Software

AI Evolution: Long-Term Competitive Advantages for Insurance

Industry Overview

Insurance & AI? Transformation begins incrementally

We hosted a call with Jay Rajendra, Chief Strategy and Innovation Officer at Arch Capital Group, a global specialty insurance company that invests in disruptive technologies like AI to improve underwriting decisions and generate competitive advantages.[1] As we wrote in our (see reports) AI Primer and Software Year Ahead, we expect the newest AI wave to catalyze a technological evolution that disrupts every sector globally (Exhibit 1). AI tools may provide insurance companies with new revenue opportunities, but similar to the implications for utilities (see report), our view is that the more sizable opportunity will likely emerge from integrating AI into processes that drive operational efficiencies and increased productivity (Exhibit 2).

Innovation for "old economy" industries

Across covered insurance companies globally, 82% have articulated plans to implement AI strategies that drive operational efficiencies and 12% have articulated plans that drive revenue opportunities (Exhibit 3), which could boost operating margins by 1.9% over the next five years (Exhibit 4).[2] Arch has acquired, invested in and onboarded insurance-specific AI vendors like CAPE Analytics, Kalepa and Upfort to better analyze insurable risks.[3] Underwriting a commercial property traditionally involved manual internet searches, but the newest AI tools provide incremental insight that enrich and expediate the process. For example, AI-powered aerial imagery and web scraping help determine the condition of a roof, differentiate between a high-end restaurant and late-night dive bar and identify if nearby hazards (trees, power lines) exist.[4] AI tools may also create new revenue opportunities by enabling new products like cyber insurance.[5]

Underwriting advantages for me, disadvantages for thee

Arch's focus on AI isn't new, but we expect the newest AI tools to drive automation of manual and administrative tasks, reduce the reliance on insurance agents and expediate claims processing, which may reduce costs and improve the customer experience in the near term. However, over the longer term, specialty vendors that offer AI-powered tools may facilitate a more holistic view of insurable risks that drive improved underwriting decisions and competitive advantages that result in diverging sector performance. Tools for underwriters to price risk more efficiently may boost Arch's underwriting margins, but could also enable mispriced risk to be passed on to less innovative competitors.

Only the beginning for AI applications

Some investors may be skeptical that insurance companies will adopt the newest AI tools, but insurance falls into the middle 50% of industry groups by past AI investment as a percentage of revenue (Exhibit 5). We expect insurance companies to continue integrating AI tools into their processes as a natural extension of current operational efficiency strategies and as the potential to realize cost savings becomes more apparent. However, AI implementation strategies initially focused on efficiencies may ultimately generate incremental revenue or new revenue streams as underwriting decisions improve, new products become economically viable and displaced workers are reallocated to higher-value tasks (Exhibit 7 & Exhibit 8).

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AI = Artificial Intelligence

[1] Arch's four primary areas of focus include primary commercial, reinsurance, mortgage insurance and trade credit. We view Arch's consistent focus on innovation as a key factor behind its industry-leading 15% compounded annual book value per share since its founding in 2001.

[2] We surveyed 114 fundamental equity analysts on corporate AI strategies across ~3,500 covered companies globally. Only 1% of covered insurance companies have not articulated a plan to implement an AI strategy. See page two for additional survey details.

[3] Arch acquired Ventus Risk Management, invested in NOW Insurance, and onboarded CAPE Analytics, Kalepa and Upfort, among others. Arch has also onboarded large AI vendors, including Microsoft, Google, Amazon and Salesforce.

[4] High-end restaurants and dive bars are two distinct businesses with different risk profiles.

[5] Arch expects cyber insurance premiums to grow 20% y/y until 2025 and partnered with Upfort, a cyber security and insurance platform.

