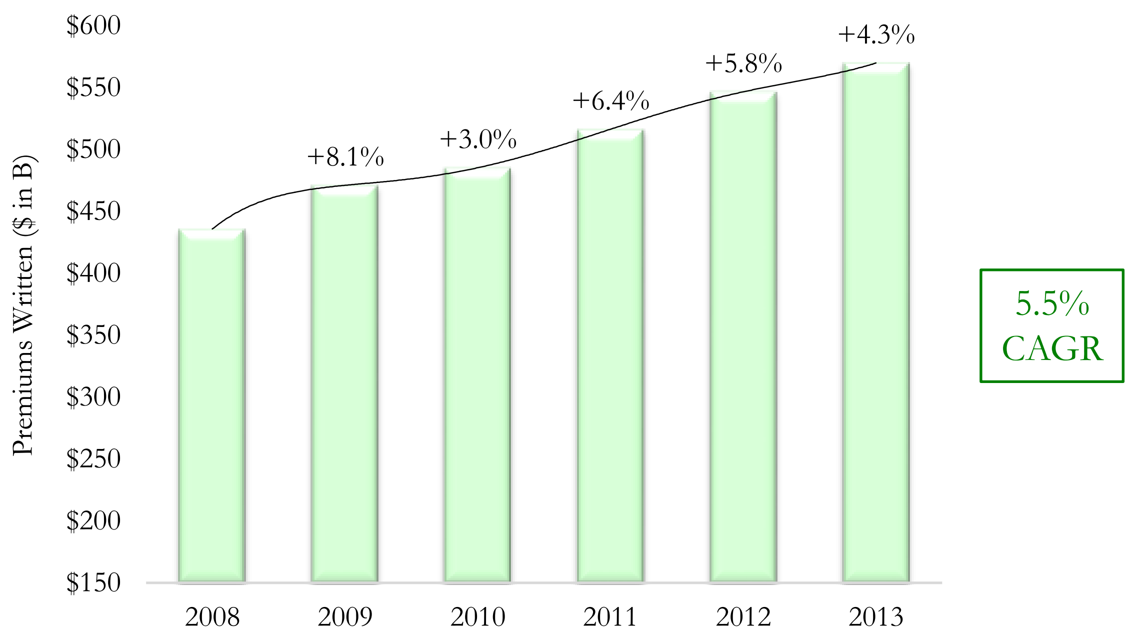
Property & Casualty Insurers *(Continued)*

Despite these positive signs, the business line also faces significant challenges. P&C insurers must continue expanding distribution channels to sustain broad-based premium growth. P&C insurers also face difficulties generating sufficient investment income to compensate for underwriting margin shortfalls, which are frequent despite growth of top-line premium sales. As traditional, fixed-income oriented investment strategies have resulted in diminished yield, P&C insurers have had little choice but to pursue return-enhancing investment strategies, including specialty and alternative investments (discussed at length beginning on p. 83).

Health Insurers

Health insurance is the only business line to have experienced uninterrupted premium growth since 2008. Total written premiums rose by 4.3% in 2013 for a total of $570 B, slightly less than the five-year CAGR of 5.5%.

Exhibit 6: Year-on-Year Change in Health Insurance Premiums Written, 2008-2013



Source: NAIC, Patpatia & Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section A – U.S. Market Summary (Continued)

Health Insurers *(Continued)*

For U.S. health insurers, the most significant development of 2013 was the full implementation of the Affordable Care Act (i.e. the ACA). The ACA has written into law a variety of new product specifications, as well as requirements to meet state regulators' pricing constraints. In addition, by preventing insurers from inquiring about new customers' pre-existing conditions, the ACA has changed insurers' risk pool and will therefore require the adoption of more robust risk analytics. The ACA also added an estimated 80 new providers to the marketplace, including co-ops and provider-sponsored plans, meaning that established insurers will face increased competition in years to come. All are expected to challenge insurers' margins, particularly those participating in the new insurance exchanges.

Although the ACA's full impact on health insurers' bottom lines remains to be exhibited over coming years, the law's implementation has spurred new innovations in product packaging and client experience. Many leading health insurers have now deployed graphic, mobile-optimized websites and easy-to-understand product descriptions optimized for middle market client relationships – features many L&A and P&C insurers have yet to fully implement.

Additionally, health insurers are becoming more dependent upon their investment strategies to generate attractive returns. With the trend toward ever greater regulatory control over rates, investment income can help sustain margins. This includes seeking enhanced utility from both operating cash and longer-term investments. Coupled with the health insurance market's increased growth and competition, this is driving a need for more sophisticated investment strategies and the expertise, both internal and external, to drive those returns.

Chapter 2 – Insurance Market Trends

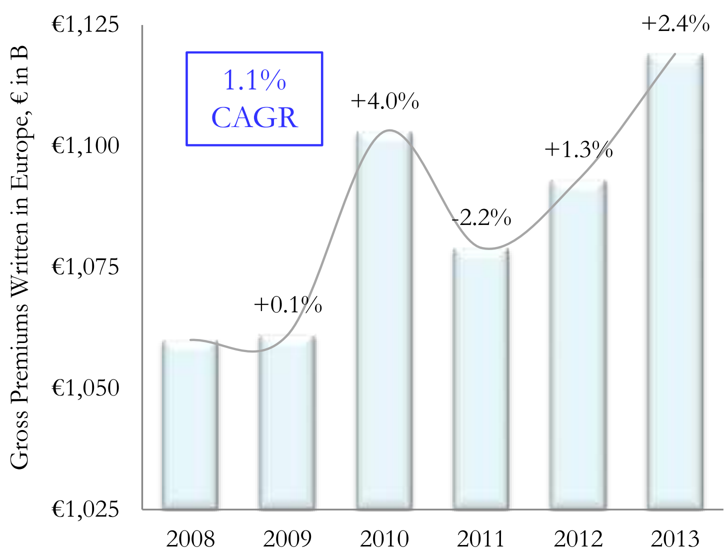
Section B – Global Insurance Market

European Insurance Market

To an even greater extent than their North American counterparts, European insurance companies must work to remain relevant to clients in the current market environment. Although the European insurance market remains the largest in the world, with a 33% share of global premiums, insurance penetration (the ratio of insurance premiums to national GDP) among E.U. members has declined from 10.4% in 2007 to 8.2% in 2013. In the U.S., by contrast, insurance penetration changed negligibly, from 10.8% in 2007 to 10.7% in 2013.

In Europe, where recovery from the global recession has been slow, the insurance market continues to struggle with sustaining strong premium growth. With households in many parts of Europe challenged financially, a significant number of Europeans have been favoring liquid savings instruments while limiting their discretionary spending and long-term investments.

Exhibit 7: Year-on-Year Change in European Premiums (Euro), 2008-2013



This has fostered a lower and less stable insurance premium environment, particularly with respect to life insurance and annuity products. Overall, premiums grew by a modest 1.1% CAGR from 2008, compared to a 2.2% five-year CAGR in the U.S.; however, the market has begun to recover in the last few years.

Source: Insurance Europe, Eurostat, Swiss Re, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section B – Global Insurance Market (Continued)

European Insurance Market *(Continued)*

The nature of the insurance business varies greatly across different European markets, despite movement toward consistency across the regulatory regime. Overall in 2012, 59% of all premiums written in Europe were life premiums, while P&C and health were responsible for only 31% and 10%, respectively. Yet Dutch and Swiss markets, for instance, have unusually high rates of health insurance adoption due to policies that require individuals to purchase private health coverage, whereas other countries rely on nationalized health insurance programs.

In addition to unsteady premium growth, coupled with parallel spikes in gross claims payments during the financial crisis, European insurers have faced many challenges in the capital markets. There have been large gaps in economic performance across the region, and the credit contagion due to many firms' exposure to the PIIGS stressed insurers' balance sheets. Also, interest rates and government bond yields in many of the more economically conservative domiciles were driven very low, further challenging insurers' returns, which has lead firms to seek out higher yielding assets. This has become increasingly complicated as insurers plan for anticipated future recovery of the interest rate environment. These factors present a new set of challenges, as firms that extended their yield curve positioning in search of enhanced income face the threat of interest rate risk due to asset-liability management mismatches.

In light of these continually evolving market dynamics, along with the new Solvency II regulatory regime focusing on economic capital models driving more diversified portfolios, firms are needing to reevaluate their entire investment strategies. Insurers are being driven toward general account portfolios that balance sizable fixed income-driven ALM portfolios, complemented by focused allocations to equities & alternatives, such as real assets and certain hedge fund-type investments that may respond favorably in a rising rate environment.

Source: Insurance Europe, Eurostat, Swiss Re, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

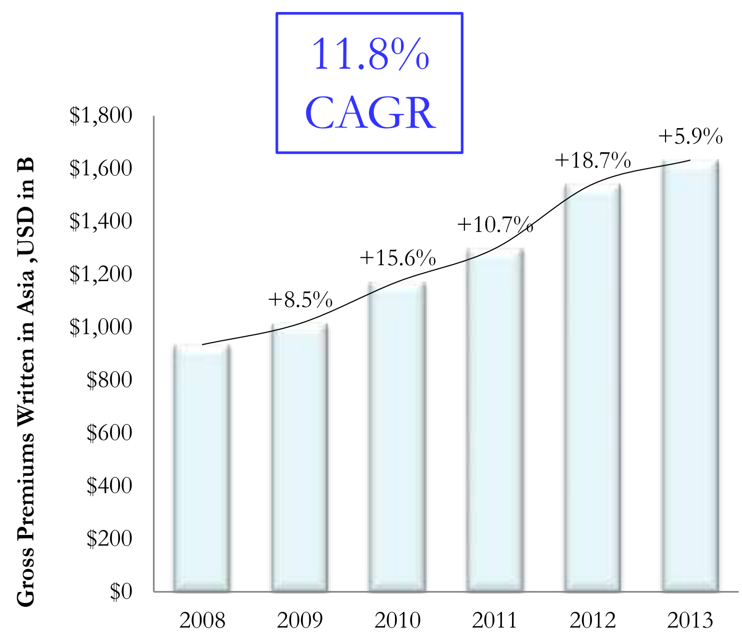
Section B – Global Insurance Market (Continued)

Asian Insurance Market

Currently, Asia is the world's third-largest insurance market with 29% of total premiums. Several advanced Asian economies have a high rate of insurance penetration (peaking at 13.3% of GDP in South Korea, compared to 10.7% of GDP in the U.S.). However, the regional average penetration has, as yet, only reached approximately 6.6%, due to lower disposable income leading to a historically limited rate of insurance use in developing markets.

This leaves significant room for further growth. In particular, as Asia's share of the global middle class continues to increase – expected to surpass 60% by 2030, from 30% today – the market opportunity for both homegrown & global insurers will continue to expand. This has led to a sustained and rapid expansion in insurance premiums. Over the past several years, the market expanded at an 11.8% CAGR. Even in 2013, premiums increased at a rate that was slower, but still strong, rising by 5.9% to reach $1.6 T.

Exhibit 8: Year-on-Year Change in Asian Premiums (USD), 2008-2013



Life insurance remains the largest insurance business line in Asia by a significant margin. Many affluent and high net worth consumers view life and annuity products as comparatively secure savings & investment vehicles, particularly in countries with historically underdeveloped capital markets.

Source: OECD; Swiss Re Sigma, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section B – Global Insurance Market (Continued)

Asian Insurance Market *(Continued)*

Non-life (P&C and health) is comparatively nascent in many Asian markets. However, non-life premiums are rising steadily in tandem with GDP growth. Industry observers expect particularly rapid expansion in sales of auto insurance premiums as the region's pool of first-time drivers seeking compulsory coverage continues to increase. For instance, compulsory third-party liability auto insurance accounted for over 70% of China's non-life premiums in 2012.

Japan comprises the second largest insurance market worldwide, generating around 20% of global premiums. Although Japan's economy has continued to struggle in recent years, its insurance market has settled into slow, but steady growth. Premiums grew by 2.4% in 2013, higher than the five-year CAGR of 1.9%, as the global financial crisis lessened and insurance buying behaviors have reverted to historic patterns. However, operating margins, particularly in non-life segments, were significantly impacted by the 2011 Great East Japan Earthquake.

Exhibit 9: Year-on-Year Change in Japanese Premiums (JPY), 2008-2013

With investment income generating well over half of Japanese life insurers' revenues, firms have had to begin employing new portfolio approaches to generate earnings. With portfolios that have been dominated by low yielding government bonds (frequently exceeding 50% of general account holdings), insurers have been unable to achieve the yields required to sustain attractive profitability levels. This is leading Japanese insurers to explore more creative business and investment strategies, including entry into international insurance markets, expansion of foreign investments, and commencement of selective outsourcing to expert investment managers.

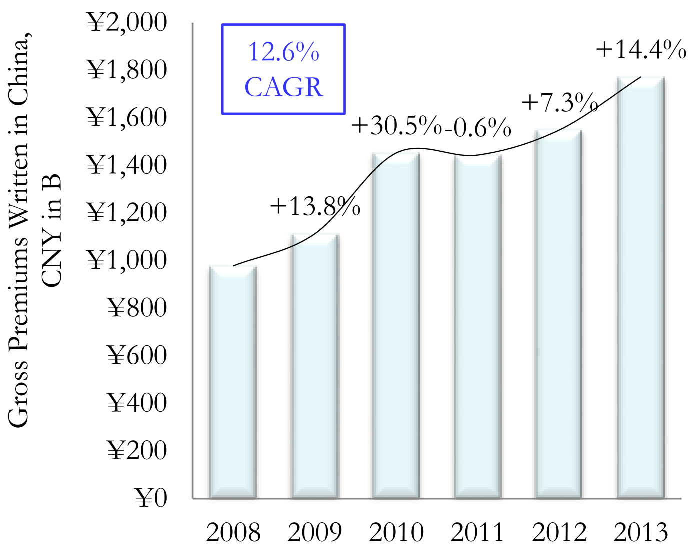
Source: OECD; Swiss Re Sigma, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section B – Global Insurance Market (Continued)

Asian Insurance Market *(Continued)*

Exhibit 10: Year-on-Year Change in Chinese Premiums (CNY), 2008-2013



China's insurance market is accelerating strongly, although it is still not nearly as deep as in Japan, since the industry was only reestablished toward the end of the 1970s. An emerging middle class is driving demand for new consumer goods, such as automobiles, resulting in rapid non-life premium growth. Newly affluent consumers are also drawn to life products, which often include savings or investment vehicles (i.e. money market funds & unit trusts). Premiums grew by 14.4% in 2013, higher than the five-year CAGR of 11.7%.

With a less developed long-term bond market and significant restrictions on investments outside of the mainland and Hong Kong, insurers have had limited flexibility in harnessing their general accounts. However, with recent allowances for foreign investments, as well as increased permissibility of lower rated credits (i.e. BBB-), Chinese insurers will have greater freedom to adopt market-leading tactics of their global peers. Additionally, international insurers, both from Taiwan & other Asian markets, as well as U.S. and European multi-nationals are beginning to penetrate the market, bringing new investment tactics and asset management relationships (e.g. Cathay Life's purchase Conning). This will require Chinese firms to add the staff and systems to effectively manage complex & evolving investment risks.

Source: OECD; Swiss Re Sigma, Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section C – Modernizing the Client Experience

One of the most significant challenges facing insurers is the need to reimagine the client experience in light of new technology and client demands. In particular, insurers must become more adept at tailoring their retail outreach to Millennials, who expect to be given the option of a fully online customer experience, customizable products, and company interactions that feel educational rather than sales-oriented in nature.

Insurers can learn from personal investment advisors, who have successfully utilized multi-channel access, personalized online risk analyses, gamification, and easy-to-read digital dashboards to attract internet-savvy customers. In addition, traditional insurers can look for inspiration to recent market entrants, including digital native health and P&C insurers, which offer features such as mobile platforms, doctor's visits via video chat and increased price transparency through social media-inspired digital platforms. These include several firms pulling best practices from outside the insurance industry, including Google Compare applying the principals of the electronic marketplace to P&C insurance. Also, investment services firms like Schwab are adding annuities to their financial product menus, presenting innovative & omnipresent competition.

Exhibit 11: Priority Customer Experience Enhancements

- ✓ Omni-channel interactivity *(in person, online, mobile)*
- ✓ eBilling and eSignature
- ✓ Streamlined applications submission & ePolicy delivery
- ✓ 24x7 customer support via online portal *(web & video chat)*
- ✓ Clear & comprehensive online information bank *(ability to bypass agents for routine inquiries)*
- ✓ App-inspired website design
- ✓ Automated workflow
- ✓ Interactivity *(e.g., ability to upload photos related to claims)*

Source: Patpatia & Associates' Research & Analysis

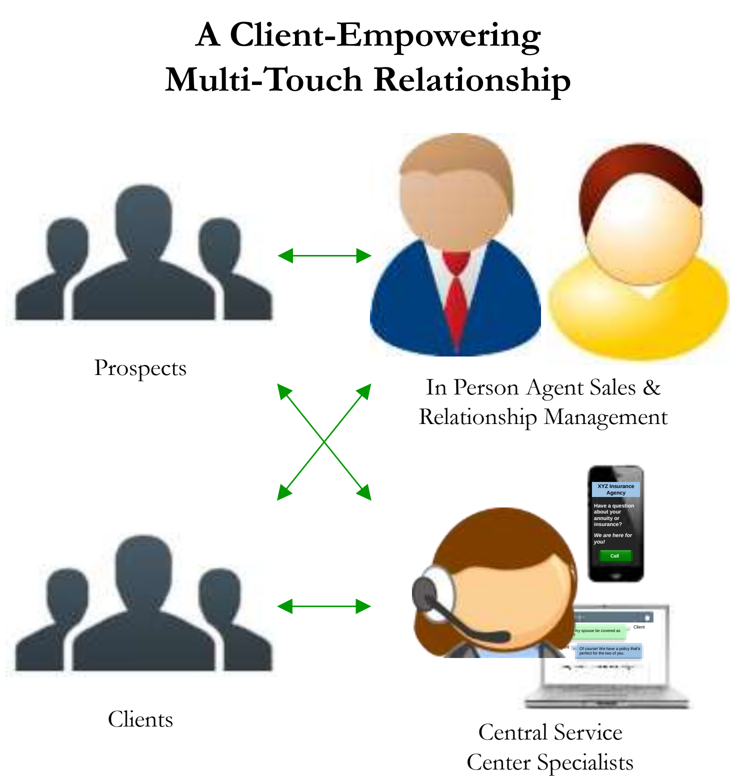
Chapter 2 – Insurance Market Trends

Section C – Modernizing the Client Experience (Continued)

Most insurers still rely heavily on traditional, agent-driven distribution channels, whether career or independent producers. The majority have failed to make significant inroads with Gen Y and Millennial consumers. Today, the median age of a life insurance agent is 51. To connect with customers, insurers must cultivate agents that are younger & more diverse. In particular, insurers are striving to better connect with female and minority consumers, to harness these new growth markets.

To do this, insurers are experimenting with different affiliation models and field roles – including a greater role for team-based advisors and financial planners – that may allow the greatest opportunities for young recruits to succeed. Some insurers have already begun to institute hybrid distribution channels which integrate traditional agents, call center representatives, and digital technologies which allow customers to research, and even purchase, financial products online. Leading firms are also proactively cultivating a more diverse agent salesforce by deploying producer models that are more welcoming to new recruits, including hybrid salary & commission approaches and professional coaching programs instead of traditional peer mentorships. Future distribution models are anticipated to be manifold, to fit different clientele and business dynamics, but all will increasingly involve multi-touch sales and servicing approaches.

Exhibit 12 – Diagram of a Hypothetical Omni-Channel Distribution Model



Source: Patpatia & Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section D – Innovations in Insurance Technology & Operations

In recent years, changing client expectations around the speed and efficiency of insurance services has prompted many insurers to consider adopting upgraded enterprise technology systems. These developments have spanned the range of client-centric enhancements, as well as back-office improvements and portfolio management innovations.

Many of these are focused on improving the sales and servicing process, with insurers implementing a wide range of new technology solutions. From e-signature applications to automated claims processing systems, new technologies are available to simplify and streamline every point of contact with the client. In addition, enterprise technology solutions are being developed with insurers' specific regulatory restrictions in mind. For instance, one UK-based company recently began to offer a new purpose-built platform designed to help European insurers remain in compliance with Solvency II's consumer protection & claims processing requirements.

Insurers are also investing significant resources in deploying effective digital platforms to support client & agent activities, along with core business processes. The emphasis is on deploying omni-channel touchpoints to allow both clients and producers, including career & independent agents, IMOs, insurance brokerages, banks, securities broker/ dealers, and affinity groups flexible servicing options.

Exhibit 13: Technology & Operations – Priority Innovations

STP applications & eSignatures

Avoid lost business from processing delays

Current average time to issue an annuity: 20 days

Client self-service capabilities

Online portals reducing agent admin burden

Avoid disintermediation by disruptive providers

Unified Data Systems

Streamline legacy interactions

Synchronize front & back office to support near-real time client experiences

Source: Patpatia &Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section D – Innovations in Insurance Technology and Operations (Continued)

With new online & mobile tools, paired with automated workflow processes, both experienced & novice producers may be empowered to increase productivity. Furthermore, direct sales & servicing businesses are being harnessed to complement traditional agent models.

Many of these efforts include critical enhancements to the interactivity of middle & back-office systems, allowing support of "near real time" client & advisor-facing front-end tools. Most firms continue to rely upon legacy platforms built on flat files and closed systems that lack the rapid interfaces to deliver upon the internet's promise of instantaneous information access and on-demand servicing. Whether through new middle tier datastores or the replacement of legacy business & policy administration systems with modern architectures with web services interfaces, solutions are being built for flexibility and interactivity.

Predictive analytics are also being deployed to bring data-driven rigor to the way high potential prospects are identified, clients are serviced, and pricing is optimized. The field remains dynamic, with best practices evolving to include social media behavioral analysis, sales pipeline threat evaluation, and experience-based rate adjustment.

Exhibit 13: Technology & Operations – Priority Innovations (continued)

Big data & predictive analytics

Targeted marketing

Proactive intervention with vulnerable clients

Anti-fraud measures

Telematics devices

Pricing granularity & transparency

Client buy-in to rates

Investment analytic platforms

Portfolio risk reporting

Multi-factor scenario modeling

Portfolio contribution transfer pricing

While the majority of these enhancements have been focused on sales, servicing, underwriting, & administration, similar principals are being deployed within insurers' investment functions. Firms are seeking to add to investment returns by harnessing enhanced portfolio reporting and modeling, particularly as these firms seek to enter additional asset classes bringing new risks and opportunities.

Source: Patpatia & Associates' Research & Analysis

Chapter 2 – Insurance Market Trends

Section E – A Renewed Focus on Capital Management

Enterprise Capital Management Principles

During the financial crisis, a significant proportion of global insurance firms, regardless of size or domicile, faced significant stress. Many experienced extensive unanticipated portfolio losses in both the credit and equity markets which threatened their solvency. Furthermore, the rapid decline in market liquidity placed additional pressure on even the largest global insurers. Leading multi-national brands in North America, Europe, and Asia were forced to raise further capital through government lending, distressed business sales, or takeover transactions.

To avoid similar threats to business continuity, many leading insurers are moving to implement new capital management best practices. The leading principle within this is a renewed focus on economic capital. Rather than managing strictly to formulaic capital assessments that may bear limited relation to the risks inherent in different product lines or investment types, firms' new economic capital models seek to understand how insurers' assets and liabilities will truly react in different financial environments, including extreme stress scenarios. This allows insurers to more effectively plan for sufficient capitalization. At the same time, these models permit insurers to harness the inherent cross-hedging benefits of different product lines and investments, freeing unnecessary capital to be reinvested into the growth their businesses or return earnings to shareholders.

Under these frameworks, insurers realize economic diversification benefits from mixing focused alternative investment exposures, including real assets & hedge funds, with ALM-optimized global fixed income portfolios. However, implementation requires investment in both multi-factor stochastic scenario analytics, spanning both the liabilities (including market-driven liability replication) and asset portfolios. This must be complemented with development of rigorous monitoring programs via multi-risk dashboards presenting management with actionable insights into the stress impacts of credit, interest rate, equity, underwriting, pricing, competitive, and operational risks upon their businesses. Another challenge is ensuring the regulatory and rating agency capitalization assessment frameworks are sufficiently flexible to support economic capital principles.

Chapter 2 – Insurance Market Trends

Section E – A Renewed Focus on Capital Management (Continued)

Solvency II and the Movement Toward Global Capital Modeling

Solvency II, scheduled to come into effect in January 2016, is intended to institute a single insurance regulatory regime in Europe to improve the oversight discipline on the insurance market, replacing the diverse collection of country-level regulations which exists currently. Although expected to benefit insurers with business in multiple European jurisdictions by normalizing their multiple regulatory regimes, Solvency II nevertheless presents European insurers with a new set of challenges, spanning all aspects of their businesses, including the need to comply with more stringent capitalization constraints with the addition of risk-based capital (RBC) principles for investments. This new oversight is also expanding beyond each insurance entity to span the entire holding company structure, under new Own Risk and Solvency Assessment (ORSA) regulations.

Solvency II is attempting to bring in principles of economic capital modeling into the new regulatory capital framework. A bifurcated approach is being applied, where larger enterprises that invest sufficient resources into proprietary models that follow Solvency II mandates will be allowed to employ those for setting their Solvency Capital Requirements (SCR). In parallel, a standard model with explicit capital charges for different business and investment activities is being refined for use by those insurers that do not have the resources to create their own models. Both methodologies will favor ALM-driven investment methodologies, founded on core fixed income investments complemented with smaller diversifying positions (e.g. high yield, EMD, equities, alternatives).

While Solvency II is oriented at Europe, Solvency II's regulatory framework will impact many Asian and North American insurers. Key "equivalency" provisions impose the same requirements upon all non-European insurance subsidiaries, including those in the U.S., that are owned by European entities. If non-EU insurers own European insurance entities, they too will become subject to Solvency II "group supervision" provisions intended to ensure risks taken within the broader holding company do not threaten the safety of the Europe-based subsidiaries. Furthermore, several Asian jurisdictions are looking to incorporate certain Solvency II principles into their own regulatory regimes.

Chapter 2 – Insurance Market Trends

Section E – A Renewed Focus on Capital Management (Continued)

Solvency II and the Movement Toward Global Capital Modeling (continued)

As Solvency II nears its (previously delayed) January 1, 2016 application date, stress test results indicate that 14% of insurers are insufficiently capitalized under the new SCR ratio, and 24% of firms would fall short in a prolonged low yield environment. Many of these undercapitalized firms are facing pressure to merge with better resourced competitors or exit markets to reduce their liabilities.

Even firms that can meet Solvency II's baseline requirements are revisiting their capital management strategies to improve their financial positioning. Fundamentally, this starts with the optimization of insurance business mix, ensuring that liability risks are reasonable and complementary. Where excess exposure are present, firms are placing renewed focus on reinsurance & derivative hedging strategies to further mitigate exposures and free capital for operations.

Exhibit 14 – Key Capital Modernization Tactics in Reaction to Solvency II

- ✓ Entry into new insurance lines for liability diversification
- ✓ Increasing the use of reinsurance & intergroup risk transfer
- ✓ Proactive risk hedging vs. specific assets/liabilities & across enterprise
- ✓ Asset allocation optimization for Solvency II constraints

Critically, Solvency II is also leading firms to migrate their investment strategies. With risk-based capital assessments favoring ALM-matched fixed income investments and increasing significantly for equity-oriented asset classes, insurers have already begun repositioning their portfolios. At the same time, the use of alternative investments, high yield debt, and emerging markets, are anticipated to increase, despite high default capital assessments, due to their ability to improve the aggregate risk-adjusted returns of the general account (see pages 45-46 for further details on European allocations).

Source: European Insurance and Occupational Pensions Authority (EIOPA)

Chapter 2 – Insurance Market Trends

Section E – A Renewed Focus on Capital Management (Continued)

US Regulators, the Continuing RBC Framework, and the Advent of ORSA

Following the 2008 financial crisis, U.S. regulators at various levels have undertaken efforts to reduce insurers' insolvency risk, including that posed by investment activities. The insurance industry has been regulated principally, with guidance from the National Association of Insurance Commissioners. Unlike European regulators, the NAIC and state commissioners have affirmed their commitment to the existing rules-based risk-based capital (RBC) framework.

At the federal level, the 2010 Dodd-Frank act established the principal of Federal Reserve oversight for Systemically Important Financial Institutions (SIFIs), which will include large insurers designated as by the Financial Stability Oversight Council. While there is little transparency today in the SIFI designation process, and the three insurers that have been selected to date, MetLife, AIG, and Prudential Financial, are challenging the designation, the Federal Reserve is planning to establish new nationwide RBC standards to guide this analysis. Although not complete in June 2015, preliminary plans anticipate following the NAIC's general approach to limit regulatory inconsistencies.

This assigns specific capital assessments on particular asset classes and credit ratings, with only modest allowances for how different investments interact within the broader general account portfolio. This position is expected to continue to limit U.S. insurers' diversification incentives, especially in the life & annuity business, where capital charges for equity-oriented assets are particularly severe.

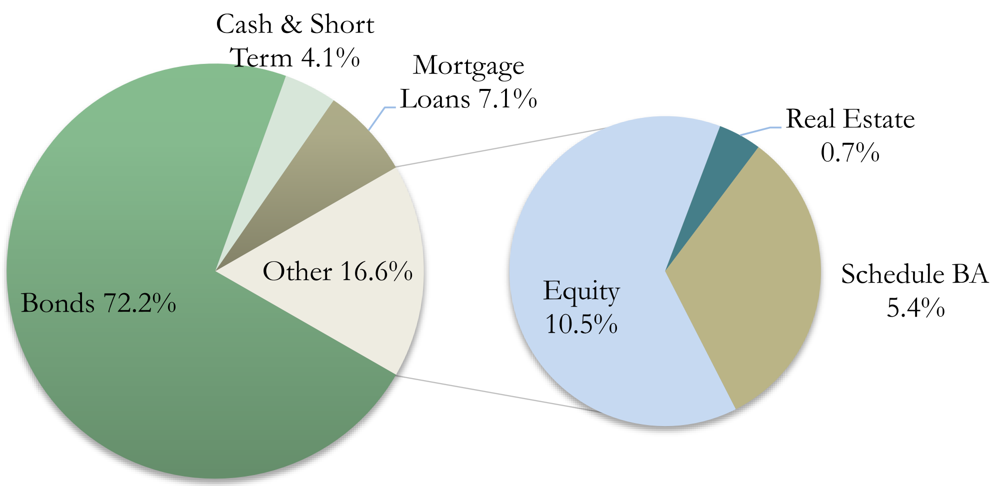
While the Dodd-Frank act directly impacts only a small minority of large insurers, the NAIC's U.S. Own Risk and Solvency Assessment (ORSA), is intended to limit off balance sheet risks from non-insurance affiliates and bring a measure of equivalency with Solvency II's group supervision provisions. This is affecting all insurers with annual direct written & assumed premiums of over $500 MM, as well as insurance groups whose total annual direct written & assumed premiums surpass $1 B. This new ORSA assessment is to be a true economic capital analysis vs. a rules-based analysis, encompassing each insurance group's unique variety of risks. As these principles are more widely adopted by regulators & ratings agencies, insurers may begin to build their investment strategies off of the expected behavior of their portfolios in stress scenarios, not based on abstract RBC charges, leading to better diversified and risk-managed general accounts.

Chapter 3 – U.S. Insurance Company Investment Practices

Section A – Overview of Insurer Investment Approaches

Notwithstanding the measured increase in portfolio diversifiers, insurers' general account portfolios remain driven largely by income-oriented assets. These bond, commercial mortgage, and short term holdings are well suited to addressing the cash flow needs and stable values necessary to back insurance liabilities. Regulatory treatment, insurance ratings agency methodologies, and statutory & GAAP accounting principals have all been aligned to favor these core portfolio components, locking them into their primary role in most insurers' portfolios.

Exhibit 15: Insurance Industry Portfolio Distribution, 2013



However, the insurance industry's long-term trend toward higher-returning, capital appreciation-oriented asset classes is unmistakable, especially when viewing the evolution of the industry's portfolio distribution over the past five years. Although allocations to bonds have remained relatively stable since 2008, insurers have redeployed some cash & short-term bond positions that built up following the financial crisis, decreasing as a proportion of the overall portfolio from 2008 to 2013. At the same time, allocations to equities and Schedule BA assets increased significantly.

Exhibit 16: Insurance Industry Portfolio Distribution, 2008 vs. 2013

	Bonds	**Mortgage Loans**	**Cash & Short Term**	**Equity**	**Schedule BA**	**Real Estate**
2008	72.0%	7.6%	6.5%	9.2%	3.8%	0.8%
2013	72.2%	7.1%	4.1%	10.5%	5.4%	0.7%

Source: NAIC, Patpatia & Associates Research & Analysis

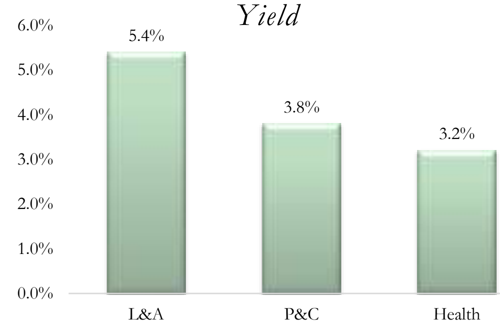
Chapter 3 – U.S. Insurance Company Investment Practices

Section B – Investing in Challenging Yield Circumstances

The Sustained Low Yield Environment

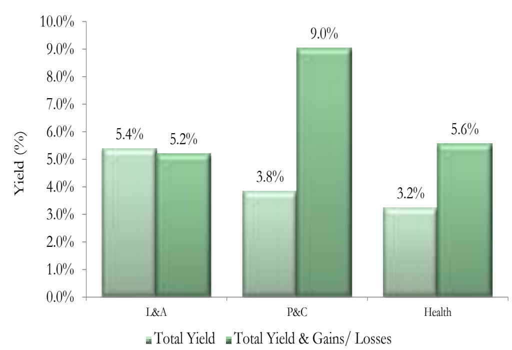
For most insurers, investment income constitutes a significant source of revenue. For instance for life insurers, premiums only account for approximately 75% of revenues, with the remaining 25% from investment earnings and administrative fees. However, particularly in developed markets such as the U.S., Japan, and Europe, insurers have had difficulties achieving sufficient investment income to meet profitability targets as governments have dropped interest rates for an extended period of time to spur economic recovery. This has driven yields on new investments in investment grade bonds to low levels, pulling down total portfolio yields over time. Over the past 5 years, insurers' combined gross investment yield has declined a full percent, dropping from 5.9% in 2008 down to 4.9% in 2013.

