

Fixed Indexed Annuity overview in the U.S. and Japan

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Fixed indexed annuities (FIAs) were first introduced in the 1990s in the United States to offer policyholders exposure to upside participation in equities along with downside protection. Since then, they have grown to be one of the most important annuity products in the U.S., netting an industry total sales of close to USD \$79 billion in 2022.

FIAs were introduced to Japan around 2018, with the first generation of products mostly offered in foreign currency including U.S. dollar (USD). Recent generations of FIAs in Japan have spread to Japanese yen (JPY) as well as other currency denominations. There has not been any publicly available industry-level sales data for just the FIA products in Japan yet, but there seems to be an increasing interest in Japan from all stakeholders (direct carriers, reinsurers, investment banks, etc) in developing new FIA products.

However, Japan has its unique culture and economy, and simply trying to move the U.S. design and marketing strategy to Japan is unlikely to generate much success. Even looking at the FIA market in Japan today, we have observed some interesting differences in terms of product design, the sales channels, and the target customers. As more and more foreign (re)insurers show interest in the Japanese FIA space, understanding the similarities and differences between the FIA products in the two markets can hopefully help all relevant stakeholders better assess the market needs and the associated risks, and ultimately formulate the appropriate product strategy and design that best serves the Japanese customers.

In this article, we will first provide an overview of the FIA markets in the U.S. and in Japan as of today, and then compare and contrast the two markets in terms of product design, target customers and distribution, reserve and capital requirement, and policyholder behavior risk. We will conclude by offering some of our thoughts on the future of the Japanese FIA market.

FIA markets in Japan and the U.S.

OVERVIEW OF FIA IN THE UNITED STATES

Early versions of FIAs offered a guaranteed minimum value that acts as a floor for determining benefits paid upon surrender, death or annuitization. This guaranteed minimum value is typically calculated as a percentage of premium payments (usually 87.5% to 90%) accumulated at a specified crediting rate and is protected by applicable state insurance laws. In addition, the first few iterations of FIAs are characterized by a potential for additional interest to be credited to policyholder's account value that is based on the annual performance of an underlying equity index (typically the S&P 500) but limited through the application of a cap or participation rate.

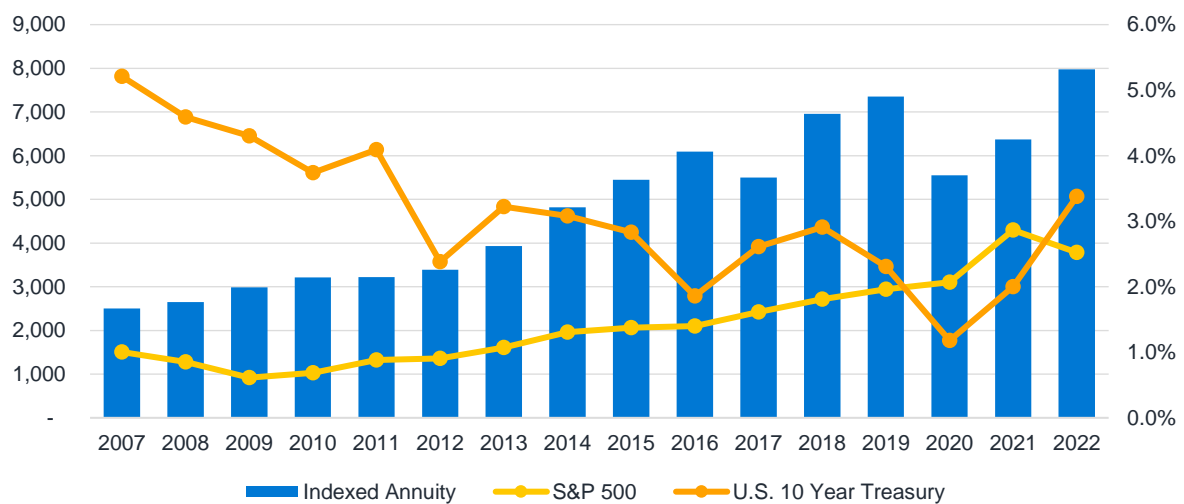
As the product gained popularity and the competition among insurers intensified, FIAs evolved to include additional features and enhancements in order to provide investors with a better range of options to meet their risk tolerance and investment objectives. Over the years, the market has seen insurers introduce:

- Alternative crediting strategies such as multi-year index averaging, monthly averaging and monthly point-to-point
- Additional indices to peg against, such as NASDAQ-100, Russell 2000, Barclays U.S. Aggregate Bond Index, and proprietary volatility controlled indices
- Optional riders such as guaranteed lifetime withdrawal benefit (GLWB) riders, long-term care riders, and enhanced death benefit riders

Over the last two decades, the life insurance industry saw a boom in FIA sales that grew from approximately USD \$4 billion in annual sales in 1998 to around USD \$79 billion in 2022. This spurred regulatory and industry developments to help standardize and to protect various stakeholders. For example, in 2003 the National Association of Insurance Commissioners (NAIC) drafted the Standard Nonforfeiture Law for Individual Deferred Annuities to provide a uniform guideline for minimum benefits that must be offered in annuity contracts including FIAs. Additional regulatory scrutiny came from the U.S. Securities and Exchange Commission (SEC), where guidelines around sales practices and disclosures were issued to strengthen consumer protection.