AI commoditization doesn't diminish cost savings

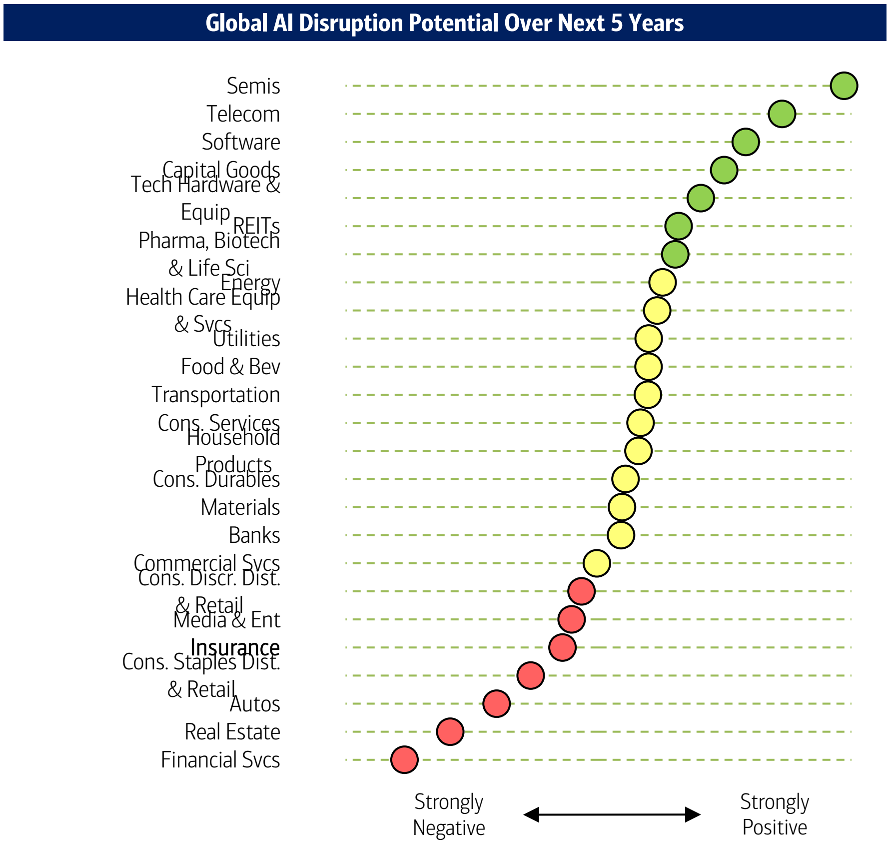
The newest AI wave represents a paradigm shift in corporate efficiency and productivity that could boost S&P operating margins by 250bps, equivalent to ~$65bn in cost savings, over the next five years. But some investors have expressed concerns that any realized benefit will normalize over time as AI tools become commoditized. Our view is that AI tools may become ubiquitous across the insurance sector, but are only as good as the data on which they are trained. We expect insurance companies like Arch that have large proprietary data sets and access to niche data through vendors to see outsized AI advantages relative to smaller and less diversified insurance companies that use AI tools trained on publicly-available data. Arch has already transitioned ~60% of workloads to the cloud, which may also enable easier onboarding of AI tools and drive first-mover advantages. We also note that cost savings and premium growth are beneficial even if realized by competitors.

Survey: Broad AI disruption within five yrs (for Utes too)

We surveyed 114 of our fundamental equity analysts on corporate AI strategies across ~3,500 covered companies with an aggregate market capitalization (cap) of ~$72tn across the 25 GICS2 Industry Groups. Our colleagues answered 20 survey questions, which focused on 1) corporate strategies for AI implementation, 2) the potential implications of these strategies on the operating and financial performance of their covered companies over the next five years, 3) the degree to which specific industry groups are likely to be positively or negatively disrupted over the next five years and 4) risks that may slow corporate AI adoption.

Note that percentages throughout this report that originate from survey responses refer to the aggregate market cap of specific covered companies relative to the aggregate market cap of all covered companies.

Exhibit 1: We expect AI to produce only mild disruption for the insurance sector
Global AI disruption potential by industry group



Source: BofA Global Research
Green/red shading indicates the top/bottom 25% of industry groups most likely to be positively/negatively disrupted by AI.
Results are based on survey responses.

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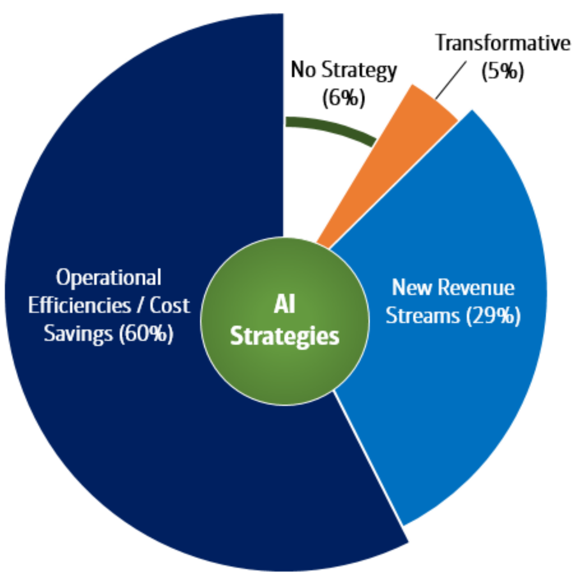
Exhibit 2: AI strategies across sectors globally skew toward operational efficiencies
Only 6% of covered companies do not have an AI strategy



Source: BofA Global Research. Results are based on survey responses.