Exhibit 17: 2013 Gross Investment Yield



Since life & annuity insurers generally have actuarially predictable liabilities, with well-defined cash flow requirements from bond coupon payments and maturities, they typically follow a "buy-and-hold" book income investment strategy. From a regulatory standpoint, they are encouraged to focus on yield generation, as opposed to capital appreciation. Notably, life & annuity insurers achieved average yields of 5.4% in 2013, by focusing on higher income producing strategies. In turn, realized gains & losses typically had a very limited impact on their investment results. In 2013, life insurers experienced very modest realized losses through bond impairments and selective security sales, causing aggregate returns to decline by only 0.2% from 5.4% (life insurers' gross yield on the portfolio) to 5.2% (life insurers' aggregate gross yield from investment yield plus realized gains & losses).

Exhibit 18: Aggregate Gross Yield & Realized Gains/Losses by Business Line



Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section B – Investing in Challenging Yield Circumstances (Continued)

The Sustained Low Yield Environment *(Continued)*

Investment income is also essential to maintaining the profitability of property & casualty insurers, covering underwriting margin shortfalls. However, for most P&C insurers, the timing of claims against their liabilities are significantly less predictable as compared to life insurers. Natural catastrophes, corporate scandals, medical device failures, and similar sporadic events cause spikes in claims that must be backed by asset sales. For this reason, P&C insurers are less reliant on buy-and-hold strategies, following a constrained total return investment approach.

This generally leads P&C insurers to invest in higher quality fixed income investments that are not as far out on the yield curve, leading to lower average yields on their portfolios (3.8% in 2013 vs. 5.4% at life insurers). In the face of the challenging interest rate environment, P&C insurers' gross investment yield declined from 4.4% in 2009 to 3.8% in 2013.

At the same time, their total return investment strategies include strategic & tactical sales of securities to capitalize on valuation changes, allowing these insurers to take advantage of appreciation of securities with greater price volatility. Because of this, they invest to a greater degree in equity-type investments, as well as actively traded bond strategies. Through these approaches, P&C firms have been able to generate sizeable realized capital gains, which are a significant driver of their overall investment returns. In fact, aggregate gross returns from both portfolio yield and realized gains/ losses at P&C insurers in 2013 reached 9.0%, a 5.2% increase due to realized gains & losses over the 3.8% from gross yield alone.

Similar dynamics are at work at health insurers. However, due to the operating nature of their businesses, they have a focus on maintaining high levels of cash and other liquid short term investments to support their operating capital requirements. This is paired with a longer term

Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section B – Investing in Challenging Yield Circumstances (Continued)

The Sustained Low Yield Environment *(Continued)*

investment strategy which includes longer-duration credits, along with common stocks (including mutual funds and ETFs) and alternatives at the more proactive firms.

As such, with their portfolios biased to the short end of the yield curve from their high operating capital positions, health insurers' gross yields tend to be lowest of all the lines (3.2% in 2013 vs. 5.4% at life insurers & 3.8% at P&C insurers). The contribution of realized gains & losses from total return management on the longer-term segment of the portfolio is significant, but not as great as at P&C insurers (+2.4% leading to an aggregate return of 5.6% vs. +5.2% leading to an aggregate 9.0% for P&C carriers).

Insurance companies' varying investment strategies and asset allocations, as well as the resulting impacts on portfolio returns are discussed in further detail in Chapter VII.

Strategies to Address the Risk Associated with Rebounding Interest Rates

Insurers are now facing the specter of the Federal Reserve soon beginning to raise interest rates. While that will increase yields on new bond issues, making it easier for insurers to invest new funds at suitable spreads over their liability costs, the values of their existing bond holdings may be challenged.

This may strike most strongly some of the investment strategies that insurers have pursued in the longstanding low rate environment. Firms that have been extending their portfolio duration out of match with their liabilities to capitalize on the yield curve may be locked in to lower yielding assets or face reduced sales values. Those that moved into lower quality, high yielding credits may face increased delinquencies & defaults as borrowers deal with increasing credit costs on other lending or refinancing.

This is spurring many insurers to redouble their movement toward focused investments in real assets (e.g. real estate, infrastructure) and hedge funds that can drive returns in all rate environments. Leading firms are also deploying more proactive interest rate and credit analytics to monitor and sensitivity test exposures and reposition their fixed income portfolios accordingly.

Chapter 3 – U.S. Insurance Company Investment Practices

Section C – Unique Business Line Influences on Investment Strategy

Life & Annuity Insurers

Faced with sizeable long-term, interest rate sensitive liabilities and subject to book income accounting, life & annuity insurers typically pursue a yield-oriented, "buy and hold" investment approach. The intent is to produce predictable cash flows from interest and maturing securities to align with projected liability payments.

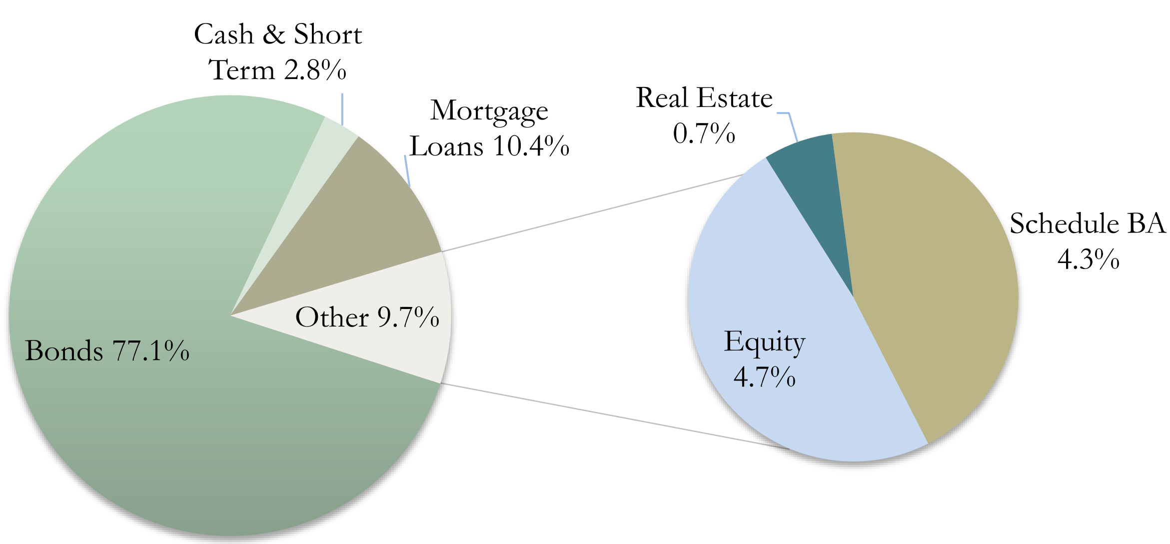
Similarly, the strategy emphasizes limiting price volatility, and particularly downside risk. This helps to preserve the long-term claims-paying ability of the general account reserves, which must back future obligations on life insurance, annuities, and other policies that may not pay out for 20 years or more.

Book Income Approach

- ✓ Actuarially predictable, typically interest rate sensitive liabilities
- ✓ Manage duration & cash flows – optimized relative to risk-return expectations
- ✓ Yield-oriented "buy & hold" investment strategy
- ✓ Seeks to limit downside risk

As a result, L&A insurers tend to prefer fixed income investments. They allocated 77.1% of invested assets to bonds in 2013, well above either P&C (63.6%) or Health (54.7%). Income-producing mortgage loans are another important asset for L&A insurers: nearly absent from other insurers' portfolios, mortgage loans constitute 10.4% of L&A investments.

Exhibit 19: Life & Annuity Portfolio Distribution, 2013



Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section C – Unique Business Line Influences on Investment Strategy (Continued)

Life & Annuity Insurers *(Continued)*

Because of their preference for income over capital appreciation, L&A insurers have been slower than those in other business lines to make large proportional allocations to more volatile assets, such as equities and Schedule BA. Unlike other insurers, their use of equities has decreased since 2008; however, Schedule BA allocations have grown by nearly one percentage point. These have been limited not only to limit price volatility, but also to avoid onerous risk-based capital requirements, which are more severe than those imposed on property & casualty or health firms.

Exhibit 20: L&A Portfolio Distribution, 2008 vs 2013

	Bonds	Mortgage Loans	Cash & Short Term	Equity	Schedule BA	Real Estate
2008	73.8%	11.2%	5.1%	5.7%	3.5%	0.7%
2013	77.1%	10.4%	2.8%	4.7%	4.3%	0.7%

Historically, when life insurers have invested in alternatives they have concentrated on less liquid private asset partnerships. These have been more compatible with their book income strategies, investing in products that bring significant income potential (e.g. from mezzanine financing interest or infrastructure use fees/ real estate rents) or limited pricing volatility (e.g. illiquid private equity fund interests held at commitment values in initial years).

However, innovative life insurers are beginning to draw upon less correlated alternatives to mitigate overall portfolio risk. Firms have learned from the credit crisis that investing in fixed income does not automatically protect from value impairments. Therefore, many life insurers are now keeping greater attention on portfolio total returns, while still investing to maximize book yield. In that light, they are starting to grow modest exposures to less correlated hedge fund and commodity investments to reduce aggregate portfolio volatility and increase risk-adjusted total returns.

Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section C – Unique Business Line Influences on Investment Strategy (Continued)

Property & Casualty Insurers

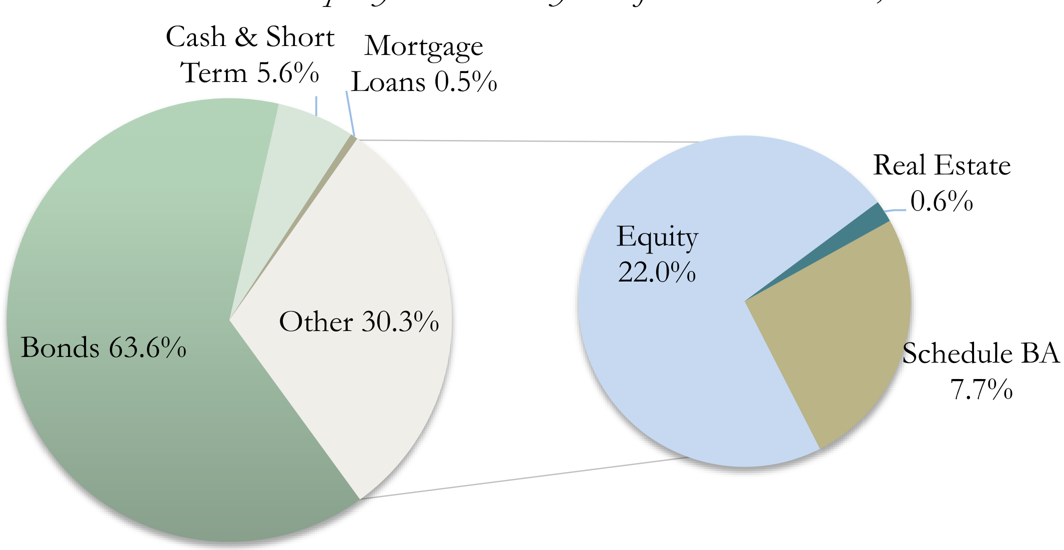
Due to the distinct nature of their liabilities, P&C insurers have greater latitude in selecting investment strategies than do their L&A peers. Unlike L&A insurers, P&C companies' liabilities are typically short-term and claims payments tend to be covered by current premiums. Their general account reserve portfolios, therefore, are generally significantly smaller relative to their premium flows when compared to those of life insurers, who must save up for large, predictable future payments.

Constrained Total Return Approach

- ✓ Varying degrees of interest sensitivity
- ✓ Focus on liquidity; short duration
- ✓ Balance income & capital duration
- ✓ Seeks to limit downside risk

P&C liabilities are generally more volatile, however, since they are prone to unpredictable claims driven by catastrophes, such as hurricanes generating concentrated, high loss homeowners property insurance claims, or other sporadic, unanticipated events, such as medical device product liability insurance claims. P&C insurers' more modest investment portfolios are relied upon primarily to cover these unanticipated cash flow needs resulting from high claim events. This requires P&C insurers' investment portfolios to maintain significant levels of liquidity, allowing asset sales to raise any necessary cash in these loss scenarios.

Exhibit 21: Property & Casualty Portfolio Distribution, 2013



Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section C – Unique Business Line Influences on Investment Strategy (Continued)

Property & Casualty Insurers *(Continued)*

For these reasons, P&C insurers can support more actively managed, capital appreciation investment strategies, investing in growth-oriented assets (e.g. equities, Schedule BA alternatives) alongside fixed income securities. However, these total return investment programs remain constrained by a breadth of tax, regulatory, accounting, capital, and liquidity considerations.

Exhibit 22: Property & Casualty Portfolio Distribution, 2008 vs 2013

	Bonds	Mortgage Loans	Cash & Short Term	Equity	Schedule BA	Real Estate
2008	69.7%	0.4%	8.4%	16.1%	4.6%	0.8%
2013	63.6%	0.5%	5.6%	22.0%	7.7%	0.6%

P&C insurers have demonstrated the most flexibility in responding to the low-yield environment, with portfolio allocations undergoing the most dramatic changes of all the insurance business lines since 2008. Average bond and cash positions have significantly reduced over the past 5 years, by 6.1% and 2.8% respectively. P&C firms have reallocated these funds in turn into appreciation-oriented equities and Schedule BA alternatives, raising these combined positions to nearly 30% of their general account investments. This has resulted in P&C insurers having the largest allocation to Schedule BA assets of any business line (7.7%, vs. 4.3% for L&A and 4.6% for health).

Source: NAIC

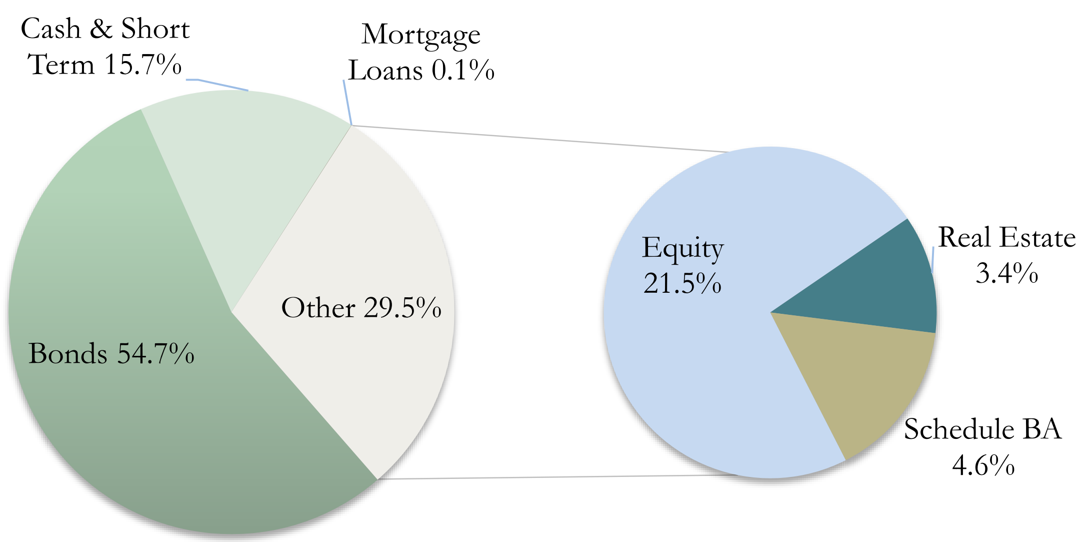
Chapter 3 – U.S. Insurance Company Investment Practices

Section C – Unique Business Line Influences on Investment Strategy (Continued)

Health Insurers

In many ways, modern managed care health insurance businesses represent an outlier in the marketplace, with business fundamentals and investment patterns that differ significantly from those of peer companies in the L&A and P&C business lines. Health insurers' business models more closely parallel operating companies, financing healthcare networks for ongoing preventative as well as critical care, than they resemble the indemnity insurance models of life and P&C firms, which provide financial protection against claims-triggering events (e.g. death, retirement, car crash, fiduciary breach). Premium rates, especially under the Affordable Care Act, are highly regulated, set to cover anticipated claims while producing reasonable operating margins. This limits the need for large, long-term investment portfolios.

Exhibit 23: Health Portfolio Distribution, 2013



For this reason, health insurers' general account portfolios are often managed in to discrete components, with both short-duration and longer-term investment portfolios. The near-term investment segment is used to directly support carriers' operating capital requirements. This

Health Insurers *(Continued)*

component is maintained in high quality, short duration, and very liquid investments to ensure its continual availability to support ongoing business operations. As a result, health insurers tend to maintain very large allocations to cash compared to other insurance businesses, reaching 15.7% in 2013 (vs. 2.8% for life & annuity and 5.6% for property & casualty insurers).

On the other hand, a smaller share of their investment portfolios is frequently segregated for longer-term investment strategies, employed to both protect against unanticipated claims incidence and boost corporate returns. This component is generally managed in a constrained total return approach, similar to P&C insurers, with a significant focus on actively managed investments with capital appreciation potential, including equities and Schedule BA alternatives.

Exhibit 41: Health Portfolio Distribution, 2008 vs 2013

	Bonds	Mortgage Loans	Cash & Short Term	Equity	Schedule BA	Real Estate
2008	55.6%	0.1%	19.2%	18.7%	2.7%	3.7%
2013	54.7%	0.1%	15.7%	21.5%	4.6%	3.4%

In fact, health insurance firms have been seeking to mitigate the effects of the low-yield environment by adjusting their portfolios in favor of these higher returning assets. Since 2008, health insurers have increased equity allocations significantly, while approximately doubling their allocation to Schedule BA assets.

Source: NAIC

Section D – The Drivers of Insurers' Portfolio Returns

As the majority of all insurers' portfolios are comprised of bonds and other income-oriented investments, these portfolio components have influenced returns most significantly; 72.2% of insurers' portfolios are comprised of bonds, explaining why insurers' investment returns track closely to their bond yields. This is particularly true of life insurers, who maintain the greatest exposure to bonds within the industry (77.1% of their total portfolios vs. 63.6% for P&C and 54.7% for health insurers).

Exhibit 25: Gross Yield from Bonds by Business Line

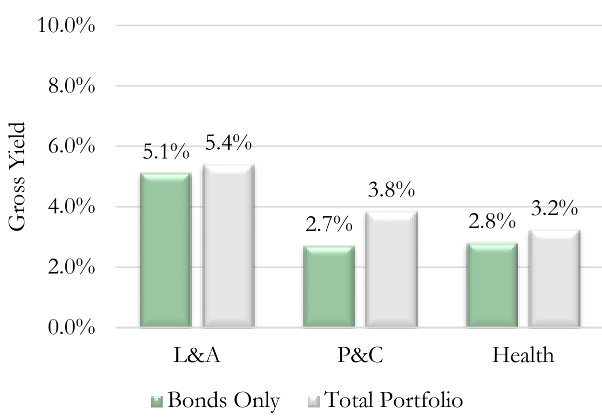
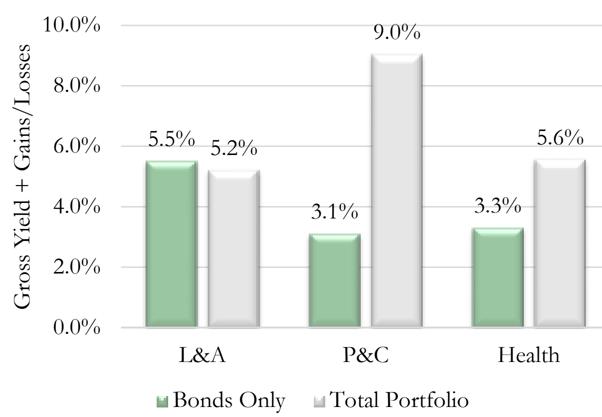


Exhibit 26: Gross Yield + Gains/Losses from Bonds by Business Line



Life insurers achieved the greatest bond yields, within their ALM-driven, income-focused investment strategies. Having generally longer-duration liabilities than P&C and health insurers, L&A firms were able to invest further out on the yield curve and invest to a greater extent in private placements (20.4% of general account assets) and below investment grade securities (4.5%) each generating a yield - premium over investment grade public bonds (see p. 67-73 for further details on insurers' bond investment tactics).

Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section D – The Drivers of Insurers' Portfolio Returns (Continued)

When accounting for realized gains & losses, L&A firms' buy & hold investment strategy becomes clear, with the combined yield with gains & losses experiencing only a very small decline, largely due to life insurers realizing a modest amount of other than temporary impairments. On the other hand, both P&C and health insurers' returns benefited significantly from realized gains in their bond portfolios, which they were able to capitalize upon through constrained total return investment approaches.

Exhibit 27: Gross Yield from Preferreds by Business Line

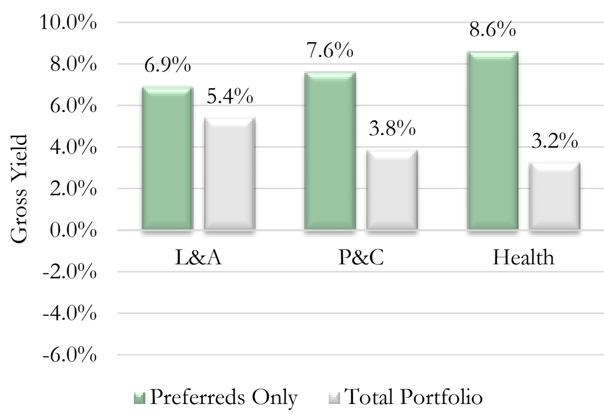
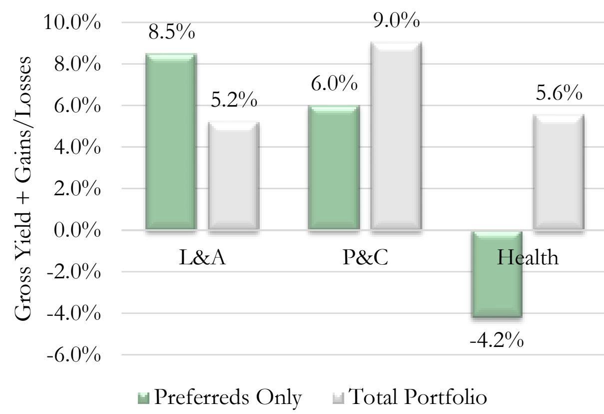


Exhibit 28: Gross Yield + Gains/Losses from Preferreds by Business Line



Preferred stock investments served as yield enhancements to all insurers' portfolios, with yields far exceeding insurers' bond holdings. However, these higher yields had limited incremental impact on the total portfolio, as insurer allocations were very limited (0.2% for L&A, 0.7% for P&C, 0.2% for health insurers).

Exhibit 29: Gross Yield from Mortgages by Business Line

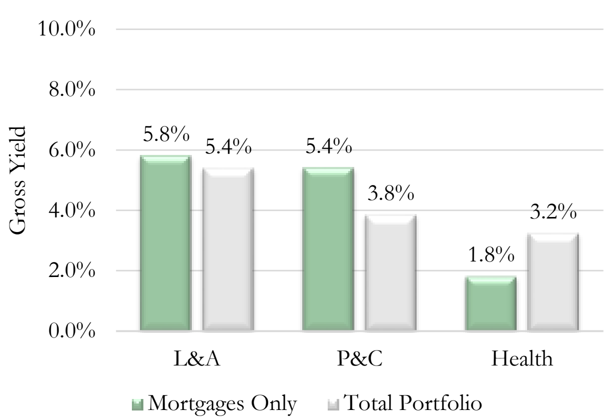
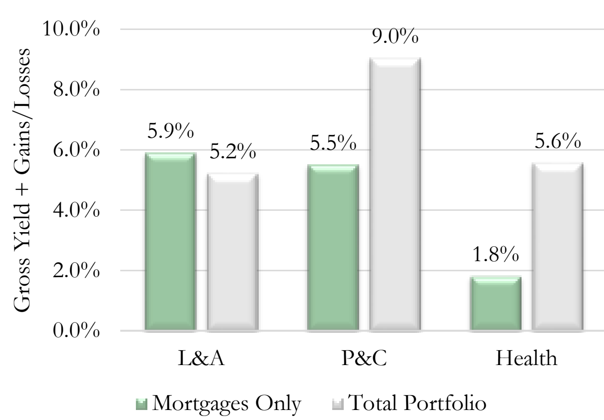


Exhibit 30: Gross Yield + Gains/Losses from Mortgages by Business Line



Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section D – The Drivers of Insurers' Portfolio Returns (Continued)

The incorporation of direct commercial mortgage lending provided a significant yield benefit for participating life insurers, with mortgages producing 0.7% greater yield than their bond investments. However, due to their longer-duration and illiquid nature, direct lending was not material to P&C and health insurers strategies (10.4% of life insurers' general accounts vs. 0.5% for P&C and 0.1% for health insurers).

Exhibit 31: Gross Yield from All Other Assets by Business Line

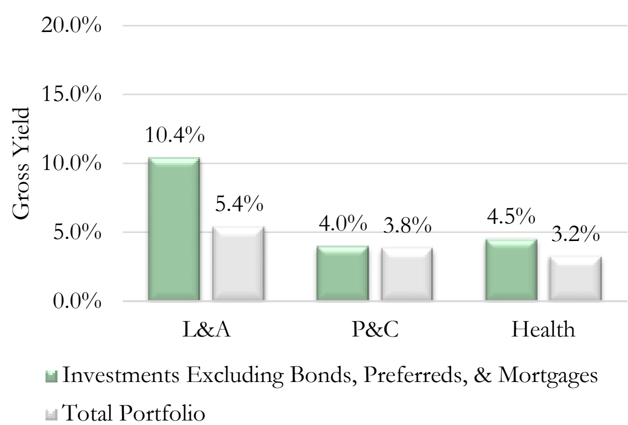
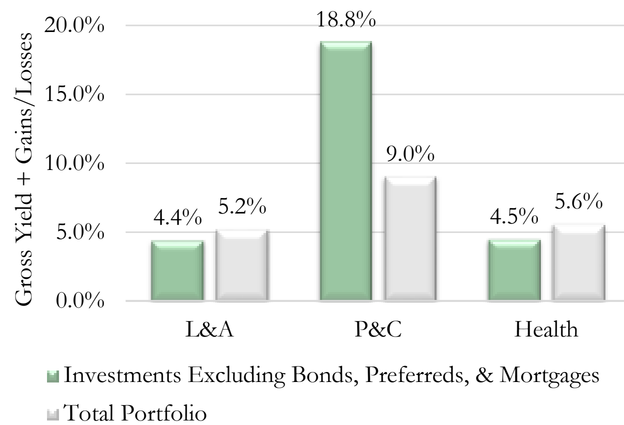


Exhibit 32: Gross Yield + Gains/Losses from All Other Assets by Business Line



The return composition of insurers' other investments, including real estate, equities, alternatives, and derivatives, generally contributed positively to their results and clearly demonstrate their unique business priorities. Life insurers focused on income-generating assets, driving yield enhancement, whereas P&C insurers relied on the capital appreciation potential of these investments to reinforce their constrained total return investment strategies.

Source: NAIC

Chapter 3 – U.S. Insurance Company Investment Practices

Section D – The Drivers of Insurers' Portfolio Returns (Continued)

Evolving Investment Strategies in the Reach for Yield

As traditional fixed income strategies have generated declining returns in the low yield environment, insurance companies have been spurred to search for new investment opportunities – both by changing the composition of their fixed income portfolios and increasing investments to non-traditional investments, including alternative asset classes.

For a few, these asset classes may represent "parking strategies" – a means of generating returns while waiting for spreads in investment grade bonds to widen when interest rates in developed markets eventually rise. However, for many, these investments constitute a fundamental change to insurance company investment practices, to be harnessed not only to enhance returns, but to also better manage risk through portfolio diversification.

For most, this diversification is happening in an evolutionary, not revolutionary, fashion. For all, fixed income remains the primary driver of yield. However, many insurers who had previously focused efforts exclusively on selecting investment grade, domestic fixed income (i.e. core bond strategies) are now beginning to experiment with higher-yielding fixed income investments.

By incrementally adding modest exposures to high yield securities, bank loans, international investments and other fixed income diversifiers, they hope to achieve superior risk-adjusted yields, without taking on outsized loss potential. Of course, this is necessitating firms to improve their market risk monitoring, to monitor & manage increased credit, interest rate, and currency exposures.

Source: NAIC

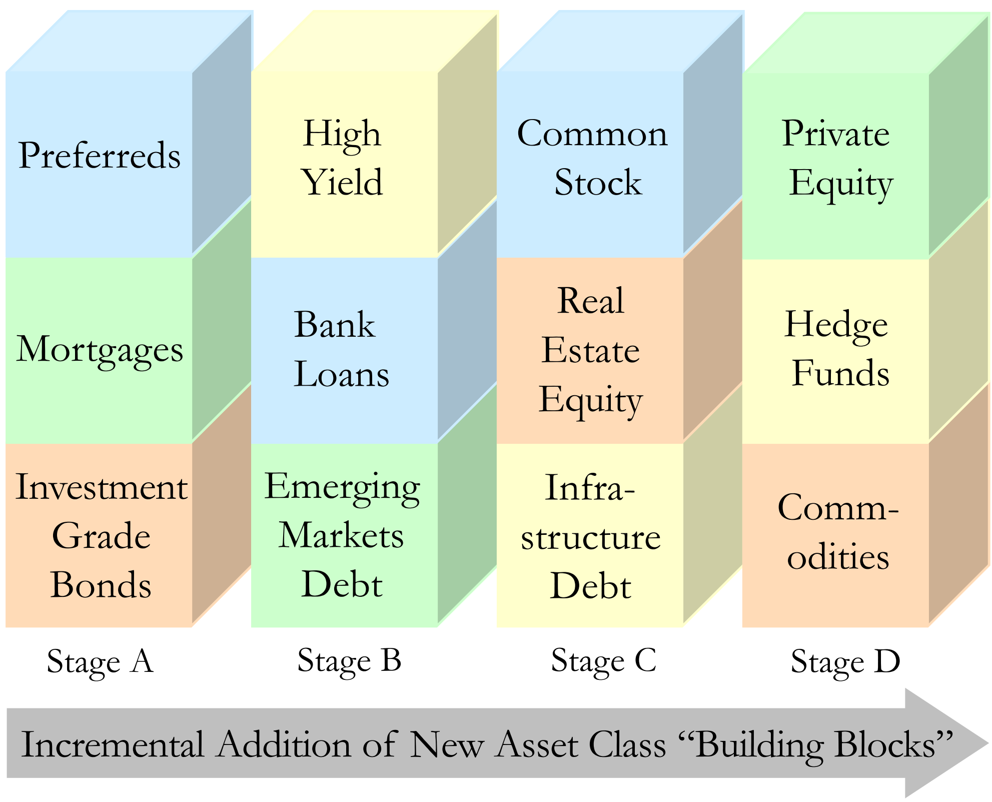
Chapter 3 – U.S. Insurance Company Investment Practices

Section D – The Drivers of Insurers' Portfolio Returns (Continued)

Evolving Investment Strategies in the Reach for Yield *(Continued)*

Different insurance businesses' fixed income strategies, including bond allocations across investment types, use of private placements, the role of below investment grade investments, and maturity structure, are discussed on pp.67-73.

Exhibit 33 – A Staged Evolution of Asset Strategies



Some of these insurers will remain content within the bounds of these enhanced fixed income strategies. However, many leaders are moving deliberately to truly diversified investment approaches, bringing modest allocations to equities, alternative assets, and equity real estate investments into their portfolios.

Source: NAIC

Chapter 2 – Insurance Market Trends

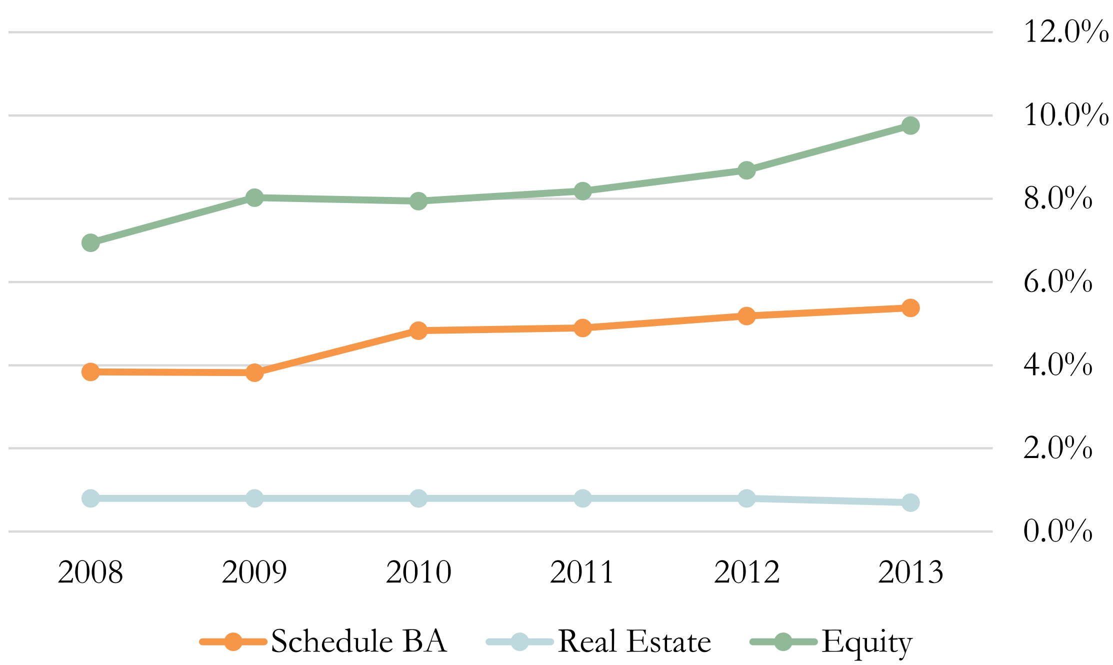
Section F – Meeting the Challenges of a Low Yield Environment (Continued)

Evolving Investment Strategies in the Reach for Yield *(Continued)*

As they attempt to maximize returns in a low-yield environment, many insurers have particularly increased their allocations to a variety of alternative asset classes, including private equity, hedge funds, and infrastructure, as well as other specialty investments, such as mineral rights, aircraft leases, and debt & real estate limited partnerships. In statutory filings, these non-traditional investments are classified as Schedule BA assets.