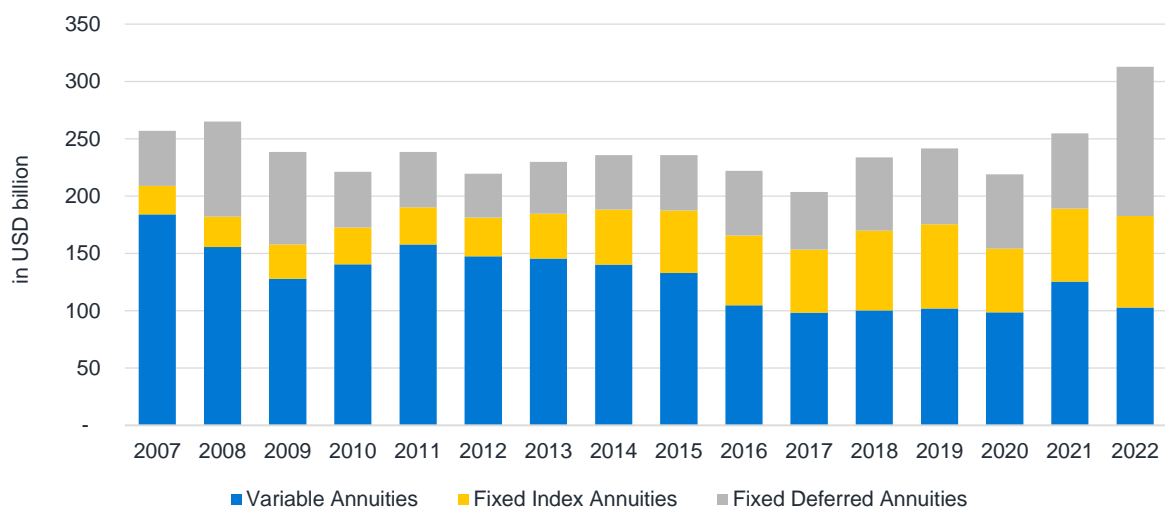
The 2008 global financial crisis and the COVID pandemic of 2019 brought about huge market volatility and thus lowered investors' confidence in the markets. As a result, Figure 1 shows that FIAs have seen a steady increase in sales over the recent years as investors sought alternatives to risky investment vehicles and prioritized security in their investment portfolios. Figure 2 shows that over the same time period, the sales of variable annuities (VAs), which are perceived to be riskier than FIAs, have decreased. FIAs by design, with their promise of upside participation in equity markets, are an ideal financial instrument to bridge this gap by offering a degree of predictability in the volatile environments. In addition, FIAs enjoy tax-deferred growth until policyholders withdraw their accounts, which helps to boost potential savings and future annuity income.

FIGURE 1: US 10 YEAR TREASURY AND S&P 500 INDEX COMPARED AGAINST FIA SALES IN USD'10,000S



Source: LIMRA, US Department of the Treasury

FIGURE 2: HISTORICAL SALES VOLUME OF INDIVIDUAL ANNUITIES IN THE UNITED STATES (IN USD BILLIONS)



Source: LIMRA

Sales in recent years are dominated by point-to-point strategies (single and multi-year) coupled with either S&P 500 or hybrid indices (e.g., volatility-controlled indices). In addition, most of the top FIA writers actively market GLWB to supplement and differentiate their products. In the U.S., FIA sales are typically sold through independent agents.

Since 2018, the industry saw a sharp rise in registered index-linked annuity (RILA) sales, which increased from USD \$11 billion in 2018 to USD \$40 billion in sales in 2022. RILAs are similar to FIAs in that they offer crediting based on an index with limitations based on cap rates and participation rates. However, RILAs provide higher potential upside via more generous cap or participation rates, but this comes with exposure to downside risks.