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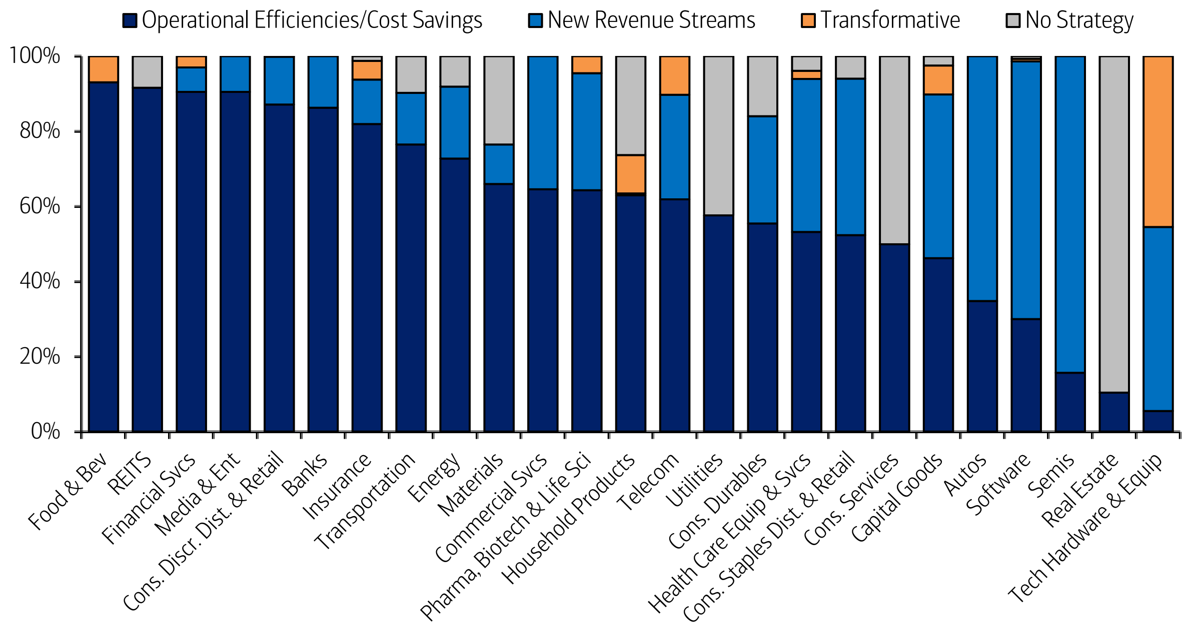
Exhibit 3: We expect insurance companies to integrate AI tools into processes to drive operational efficiencies

Corporate strategies to leverage AI may target new revenue streams initially but ultimately transform businesses



Source: BofA Global Research. Results are based on survey responses.