This gradual evolution in strategy has been reflected in insurers' portfolios. In fact, in 2013, Schedule BA assets accounted for 5.4% of insurers' total invested assets, up from 3.8% in 2008.

Exhibit 34: Allocation to Non-Fixed Income Investments, 2008-2013



Source: NAIC

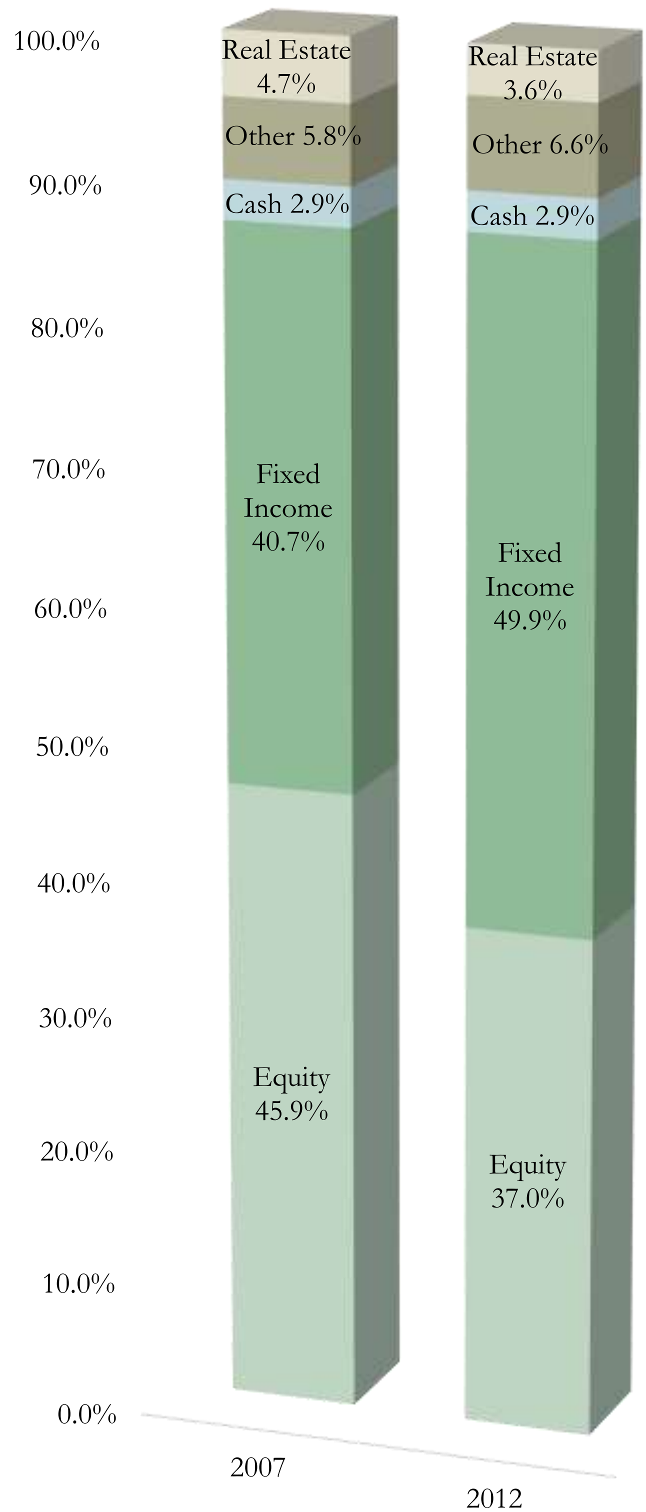
Section A – Europe

Faced with relatively underdeveloped local fixed income markets, European insurers' investment strategies have historically been heavily weighted towards equity investments. In 2012, insurers in Europe allocated 37.0% of their investment portfolios to equity, compared to only 10.5% in the U.S. Fixed income accounted for only 49.9% of European portfolios, compared with 71.6% in the U.S.

The situation is even more pronounced in the U.K. In 2012, fixed income comprised only 17.7% of U.K. insurance company portfolios & equity constituted 66.9% (see chart on p. 46).

Following the financial crisis, however, European insurers have reduced allocations to risk assets by a significant amount, with equity decreasing by 9 percentage points from 2007. Investment strategies will change even more dramatically by 2016 when the full implementation

Exhibit 35: European Portfolio Distribution, 2007 & 2012[1]



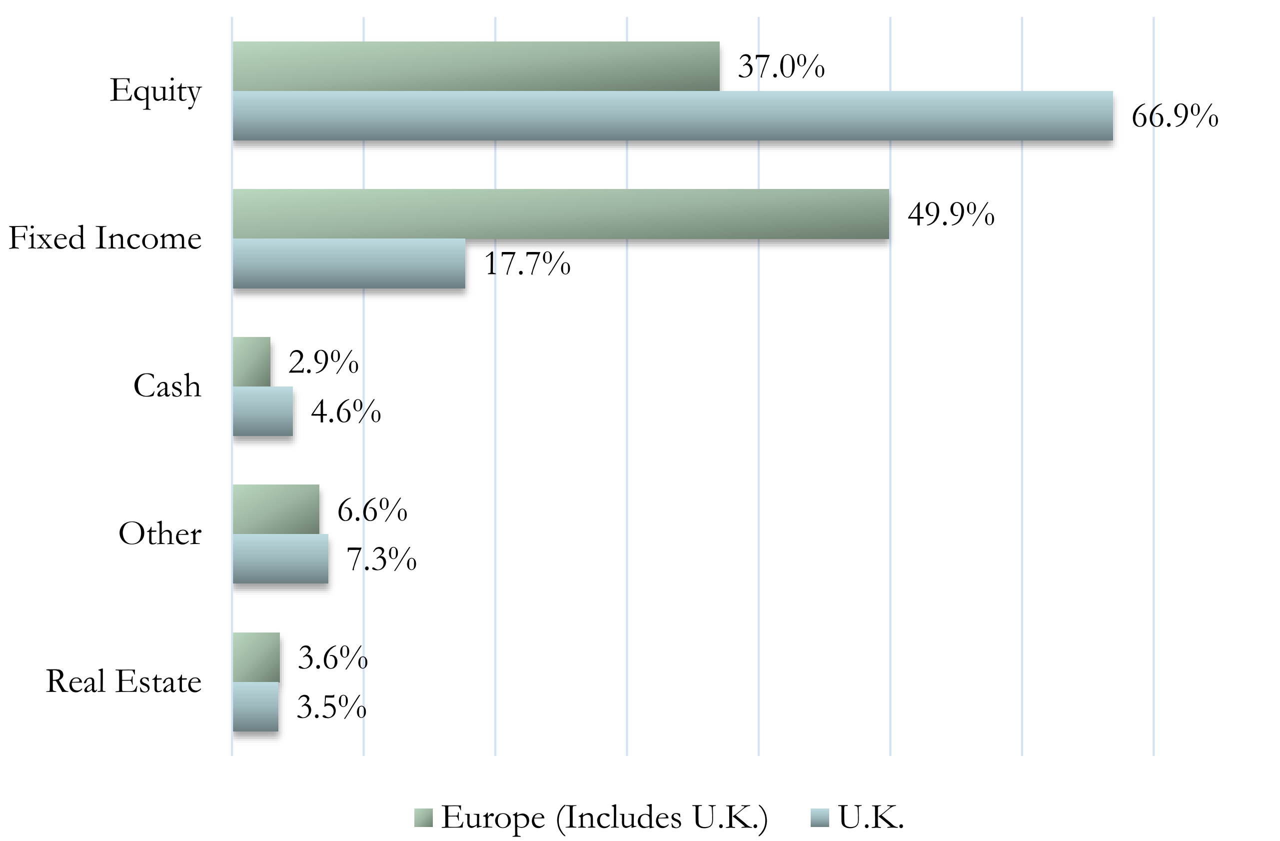
Source: Insurance Europe *[1]2013 data not available*

Chapter 4 – Global Insurance Company Investment Practices

Section A – Europe (Continued)

of Solvency II will require extensive risk-based capital reserves for riskier asset classes, including equity. Allocations to fixed income are likely to increase due to very low capital charges on these assets – for instance, the capital charge on government bonds is currently set at 0%. At the same time, however, investments in alternatives are predicted to increase as well, as insurers hope that alternatives – unlike equities – may produce a yield that is high enough to compensate for increased capital charges.

Exhibit 61 – Asset Allocation: U.K. vs. Europe, 2012[1]



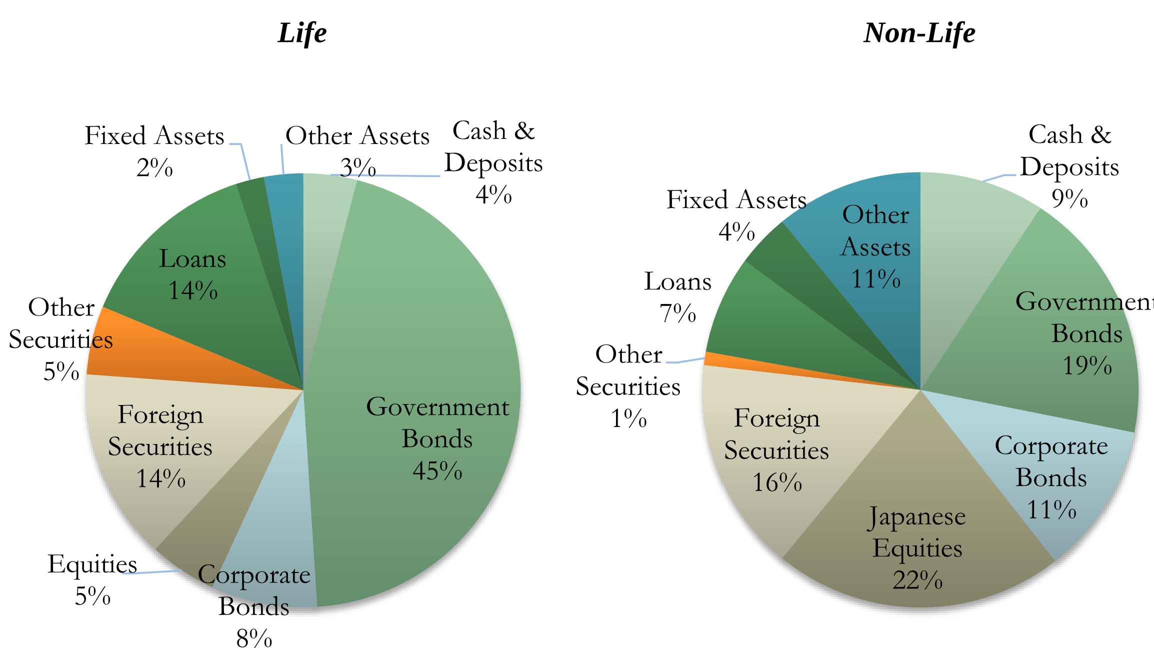
Source: Insurance Europe *[1]2013 data not available*

Section B – Asia

Japan

Insurance companies are important institutional investors in Japan, historically serving as the largest purchasers of Japanese government debt (as a result of the government's bond-buying strategies, the Bank of Japan has recently surpassed insurance companies in this regard). Even given extremely low fixed income yields (currently, 0.35% on a 10-year government bond, vs. 2.07% in the U.S.), Japanese insurers' allocations to domestic government bonds are significantly higher than their U.S. peers', averaging 32% across business lines compared to 7% in the U.S. However, total fixed income allocation is lower than in the U.S., at 32% of the total investment portfolio vs. approximately 70% in the U.S.

Exhibit 37: Japanese Insurers' Portfolio Distribution



Source: IMF

Chapter 4 – Global Insurance Company Investment Practices

Section B – Asia (Continued)

Japan (*Continued*)

In part, the government's bond-buying policies are designed to diminish the attractiveness of government bonds in order to encourage risk-averse institutional investors to participate more fully in the Japanese capital markets. Should the government's program continue in force, Japanese insurers can be expected to increase allocations to equities. Certain insurers, such as Japan Post Insurance, have already begun this transition. It remains to be seen, however, whether the current political momentum in this direction can be sustained.

Asia Excluding Japan

Outside of Japan, Asian insurers' allocations to fixed income and cash are generally high, constituting 75%-85% of the portfolio in most countries. Conversely, allocations to alternatives are relatively small, at 3% of total insurance investments. Equities display the greatest degree of variance across countries, ranging from 0.3% (Vietnam) to 37.7% (Indonesia).

Despite certain regional characteristics, such as a high allocation to fixed income, Asian insurers' portfolios vary significantly by country, as each country enforces its own reserve capital and asset concentration guidelines. For instance, high allocations to fixed income in less-developed economies, such as Vietnam and Thailand, are encouraged by regulatory guidelines promoting investment in domestic bonds.

Chapter 4 – Global Insurance Company Investment Practices

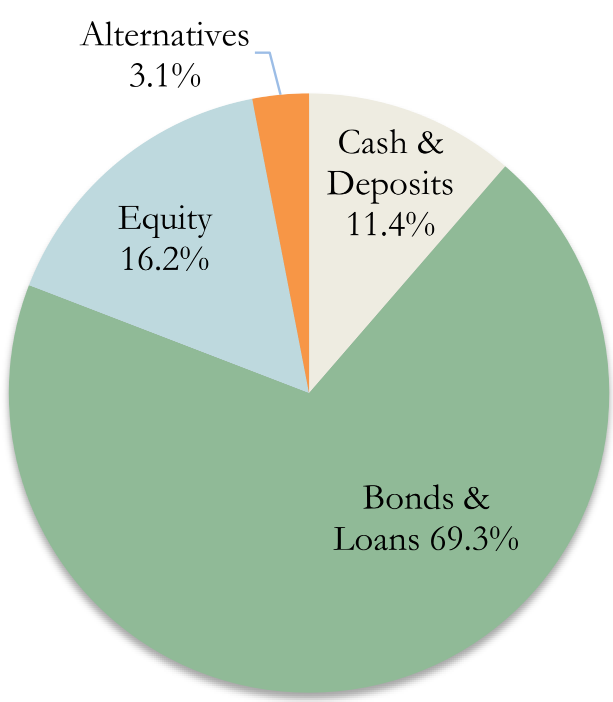
Section B – Asia (Continued)

<u>Asia Excluding Japan (*Continued*)</u>

Of course, investment drivers are not always regulatory. For instance, mainland Chinese insurers, which have a larger allocation to cash and deposits than their peers in other Asian countries (30%, vs. a total industry allocation of 11.4%), are primarily motivated by the attractive rate of return currently available through domestic money market funds.

As investment restrictions ease in countries such as mainland China and Korea, larger allocations to alternatives and global equities are predicted. However, investment strategy will continue to vary significantly by country, as insurers respond to their local regulatory and market environments.

Exhibit 38: Asian Insurance Industry Portfolio Distribution (ex. Japan)



Source: Ernst & Young

Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Reinsurers must contend with many of the same challenges faced by their primary market counterparts. For instance, as with other insurers, low interest rates have had adverse consequences for reinsurers' long-term earnings power. In recent years, this impact has been somewhat offset by several profitable underwriting years and the return of capital to shareholders through share buybacks and dividends facilitated by low rates. However, underwriting profitability can be volatile and may not persist, driving many reinsurers to enhance allocations to higher-yielding asset classes.

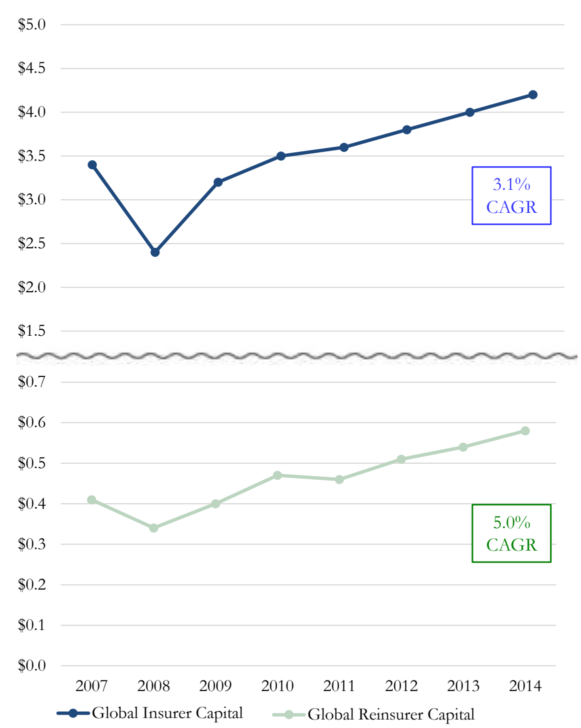
In addition, reinsurers are also subject to an additional set of factors unique to the reinsurance sector. These factors include overabundant capital, a high level of M&A activity, and soft reinsurance pricing, driven in part by the absence of major loss events.

Section A – Overabundant Capital

Reinsurer capital is at an all-time high and continues to grow due to underwriting profitability and increasing flows from alternative sources of capacity (such as cat bonds, side cars, and hedge fund-sponsored reinsurers).

Global reinsurance capital was $575 B at the end of 2014, up 6% over 2013. While traditional forms of capital increased 4 percent, alternative capital (consisting of catastrophe bonds, collateralized reinsurance, ILWs, and hedge fund sponsored reinsurers) increased at an annual rate of 28 percent to $64 B.

Exhibit 39: Global Insurer & Reinsurer Capital ($ in T)

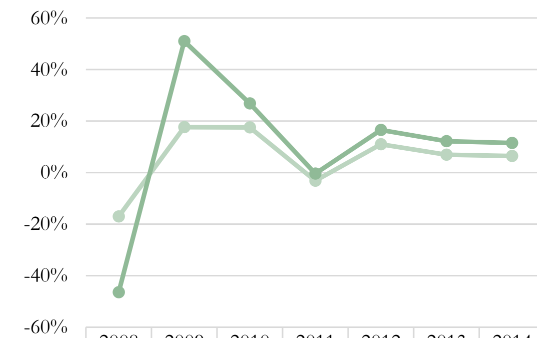


Source: Aon Benfield Analytics, NAIC

Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Section A – Overabundant Capital (Continued)

Exhibit 40: Annual Change in Global Insurer & Reinsurer Capital



	2008	2009	2010	2011	2012	2013	2014
Global Insurer Capital	-29%	33%	9%	3%	6%	5%	5%
Global Reinsurer Capital	-17%	18%	18%	-3%	11%	7%	6%

While hedge funds continue to pursue establishing offshore reinsurers as permanent capital and tax efficient investment vehicles, barriers to entry are making this strategy increasingly difficult. The rating agencies have become more critical of operating plans and strategies. In order to achieve an "A-" (or equivalent) financial strength rating, the agencies are requiring NEWCOs to raise greater amounts of capital, field experienced management teams, and demonstrate credible operating plans that are expected to product solid results. In addition, recently proposed US Treasury regulations are aimed at reducing the use of reinsurance companies by hedge funds as tax efficient investment vehicles without any substantial reinsurance activities.

Despite poor investment returns and the soft pricing environment, the industry reported solid financial performance for 2014. Return on equity was stable at approximately 11%, supported by low catastrophe losses and an increasing amount of equity capital being returned to shareholders through share buybacks and dividends.

Section B – Pricing Pressure

Across the entire spectrum of reinsured risks – property, casualty, and life – excess capital, moderate losses and heightened competition continues to put downward pressure on pricing.

Source: Aon Benfield Analytics, NAIC

Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Section B – Pricing Pressure (Continued)

The continuing over-supply of risk-bearing capacity is negatively impacting virtually all segments of reinsurance pricing globally. For example, according to reinsurance broker Guy Carpenter, pricing of US property catastrophe coverage decreased on average by 7% to 14% during the January 1, 2015 renewal season over the prior year. On the other hand, the US casualty market did not experience the dramatic rate reductions that occurred throughout 2014, nevertheless, pricing remained soft during January 2015 renewals.

In 2014, Life reinsurers were not immune from this global pricing trend as aggressive competition and decreasing transaction volumes held down pricing for both traditional life reinsurance and in-force blocks.

Subject to severe pricing pressure, reinsurers are increasingly reliant on strong investment returns to generate supplemental income. Pricing pressure is also a contributing factor in a wave of reinsurance M&A activity, discussed below.

Section C – M&A Activity

The reinsurance industry has seen a significant uptick in M&A activity in 2014-2015. Renaissance Re's acquisition of Platinum closed in late Q1 2015, and transactions between AXIS and Partner Re, as well as XL Capital and Catlin were announced, just to name a few.

This trend is driven in part by the increase in competition from alternative reinsurance solutions, including catastrophe bonds, retrocessional reinsurance, collateralized reinsurance, and industry-loss warranties. This competition has been exacerbated by hedge funds and other institutional investors that have recently entered the insurance market.

Faced with increased competition and severe pricing pressure, reinsurance margins have begun to erode, requiring reinsurers to build larger and more diverse liability portfolios in order to remain competitive. As a result, an ever larger number of reinsurers are seeking to gain the scale and diversification needed to remain competitive by participating in industry consolidation.

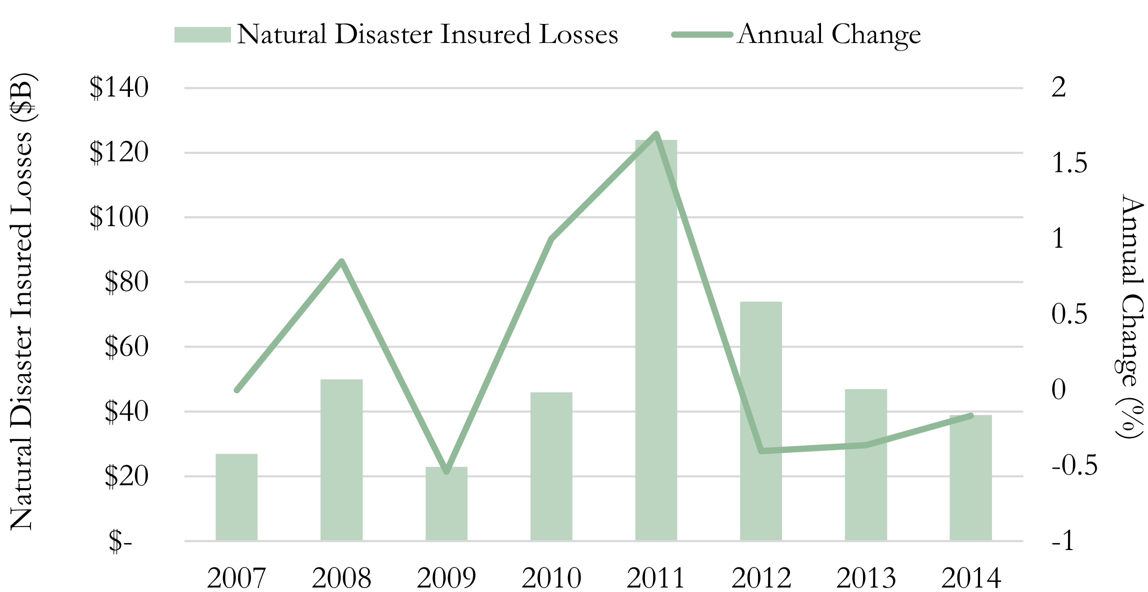
Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Section D – Loss Activity

For all its challenges, the reinsurance industry has also experienced certain advantages in recent years. For instance, the lack of significant insured losses is driving continued underwriting profitability despite soft reinsurance pricing.

Benign loss activity experienced in 2013 continued through 2014 and into early 2015, and was easily absorbed by the industry without impacting reinsurance pricing dynamics. Compared to 2013, global insured losses from natural catastrophes decreased by 17% to $39 B in 2014, and were 47% less than the $74 B of insured losses reported in 2012.

Exhibit 41: Global Reinsurance Loss Activity



Losses as % of Capital	6.6%	14.7%	5.8%	9.8%	27.3%	14.7%	8.7%	6.8%

Source: Aon Benfield Analytics, NAIC

Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Section E – Investment Strategies

Asset Allocation

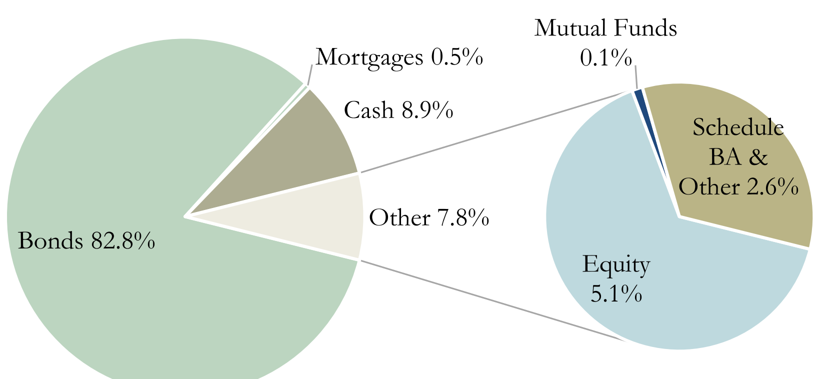
Different reinsurers are taking different approaches to asset allocation. Some focus their risk budgets on underwriting and maintain relatively less diversified and "lower-risk" portfolios.

However, many reinsurers have adopted sophisticated investment approaches that include a full spectrum of investment types. Additionally, a number of reinsurers take advantage of their multiple jurisdictions (e.g. U.S., U.K., Bermuda, Cayman) to capitalize on varying degrees of regulatory permissibility. Therefore, for many reinsurers, investment strategy is limited more by insurance rating agency oversight than by the investment regulations of a particular jurisdiction.

A few reinsurers, particularly unrated companies, have taken very proactive stances in adoption of alternative investment strategies. These organizations focus almost exclusively on non-traditional investment strategies to maximize available returns and support aggressive pricing policies.

Reinsurers' U.S. portfolios indicate their high degree of flexibility. Many leading reinsurers shift liabilities into offshore domiciles through inter-affiliate reinsurance relationships. As a result, although reinsurers' U.S. portfolios are relatively conservative, reinsurers are also able to make offshore investments in alternatives free from NAIC capital constraints. For instance, one leading reinsurer holds over half of its alternative investments in its Bermuda-based subsidiaries, accounting for approximately 12% of its total Bermuda-based portfolio.

Exhibit 42: Reinsurance Industry U.S. Asset Allocation



Source: AM Best

Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Section E – Investment Strategies (Continued)

Fixed Income Investments

As in their broader portfolios, reinsurers' U.S. fixed income investments reflect a relatively conservative investment strategy, supplemented by a more aggressive investment approach in the offshore portfolio. Compared to their direct insurance counterparts in the U.S., reinsurers' U.S. portfolios are weighted toward U.S. and foreign government bonds, as well as agency MBS.

Exhibit 43: Reinsurers' U.S. Fixed Income Allocation Relative to Direct Insurance Peers

Bond Type	L&A Direct	L&A Re	P&C Direct	P&C Re
Corporate	60.4%	53.8%	32.8%	41.7%
Municipal	6.2%	0.6%	36.4%	6.8%
U.S. Government	5.2%	33.3%	8.6%	21.1%
Foreign Government	3.0%	3.6%	2.9%	6.8%
Mortgage Backed Securities	17.2%	8.7%	14.7%	23.6%
ABS and Other Structured	7.1%	<0.1%	4.5%	<0.1%
Hybrid	0.9%	<0.1%	<0.1%	<0.1%

Similarly, reinsurers' onshore fixed income portfolios display a higher overall credit quality than their U.S. direct insurance peers. In the U.S., reinsurers are significantly less likely to invest in below investment grade bonds than their direct insurance counterparts, and are also far less likely to take advantage of private placements, a staple of U.S. direct insurers' portfolios.

Exhibit 44: Reinsurers' U.S. Fixed Income Bond Quality & Private Placements Use

	Below Investment Grade	Publicly Placed Bonds	Privately Placed Bonds
Reinsurers	1.8%	91.2%	8.8%
All Insurers	5.3%	78.2%	21.8%

Source: AM Best

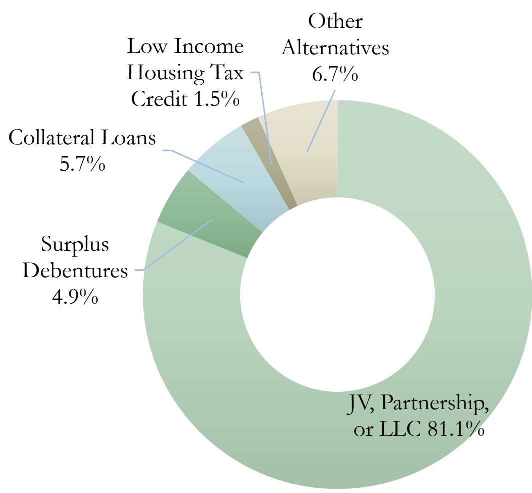
Chapter 5 – Developments in Reinsurance Business Models and Capital & Investment Strategies

Section E – Investment Strategies (Continued)

Alternative Investments

Within their onshore alternatives portfolios, reinsurers focus primarily on Joint Venture, Partnership, and LLC -type investments, as firms capitalize on private equity, hedge fund, and equity real estate vehicles.

Exhibit 45: Reinsurance Industry U.S. Alternatives Portfolio



These investments are particularly predominant in P&C reinsurers' alternatives portfolios. Life reinsurers, on the other hand, have focused their onshore alternative investments on debt-oriented investments, such as loans and surplus debentures.

Exhibit 46: Reinsurance Industry U.S. Alternatives Portfolio by Business Line

Asset Class	L&A Re	P&C Re	Total Re
JV, Partnership, or LLC	<0.1%	70.9%	81.2%
Surplus Debentures	43.8%	<0.1%	4.9%
Non-Collateralized & Collateralized Loans	50.5%	22.6%	5.7%
Low Income Housing Tax Credit	0.2%	1.3%	1.5%
Other Alternatives	5.5%	5.3%	6.7%

Source: AM Best

Chapter 6 – Insurance Investment Strategy & Operations

Insurers have been struggling with a number of critical issues as they seek to optimize their general account investment programs.

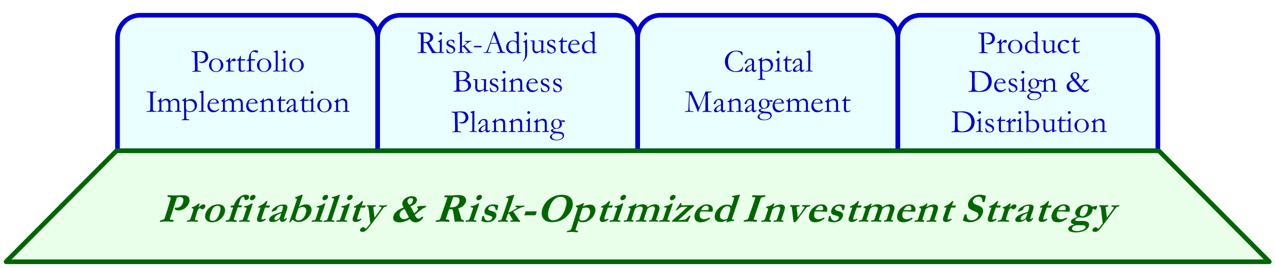
Section A – Defining an ALM Driven Investment Strategy

Establishing an ALM-driven investment strategy (and clearly communicating that strategy to third-party asset managers) is one of the key challenges that insurers must face in order to maintain a successful investment program. In particular, insurers must develop a disciplined approach to ALM-driven investing and establish a common risk sensitivity framework through liability replication, allowing a true optimization of product design, enterprise asset allocation, and hedging. Insurers, and their asset managers, will then be able to evaluate new asset classes for yield enhancement and total return – while remaining within the agreed-upon ALM and risk framework.

Developing this framework requires insurers to perform a top down assessment of their entire investment process and organization. By bridging enterprise silos such as product management, ALM, investment, and enterprise risk management functions, insurers can construct a collaborative, risk-optimized investment strategy process.

Investment Outsourcing: Critical Action Steps

- ✓ Define an ALM-driven investment strategy
- ✓ Evaluate insourcing vs. outsourcing
- ✓ Establish guidelines and benchmarks
- ✓ Design incentive programs
- ✓ Changing insurance investment, ALM, and risk management operating models
- ✓ Modernize investment systems



- ☑ Maximizing Profitability in Today's Low Yield Environment
- ☑ Incorporating Total Return Assets into Income-Oriented, ALM Investment Strategies
- ☑ Adaptation to Evolving Regulations and the Opportunities & Challenges of Economic Capital
- ☑ Diversifying from Credit Risk by Harnessing Multiple Return Levers (equities, rates, non-US)

Source: Patpatia & Associates' Proprietary Research

Chapter 6 – Insurance Investment Strategy & Operations

Section B – Evaluation of Insourcing & Outsourcing

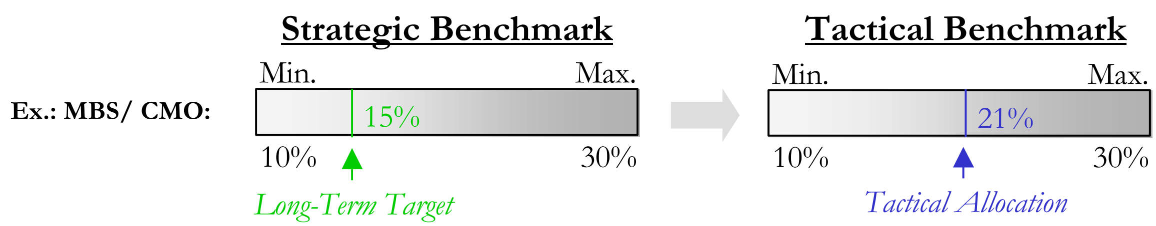
Determining which assets to manage internally – and which, if any, to outsource – is a critical decision that every insurance company must make. For most insurers, it is appropriate to make this determination separately for core fixed income assets and for "risk assets" (e.g., non-core fixed income, equities, and alternatives). While many companies with over $5 B in their general accounts may be able to effectively managed fixed income investments in-house, even the largest insurers may find that it is not cost-effective to build and maintain internal teams with expertise in non-core asset classes. In this respect, some companies may wish to follow the example of certain large insurers, which manage "vanilla" assets (i.e. core and core-plus strategies) in-house and outsource more exotic investments to a variety of external managers.