OVERVIEW OF FIAs IN JAPAN

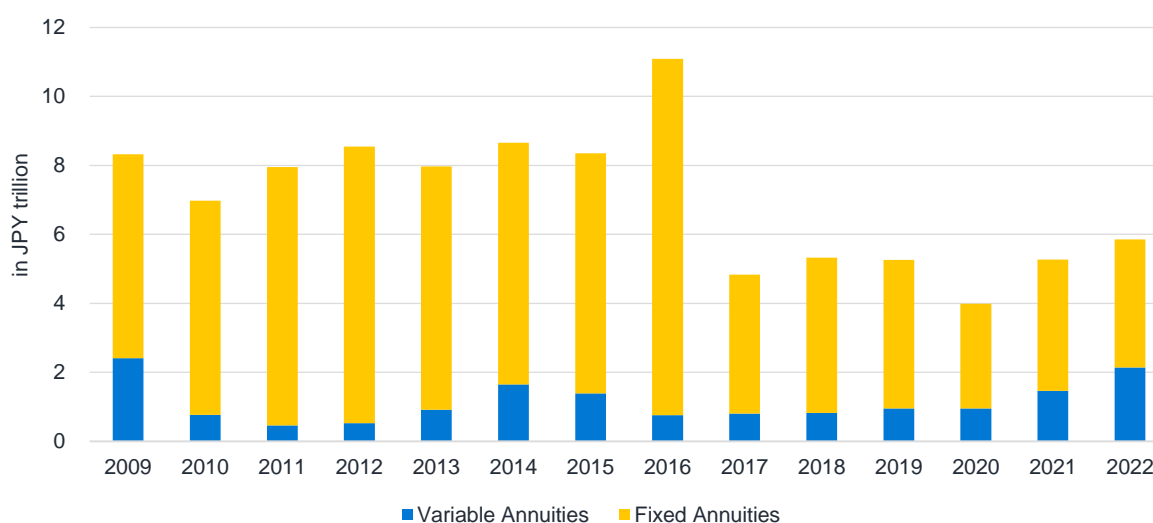
The history of FIAs in Japan is still relatively young, with the annuity market primarily dominated by fixed annuities and VAs. In 2002, the ban on the sale of individual annuities through bancassurance was lifted and as such, many life insurance companies started selling annuity products, especially VAs. However, when the financial crisis broke out in 2008, many companies stopped selling variable annuities. As sales of VAs declined sharply, the appetite for annuities shifted to fixed annuities denominated in foreign currencies. This was mainly due to the difficulty in structuring products under JPY given that the Japanese interest rates remained at extremely low levels. In the past five years, several companies began to sell FIAs through the bancassurance channel. Initially, only FIAs denominated in foreign currencies such as USD and Australian dollar (AUD) were available, but gradually, yen-denominated products were also introduced to the market. Since FIAs have no downside risk to policyholders' accounts and the market risk is limited compared to VAs, FIAs offer an alternative investment solution compared to other deferred annuities denominated in foreign currencies.

FIAs in Japan mostly use reference indices created by securities companies or investment banks. The point-to-point strategy is used to determine the rate of increase, and there are two types: single-year and multi-year. Traditionally, bancassurance channels focus on single-payment annuities targeted at the elderly. Although statistics on FIAs are not readily available, this trend is expected to be similar for FIAs. Major riders that are offered for FIAs are as follows:

- Target rider: Transfer to a yen-denominated product when the foreign currency denominated account value (AV) reaches a certain percentage above the initial premium. Typically transfer to a whole life or an immediate annuity.
- Conversion rider: Transfer to a yen-denominated product after the end of deferred period. Typically transfer to a whole life or an immediate annuity.

Figure 3 illustrates the total annuity sales after the financial crisis of 2008. FIA sales are included in fixed annuities sales.

FIGURE 3: HISTORICAL SALES VOLUME OF INDIVIDUAL ANNUITIES IN JAPAN (IN JPY TRILLIONS)



Source: Life Insurance Business Overview, The Life Insurance Association of Japan

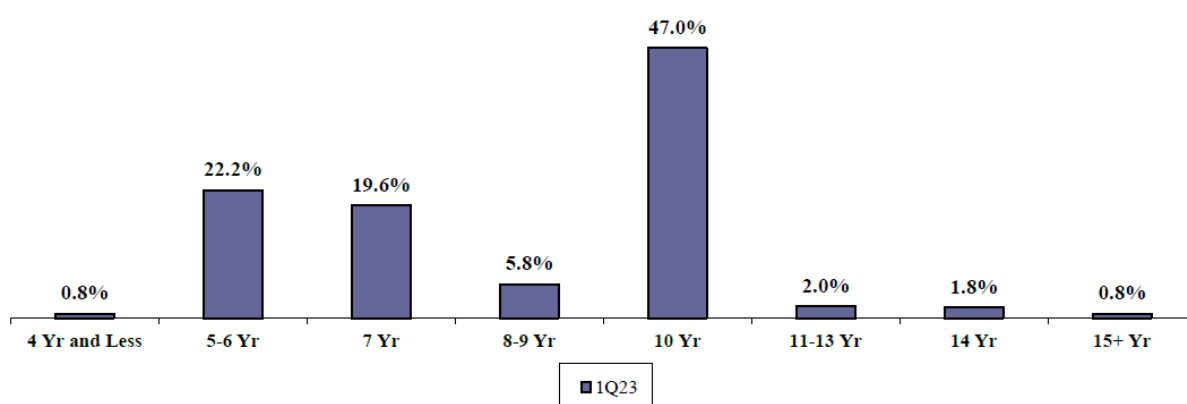
How FIAs differ between the U.S. and Japan