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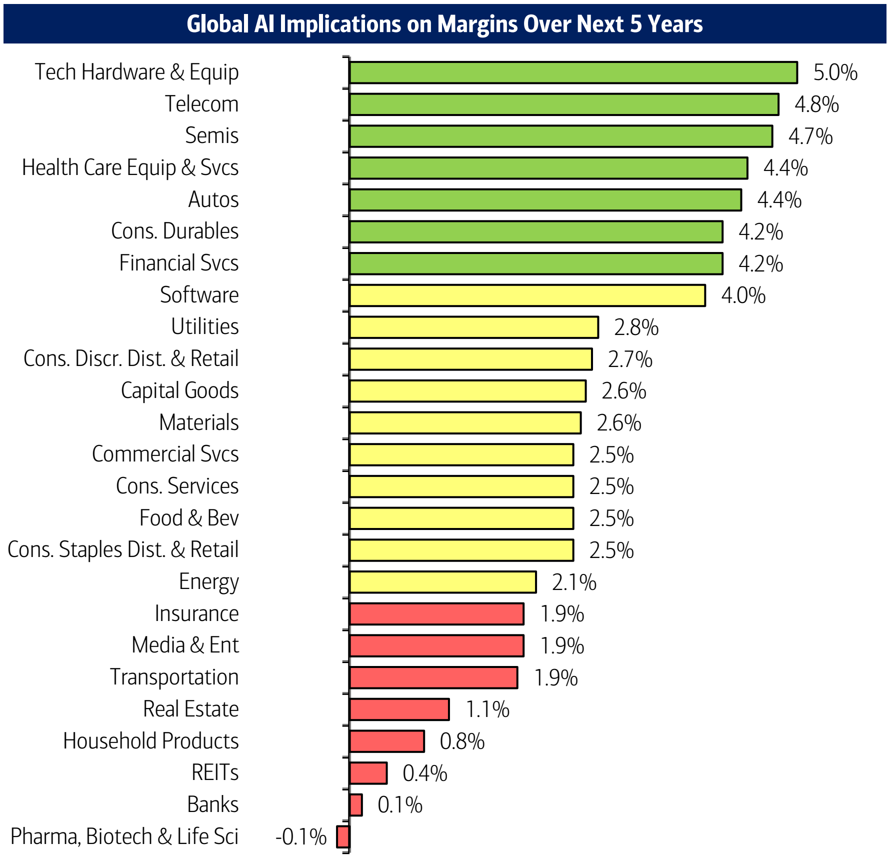
Exhibit 4: AI is likely to drive minimal margin expansion for the insurance sector
AI-driven operating margin expansion/contraction (% change)



Source: BofA Global Research
Note that 5% indicates operating margin expansion from 20% to 21%. Green/red shading indicates the top/bottom 25% of industry groups by expected operating margin expansion/contraction. Results are based on survey responses.
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Exhibit 5: Insurance companies have invested meaningfully in AI

Past investment in AI as a percentage of revenue

Industry Group	AI Investment as % of Rev
Semis	6.2%
Tech Hardware & Equip	4.5%
Software	3.7%
Banks	2.5%
Food & Bev	2.5%
Pharma, Biotech & Life Sci	2.5%
Financial Svcs	2.5%
REITs	2.5%
Media & Ent	2.5%
Autos	2.4%
Insurance	2.4%
Health Care Equip & Svcs	2.4%
Commercial Svcs	2.4%
Cons. Discr. Dist. & Retail	2.3%
Capital Goods	2.1%
Household Products	2.0%
Energy	2.0%
Materials	1.7%
Telecom	1.4%
Cons. Services	1.4%
Cons. Staples Dist. & Retail	0.6%
Transportation	0.5%
Cons. Durables	0.5%
Real Estate	0.3%
Utilities	0.0%

Source: BofA Global Research

Green/red shading indicates the top/bottom 25% of industry groups by past investment as a percent of revenue. Results are based on survey responses.

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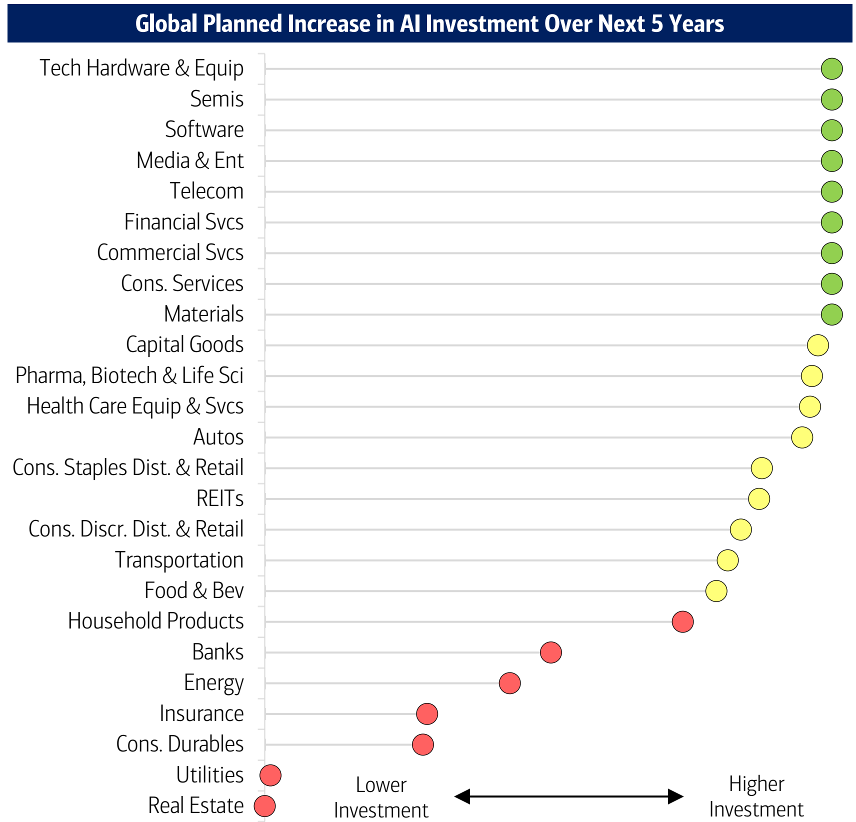
Exhibit 6: Expectations for future insurance investment in AI are low