For many companies, determining whether or not to outsource certain assets may also be a determination about which strategic investment functions can – and should – be ceded to third-party managers. As noted in Chapter IX, many insurers expect third-party managers to provide various kinds of strategic analysis, such as tax modeling and ALM analysis. However, not all insurers feel that this is the most appropriate route. Certain companies outsource nearly 100% of their investment portfolios but perform all strategic functions (e.g., ALM analysis) in-house. Such determinations must take into account the extent of insurers' in-house analytics and modeling capabilities, as well as the degree to which they wish to oversee and inform external managers' investment strategies.

In determining whether or not to outsource a particular investment function or asset class, there is no "one-size-fits-all" model available to guide insurance company decisions. Outsourcing decisions cannot be made solely with reference to the size or core business of the insurer in question; rather, they must take into account the individual insurer's operational capabilities, as well as the nature of the relationship they wish to maintain with third-party asset managers.

Section C – Establishing Investment Guidelines and Benchmarks

Another challenge insurers face is the need to implement enterprise-appropriate, liability-based investment guidelines, restrictions, and benchmarks without negatively impacting external managers' ability to generate sufficient returns. In this area, insurers can pull from a variety of investment strategy groups, which establish both strategic and tactical benchmarks to measure the value-add of internal investment strategies (i.e., asset allocation) against value added by portfolio managers.



Definition	Long-term optimal positioning based on historical behavior of asset classes	Current investment directives exploiting short-term market opportunities
Components	Tolerance range & optimal target	Explicit allocation within ranges
Output	Strategic Benchmark – reviewed annually, infrequent updated *(typically every 3-4 yrs)*	Tactical Benchmark – periodic reviews *generally quarterly*

Incentive Program Design

Most insurers seek to incentivize managers for risk-adjusted returns by linking compensation to a combination of income, total return, and risk metrics (i.e. losses, compliance with investment guidelines). In general, strategic asset allocation benchmarks are used to set total return. These benchmarks are customized to take into account turnover constraints, restrictions on the investable universe, and ALM limitations. Benchmarks are paired with minimum income/spread targets to ensure sufficient yield generation.

Some insurers have experimented with alternative methods for determining compensation. For instance, some have implemented deferred performance compensation structures with the intent of incentivizing managers to seek long-term returns. Others have incorporated risk budgeting into the incentive structure: in these cases, any losses that exceed prearranged annual limits will lead to a reduction in fees. Neither of these methods has been widely adopted.

Chapter 6 – Insurance Investment Strategy & Operations

Section D – Changing Insurance Investment, ALM, & Risk Management Operating Models

In addition to modifying their investment strategies, some insurers have also fundamentally altered their operating business models in order to prioritize investment activities. Many firms are newly formalizing their asset management functions as discrete insurance investment units. Those companies that already have sizable investment units are developing further capabilities and integrating their strategy and portfolio management processes with the broader business functions.

Many insurers have historically relied upon very lean teams to develop and execute general account investment strategy. The smallest firms frequently leveraged the resources of the CFO and Treasury teams, or a thinly resourced Head of Investments, to direct an outsourced investment program. Many larger firms in turn relied upon affiliated asset management subsidiaries to represent their insurance interests and direct their portfolio strategies. However, both operating models have limited insurers' responsiveness to the challenging markets and ability for investment strategy to collaborate closely with insurance product teams.

A number of firms have recognized the shortcomings of these models and are now appointing separate insurance investment strategy and oversight units with dedicated Chief Investment Officer Functions for the first time (see diagram on p. 61). When done in a manner that is in line with an individual insurer's culture, affiliated capabilities, and investment needs, establishing a dedicated portfolio strategy & oversight unit has the potential to bring increased control, creativity, and responsiveness to the investment function.

Exhibit 47: Diagram of a Representative Chief Investment Officer Function

However, a more fundamental change to insurance investment operating models is also required to effectively address the substantial disconnect that exists between various insurance business units. In particular, insurers must change the extent to which internal investment organization is integrated in decisions previously considered the sole purview of Product or Distribution departments.

Historically, Asset Liability Management (ALM) has too often served as a theoretical construct, not an operating principle driving core business decisions across the enterprise. As such, insurance investment departments have operated independently of other business units. For instance, product teams created and priced products based on competitive pressures, without necessarily taking into consideration the availability of sufficient investment spreads. Similarly, product managers created different product features and guarantees based upon liability-oriented actuarial analysis, leaving to the investment department the need to deliver appropriate returns in any economic scenario.

Chapter 6 – Insurance Investment Strategy & Operations

Section D – Changing Insurance Investment, ALM, & Risk Management Op. Models (Continued)

The dangers of this siloed operating model were ultimately revealed in the financial crisis. In the case of certain Life insurers, for example, variable annuity product guarantees produced significant exposures to equity markets that insurers' investment and hedging organizations were unable to fully address. At the same time, low interest rates made it difficult for investment departments to generate sufficient spreads over the credit rates built into products, leading many lines to be unprofitable. However, distribution departments continued to sell these loss-generating products.

To resolve this disconnect, the investment department must be intimately involved in product design and development activities to ensure that actuaries take into account the different economic scenarios that may have an impact on the investment portfolio and anticipated returns. Additionally, the investment department should understand the full scope of company liabilities in order to identify truly appropriate ALM matches, rather than relying on derivative and hedging programs to resolve sizeable mismatches (e.g. hedging the large interest rate risk inherent in backing shorter-duration annuities with long-duration private placements and commercial mortgages).

Finally, an enterprise-wide ALM orientation must be paired with formal Enterprise Risk Management (ERM) functions. This requires appropriate resources and modeling capabilities. Additionally, the ERM unit should have the necessary authority to address identified threats across the product, distribution, and investment units, rather than acting solely as a reporting function with little real influence.

Source: Patpatia & Associates' proprietary research

Section E – Investment Systems Modernization

As investment approaches change, insurance companies must add enhanced investment systems and upgrade their risk analytics to promote improved portfolio returns, support new asset classes, and provide for enhanced downside risk monitoring. Whether following a lean investment model relying on outsourced asset management or using a large in-house operation, an effective systems infrastructure is critical.

Exhibit 48: Insurance Investment Systems Technology Requirements

A. Insurance Investment Strategy Development

Outsourced | Internal

- Liability modeling
- Asset allocation
- Credit analysis

B. Asset Management Oversight

Outsourced | Internal

- Benchmarking
- Performance analysis
- Compensation

C. Portfolio Mgmt. Decision Support Tools

Internal

- Market data
- Asset modeling
- Portfolio analytics

D. Middle-Office Order Management

Internal

- Trade order management
- Pre & post-trade compliance

E. Back-Office Processing

Outsourced | Internal

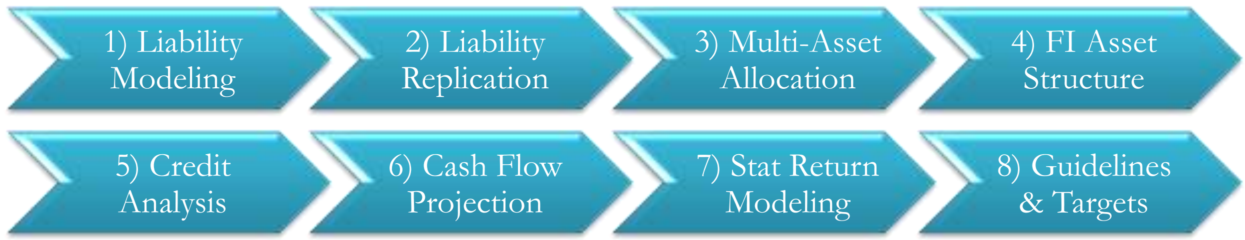
- Accounting
- Pricing
- Risk & regulatory reporting

Legend: Outsourced Required for outsourced investments Internal required for internal management

Chapter 7 – Insurers' Asset Class Strategies

Section E – Investment Systems Modernization

Insurance Investment Strategy Development



All organizations require a disciplined approach to the investment strategy process. Historically, however, many small and mid-sized insurers have primarily followed relatively simplistic approaches to investment strategy development. P&C firms have emphasized maximizing exposures to municipal bonds to capitalize on their tax benefits, regardless of the concentration risks inherent in an undiversified portfolio. Other firms focus largely on peer allocation comparisons and basic duration matching rather than pursuing a formalized approach.

However, many firms are beginning to acknowledge that true optimization of their asset allocation and portfolio term structuring requires a sophisticated analytical approach. This begins with effective liability matching performed by ALM teams, and increasingly necessitates the creation of liability replicating portfolios. To accomplish this, insurers implement detailed cash flow monitoring across broad stochastic scenario sets that can then be utilized as constraints in portfolio construction. Firms are also adding new multi-variant mean variance optimization platforms for asset allocation establishment, fixed income asset structuring via specialized debt-oriented optimization systems, and credit default modeling protocols.

Investment strategy development platforms are offered by a wide variety of providers, including Barclay's POINT and BlackRock Aladdin.

Chapter 6 – Insurance Investment Strategy & Operations

Section E – Investment Systems Modernization

Portfolio Management Oversight

Even organizations that are outsourcing investment selection need to have strong portfolio monitoring capabilities to ensure that third parties effectively follow their assigned mandates and restrictions, as well as to verify that appropriate performance is achieved. This includes the implementation of custom blended total return benchmarks in parallel with buy and hold spread targets. Similarly, formal multi-factor fixed income attribution systems are important to measure the drivers of investment managers' returns and ensure that unanticipated risks are not being taken in the general account. Further, these systems give the opportunity to implement performance-driven investment manager compensation to align organizational interest behind risk-adjusted returns. Wilshire Axiom and MSCI BARRA are just a few of the platforms that support these processes.

Investment Management Business Support Tools

Firms that run their portfolios in house are continuing to enhance their decision-making support platforms. These include sophisticated fixed income analytics providing custom benchmark assembly for constituent-level manipulation, portfolio optimization for security-level support, and cash flow modeling offering externally-projected asset (EPA) files for ALM and investment strategy Stat modeling. Specialized platforms such as BondEdge and JP Morgan Bond Studio support fixed income analytics, while a variety of vendors provide holistic portfolio modeling platforms.

Many firms continue to have sizable gaps in their derivatives and hedging systems, which are increasingly critical in today's volatile markets and increasingly sophisticated risk management protocols.

Chapter 6 – Insurance Investment Strategy & Operations

Section E – Investment Systems Modernization

Middle-Office Order Management

Investment management systems must be supported with effective middle-office order management. Trade order entry tools support order creation through execution, while compliance tools enable application of company-level, manager-level, and portfolio-level rules to impose trading restrictions or limits at various points in the order life-cycle. Finally, trade routing tools facilitate electronic routing of orders to executing brokers & liquidity sources including DMA channels, ECNs, dark pools, and broker/dealer algorithmic trading platforms.

Bloomberg AIM, Charles River Development, and Linedata Longview are just a few of the platforms supporting middle-office functions.

Back-Office Processing

All insurers need robust back-office systems to support the investment function. These include execution of comprehensive data management strategies to implement unified golden copy infrastructure in order to drive platforms on a consistent basis. Statutory accounting solutions are also a critical component of back-office processing systems, while portfolio reporting tools are necessary to ensure adequate reporting for control and governance (e.g. FAS 133, IAS 39/IFRS 9, GAAP). Among others, SunGard iWorks and GoldenSource provide back-office services.

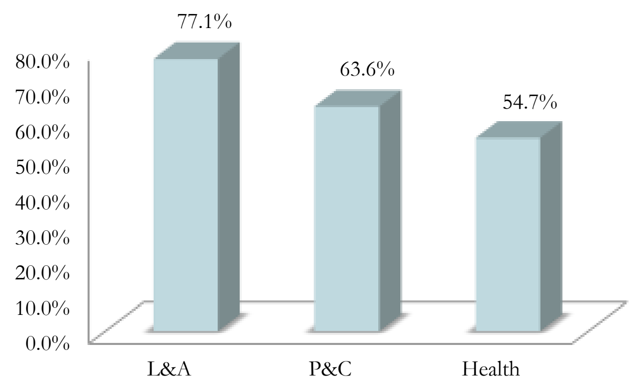
Increasingly, even large organization are outsourcing these back office functions as they are not core to the value-add delivered by their investment units.

Chapter 7 – Insurers' Asset Class Strategies

Section A – Insurers' Investments in Bonds

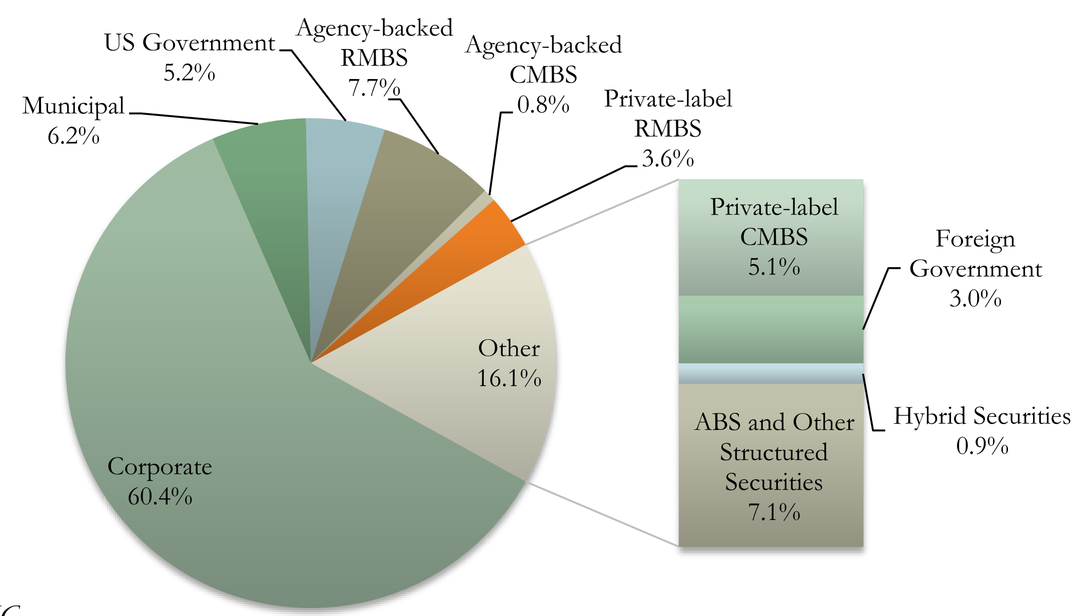
Despite the continued low interest rate environment, fixed income remains the most important asset class for most insurers. Collectively, insurance companies allocated 71.6% of total invested assets to bonds in 2013. Similar to asset allocation in general, allocation to bonds varies by business line, reflecting distinct risk appetites and duration management needs.

Exhibit 49: Insurers' Allocation to Bonds by Business Line (% of TIA)



In keeping with historical trends, L&A insurers have the greatest allocation to bonds, at 76.2% of total invested assets. This is largely a function of their asset-liability match, in which longer-term bond portfolios are created to produce cash flows exceeding anticipated future liability payments. L&A insurers primarily invest in corporate bonds due to their ability to generate superior book yields compared to many government securities over the longer-term. Compared with their peers in other business lines, L&A insurers are also the most aggressive users of ABS and other structured securities to drive greater spreads for their shorter duration liabilities (e.g. annuities), which is key to their profitability.

Exhibit 50: L&A Insurers' Allocation to Bonds by Bond Type



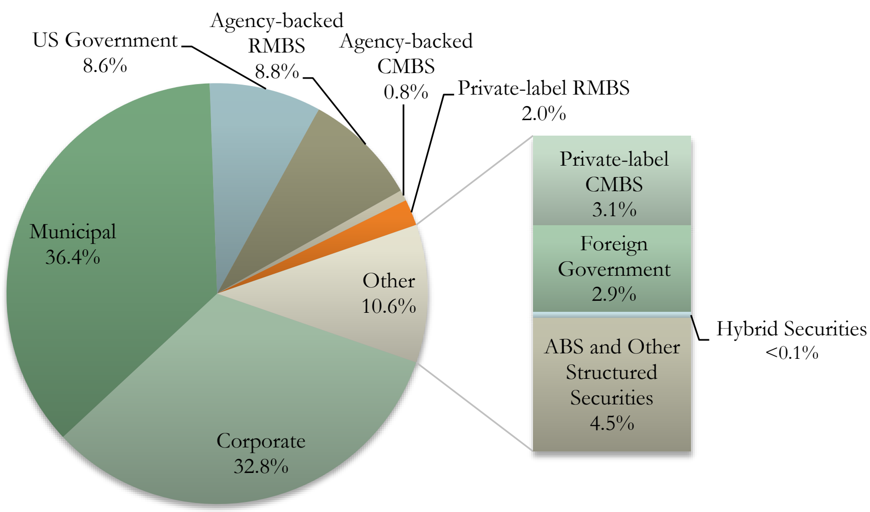
Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section A – Insurers' Investments in Bonds (Continued)

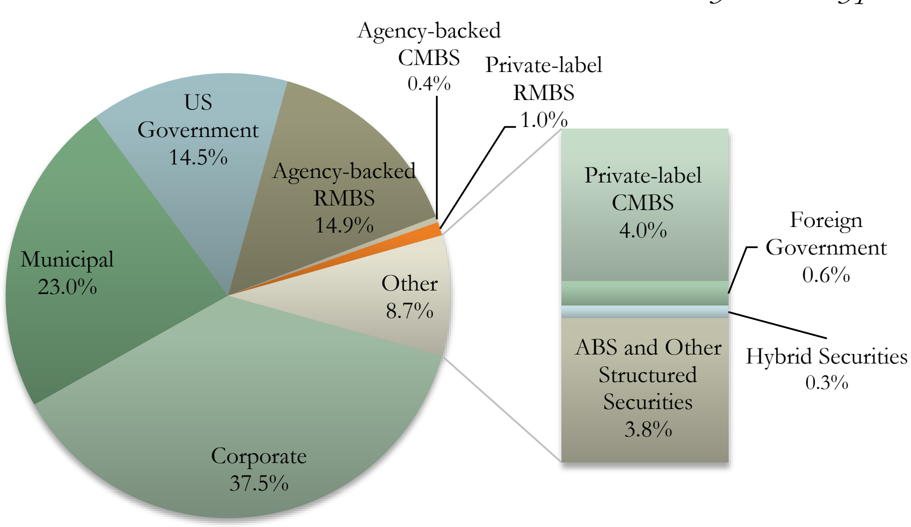
P&C insurers allocate 63.5% of invested assets to bonds. Similar to L&A insurers, they have significant corporate bond exposure. However unlike L&A insurers, P&C companies allocate most heavily to municipal bonds, where they are better positioned to capitalize on favorable tax treatment than L&A insurers, providing greater after tax yields and protection for interest income.

Exhibit 51: P&C Insurers' Allocation to Bonds by Bond Type



Being more liquidity focused, treasuries and agency-backed RMBS have a much greater role in health insurers' portfolios. Health insurers are also able to capitalize upon favorable municipal bond tax treatment, driving significant allocations to this asset class, resulting in only modest corporate bond holdings reserved for the longer-term component of their portfolios.

Exhibit 52: Health Insurers' Allocation to Bonds by Bond Type



Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section A – Insurers' Investments in Bonds (Continued)

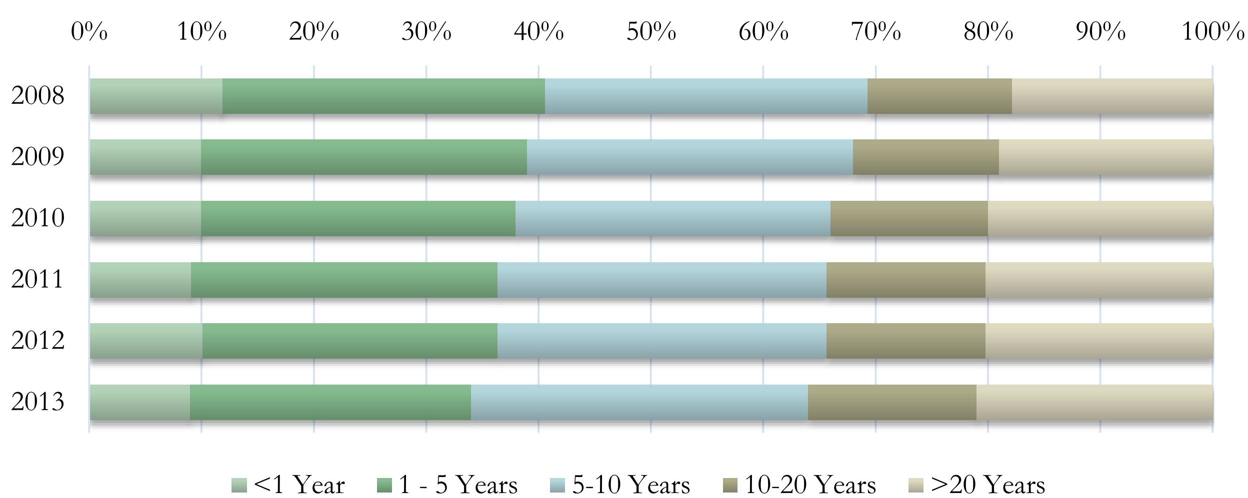
Portfolio Tenor

Insurance companies' differing business models and corresponding investment approaches are clearly reflected in the maturity structure of their bond portfolios. Each business line has optimized its relative investment in shorter & longer-tenor bonds to align with the different durations of liabilities.

Life & annuity insurers typically have significant exposure to long-dated liabilities, such as permanent life insurance (e.g. whole, UL) and long term care, with anticipated policy lifetimes that may exceed 20 years. This requires heavy weighting towards longer maturities, with 36% of their bond holdings maturing in >10 years, to better match these far-off payments.

Many life insurers also underwrite moderate duration annuity products, requiring additional exposure in intermediate bonds, with 55% maturing in 1-10 years. However, under their book income investment approaches, liquidity is not a major consideration; therefore, shorter-duration exposure is limited, with only 9% maturing in under 1 year.

Exhibit 53 - Maturity Distribution of L&A Insurers' Bond Portfolio



Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section A – Insurers' Investments in Bonds (Continued)

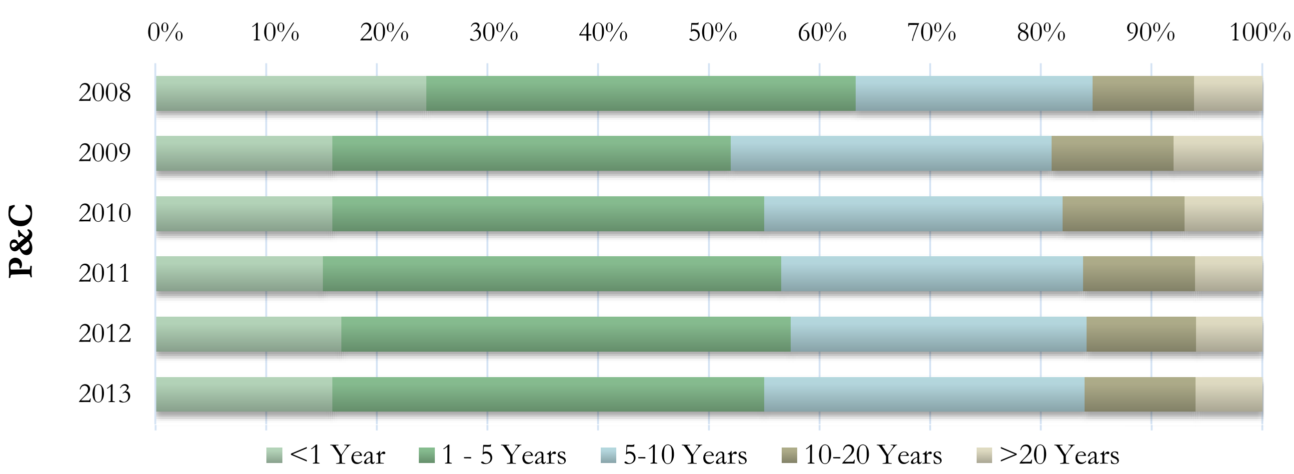
Portfolio Tenor *(Continued)*

These life & annuity firms have responded to the sustained low interest rate environment by modestly extending their investments out on the yield curve. This was further spurred by a modest sales repositioning away from annuities (especially variable annuities) in favor of life products, requiring the insurers to extend their portfolio durations to match.

In comparison to Life insurers, Property & Casualty insurers maintain a much shorter duration investment structure, consistent with the comparative lack of long-dated liabilities at most firms. They have the greatest exposure to the intermediate bond tenors, with 68% of their portfolio between 1-10 years. They also have a significant focus on liquidity with sizable exposures (16%) to bonds with <1 year remaining.

Relative to other business lines, P&C firms maintain only modest exposures to long bonds over 10 years in remaining maturity (16%) as return generators and to match certain long-tail liabilities (e.g. asbestos claims). The greatest factor in their maturity repositioning came in 2009, when they redeployed a sizable short term position, which they had built up to withstand the pressures of the credit crisis, back into the 5-10 year portion of the yield curve in line with their typical investment strategy to pick up incremental yield.

Exhibit 54 - Maturity Distribution of P&C Insurers' Bond Portfolio



Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

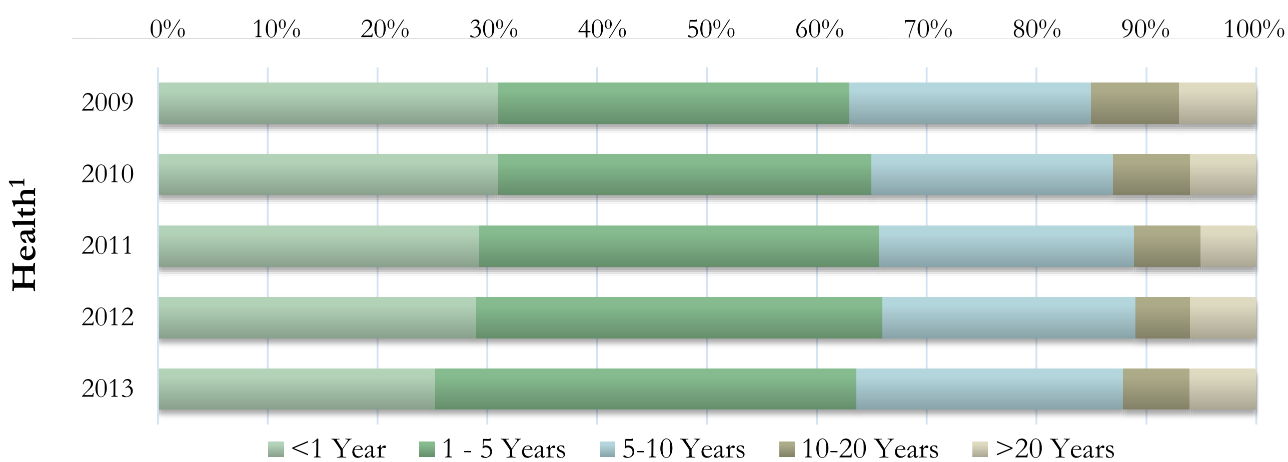
Section A – Insurers' Investments in Bonds (Continued)

Portfolio Tenor *(Continued)*

Health insurers, with their bifurcated portfolio approaches, maintain the shortest overall portfolio tenor. Liquidity is the primary concern of their short-term operating portfolios, leading to very high allocations to bonds with maturity of less than one year (25%).

The remaining investments are held in the intermediate maturities with 62% in bonds having 1-10 years remaining, which have further increased over the last four years (was 54% in 2009). Health insurers have consistently implemented only modest allocations to long-dated bonds (13%).

Exhibit 55 - Maturity Distribution of Health Insurers' Bond Portfolio



Source: NAIC [1]*2008 data not available for health insurers*

Chapter 7 – Insurers' Asset Class Strategies

Section A – Insurers' Investments in Bonds (Continued)

Credit Quality

In light of the sustained low-yield environment, many insurers have striven to improve returns by using below investment grade investments. These investments, classified by the NAIC as bond classes 3-6, are equivalent to Standard & Poor's grades of BB+ and below.

Being generally risk averse and subject to stringent statutory and risk-based capital constraints that limit overall exposures to lower grade credits, the vast majority of insurers' bonds remain in investment grade securities. However, in search for income enhancement, over the last six years, insurers' ownership of high yield bonds increased steadily at a 1.9% CAGR to reach 5.5% of the total portfolio. Growth was concentrated in NAIC 3 (BB) and NAIC 5 (CCC) rated investments.

Exhibit 56: Insurers' Below Investment Grade Exposure by NAIC Rating, 2007-2013

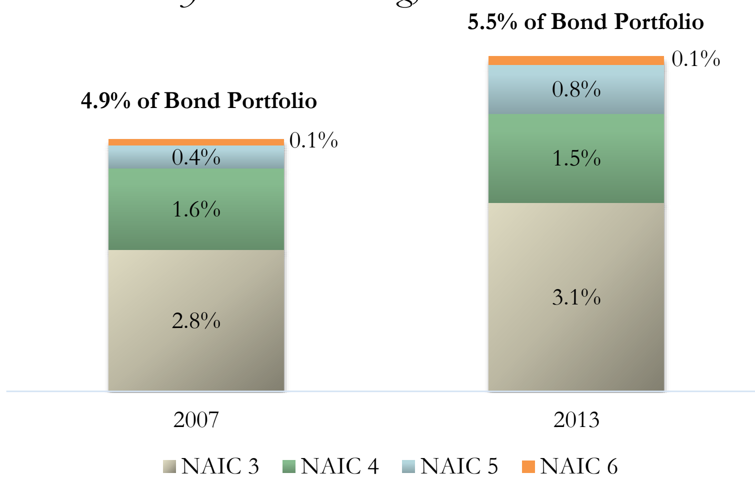
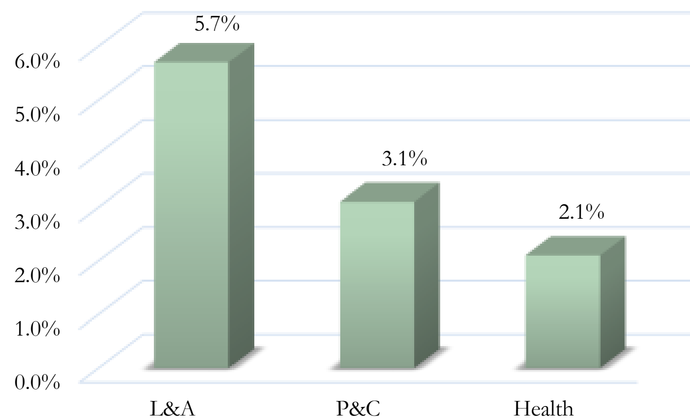


Exhibit 57: Below Investment Grade Bond Exposure by Business Line



Life insurers have had greater freedom to utilize below investment grade bonds due to their long-term investment approaches. As life insurers intend to hold their bonds to maturity, they are less sensitive to the price volatility inherent in lower-grade credits. Further, they are most spread dependent, being unable to capitalize on generating gains through active trading strategies. P&C and health insurers have tended to keep their portfolios of very high quality, due to their frequent need to liquidate positions for more volatile claims or meet operating cash requirements.

Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

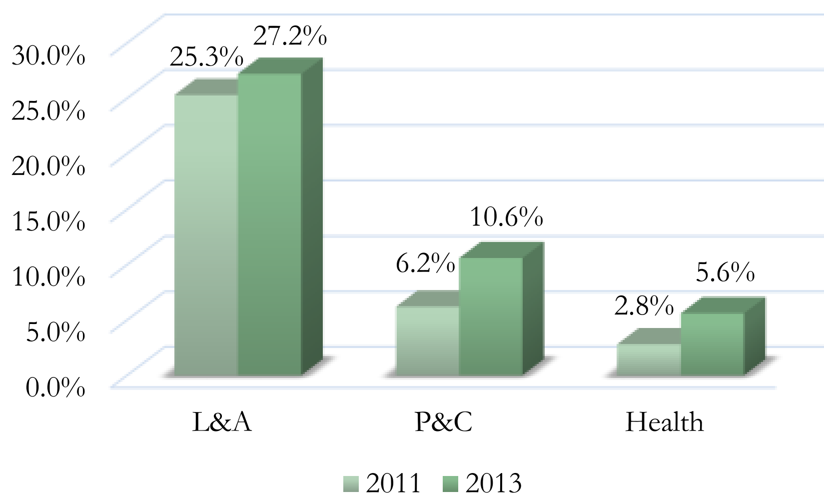
Section A – Insurers' Investments in Bonds (Continued)

Private Placement Bonds

Insurers also employ private placement bonds to generate incremental returns over the public bond market. Since these investments are not registered with the SEC, they cannot be widely marketed and traded, leading borrowers to pay an illiquidity premium to bond holders.

Insurers are also able to get further benefits beyond this higher yield. Since these deals are custom negotiated, bond terms may be tailored to insurers' preferences. These frequently include the addition of restrictive covenants that provide further protection to insurers on these loans. Private bonds also offer the opportunity for extensive pre-purchase due diligence, a factor that fits well with insurers' generally conservative investment approach.

Exhibit 58 – Insurers Usage of Private Placement Bonds as % of the Total Bond Portfolio, 2011 & 2013



All this additional complexity does mean that private placement bonds take significant resources to source, analyze, and negotiate. For this reason, the largest insurers with sizable in house investment departments make the greatest use of privates. But smaller insurers also have access to the asset class, either through the use of third party managers or through participation in syndicated deals brought to them by investment banks or larger insurers.

Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section A – Insurers' Investments in Bonds (Continued)

Private Placement Bonds (*Continued*)

Historically, private placement bonds have been limited largely to the life & annuity business line. They present the greatest fit with L&A firms' book income investment strategies, as privates' long duration, illiquid nature are consistent with buy-and-hold fixed income portfolios that back long-term liabilities. Accordingly L&A insurers remain the greatest users of these assets, with private placement allocations now exceeding a quarter of their entire bond portfolios.

Traditionally, the more liquid nature of public bonds has appealed to non-life insurers, as these bonds fit into their shorter-term liabilities and total return investment approaches better than illiquid private bonds. However, in the face of the sustained low yield environment even P&C and health insurers have begun incorporating private bonds into their portfolios to capitalize on their attractive yield characteristics. In fact, over the last two years, their private placement positions have nearly doubled within their bond allocations.

Section B – Insurers' Investments in Mortgage Loans

Insurers adjusted their credit underwriting standards in the aftermath of the financial crisis, leading to a decline in mortgage loans as a percentage of the general account portfolio. Recently, however, firms have begun to slowly increase their exposure to mortgage loans. Mortgage loans typically generate higher yields than corporate bonds, making them attractive to insurers seeking enhanced returns in a low-yield environment.

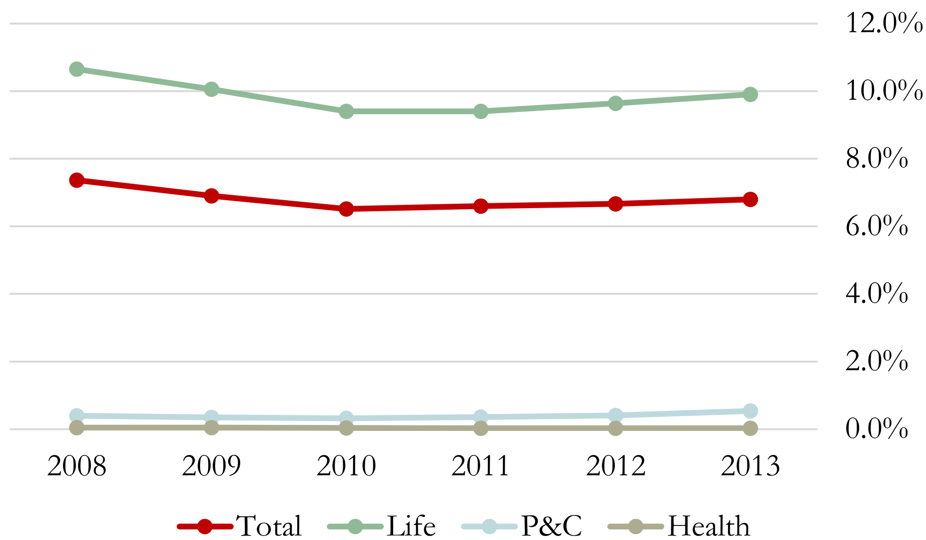
Insurance investing in mortgage loans is driven primarily by Life & Annuity insurers, who find that direct mortgages are often an appropriate ALM match for their longer-duration liabilities. Additionally,

Chapter 7 – Insurers' Asset Class Strategies

Section B – Insurers' Investments in Mortgage Loans (Continued)

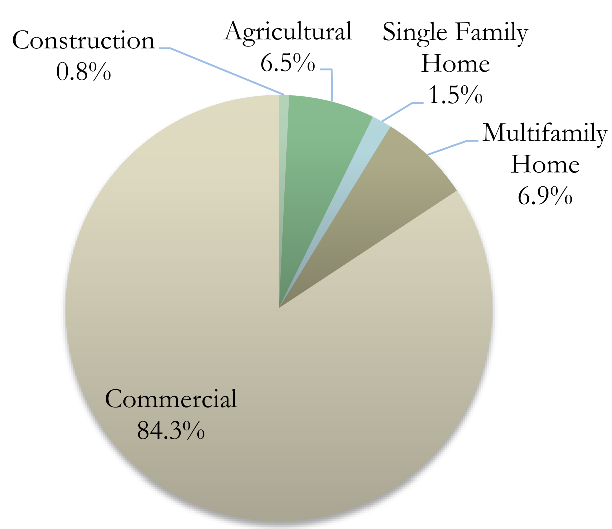
Life & Annuity firms are typically less concerned with the inherent illiquidity of non-securitized lending activities.

Exhibit 59 - Allocations to Mortgage Loans, 2008-2013



Insurance company direct mortgage lending activities are predominantly focused on the non-residential segment due to the availability of large and mid-sized deals, which present a better resource tradeoff than the smaller deals associated with residential mortgage lending. Select organizations have dedicated teams to the agricultural sector, which presents an attractive value proposition but requires specialized sourcing and underwriting expertise. Construction & development lending are not a focus due to greater credit risks in that area.-

Exhibit 60 - Mortgage Loan Investments by Type



Chapter 4– Insurers' Asset Class Strategies

Section B – Insurers' Investments in Mortgage Loans (Continued)

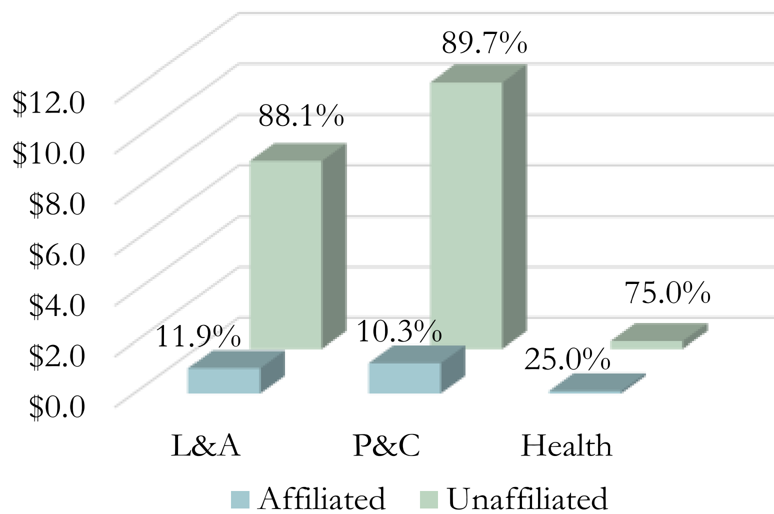
Generally, mortgage investments have been the domain of the largest Life insurers, such as Prudential, New York Life, John Hancock/Manulife, and Principal Financial. They require extensive, geographically-distributed origination teams and deep credit analysis units, which smaller insurers lack.

However, there are an increasing number of third-party asset managers, frequently affiliated with insurance companies, which are now offering commercial mortgage origination and management services to the small and mid-tier insurance segments. This is enabling small- and mid-sized firms to increasingly participate in this attractive asset class.

Section C – Insurers' Investments in Preferred Stock

In addition to their fixed income investments, insurers have also sought to generate yield through preferred stock investments. At 7.7%, preferred stock's average yield across business lines was significantly higher than yield on common stock (4.8%).

Exhibit 61: Investments in Preferred Stock



Insurers typically make use of perpetual maturity preferreds, attracted to the steady dividend payments that these securities feature. These assets comprise 85% of insurers' unaffiliated preferred stock holdings.

Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section C– Insurers' Investments in Preferred Stock (Continued)

Despite these advantages, insurers held only $20.5 B in preferred stock at year-end 2013. Of this, 88.8% was unaffiliated, while 11.2% was issued by insurers' parents, subsidiaries, or sister companies.

Investments in preferred stock are not likely to increase dramatically in the near future. After reaching a peak of 2.0% of industry TIA in 2008, preferred stock investments have declined to only 0.4% of TIA today. In part, this is due to its poor total return behavior, having failed to recover to its pre-crisis valuation levels. Another significant cause is a relative shift of assets into pure equity investments including common stocks & alternatives, or Schedule BA assets.

Exhibit 62: Yield on Preferred Stock

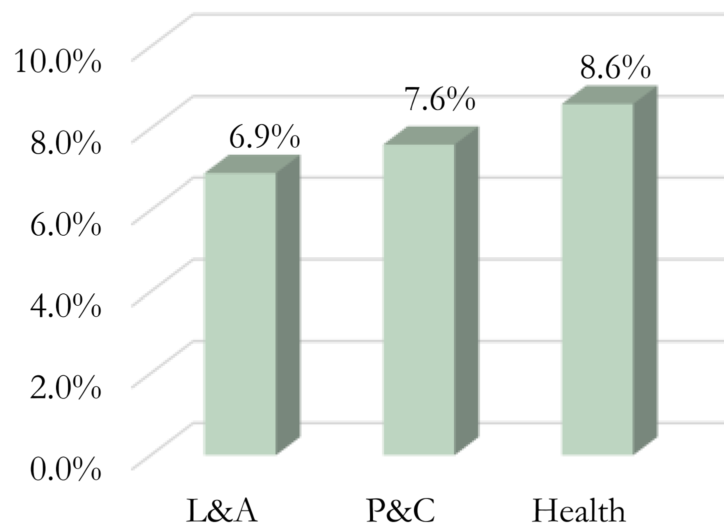
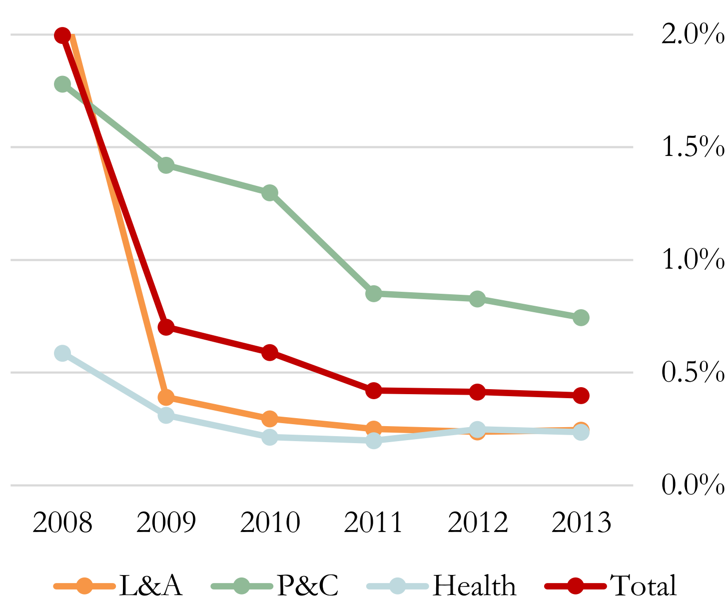


Exhibit 63: Preferred Stock as % of TIA, 2008-2013



Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

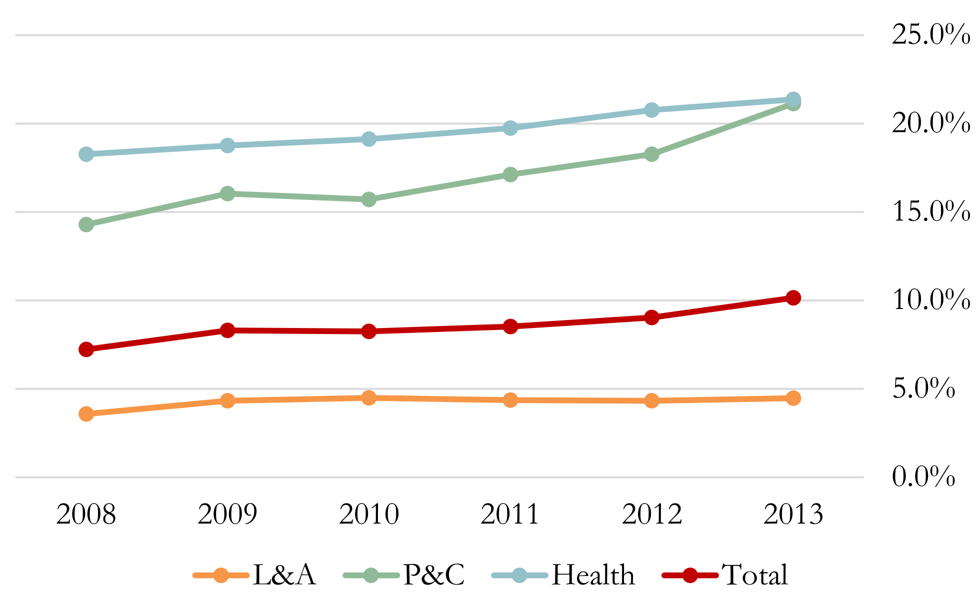
Section D – Insurers' Investments in Common Stock

There is significant dispersion in insurers' usage of common stock investments, clearly demonstrating the unique drivers of their investment approaches. Life & annuity carriers have maintained very modest exposures to equities, as such investments do not easily produce the predictable cash flows required of their ALM-driven book yield investment strategies. However, L&A firms have incrementally increased their exposure to common stock, from 3.6% of general account investments in 2008 to 4.5% in 2013.

In contrast, firms that follow constrained total return approaches much more extensively employ common stock positions in their general accounts. Attracted to the liquid nature of many publicly traded equities, as well as its strong potential to generate attractive returns under actively traded investment programs, both P&C and health insurers have been steadily increasing their exposures.

Property & casualty insurers have grown their usage quite significantly, with common equities increasing at a 12.0% CAGR over the last 5 years, to reach 21.1% of their general accounts (up from only 14.3% in 2008. Health insurers have been steady users of public equities in their longer-term investment portfolios, and they have continued to add incrementally to their positions since 2008, now reaching 21.4% (increasing from 18.3% in 2008).

Exhibit 64: Allocation to Common Stock by Business Line (% of TIA), 2008-2013



Source: NAIC

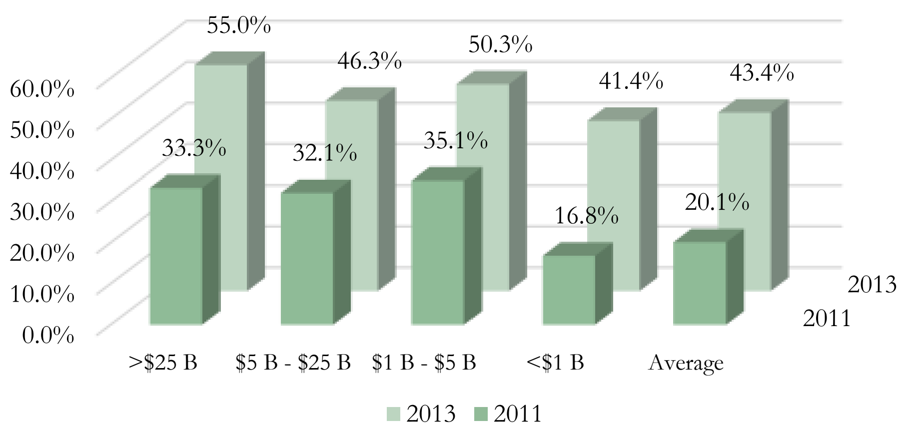
Chapter 7 – Insurers' Asset Class Strategies

Section E – Usage of Mutual Funds by Insurers

Insurers have historically limited their use of mutual funds, due in part to high risk-based capital (RBC) requirements resulting from their treatment as equities by the NAIC. This has been particularly true amongst the smallest insurers, who are typically capital constrained and therefore have been less likely to invest in non-NAIC SVO rated mutual funds.

However, recent years have seen a significant increase in mutual fund usage across all size segments. Industry mutual fund usage has more than doubled since 2011, rising from 20.1% of U.S. insurers to 43.4%.

Exhibit 65: Mutual Fund Usage by Size Segment



This increase was particularly pronounced amongst insurers with less than $1 B in assets, for whom mutual fund usage rose from 16.8% to 41.4%.

This change is driven largely by an intensifying demand for diversification across size segments. Large insurers are increasingly willing to make modest allocations to a variety of mutual funds in order to gain exposure to a broad number of strategies (particularly equity strategies). This approach is utilized when a company's desired exposure to a certain strategy is too small to justify a separate account. Meanwhile, small and mid-sized insurers who find themselves unable to support a wide range of both fixed income and equity strategies through internal investment teams are also turning to mutual funds in an effort to further diversify their portfolios.

Source: NAIC

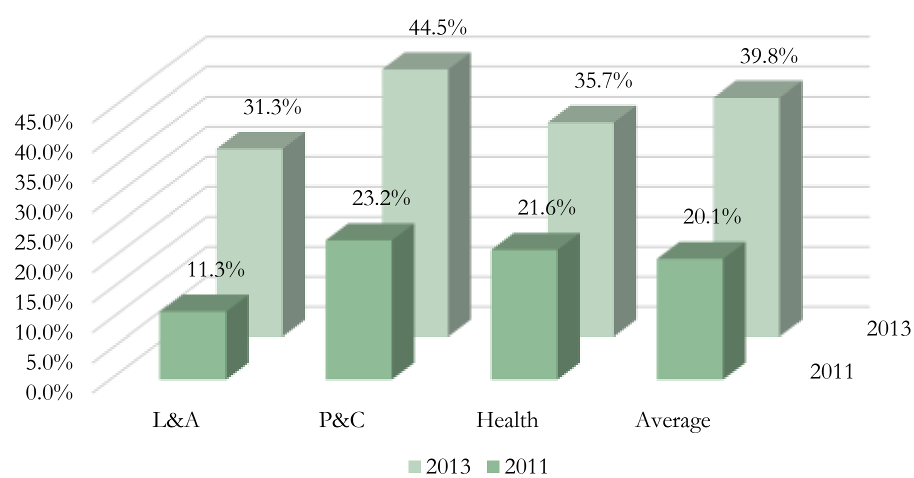
Chapter 7 – Insurers' Asset Class Strategies

Section E – Usage of Mutual Funds by Insurers (Continued)

Significant changes have also occurred in mutual fund usage across business lines. Historically, P&C insurers have been far more likely than their Life counterparts to utilize mutual funds due to lower RBC charges under NAIC guidelines. While this remains the case, Life insurers have nevertheless greatly increased allocations to mutual funds, from only 11.3% in 2011 to 31.3% today.

This change has occurred as Life insurers have begun to move beyond buy and hold strategies in search for greater investment returns. As such, Life insurers are demonstrating a greater willingness to take modest positions in higher-yielding, equity-oriented mutual funds despite the sizeable RBC charges associated with these investments.

Exhibit 66: Mutual Fund Usage by Business Line



Further changes may be on the horizon for insurance company mutual fund investing. Some insurers, supported by fund managers, are increasingly engaging with the NAIC Securities Valuation Office (SVO) to gain more favorable treatment of money market & fixed income mutual funds, based on a combination of look-through to the underlying assets and strict prospectus guidelines, which can result in reduced RBC requirements for those specific funds. In addition, the NAIC has confirmed that it may review its mutual fund classification approach and the attendant ratings bond vs. stock funds may receive.

Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

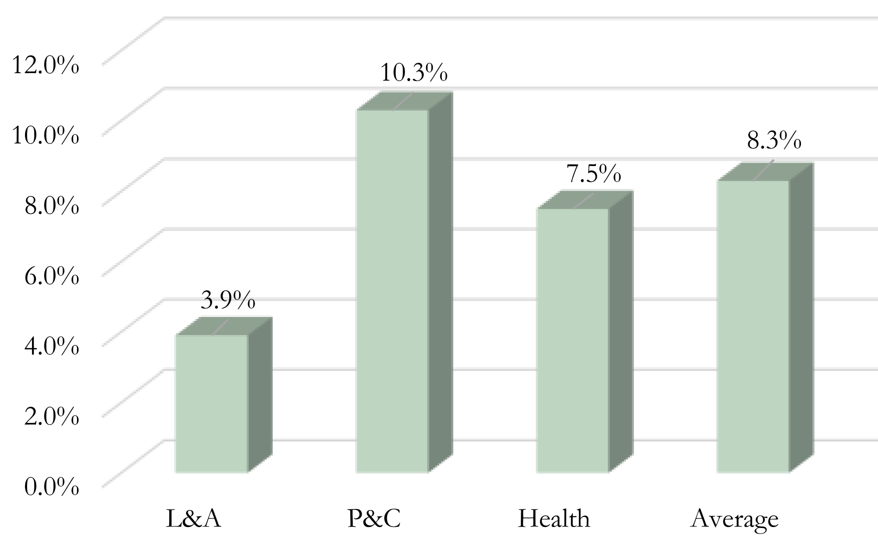
Section F – Usage of ETFs by Insurers

ETFs are an evolving market, and insurance company ETF investment strategies are still in a nascent stage. However, ETFs are likely to gain in popularity as insurers look for low-cost beta delivery vehicles within a core-satellite outsourcing model. As the marketplace begins to recognize the challenges of generating sustainable alpha through active management, many insurance companies have begun to seek pure index beta exposure (just as some larger organizations have retained Separate Account index managers to avoid the RBC and tax consequences of commingled vehicles). Although originally targeted at the retail consumer, ETFs are increasingly seen by many institutions a low-cost way to gain significant index exposure. As such, they are attracting interest from insurers and other institutional investors (e.g. pension funds).

However, insurers' ETF investments remain small relative to investments in mutual funds. In 2013, ETFs accounted for only 10.2% of total insurance 40 Act fund investments. In addition, the number of companies utilizing ETFs is minimal, with only 8.3% of all insurance companies investing in ETFs.

Like mutual funds, ETFs are often subject to equity-like NAIC capital charges. As a result, ETF adoption has been most widespread among P&C and Health insurers, which face lower capital requirements than Life insurers. Currently, only 3.9% of Life insurers invest in ETFs, compared with 10.3% of P&C insurers.

Exhibit 67: ETF Usage by Business Line



Source: NAIC

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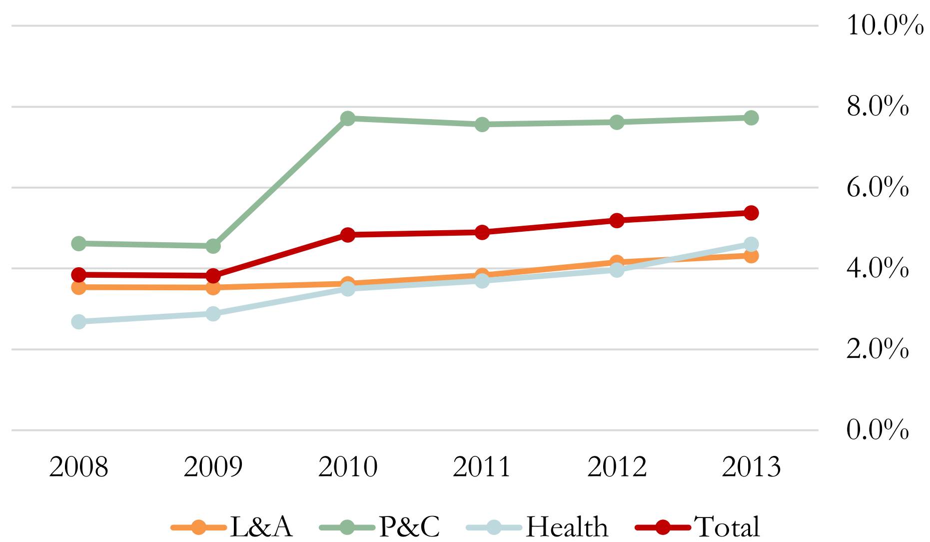
Chapter 7 – Insurers' Asset Class Strategies

Section G – Alternative Investments for Diversification & Risk Mgmt.

Increasing Investments in Alternative Asset Classes

As they attempt to maximize returns in a low-yield environment, many insurers have particularly increased their allocations to a variety of alternative asset classes, including hedge funds and private equity, as well as other specialty investments, such as infrastructure, mineral rights, aircraft leases, and debt & real estate limited partnerships. In statutory filings, these non-traditional investments are classified in the U.S. as Schedule BA assets.

Exhibit 68 - Allocation to Schedule BA Assets by Business Line, 2008-2013



The recent increase in Schedule BA assets is reflected across the entire industry, as all business lines have grown their allocations to a material extent. P&C insurers implemented the largest increase in allocations to Schedule BA alternatives, from 4.6% of total invested assets in 2008 to 7.7% in 2013, capitalizing upon the relative flexibility of their constrained total return investment programs. Health insurers similarly increased their Schedule BA allocations from 2.7% in 2008 to 4.6% in 2013.

L&A carriers made the most modest, though still significant, proportional increases to their Schedule BA alternative assets, from 3.5% in 2008 to 4.3% in 2013, due to the constraints of the book income investment approach and significant regulatory risk-based capital implications

Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

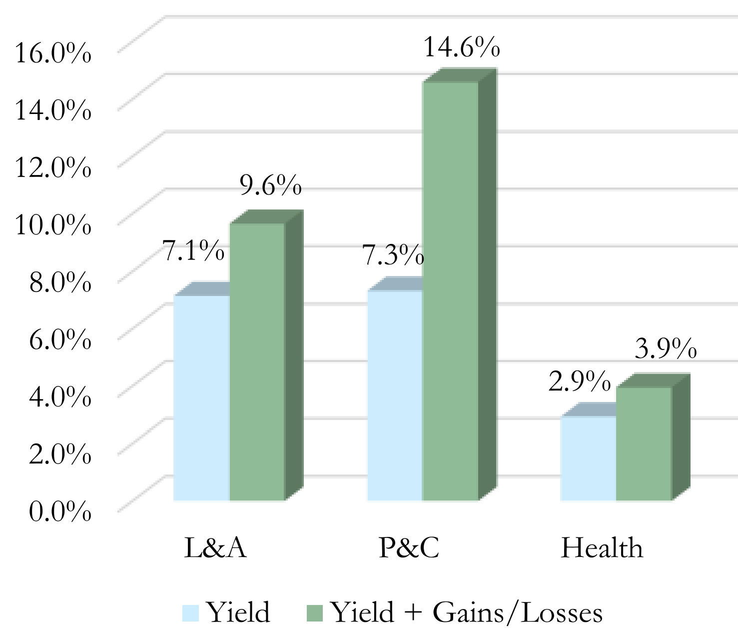
Section G – Alternative Investments for Diversification and Risk Management (Continued)

Increasing Investments in Alternative Asset Classes (Continued)

Insurers are investing in Schedule BA alternative assets for a variety of reasons. A core motivator is the potential diversification benefits of assets with returns that are less correlated to their core fixed income portfolios. A number also seek to tap enhanced return potentials through both yield generating (e.g. infrastructure, mezzanine finance, equity real estate funds) and capital appreciation (e.g. hedge funds, leveraged buyouts, distressed debt, venture capital, commodities) vehicles.

Unsurprisingly, yield on Schedule BA assets was typically higher than that on fixed income assets – around 7% for both L&A and P&C insurers. L&A insurers that focused more directly on yield-oriented strategies achieved a modest uplift from capital gains, producing a total return of 9.6%. P&C insurers, which made extensive use of appreciation-focused assets, benefited more significantly from capital gains, reaching 14.6% total returns. However, this was not universally the case. Health insurers' Schedule BA investments yielded only 2.9%, failing to significantly outperform fixed income investments, with total returns that only reached 3.9%.

Exhibit 69: Insurers' Returns on Alternative Investments – Schedule BA Yield & Realized Gains/Losses



Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

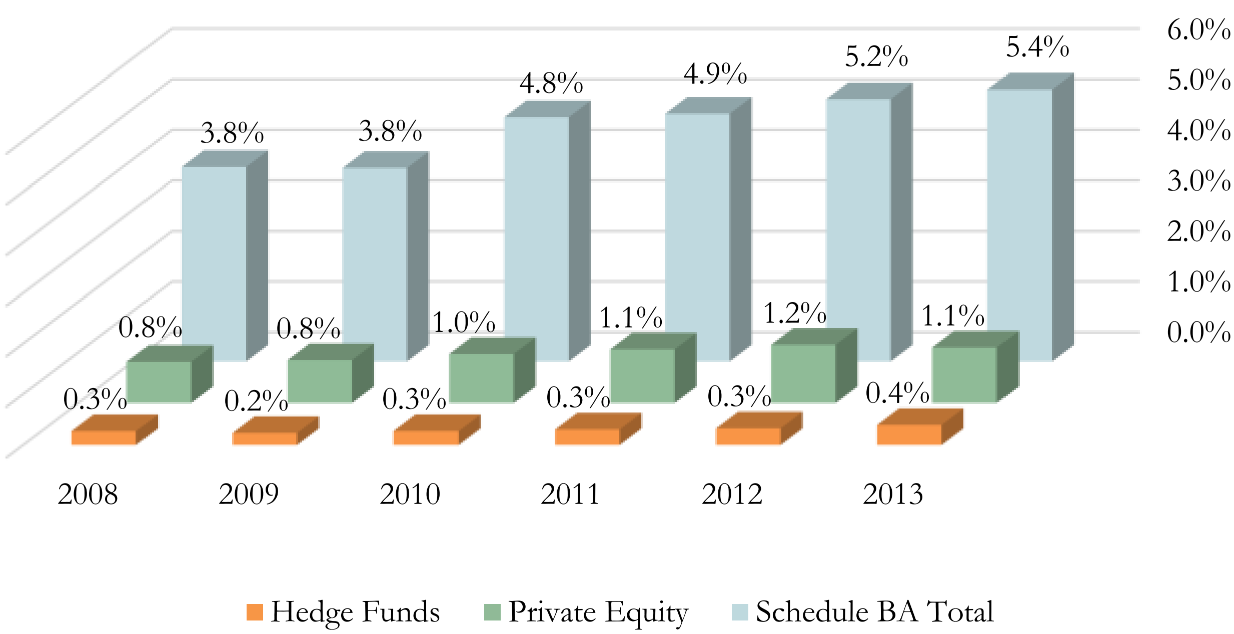
Section G – Alternative Investments for Diversification and Risk Management (Continued)

Alternative Asset Class Spotlight: Private Equity & Hedge Funds

Insurers have particularly focused on private equity and hedge funds. In 2013, U.S. insurers' total investments in private equity and hedge funds, including those made without a traditional asset manager as an intermediary, reached 1.5% of insurers' total invested assets – a 5.9% compound annual growth rate from 2008.

Private equity accounted for 73% of these investments, while hedge funds made up the remaining 27%. The remainder of Schedule BA assets were comprised of focused credit strategies, infrastructure & private real estate fund investments, and other commingled investment solutions.

Exhibit 70: U.S. Insurers Hedge Fund, Private Equity, & Total Schedule BA % Allocations



Source: NAIC

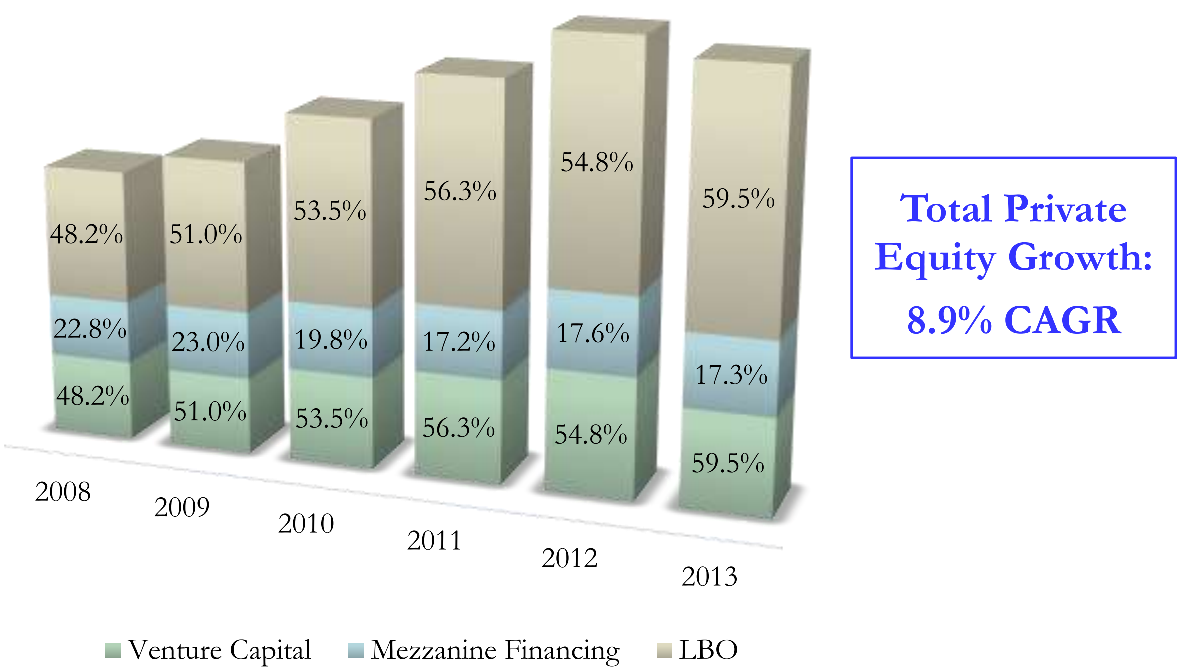
Chapter 7 – Insurers' Asset Class Strategies

Section G – Alternative Investments for Diversification and Risk Management (Continued)

Asset Class Spotlight: Private Equity & Hedge Funds (*Continued*)

Private equity has long been a component of many insurers' portfolios. Insurers, particularly life carriers with long duration liabilities, have been attracted to private equity's multi-year investment cycle and illiquidity premium. Many are also attracted to its lack of mark-to-market pricing, avoiding the earnings volatility generated by public equity investments.

Exhibit 71 - Private Equity Exposure by Strategy, 2008-2013



However, private equity's illiquid nature and vintage year dependency of returns are portfolio construction challenges for many insurers, particularly in property & casualty lines, where liquidity is prized. Even in the life segment, certain income oriented strategies, such as mezzanine finance, have been preferred, and many insurers are reallocating their alternatives portfolios toward greater hedge fund exposure upon maximizing their illiquid equity risk budgets.