Industry group intentions for future AI investment are skewed toward "higher"



Source: BofA Global Research

Green/red shading indicates the top/bottom 25% of industry groups by planned increase in AI investment. Results based on survey responses.

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Exhibit 7: Insurance companies currently derive an insignificant % of revenue from AI

Corporate revenue derived from AI products as a % of revenue

Industry Group	% Revenue from AI
Semis	Moderate
Capital Goods	Moderate
Software	Low-to-Moderate
Health Care Equip & Svcs	Low
Tech Hardware & Equip	Low
Household Products	Low
Materials	Low
REITs	Low
Banks	Low
Commercial Svcs	Low
Cons. Durables	Low
Cons. Services	Low
Energy	Low
Food & Bev	Low
Cons. Staples Dist. & Retail	Low
Media & Ent	Low
Pharma, Biotech & Life Sci	Low
Real Estate	Low
Telecom	Low
Transportation	Low
Utilities	Low
Autos	Low
Financial Svcs	Low
Cons. Discr. Dist. & Retail	Low
Insurance	Low

Source: BofA Global Research

Moderate = 6-20% of revenue from AI, Low = 0-5% of revenue from AI. Results are based on survey responses.

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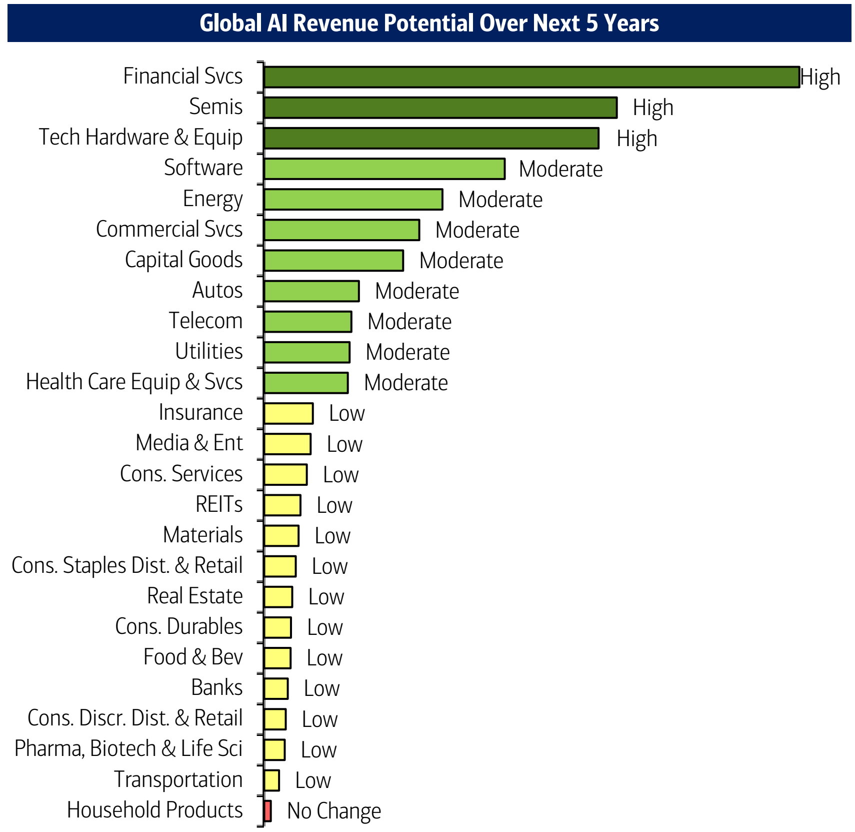
Exhibit 8: AI-driven revenue may increase 1-5% for insurance companies

High / Moderate / Low Increase = +21-50% / +6-20% / +1-5%



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