Source: NAIC

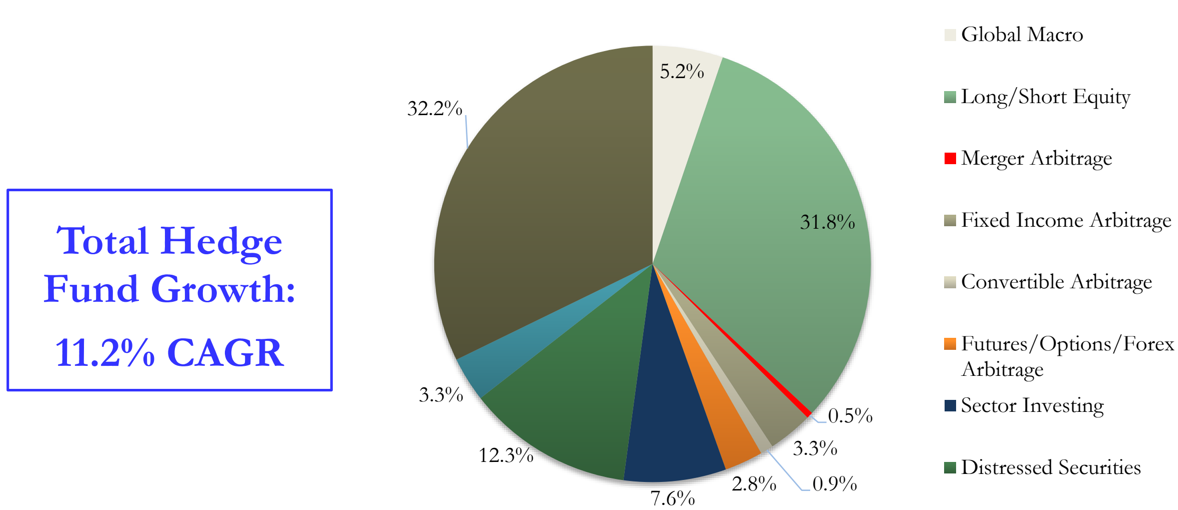
Chapter 7 – Insurers' Asset Class Strategies

Section G – Alternative Investments for Diversification and Risk Management (Continued)

Asset Class Spotlight: Private Equity & Hedge Funds (*Continued*)

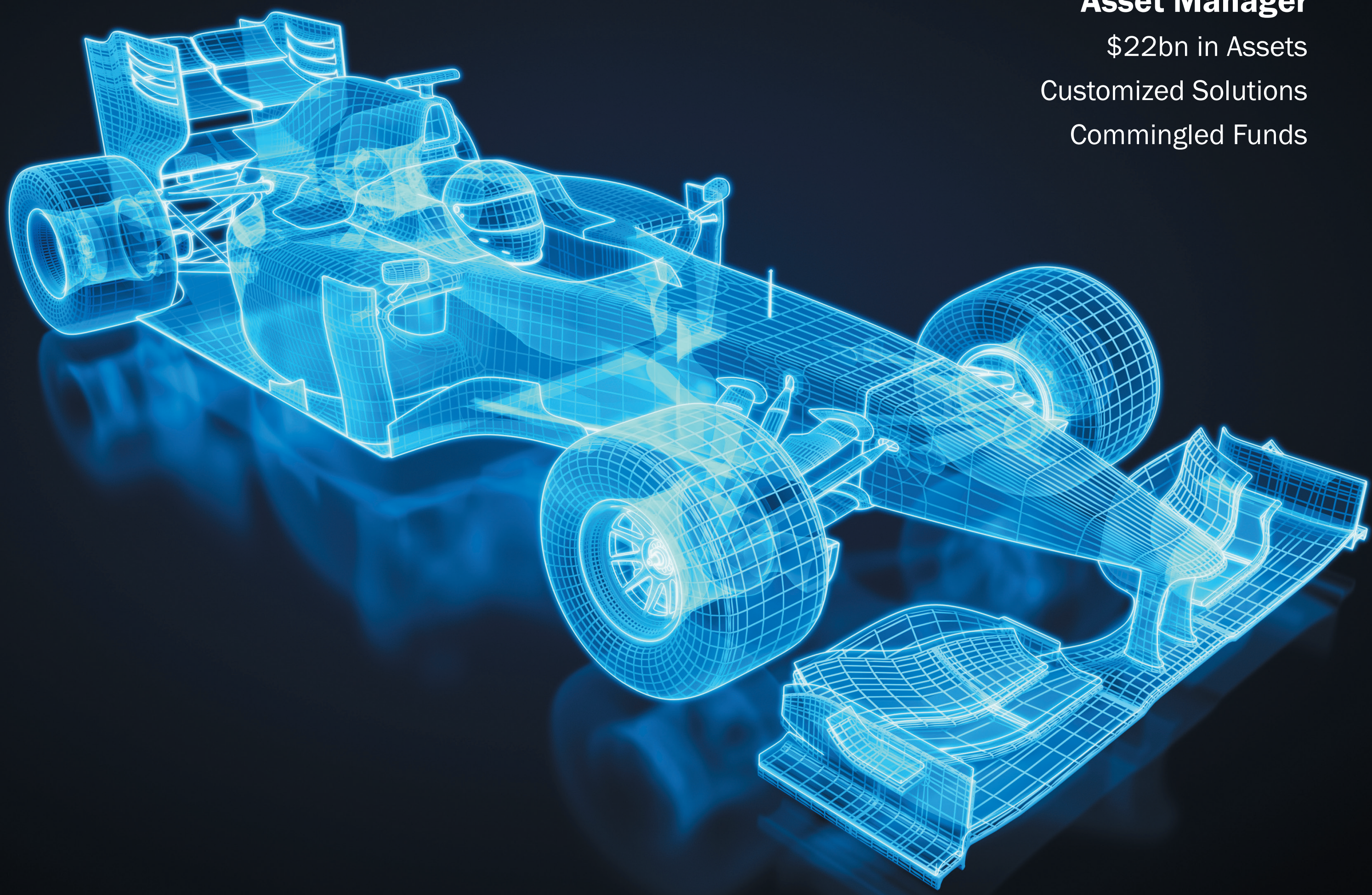
Although subject to mark-to-market driven earnings volatility, hedge funds present a very attractive value proposition for many insurers, leading to strong recent growth. Particularly attractive is hedge funds' ability to harness a diverse array of investment & trading strategies that may be combined to address nearly any risk-return spectrum.

Exhibit 72 - Hedge Fund Investments by Strategy



Additionally, experienced portfolio strategists may assemble multiple investments into customized, liability-driven portfolios in a way that other alternatives cannot. Furthermore, certain delivery vehicles, such as hedge fund managed accounts, provide look through transparency to underlying securities holdings, allowing for improved monitoring and, in certain circumstances, superior capital treatment.

Source: NAIC

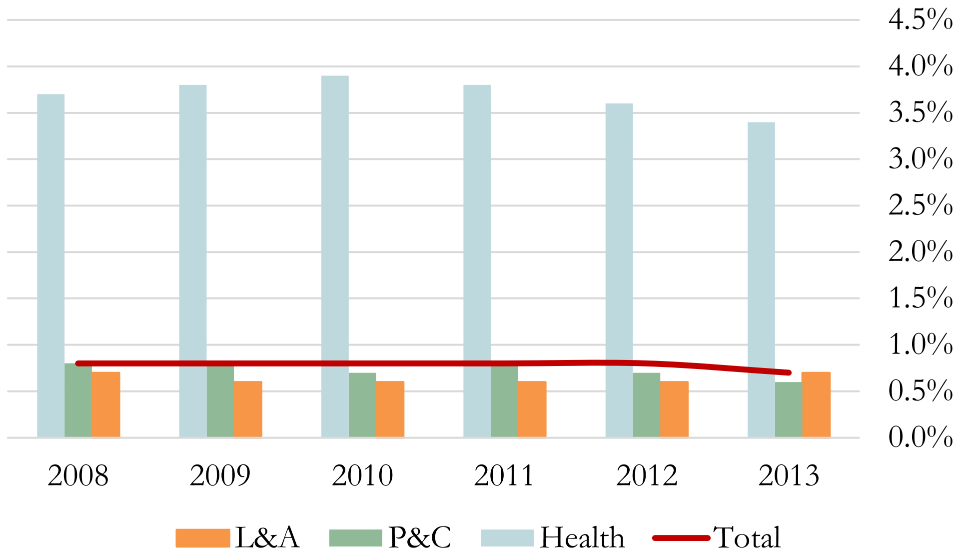


Chapter 7 – Insurers' Asset Class Strategies

Section H – Equity Real Estate

Total insurance industry investment in real estate has increased from $16.0B at year-end 2008 to $18.6B in 2013, for a five-year CAGR of 3.1%. Counter to popular narratives regarding the increasing role of real estate in insurance investing, however, average industry allocation to real estate has remained steady at 0.3% of insurers' total invested assets since 2009.

Exhibit 73: Allocations to Real Estate by Business Line, 2008-2013



Although not increasing at the same rate as Schedule BA, however, real estate remains an important diversifier for insurers. Long-term real estate investments often fit well with insurers' ALM portfolios, and they may be easier to evaluate on fundamentals than certain hedge fund and private equity investments. In addition, real estate has offered superior yields, averaging 15.6% across business lines in 2013.

Exhibit 74 – Investments in Real Estate by Business Line

	L&A	P&C	Health
Real Estate Investments	$17.8 B	$1.4 B	$5.8 B
% of Investment Portfolio	0.7%	0.6%	3.4%
2013 Yield	15.6%	18.8%	12.5%

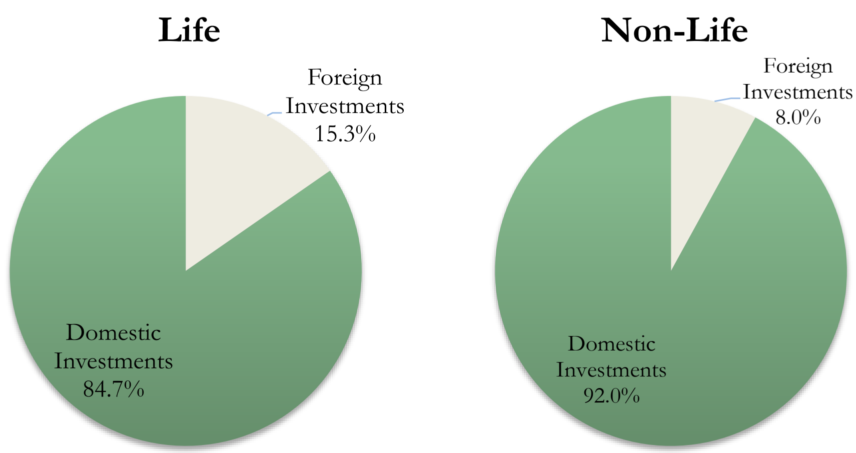
Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section I – U.S. Insurers' Foreign Investments

Although insurers focus primarily on domestic (U.S.) investments, recent years have seen modest growth in the usage of foreign investments. This is particularly true in the Life & Annuity business line, as these firms have been seeking to derive additional income from their bond portfolios. Most non-Life insurers, on the other hand, have traditionally relied on other sources of return, including greater equity exposure, rather than extensive international diversification.

Exhibit 75: Insurers' Foreign Investments



Foreign investment play multiple roles in insurance companies. Large insurers with multinational businesses typically have extensive overseas exposure. This allows them to maintain asset portfolios within the same jurisdictions and currencies as their foreign liabilities. For instance, Aflac, whose Japanese business accounts for approximately 70% of total company premiums, holds over 80% of its general account in yen-denominated assets, including fixed income, equity, and derivatives.

Exhibit 76: Allocations to Bonds by Country

Country	Life	P&C	Health
U.S.	79.1%	88.9%	92.9%
Canada	3.5%	3.4%	1.4%
Other	17.4%	7.7%	5.7%

Chapter 7 – Insurers' Asset Class Strategies

Section I – U.S. Insurers' Foreign Investments (Continued)

However, even firms that operate principally in the U.S. are also adding international investments in both developing and emerging markets as a diversifier. For instance, several large and mid-sized insurers, such as American Equity, devote 2-3% of their general account portfolios to foreign government bonds, despite having negligible international business.

Exhibit 77: Allocations to Common Stock by Country

Country	Life	P&C	Health
U.S.	81.6%	91.4%	93.5%
Canada	0.9%	0.6%	0.5%
Other	17.4%	8.0%	6.0%

Additionally, Life providers have historically been comfortable taking larger positions in less liquid investments, due to their longer duration liabilities. This is reflected in their foreign portfolio composition, which is heavily weighted toward non-governmental bonds that may deliver a risk premium because of their information-dependent and actively traded nature.

P&C and Health insurers are more likely to invest in foreign government bonds, as well as international equities, due to their greater fit with more actively traded total return investment strategies. At the same time, they are less likely than Life insurers to invest in foreign corporates and other non-governmental debt instruments as they may be harder to sell rapidly to meet unanticipated liability events.

Exhibit 78: Insurers' Foreign Portfolio Composition

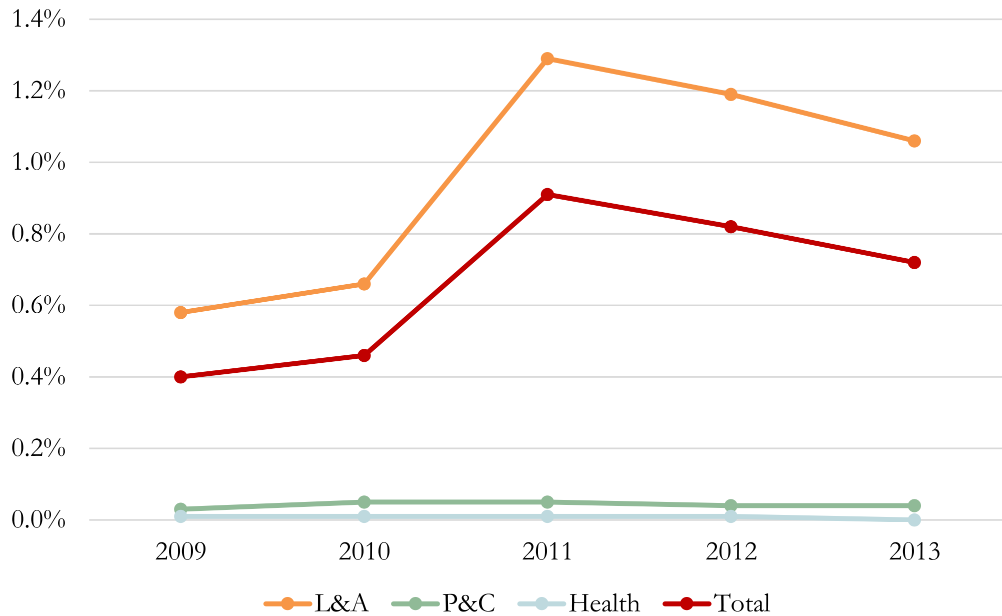
Asset Class	Life	P&C	Health
Corporate & Other Bonds	84.6%	61.6%	75.4%
Government Bonds	14.1%	21.8%	16.0%
Common Stock	1.1%	16.3%	7.4%
Preferred Stock	0.2%	0.3%	1.2%

Chapter 7 – Insurers' Asset Class Strategies

Section J – Insurers' Derivatives Usage

When considered on a purely market value basis, derivatives have not comprised a significant portion of the insurance marketplace's asset allocation, with derivatives accounting for less than 1% of insurance companies' total invested assets. In 2013, insurers invested $38.3 B in derivatives, down from a peak of $45.8 B in 2011.

Exhibit 79 – Insurers' Derivatives Usage (% of Total Invested Assets by Business Line, 2009-2013)



A leading reason why the value of insurers' derivatives position were so modest, was that only 5% of insurers employed derivatives in 2013. However, different insurance business lines have quite disparate derivatives usage.

Within the life & annuity segment, a focused group of insurers (18% of firms) are employing derivatives. These firms are concentrated among the largest of life insurers, which have complex businesses where derivatives-based hedging & risk management are critical (e.g. international business, variable annuity living benefits). They have invested in both the risk management staff and diagnostic tools to forecast exposures and track both liability & asset-based hedge positions. These large life insurers collectively control 87% of L&A invested assets.

Source: NAIC

Chapter 7 – Insurers' Asset Class Strategies

Section J – Insurers' Derivative Usage (Continued)

Exhibit 80: % of Insurers Companies That Employ Any Derivatives, by Business Line

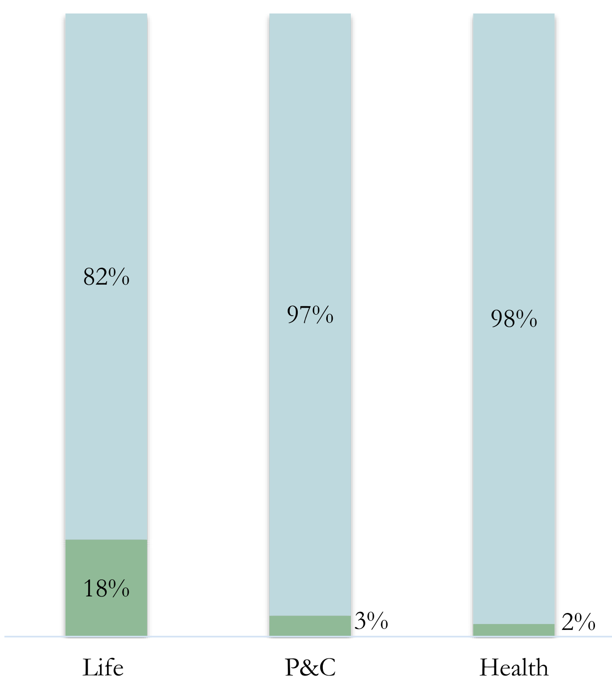
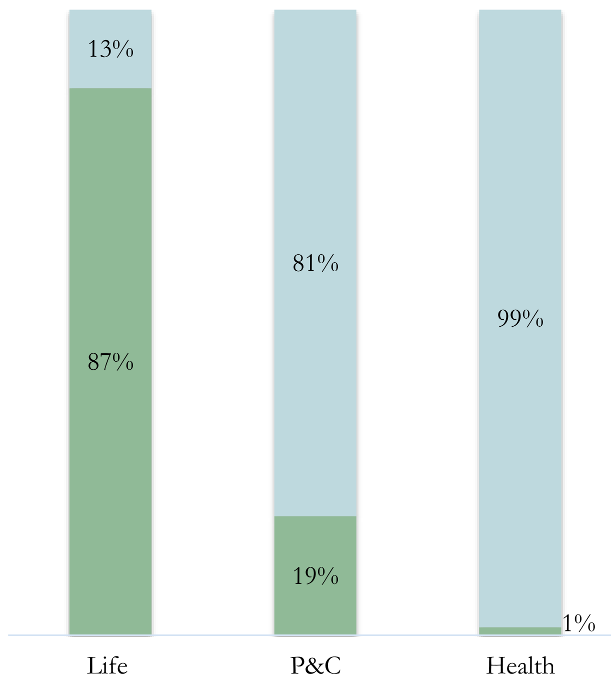


Exhibit 81: % of Total Invested Assets Held by Insurers Employing Any Derivatives, by Business Line



■ Companies With Derivatives Exposure ■ Companies Without Derivatives Exposure

Similarly, few P&C insurers employ derivatives, again predominantly large firms with multi-national liabilities and/ or assets (3% of P&C firms holding 19% of all P&C invested assets). On the other hand, health insurers across the board make limited use of derivative strategies (2% of health insurers holding only 1% of health assets).

However, significant growth in the use of derivatives can be anticipated in the coming years, as smaller firms adopt the best practices of market leaders. In particular, public insurers that seek to avoid the earnings volatility inherent in interest rate, currency, and equity exposures, are expected to increasingly deploy derivatives-based hedging strategies. However, they will need to invest in the requisite risk analytics & trading systems, derivatives professionals in a disciplined fashion. Firms that fail to implement regimented processes and reporting can end up unintentionally increasing their net risk positions, invalidating their enterprise hedging benefits.

Source: NAIC

Chapter 8 – Insurance Company Outsourcing Practices

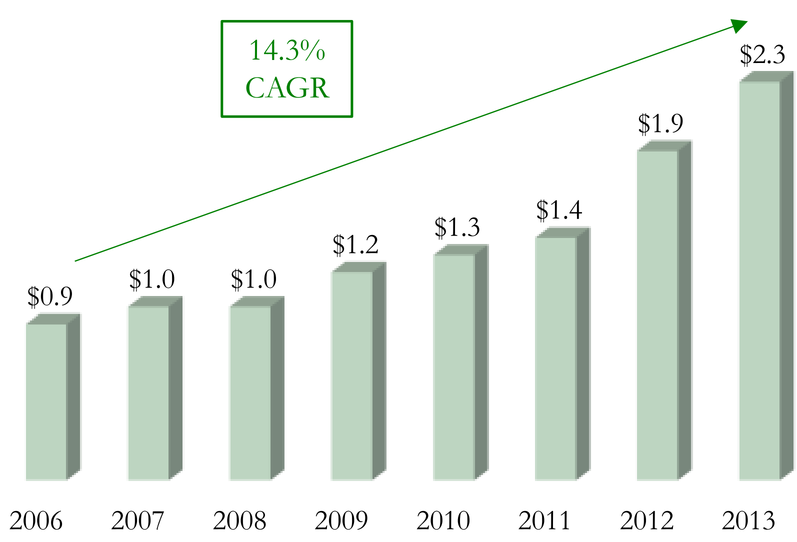
Section A – Insurance Outsourcing Trends

The trend towards insurance general account outsourcing remains pronounced, with global outsourced insurance assets growing at a rapid 14.3% CAGR since 2006. This has rapidly outpaced overall growth in U.S. insurance general account assets (approximately 4.7% CAGR since 2006). In the U.S. alone, insurers currently outsource $1.1 T, or 20.4% of their general accounts.

This sustained trend towards investment outsourcing is driven by a variety of factors, not least of which is the detrimental effect of continued low interest rates on fixed income portfolio yields. Often lacking extensive internal investment teams, many insurers have increasingly sought to tap managers' particular expertise in higher-yielding asset classes. Partly as a result, global outsourcing has accelerated significantly in the past two years, rising from $1.4 T in 2011 to $2.3 T today.

As investment outsourcing has expanded, insurers' expectations of asset managers have changed. Today, over half (52%) of outsourced mandates are managed by single asset class specialists, compared to only 32% in 2011. Conversely, the number of outsourced Core Fixed Income mandates has dropped dramatically to 9% in 2013, from to 26% in 2011. These numbers point to the emergence of an increasingly sophisticated insurance investor, one more willing than ever before to utilize the wide breadth of investment solutions made available by professional asset managers.

Exhibit 82 – Insurance General Account Outsourced Assets: CAGR since 2006



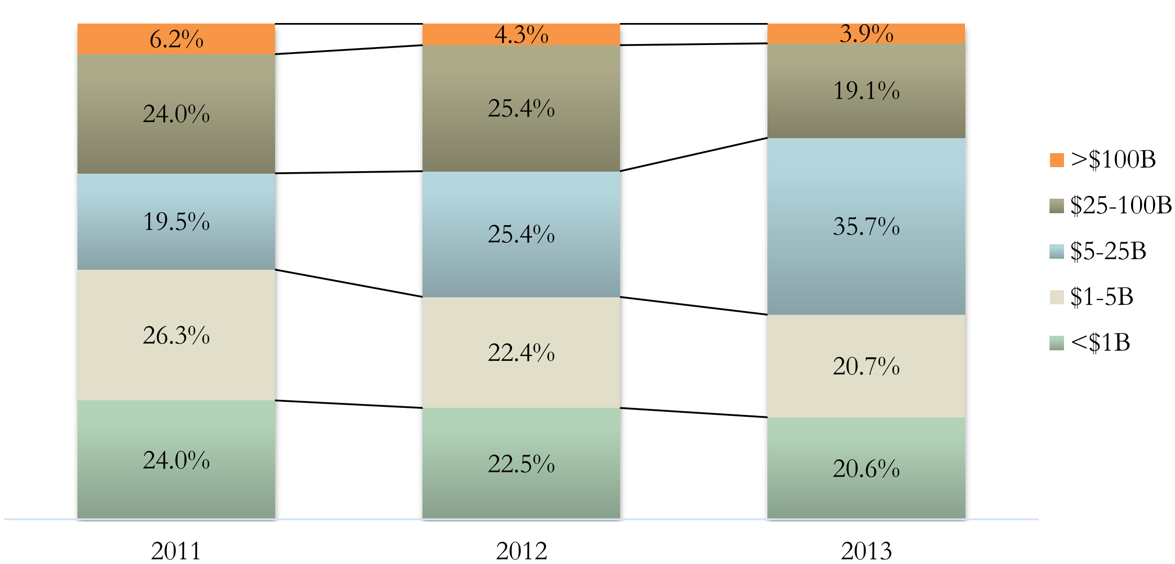
Chapter 8 – Insurance Company Outsourcing Practices

Section B – The Scope of Insurer Outsourcing

Outsourcing: Size Segmentation Dynamics

Investment outsourcing has historically been dominated by small ($1-5B) and boutique (<$1B) insurers, which typically are not able to maintain extensive in-house investment units with multi-asset capabilities. These insurers accounted for 50.4% of outsourced assets in 2011. However, this has changed noticeably in recent years. Although small and boutique insurers, taken together, retain the largest share of outsourced assets (41.3%), insurance companies in the $5-$25 B range have outsourced at the fastest pace, accounting for 35.7% of outsourced assets in 2013. Meanwhile, although their share of outsourced assets has fallen, large insurers (>$25B) continue to add external managers with expertise in niche investment strategies to supplement their own internal investment departments.

Exhibit 83: Outsourced Insurance Assets by Insurer Size Segment



Source: Patpatia & Associates' Proprietary Research

Chapter 8 – Insurance Company Outsourcing Practices

Section B – The Scope of Insurer Outsourcing (Continued)

Outsourcing: Size Segmentation Dynamics *(Continued)*

Large Insurers

Although the largest insurers – those with over $25 B in assets – typically maintain extensive in-house investment departments, they have historically accounted for more than a quarter of outsourced insurance assets. Large insurers outsource for a variety of reasons. Some are well-equipped to manage core strategies in-house, but prefer to outsource specialty mandates to managers with specific expertise. In addition, some large insurers use outsourcing as a means of benchmarking in-house investment performance: by allowing a third-party manager to oversee a small portion of their core portfolio, they are able to compare external and in-house performance and gain exposure to a diversity of investment ideas. In addition, those with global operations often use managers for non-dollar denominated portfolios. Large insurers averaged 2.8 managers in 2012.

Compared to other insurers, large insurers are outsourcing at a slower rate than in the past. Insurers worth over $25 B currently account for only 23% of total outsourced assets, an all-time low. This decline comes as many large insurance companies continue to build out their investment divisions in order to manage non-core fixed income, equity, and alternative investments in-house.

Mid-Sized Insurers

Like large insurers, mid-sized insurance companies often outsource specialty mandates for specific resource-intensive asset classes. In addition, many mid-sized companies rely on outside managers for diversified portfolio management in core/core plus strategies. Mid-sized insurers typically utilize multiple third-party managers (averaging 4.1 in 2012) in order to access a variety of asset classes while reducing manager risk.

Mid-sized insurers' share of total outsourced insurance assets has grown rapidly, from 19.5% in 2011 to 35.7% in 2013. This trend is likely to continue, as insurers that lack wide-reaching internal alternatives capabilities seek to maximize investment income in the low-yield environment.

Chapter 8 – Insurance Company Outsourcing Practices

Section B – The Scope of Insurer Outsourcing (Continued)

Outsourcing: Size Segmentation Dynamics *(Continued)*

Boutique & Small Insurers

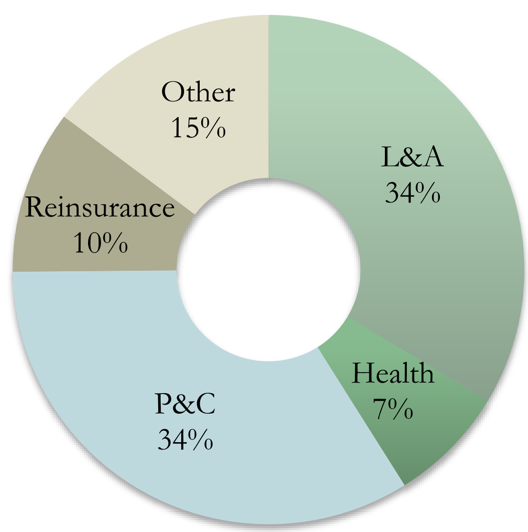
Boutique insurers (those with less than $1 B in assets) tend to pursue relatively conservative investment strategies, investing primarily in treasuries and high quality corporate bonds. As a result, many are able to manage their portfolios internally, often as an extension of the treasury function. Faced with a low-interest rate environment, however, even boutique insurers have begun to utilize third-party managers in an effort to achieve greater portfolio diversification. These insurers typically have small overall portfolios and therefore employ only a few managers (averaging 1.8 in 2012).

Small insurers with $1 B to $5 B in assets have historically taken a similar approach to investment strategy, and face similar challenges in the low-yield environment. However, they are more likely than boutique insurers to employ a relatively large number of managers (an average of 3.9 in 2012), as they endeavor to gain sufficient scale to maintain pricing power across multiple manager relationships.

Outsourcing: Business Line Predilections

The propensity to outsource is no longer a hallmark of any particular business line. Although P&C insurers have historically accounted for a larger share of outsourced general account assets, L&A insurers extensively utilize third-party managers, as well. At year-end 2013, L&A and P&C insurers accounted for equal shares of outsourced insurance assets.

Exhibit 84: Outsourced Assets by Business Line



Source: Patpatia & Associates' Proprietary Research

Chapter 8 – Insurance Company Outsourcing Practices

Section B – The Scope of Insurer Outsourcing (Continued)

Outsourcing: Business Line Predilections *(Continued)*

Life & Annuity Insurers

L&A insurers have historically been slow to adopt third-party management due to the highly customized book income approach required by their liabilities. In 2008, they accounted for only 32% of outsourced assets, compared to P&C's 42%.

At year-end 2013, however, L&A and P&C insurers accounted for equal shares of all outsourced insurance assets (34%). Given the large size of their investment portfolios ($3.6 T vs P&C's $1.6 T), L&A insurers are expected to surpass P&C insurers as the largest share of outsourced assets.

L&A insurers typically employ multiple external managers in order to diversify manager risk while tapping different manager specialties. Although the book income investment approach has historically limited L&A firms' choice of manager, these firms' options are expanding as many asset managers have begun to offer new ALM-sensitive, book income investment strategies specifically tailored to L&A insurers.

Property & Casualty Insurers

Historically, P&C insurers have outsourced to a larger degree than other insurance business lines. Currently, P&C only accounts for 34% of outsourced assets (down from 42% in 2008).

Chapter 8 – Insurance Company Outsourcing Practices

Section B – The Scope of Insurer Outsourcing (Continued)

Business Line Predilections *(Continued)*

Property & Casualty Insurers (*Continued*)

However, outsourcing remains a valuable and relatively accessible tool for P&C companies. P&C insurers' liabilities are less interest rate sensitive than those held by L&A insurers, and they are more likely to utilize a constrained total return approach.

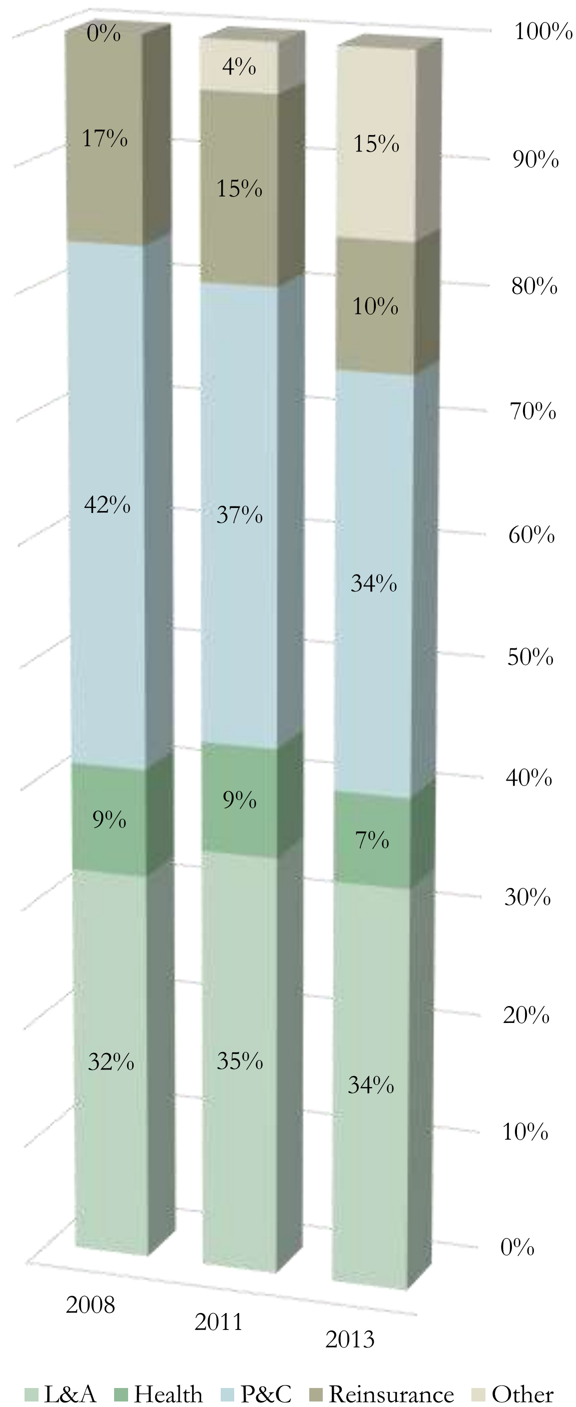
As a result, many P&C insurers are able to employ managers' "off-the-shelf" offerings, making it easier for them to access a range of managers as they seek to maximize investment income.

Health Insurers

Health insurers' share of total outsourced assets has remained relatively steady, decreasing slightly from 9% in 2008 to 7% in 2013. Outsourcing typically occurs among large insurers, who are more likely than smaller health companies to maintain a substantial long-term portfolio.

Following the pension core-satellite model, these firms tend to employ a relatively large number of managers, and typically pursue constrained total return strategies.

Exhibit 85 – Outsourced Assets by Business Line, 2008-2013



Source: Patpatia & Associates' Proprietary Research

Chapter 8 – Insurance Company Outsourcing Practices

Section B – The Scope of Insurer Outsourcing (Continued)

Business Line Predilections *(Continued)*

Reinsurers

Reinsurance companies, which typically carry P&C liabilities, have also historically been highly likely to outsource. As larger reinsurers have developed in-house investment teams and established asset management affiliates, however, proportionally fewer reinsurance assets have been outsourced to true third-party managers. In 2013, reinsurance assets constituted only 10% of total outsourced insurance assets, down from 17% in 2008.

At the same time, however, many small and mid-sized insurers maintain a lean operating model and continue to rely on third-party managers to carry out the majority of their investment functions. Additionally, as reinsurers of all size segments increasingly develop relationships with hedge fund and private equity affiliates, it is a short step for them to add true third party managers in a core-satellite approach.

"Other"/Multi-Line

As asset managers' data management systems improve, their internal reporting on the nature of insurance clients served has become increasingly granular. As a result, many multi-line insurers who had previously been classified according to their dominant business line have now been reclassified as "Other." This has led to a sharp increase in outsourced insurance assets classified as "Other," as demonstrated in Exhibit 85.

However, the increase in "Other" assets from 2008 to 2013 is not only the result of asset managers' internal reclassification. Multi-line (or "Other") insurers typically have greater than $5 B in invested assets, and as such constitute a greater share of outsourced insurance assets than ever before (58.7% in 2013 vs. 49.7% in 2011 – see Exhibit 85).

Chapter 8 – Insurance Company Outsourcing Practices

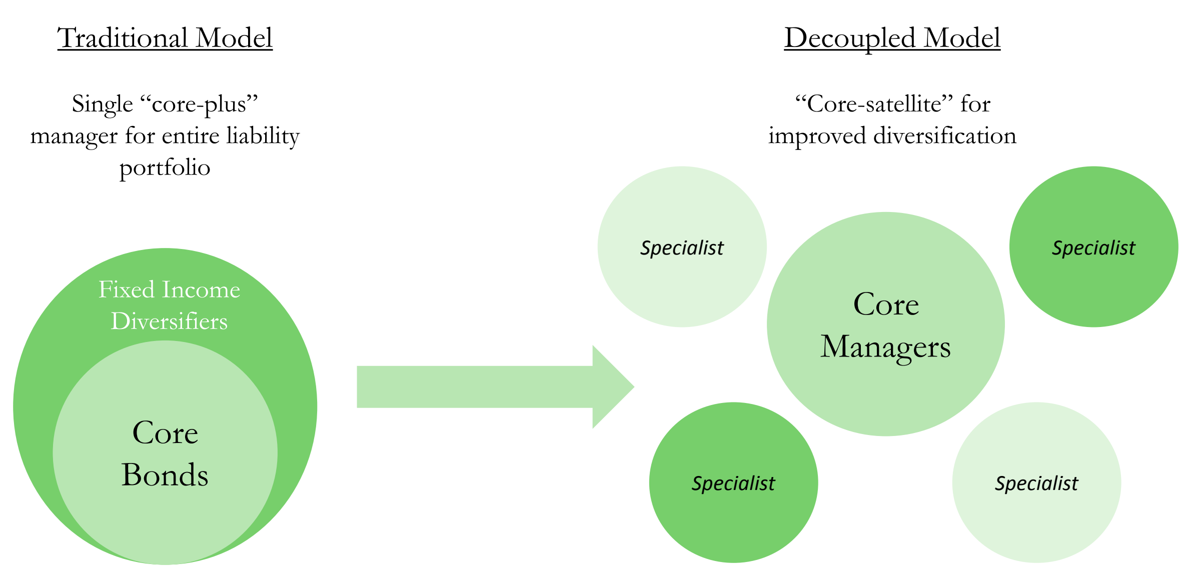
Section C – The Role of Outsourcing

The Core-Satellite Approach

Historically, insurance companies have been slow to utilize multiple external managers. While many insurers oversaw all investments in-house, those that chose to outsource typically entrusted their entire investment portfolio to a single manager under a fixed income-oriented "core plus" mandate.

This practice has changed in recent years, as a core-satellite model of investment outsourcing (popularized in the defined benefit pension marketplace) has become common. Most insurers now allocate diverse sleeves of their portfolios to a variety of different managers. This practice allows insurers to access best-of-breed managers for specific asset classes. In addition, it has the advantage of diversifying manager risk, ensuring that the entire investment portfolio will not be subject to a single manager's poor performance.

Exhibit 86 – The Evolving Role of Third-Party Managers



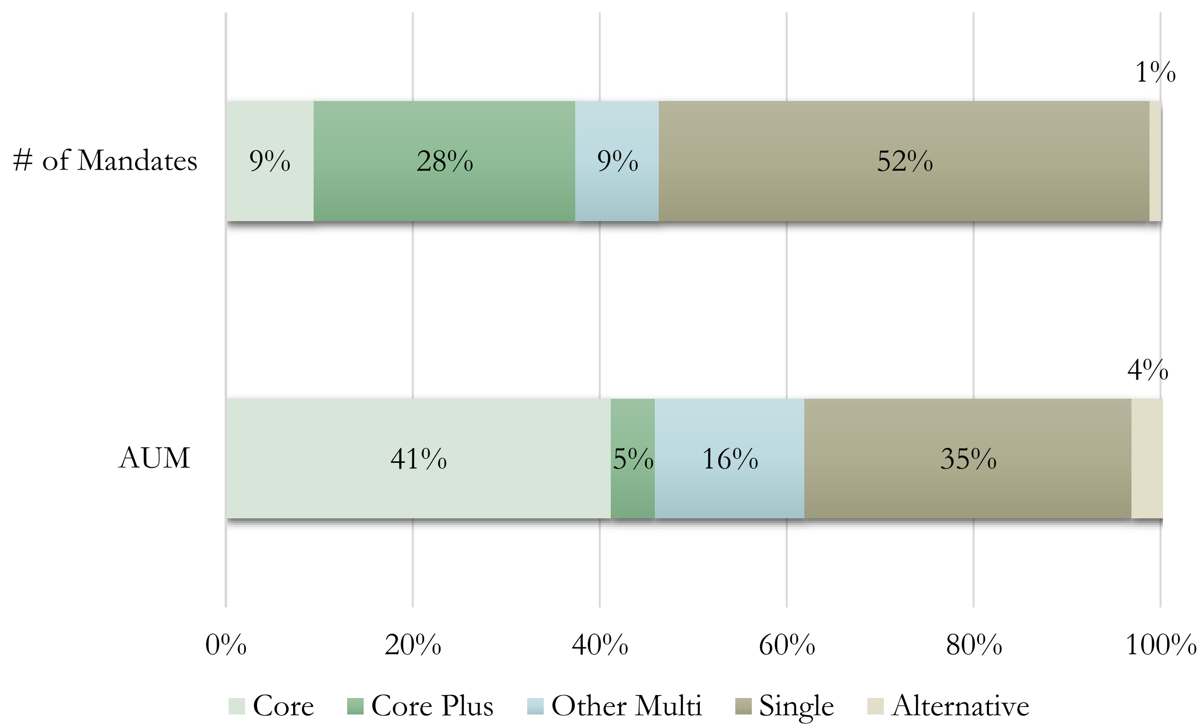
Source: Patpatia & Associates' Proprietary Research

Chapter 8 – Insurance Company Outsourcing Practices

Section D – Types of Outsourced Mandates

The transition to a core-satellite model is clearly evident in the types of mandates outsourced by insurance companies. These have changed significantly since 2011, when 25.9% of total outsourced mandates were core mandates. That number dropped to just 9% at year-end 2013. Meanwhile, the number of single asset mandates has grown from 32% of the total in 2011 to 52% today.

Exhibit 87: Outsourced Mandates by Type



When viewed in terms of assets, however, it becomes clear that overall insurance investment patterns have not changed quite as dramatically as mandate outsourcing patterns would suggest. In 2011, 44% of outsourced assets were in core mandates; at 41%, today's allocation to core mandates is relatively unchanged.

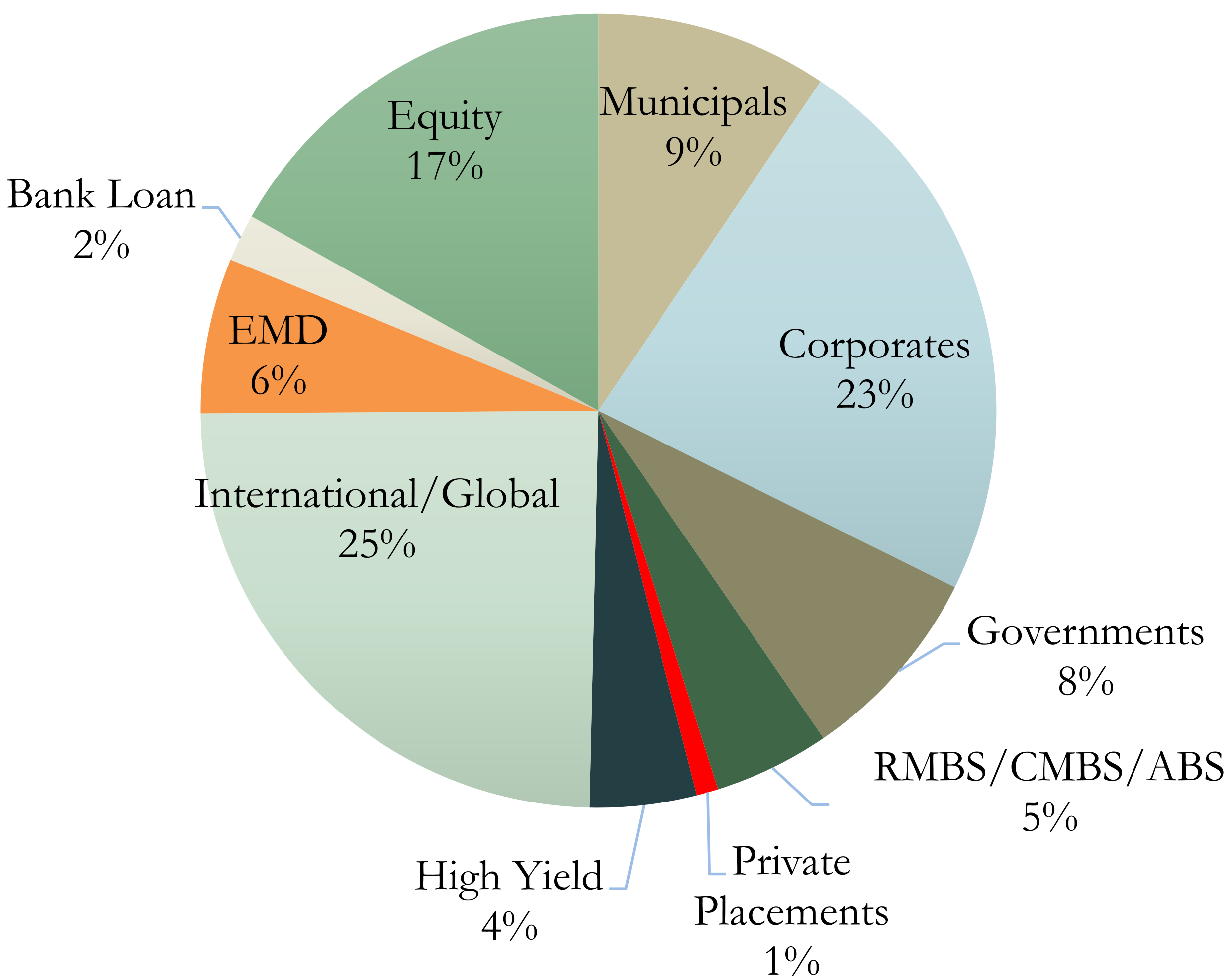
Source: Patpatia & Associates' Proprietary Research

Chapter 8 – Insurance Company Outsourcing Practices

Section D – Types of Outsourced Mandates (Continued)

International/global mandates are the most popular type of single-asset mandate, accounting for 25% of outsourced single asset mandate assets in 2013. Corporate bonds (23%) are a close second, followed by equity (17%). This represents insurers' propensity to employ external managers for niche areas, such as international investing, in which they lack domain expertise.

Exhibit 88: Outsourced Single-Asset Mandates by Asset Category



Source: Patpatia & Associates' Proprietary Research

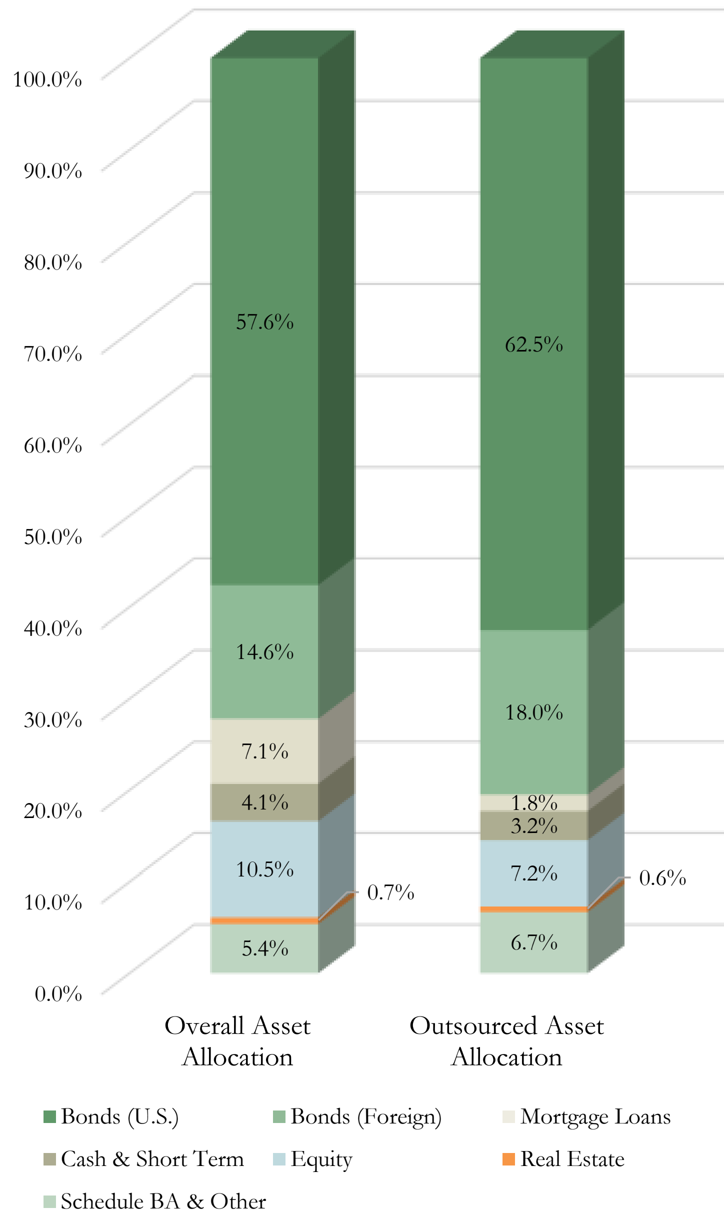
Chapter 8 – Insurance Company Outsourcing Practices

Section E – Insurer Product Usage

As discussed in the previous section, a multi-year comparison of outsourced insurance mandates displays a large drop in the total number of outsourced, fixed income-oriented Core and Core Plus mandates. When viewed in terms of asset allocation, however, outsourced assets tell a slightly different story. When taking into account assets from both multi-asset and single-asset outsourced mandates, domestic fixed income remains a significant component of outsourced insurance assets. At the same time, more esoteric asset classes such as global fixed income and alternatives are also outsourced at a high rate.

Bonds, which form the bulk of overall insurance company assets, also constitute the majority of outsourced assets, at 80.5%. Foreign bonds, in particular, are frequently outsourced, as insurers seek to tap asset managers' global expertise. While high yield bonds and private placements contribute a modest amount to fixed income outsourcing (1.9% and 1.2%, respectively), investment-grade public corporates comprise the majority of the outsourced fixed income portfolio, at 19.7%.

Exhibit 89: Overall Asset Allocation vs. Outsourced Asset Allocation



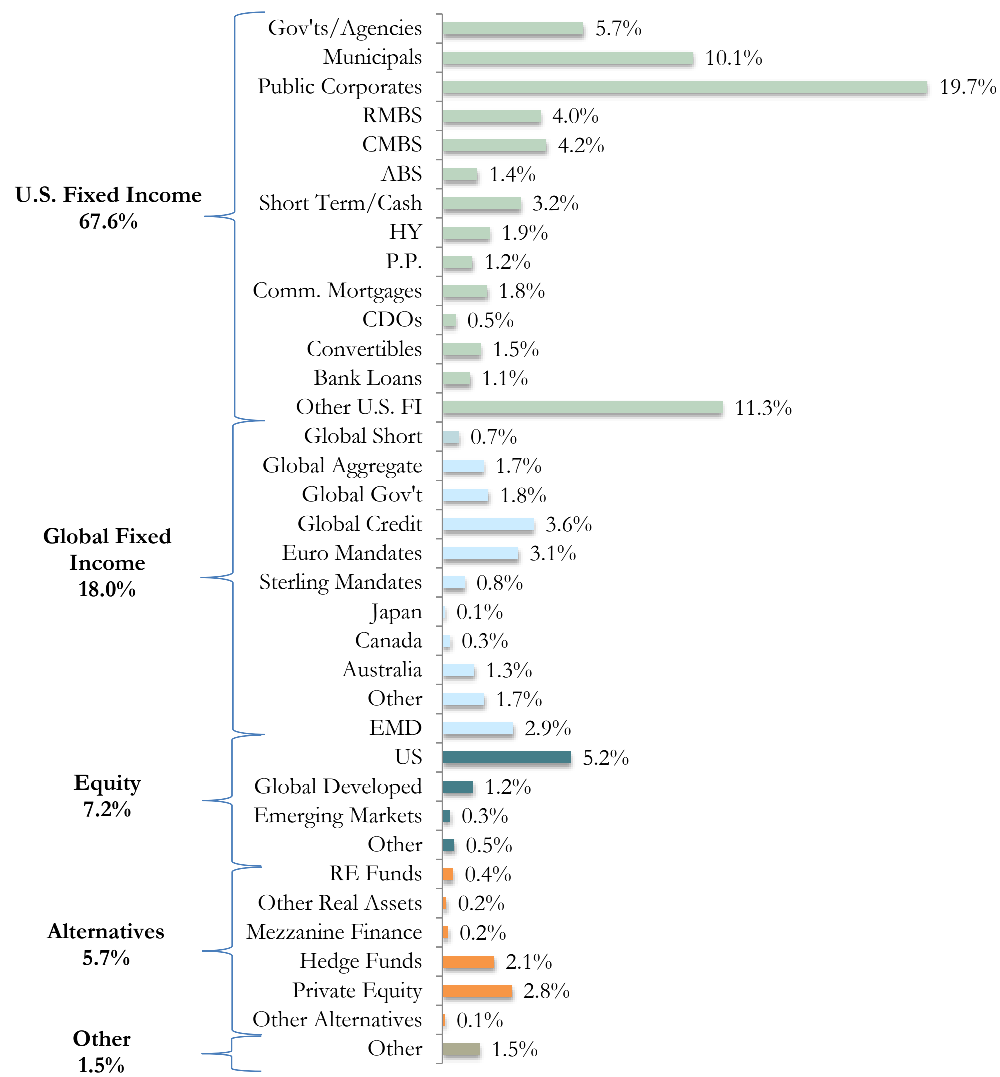
Chapter 8 – Insurance Company Outsourcing Practices

Section E – Insurer Product Usage (Continued)

Mortgage loans, a core income-generating asset class, are typically managed in-house by experienced investment teams. As such, mortgage loans represent only a small percentage of outsourced assets (1.8%, vs. 7.1% of total insurance assets). However, some smaller insurers are now outsourcing mortgage loans to third-party managers, frequently to the investment units of larger insurance companies, to gain access to the asset class.

Schedule BA assets also account for a greater proportion of outsourced assets than of total insurance assets (6.7% vs. 5.4%). Similar to global fixed income, resource-constrained insurers with limited investment departments must typically seek third-party expertise to manage these assets.

Exhibit 90: Allocation of Outsourced Insurance General Account Assets



Source: Patpatia & Associates' Proprietary Research

Chapter 9 – Considerations for Selecting a Third-Party Manager

Section A – Cultural Fit with Insurance Business

In selecting a third-party asset manager, demonstrated ability to meet performance expectations is always critical. As CalPERS' recent divestment from hedge funds indicates, investors are increasingly unwilling to pay high fees to managers who fail to deliver consistent results. For insurance companies, however, selecting a third-party manager involves a wide range of considerations, many of which have little direct link to managers' past performance or product specialties.

Unlike pension funds and other institutional investors, insurance companies are highly regulated – and will become even more so with the full implementation of ORSA in the U.S. and Solvency II in Europe. In selecting a third-party manager, insurers must feel confident in that managers' ability and willingness to accommodate specific regulatory requirements (for instance, by adhering to customized investment restrictions).

As taxable investors, moreover, insurers are affected by capital gains and losses to a much greater extent than are other institutional investors. In addition to regulatory sensitivity, therefore, insurers must evaluate managers on their tax awareness, including their ability to limit turnover and to help harvest tax activities.

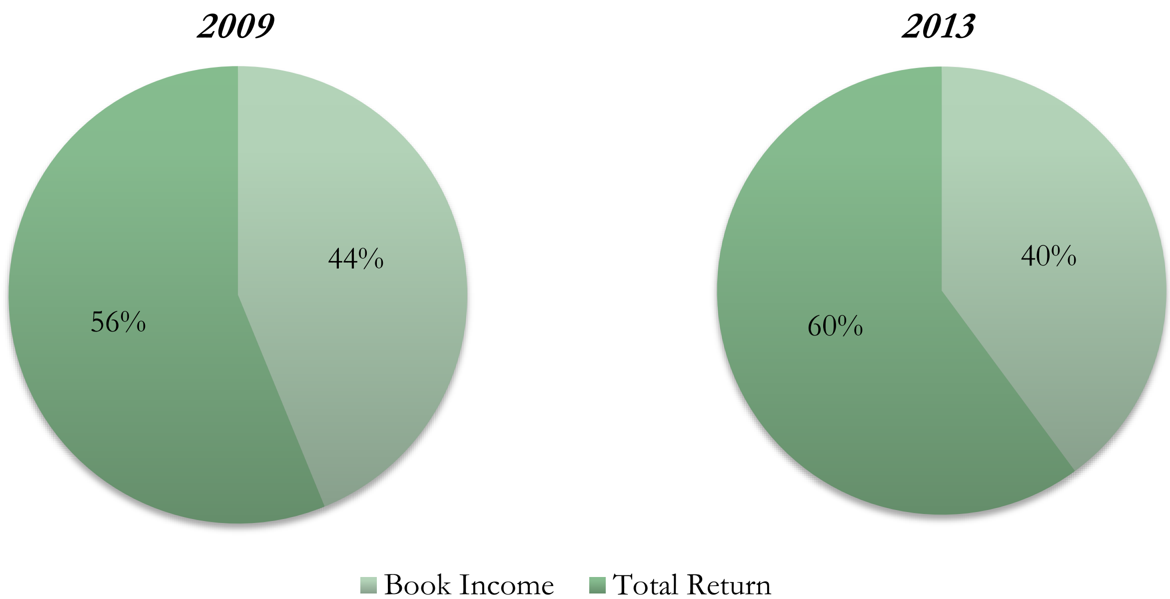
Finally, insurers must take into account the nature of their own asset-liability management (ALM) constraints when selecting third-party managers. P&C, health, and reinsurance companies, which lack strict ALM cash flow optimization requirements, typically pursue total return strategies which parallel those employed by pension funds and other institutional investors. As a result, they are generally able to access a relatively wide range of asset managers.

L&A insurers, on the other hand, are largely restricted to asset managers willing to manage their assets under a low turnover, book income approach. While the ability to pursue this approach has become more common among asset managers targeting the insurance outsourcing market, it is by no means universal. To ensure a productive relationship, L&A insurers must clearly express their requirements and review a managers' book income investment capabilities before outsourcing assets to that manager.

Chapter 9 – Selecting and Overseeing Third Party Managers

Section A – Cultural Fit with Insurance Business (Continued)

Exhibit 91: Book Income vs. Total Return (# of Companies Using External Managers)



In 2013, approximately 60% of outsourced insurance assets were managed on a total return basis, representing a 4% increase from 2011. Similarly, the number of insurers employing external managers to pursue total return strategies increased from 56% in 2009 to 60% in 2013. These figures are reflect that fact that total return-oriented health, reinsurance, and P&C insurers constitute 51% of outsourced insurance assets.

Exhibit 92: Book Income vs. Total Return (Number of Companies), 2009-2013

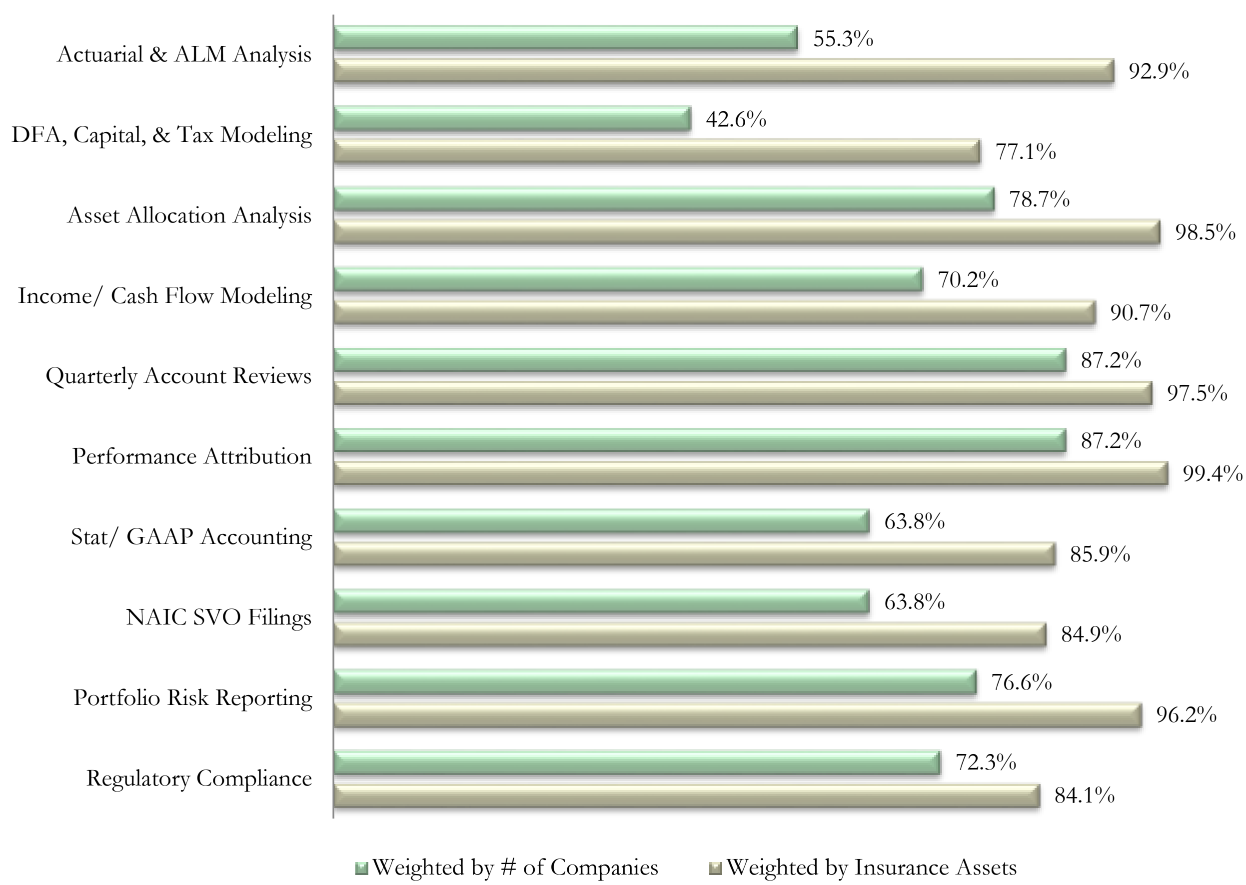
Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

Chapter 9 – Considerations for Selecting a Third-Party Manager

Section B – Support for Insurance-Specific Services

Insurance clients typically hope to establish a relationship with asset managers that is substantive and sustained, encompassing a variety of services and frequent points of contact. An asset manager's ability to support this kind of relationship is, in part, reflective of culture: managers who are willing to devote time and resources to better understand an insurance client's particular needs will, of course, be the most successful relationship-builders. Yet it is equally reflective of the breadth of a manager's in-house capabilities for servicing insurance clients. Increasingly, insurance companies that outsource some or all of their investments to third-party managers are looking for a comprehensive servicing relationship that encompasses ALM analysis, tax modeling, and help with NAIC securities valuation office filings, among other services.

Exhibit 93: % of Insurance Asset Managers Supporting Insurance-Specific Services



Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

Chapter 9 – Considerations for Selecting a Third-Party Manager

Section B – Support for Insurance-Specific Services (Continued)

Among insurance companies that outsource, demand for insurance-specific services has reached unprecedented levels. Today, insurance assets are outsourced almost exclusively to managers that provide insurance-specific services. For instance, 99.4% of outsourced insurance assets are managed by firms with performance attribution capabilities, up from 98.2% in 2011. The gap between number of managers that offer a service and the amount of insurance assets allocated to them can be significant: for example, while only 55.3% of managers offer actuarial and ALM analysis, these managers oversee over 90% of outsourced insurance assets.

Asset managers have made significant additions to their insurance client servicing capabilities. Managers that provide tax modeling, STAT/GAAP accounting, and regulatory compliance services for insurance clients each increased by over 10 percentage points from 2011. Today, the most commonly-offered services are quarterly account reviews and performance attribution, each offered by 87.2% of insurance asset managers. DFA, capital, and tax modeling constitutes the only insurance-specific service to be offered by less than 50% of insurance asset managers, at 42.6%.

Exhibit 94: Insurance-Specific Services by Number of Managers, 2011 & 2013

Service	2011	2013	% Change
Actuarial & ALM Analysis	50.0%	55.3%	+10.6%
DFA, Capital & Tax Modeling	32.3%	42.6%	+31.8%
Asset Allocation Analysis	69.4%	78.7%	+13.4%
Income/Cash Flow Modeling	62.9%	70.2%	+11.6%
Quarterly Account Reviews	79.0%	87.2%	+10.4%
Performance Attribution	83.9%	87.2%	+3.9%
Stat/GAAP Accounting	53.2%	63.8%	+19.9%
NAIC SVO Filings	54.8%	63.8%	+16.4%
Portfolio Risk Reporting	72.6%	76.6%	+5.5%
Regulatory Compliance	59.7%	72.3%	+21.1%

Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

Chapter 9 – Considerations for Selecting a Third-Party Manager

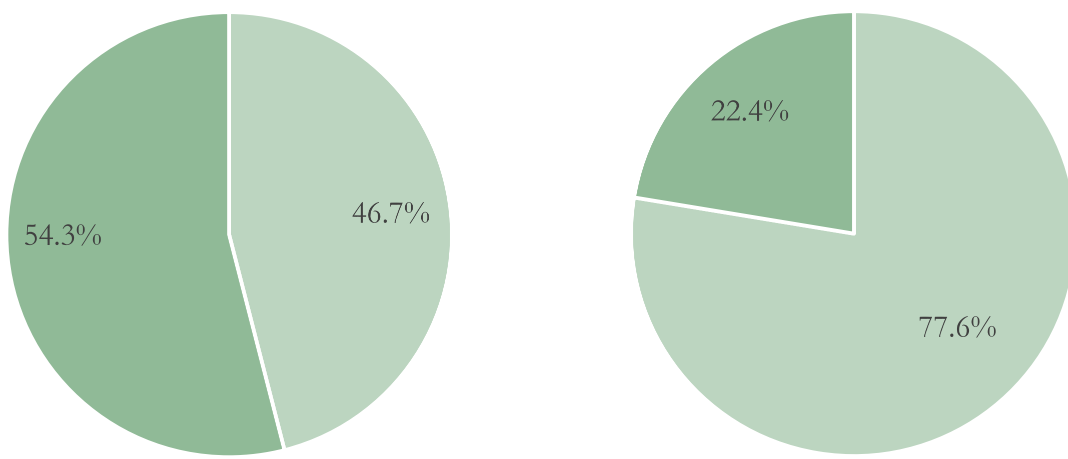
Section C – Consistency with Derivatives Practices

Insurers' perspectives on the use of derivatives vary widely by firm. While some firms do not use derivatives for any purpose, others will accept limited derivatives exposure, primarily for hedging.

Nearly half of asset managers do not use derivatives in insurance company portfolios; however, over 77% of outsourced insurance assets are overseen by managers that offer derivatives capabilities. Even though most insurers utilize derivatives relatively sparingly, it appears that the largest insurers nevertheless tend to seek managers that have the ability to execute derivatives strategies, if it proves advantageous to do so.

Exhibit 95: Derivatives Use in Outsourced Insurance Company Portfolios

Weighted by Number of Managers ***Weighted by Insurance Assets***



The large majority of insurers avoid using derivatives for income generation, preferring instead to utilize more indirect methods – such as security replication – to enhance returns. As some asset managers may rely heavily on more aggressive derivatives strategies to drive performance, insurers must communicate clearly with asset managers about the particular derivatives strategies with which they are comfortable.

Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

Chapter 9 – Considerations for Selecting a Third-Party Manager

Section C – Consistency with Derivatives Practices (Continued)

Exhibit 96: Managers' Purpose in Using Derivatives in Insurance Company Portfolios

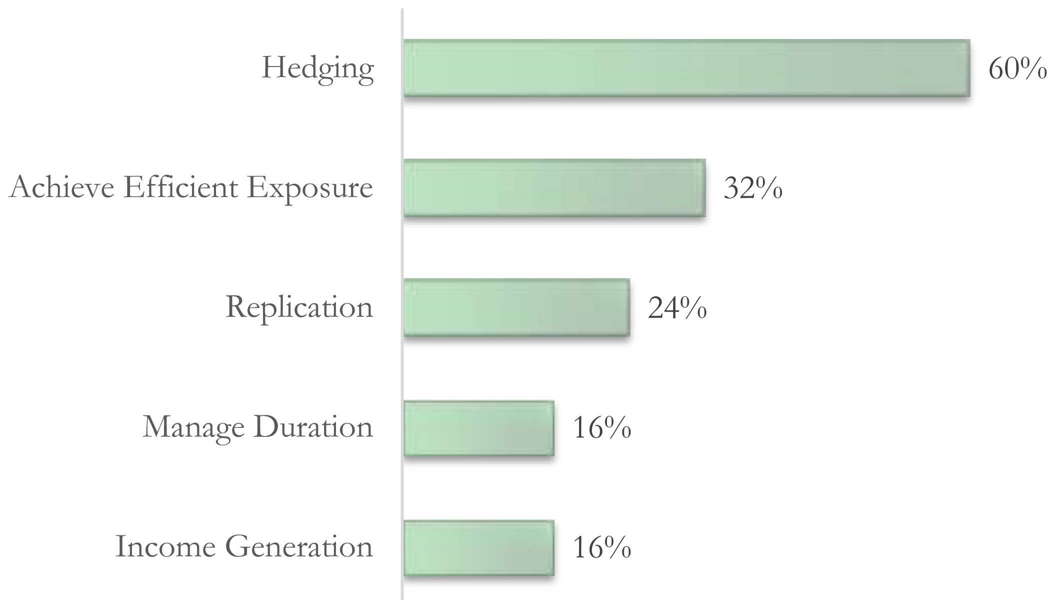
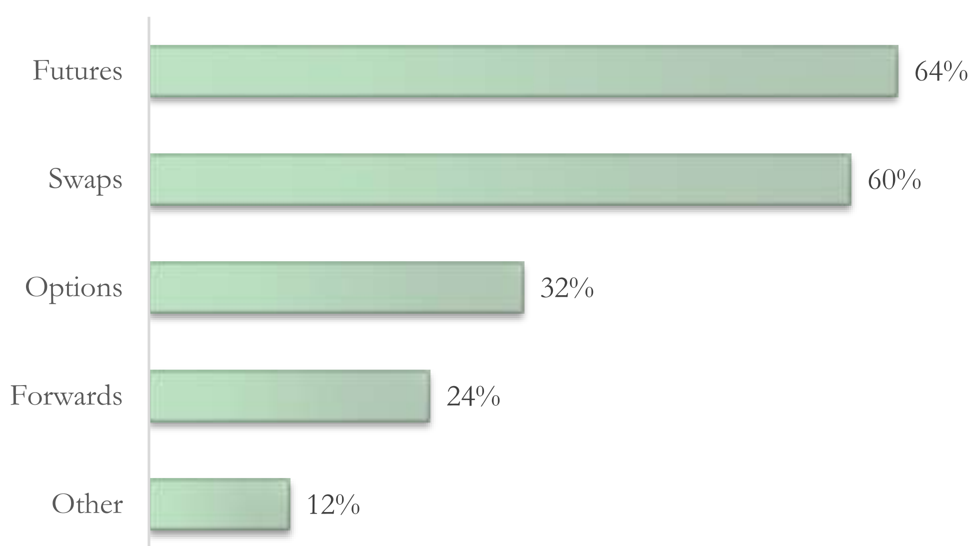


Exhibit 97: Managers' Use of Derivatives Instruments in Insurance Company Portfolios



Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 LAM Survey

Chapter 9 – Considerations for Selecting a Third-Party Manager

Section D – Allocating Mandates to Managers

In addition to determining which assets to outsource, insurance companies must decide how they plan to allocate mandates to external managers. This includes choosing between a small number of generalist managers and a relatively larger number of specialist managers, and entails certain tradeoffs: for instance, between the ability to leverage a generalist managers' relative value decision-making and the ability to capitalize on specialist managers' diversity of approach.

As firms have migrated toward adopting Core-Satellite portfolio construction methodologies, specialty managers are increasingly being deployed. Firms are either managing the bulk of their core bond exposures internally or using 1-3 managers for this purpose. Cost management and risk management (credit, interest rate risk, geography, currency) are key focuses of these "plain vanilla" debt mandates.

These same insurers are then making focused allocations to "Satellite" specialties to generate portfolio alpha. These smaller, higher cost mandates tapping high yield debt, emerging markets, equities, real estate, hedge funds, and similar diversifiers, are included to enhance the overall risk and cost-adjusted return profile.

Insurers also have to decide how ALM considerations will inform outsourcing practices. To a certain degree, this decision will vary by business line: for instance, L&A insurers have typically allocated mandates for each individual liability in order to facilitate more straightforward ALM. However, many firms are now adopting an enterprise level portfolio management strategy, which may allow them to capitalize on internal cross-hedging of liability behavior. This is a much more complicated approach, requiring insurers to implement complex liability and ERM modeling.

Chapter 10 – Implications for Asset Managers

Section A – Importance of the Insurance General Account Marketplace for Asset Managers

Though not without its challenges, the insurance asset management marketplace continues to present an attractive opportunity for asset managers. As the number and size of defined benefit pension plans continues to wane, insurance general accounts have steadily grown. At the same time, an increasing number of insurers are seeking professional money management solutions. In fact, insurance companies were the only institutional client to grow as a percentage of surveyed managers' AUM from 2011 to 2013.

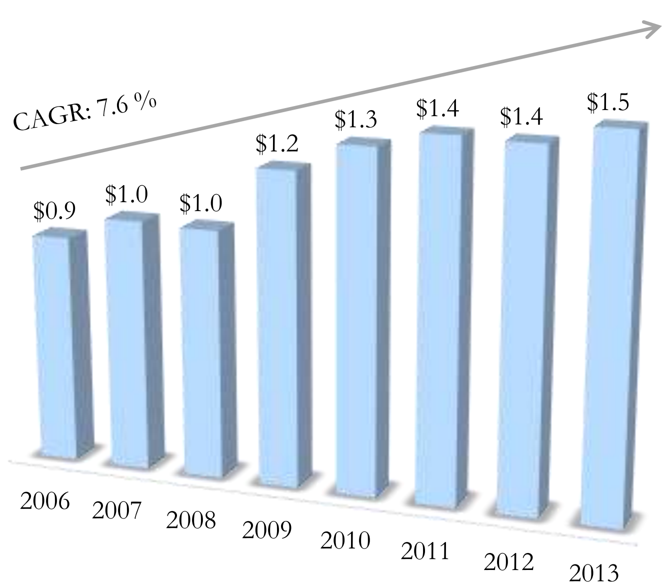
Total Size & Long-Term Growth of Insurance Assets

Exhibit 98: Growth in Insurers' Total Invested Assets, 2009 & 2013

Year	L&A	P&C	Health	Total
2009	$3,071.8 B	$1,260.4 B	$119.7 B	$4,451.9 B
2013	$3,564.4 B	$1,671.2 B	$171.1 B	$5,406.7 B

U.S. insurers' total invested assets reached $5.4 T in 2013, for a 5% CAGR since 2009. Of those assets, approximately $1.5 T have been outsourced to third-party managers, in a trend that seems unlikely to abate.

Exhibit 99: Insurance General Account Outsourced Assets: CAGR since 2006



Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

Chapter 10 – Implications for Asset Managers

Section A – Importance of the Insurance GA Marketplace for Asset Managers (Continued)

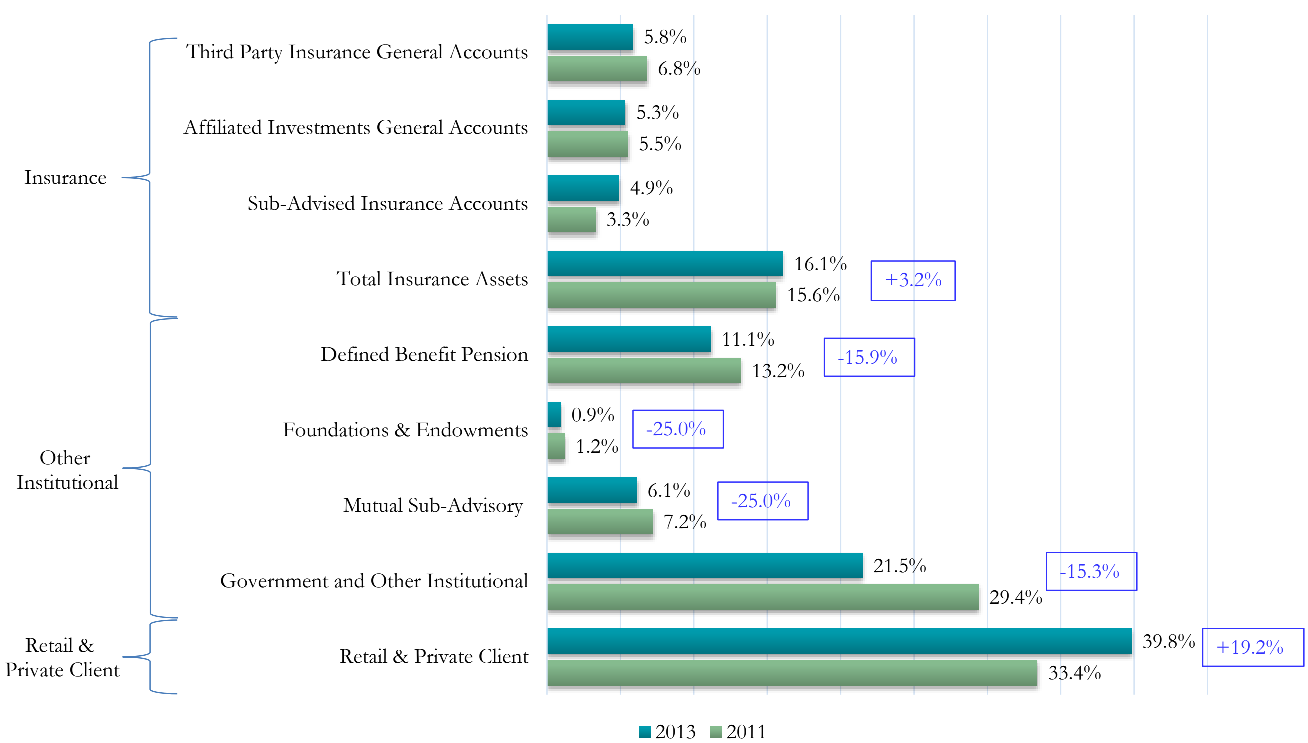
Insurance General Accounts Relative to Other Investors

Exhibit 100 – Insurance Assets as % of Managers' Total AUM

	Third-Party General Account	Affiliated General Account	Sub-Advised Separate Account	Total Insurance AUM
Managers' Insurance Assets	$1315.7 B	$1199.4 B	$1106.4 B	$3635.8
% of Managers' Total AUM	5.8%	5.3%	4.9%	16.1%

In 2013, insurance clients contributed a total of $3.6 T to surveyed asset managers' total assets under management. Insurance assets increased slightly as a proportion of managers' total AUM, from 15.6% in 2011 to 16.1% in 2013. While government and other institutional assets declined the most dramatically as a percentage of managers' total AUM (from 29.4% in 2011 to 21.5% in 2013), defined benefit pension assets also dropped by over two percentage points. In fact, insurance companies were the only institutional client to grow as a percentage of managers' AUM from 2011 to 2013.

Exhibit 101: Asset Sources of Managers Participating in 2014 IAM Survey



Source: Patpatia & Associates' proprietary research; Patpatia & Associates' 2014 IAM Survey

Chapter 10 – Implications for Asset Managers

Section B – Insurance Business Dynamics: Challenges & Opportunities

Challenges

Despite presenting asset managers with a favorable asset gathering opportunity, insurance companies also introduce a unique set of challenges. Insurers' unique ALM requirements may prevent them from using managers' "off-the-shelf" investment strategies, requiring managers to design customized investment strategies for each insurance client. Additionally, insurers are highly regulated relative to other institutional clients, and are also taxable investors. As a result, insurers have servicing and reporting needs that are more complex than other institutional clients'.

Not surprisingly, therefore, insurers are more relationship-driven than other institutional investors, seeking out asset managers who understand and are able to service their particular needs. Asset managers that are able to differentiate themselves in this regard will be well positioned for success in the marketplace.

Fees are another area in which insurance companies present a challenge relative to other institutional investors. Unlike defined-benefit pension funds, for instance, insurance companies are typically willing to bargain aggressively for lower manager fees. The result has been a highly competitive, low-margin business for asset managers. As an example, a recent $750 million search was awarded to an asset manager willing to accept only seven basis points – a level of compensation virtually unheard-of in the defined-benefit pension world.

Some asset managers have expressed the concern that low fees may eventually make entry into the insurance asset business untenable, particularly if a capital-intensive build-out in insurance-specific capabilities and personnel is required to enter the market in the first place. These concerns are legitimate, and should be carefully evaluated by asset managers who consider entering the market.

Despite these challenges, however, significant incentives to target insurance company clients remain. As discussed more thoroughly in the next section, the insurance market continues to grow, as do insurers' incentives to outsource some or all of their investments. At the same time, insurance relationships are typically long-term, with the average client-manager relationship lasting 10-13 years. If well served during the initial engagement, insurance clients are likely to return to the same manager for diverse and emerging investment solutions in years to come.

Chapter 10 – Implications for Asset Managers

Section B – Insurance Business Dynamics: Challenges and Opportunities (Continued)

Continuing Market Growth Imperative

Although U.S. insurance industry growth slowed in 2013 – total premiums grew by 1.4%, slower than the five-year CAGR of 2.1% – industry growth is unlikely to stall in the near future. Demographic changes have resulted in an older, sicker population faced with ever-rising healthcare costs and the decline of employee protections, such as the defined-benefit pension plan, that had previously guaranteed a high quality of life in retirement. The purchase of insurance and annuity products is therefore more critical to most consumers than ever before.

At the same time, insurers face a growing roster of challenges that should impel many to consider third-party investment management. The low-yield environment has put a severe dent in insurers' investment portfolios. Meanwhile, new competitive dynamics, including a series of private equity acquisitions and the entry of international insurers to the U.S. market, are driving a greater emphasis on the need to maximize investment returns. Most insurers lack the skill sets, deal flow, and scale to directly oversee the resource-intensive asset classes that might generate higher returns.

Favorable Business Characteristics

There are a number of characteristics that make insurance outsourcing relationships especially attractive to asset managers. Insurance mandates are typically larger than other client engagements: core mandates from large and mid-sized insurers may exceed $1 B, while specialty mandates are often $250 - $500 million. The overall size of insurance relationships may provide some relief to managers anxious about fees. Although core mandates, in particular, tend to follow "buy-and-hold" strategies and therefore pay relatively low fees, they are nevertheless much larger than most other institutional mandates.

Insurance outsourcing relationships tend to be of relatively long duration. The average insurance outsourcing relationship lasts 10-13 years. As the insurance industry grows, outsourced insurance assets are generally subject to low redemption risk. Furthermore, insurers' ALM constraints and taxable investor status erect high barriers to switching, meaning that insurers will often strive to maintain existing manager relationships.

Chapter 10 – Implications for Asset Managers

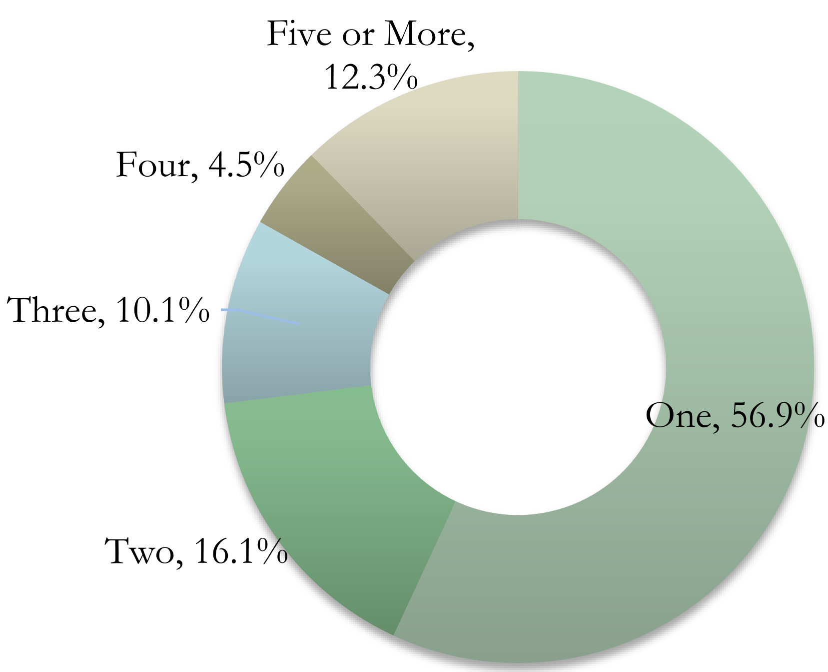
Section B – Insurance Business Dynamics: Challenges and Opportunities (Continued)

Cross-Sales to Insurers

Many insurers have historically chosen to maintain multiple asset managers in order to tap a variety of asset class specializations while diversifying manager risk. However, opportunities for cross-sales to insurers of all sizes exist. For instance, it is not uncommon for large insurers to place multiple specialized mandates with a single, diversified asset manager. In addition, small and midsized insurers may use a single manager for multiple mandates as a means of accessing discounted "relationship" pricing or achieving economies of scale.

Surveyed managers report that approximately 57% of insurance mandates were managed for clients who had not placed another mandate with the firm. However, 43% of mandates were managed for clients with two or more mandates at the firm. This is a slight increase from 2011, when multi-mandate clients accounted for 41% of mandates.

Exhibit 102: Number of Mandates Assigned per Manager



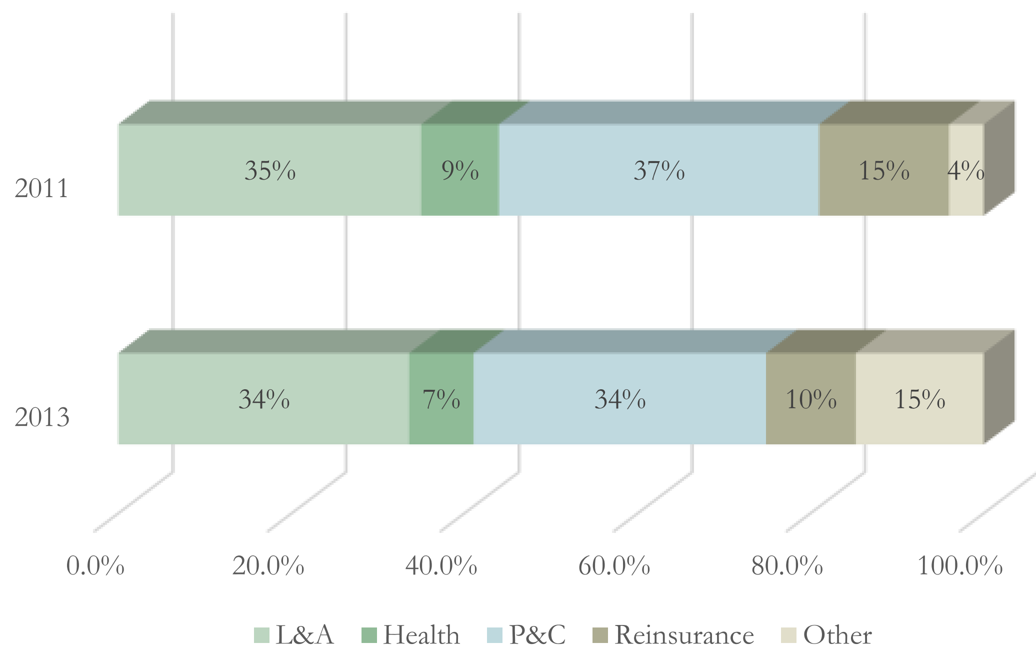
Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

Chapter 10 – Implications for Asset Managers

Section C – Insurance Assets: A Segmented Business Strategy

Insurance Outsourcing by Business Line

Exhibit 103: Insurance Outsourcing by Business Line, 2011 & 2013



- As large life insurers increasingly seek out external managers with specialty investment capabilities, life insurers have come to represent 34% of outsourced insurance assets – equal to outsourced P&C assets for the first time

- P&C insurers' constrained total return investment approach gives them greater leeway in selecting and employing third-party managers; historically, they have accounted for more outsourced assets than any other business line.

- Reinsurers, who primarily serve P&C liabilities, represent 10% of outsourced assets, a decline from 2011.

- Health insurers, whose general account portfolios are modest in size (both individually and in aggregate), account for a 7% share (down from 9% at year-end 2011).

Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 IAM Survey

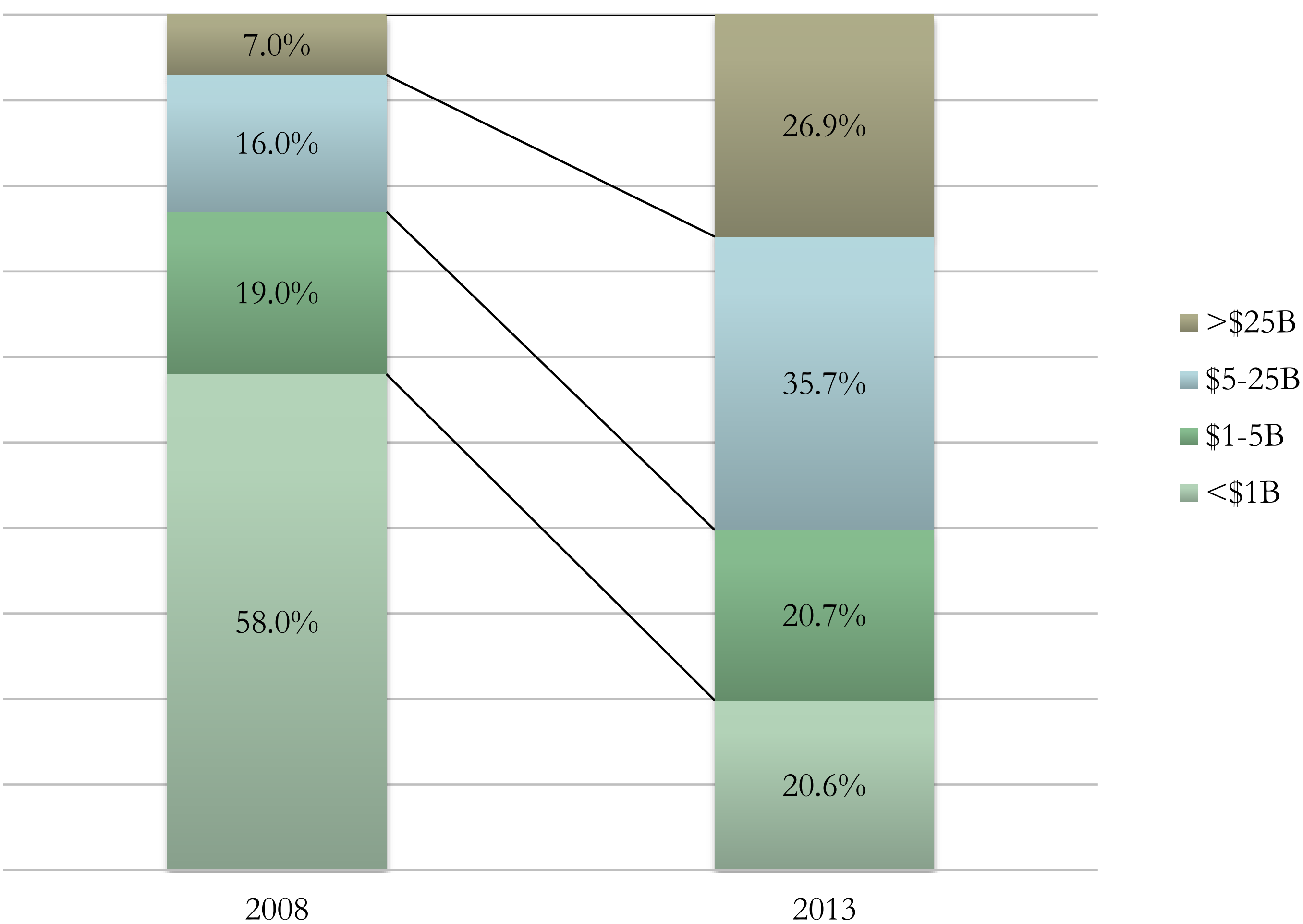
Chapter 10 – Implications for Asset Managers

Section C – Insurance Assets: A Segmented Business Strategy (Continued)

Insurance Outsourcing by Size Segment

Since 2008, the marketplace has undergone a profound shift in outsourced assets from boutique insurers (<$1 B) to large and mid-sized insurers (>$5 B). Outsourcing is no longer primarily the domain of those who lack internal investment functions. Rather, insurers increasingly seek to augment existing internal capabilities with external managers' specialized asset class expertise and sophisticated ALM and reporting capabilities.

Exhibit 104: Outsourcing by Size Segment, 2008 & 2013



Source: Patpatia & Associates' Proprietary Research; Patpatia & Associates' 2014 LAM Survey

Chapter 10 – Implications for Asset Managers

Section D – Global Outsourcing Expansion

Over 65% of North American asset managers' insurance client assets originate from within North America. However, managers are increasingly courting opportunities in global markets. Unsurprisingly, managers' fastest AUM growth has come from emerging economies, especially Asia (ex-Japan) and Latin America.

North America

- Traditional fixed income investments fail to generate sufficient yields for profitability
- Regulatory change requires enhanced investment oversight structure
- Lessons of the financial crisis linger, casting doubt on in-house investment expertise

Europe

- Under Solvency II, insurers reevaluating investment strategies – with a focus on risk management
- Search for higher-yielding fixed income *(e.g. corporate bonds)* driving interest in U.S. investment strategies
- Diversification is key – lower RBC requirements for diversified strategies

Asia

- Many insurers lack sophisticated internal asset management functions
- Regulatory liberalization facilitates increased investment in U.S., U.K., and Euro-denominated securities
- Heightened appetite for international expansion, including acquisitions in the U.S. and globally

Offshore *(Bermuda)*

- Traditionally have outsourced extensively in order to focus resources on value-added underwriting
- Turnkey "CIO in a box" solutions common for those under $8-10 B
- Competitive marketplace – U.S. and global asset managers proactively target this region for growth

Chapter 10 – Implications for Asset Managers

Section E – Establishing Credibility in the Outsourcing Marketplace

To be recognized as a credible player in the insurance outsourcing marketplace, asset managers must approach insurance asset management as a discrete business. Insurance general account clients are highly regulated, ALM-driven, and relationship-oriented: they do not (and, in many cases, cannot) select managers solely on the basis of total return performance. Insurance clients require differentiated portfolio management, marketing, and servicing that cannot be fulfilled without disciplined planning on the part of the manager.

Insurance Asset Management Success Drivers

1) **Tax-Aware Investments** – *pre-customized insurance strategies with turnover limits, coordination of taxable & tax-efficient (e.g. municipal) investments, gain/loss harvesting*
2) **Book Constrained Portfolio Management** – *focus on generating returns primarily from maximizing investment income under a buy-and-hold approach*
3) **ALM-Driven Investments** – *proactive duration management to liability targets (via portfolio construction or hedging overlay)*
4) **Customized Benchmarks** – *blended total return indices & spread targets*
5) **Client Reporting** – *investment income, after tax performance, attribution analysis*
6) **Insurance Risk Mgmt. & Compliance Reporting** – *portfolio duration, credit, liquidity, gain/loss, risk-adjusted return on capital (RAROC), Solvency II risk modeling*
7) **Insurance Investment Strategy Assistance** – *coordination with client actuaries to provide investment cash flow projections, liquidity analysis, ALM & product pricing support*

With this in mind, many asset managers are taking steps to establish and enhance credible insurance advisory platforms. Even firms that are focused on organic growth of their insurance asset management practices have recognized that there are many moving parts that must be effectively managed.

Chapter 7 – Implications for Asset Managers

Section E – Establishing Credibility in the Outsourcing Marketplace (Continued)

To develop a focused insurance practice, managers recruit relationship, ALM, and portfolio management experts from insurers or other managers. Additionally, credible insurance asset managers tailor their investment processes to support both credit-driven buy-and-hold and constrained total return investment strategies, thus transforming their existing institutional sales discipline into a true liability-based investment solutions program. Many managers also market focused specialties that are particularly attractive to insurers (e.g. munis, bank loans, global bonds).

Other asset managers, particularly those with less well-established institutional business, are exploring more rapid entry to the insurance asset management space via acquisition of boutique insurance asset managers. This brings immediate insurance market credibility and a focused insurance client base, while producing synergies with the acquiring asset managers' broader brand recognition, financial resources, and market reach. However, extensive acquisition due diligence is imperative to ensure culture fit with the acquiring firm and to verify that the boutique manager possesses all the necessary elements for a truly robust insurance asset management platform.

The insurance asset gathering opportunity is truly global in nature. Several firms have been particularly building out new investment and market positions, based in Asia, to direct local insurance asset management activities. The main North American insurance asset managers also maintain multiple offices throughout Europe (e.g. London, Geneva) to harness the emerging opportunity under Solvency II.

While building a dedicated insurance practice may be challenging, managers should not feel that the skills developed in servicing insurance clients have no cross-functional application. The skills sets that are developed for insurance clients may be leveraged in the wider institutional practice, particularly as the pension market migrates toward liability-driven investing (LDI), requiring all managers to adopt a similar solutions-based investment model.

Chapter 10 – Implications for Asset Managers

Section F – The Competitive Landscape

More than 70 managers currently target the insurance outsourcing marketplace, a number that is likely to increase as insurance companies continue to constitute the fastest-growing source of institutional assets. Asset managers must leverage their unique strengths to position themselves in the marketplace.

"Traditional" Insurance Specialists
e.g. GR-NEAM, Conning, AAM

- Offer turnkey "CIO in a box" solutions, primarily for smaller firms
- Specialized actuarial and accounting solutions

Multi-Line Managers
e.g. BlackRock, Deutsche IAM, Goldman Sachs

- Dedicated insurance units
- Diversified product set supported by core bond offering
- Extensive expansion in Europe & Asia

Insurance Competitors
e.g. Principal, Hartford, Advantus

- Deploy insurance expertise & credibility as a profit center
- Insurance-oriented specialties *(e.g. privates, direct mortgages)*

Boutique Purveyors
e.g. Miles Capital, Madison Scottsdale

- Cater to local relationships in underserved markets
- Differentiate with high touch, customized servicing

PE & HF Funded Vehicles
e.g. Guggenheim, Brookfield Investment Mgmt.

- Use manager & insurance contacts to gain scale
- Specialty asset classes as profit driver – core bond offerings are foundation to cross-sell

Mutual Fund Managers
e.g. Capital Group, Franklin Templeton

- Harness existing VA sub-advisory relationships & global teams
- Tap specialty capabilities *(e.g. EMD, high-yield munis)* alongside core bonds

Alternative Managers
e.g. Permal, Quadrant RE Advisors

- Offer potentially higher-yielding, non-correlated investments
- Benefit from rising insurer interest in alternative investments

ETF Managers
e.g. State Street, Vanguard

- Low-cost beta delivery vehicles offering easy exposure to wide range of indexes
- Capitalize on insurer migration away from active management orientation

Chapter 10 – Implications for Asset Managers

Section F – Competitive Landscape (Continued)

There is no "one-size-fits-all" in insurance asset management. Insurers seek a diversity of manager capabilities, including:

1) Strategic partners that can collaborate on entering new asset classes (e.g., infrastructure) and enhance yields
2) Firms with the expertise to develop unique portfolios that support new insurance product launches
3) Managers with the depth of resources to provide actuarial and reporting solutions
4) Experts on difficult-to-access asset classes (e.g. hedge funds)
5) Firms with global scope to support offshore business and diversify to less correlated markets

Section G – An Emerging Alternative Investment Manager Focus

Insurance companies increasingly seek to direct directly with private investment funds, rather than buying prepackaged fund-of-funds. Many, however, are unfamiliar with their options, and therefore tend to select well-known "brand" managers rather than choosing the manager that best fits their requirements. Alternative managers with specialized capabilities that can be tailored to meet insurers' income and liquidity requirements should take this opportunity to establish relationship with clients who are seeking to diversify their options.

Crucially, many insurance companies surveyed report that they struggle to find high-quality alternative investments that fit their ALM requirements. Alternative managers that understand the insurance business, and that are able to present their offerings within the context of insurers' liabilities and business structure, will be poised for success in the marketplace.

Patpatia & Associates
Insurance Asset Management Practice

Patpatia & Associates provides ***strategy development and execution management consulting services*** *to insurance companies and asset managers*

Complementary Market Focus – Insurers & Asset Managers

Insurers	Asset Managers
Deploy new investment programs and enterprise risk management solutions to enhance competitiveness and profitability	Assist managers with entry and expansion within the general and separate account insurance markets, domestically & abroad

Services for Insurance Companies

- Establishment of disciplined liability-driven investment processes
- Organizational design & evaluation of internal vs. affiliated vs. third party management
- Diversification into new asset classes to improve risk-adjusted portfolio yields
- Assistance in the creation of new investment capabilities – *assembly via liftouts & acquisitions*
- Selection of managers, structuring of contracts & incentives, and allocation of mandates
- Creation of enterprise risk management and transfer pricing solutions
- Rationalization of investment technologies & infrastructure

Services for Insurance-Affiliated Asset Managers

- Develop actionable strategies for general account and unit-linked portfolios
- Design, develop, price, and package products for specific insurance lines (life, P&C, health, Re) and third party markets (e.g. pension, government, individual)
- Evaluate market opportunities & distribution strategies to maximize potential
- Implement entry tactics tailored for countries' unique market, competitive, & regulatory needs
- Guide the assembly of the requisite infrastructure and technology platforms
- Development of differentiated market strategies presenting optimal fit with managers' specific capabilities and business presence
- Acquisition due diligence for insurance asset managers
- Distribution strategy design and implementation

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Other Publications of Patpatia & Associates Insurance Asset Management Practice:

2014 Insurance Asset Manager Survey examines emerging trends in the insurance asset management marketplace with in-depth profiles of 55 asset managers targeting insurance companies as a primary asset driver.

2015 Insurance Company Database encompasses a comprehensive analysis of the insurance businesses, product strategies, distribution models, and investment practices of over 500 leading global insurers.