PRODUCT DESIGN

Surrender charge period/product term

FIAs in the U.S. are mainly sold with a 10-year surrender charge period, as they are seen as financial instruments that help provide long-term retirement solutions, and surrender charges enable insurers to invest in longer-term bonds with higher yields. With the recent market and interest rate trend, the U.S. FIA market has seen a slight increase in sales of products with five- to seven-year surrender charge periods. Figure 4 shows the distribution of FIA sales in the U.S. by surrender charge period. At the end of the surrender charge period, policyholders can continue the FIA coverage. In Japan, FIAs are typically sold either with a five-year or a 10-year term. The surrender charge period syncs with the product term. At the end of the term, FIA coverage ends and policyholders would either collect a lump sum or enter the annuity payment stage.

FIGURE 4: 1Q 2023 FIA SALES IN THE U.S. BY SURRENDER CHARGE PERIOD



Source: Wink Intel: 1Q2023 Wink's Sales & Market Report

Market value adjustment

Aside from surrender charges, FIA contracts in the U.S. typically include market value adjustments (MVAs) that apply to the contract value on surrender. These MVAs are usually calculated based on a combination of reference index and interest rate levels, and serve to protect the insurers from losses when policyholders take early withdrawals. In general, MVAs are positive (negative) if interest rates at the time of surrender are lower (higher) than when the FIA is purchased. One example of a MVA formula that is seen in the U.S. for single premium FIAs is as follows:

$$\left[\frac{1 + x_1}{1 + x_2 + a} \right]^t - 1$$

where x_1 is the interest rate at time of purchase, x_2 is the interest rate at time of surrender and t is the time period between surrender and the end of the surrender charge period, a is a spread that can be 0.

Similarly in Japan, FIAs are also designed with MVAs included on surrender or withdrawals. One example of a MVA formula in Japan is as follows:

$$1 - \left[\frac{(1 + y_1)}{1 + y_2 + b} \right]^t$$

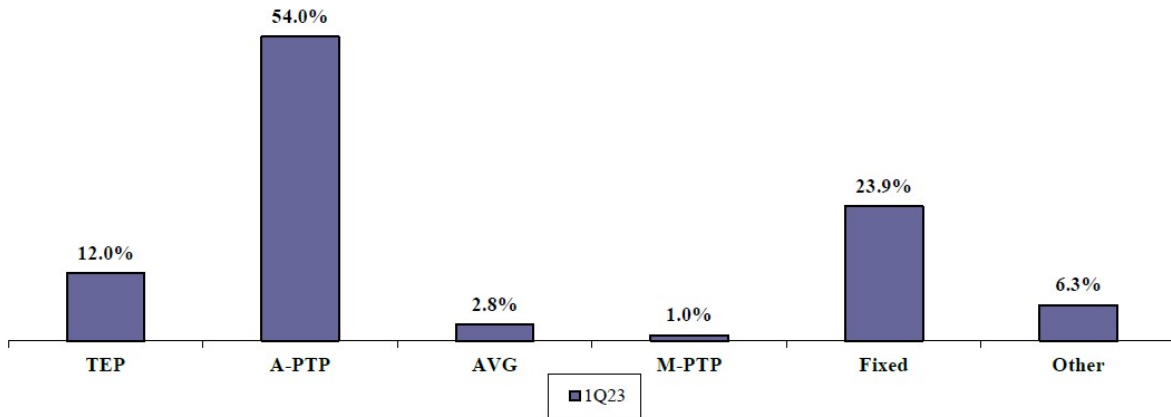
where y_1 is the interest rate at time of purchase, y_2 is the interest rate at time of surrender and t is the time remaining to end of the term, b is a spread that can be 0.

Despite the difference in details, MVA is intended to serve the same purpose in both markets. Mathematically, the two formulas above may be used in different ways in the cash surrender value calculation but the end impact on the cash surrender value would be similar.

Indexing strategies and index options

In the U.S., FIAs are offered with various index allocation options. In terms of index strategies, the U.S. insurers typically offer annual, monthly, and multi-year point-to-points and monthly averaging strategies. Figure 5 shows that indices in FIA policies in U.S. are mainly allocated to annual point-to-point strategies and, to a much lesser extent, multi-year point-to-point strategies. In Japan, only annual and multi-year (up to maturity) point-to-point options are offered.

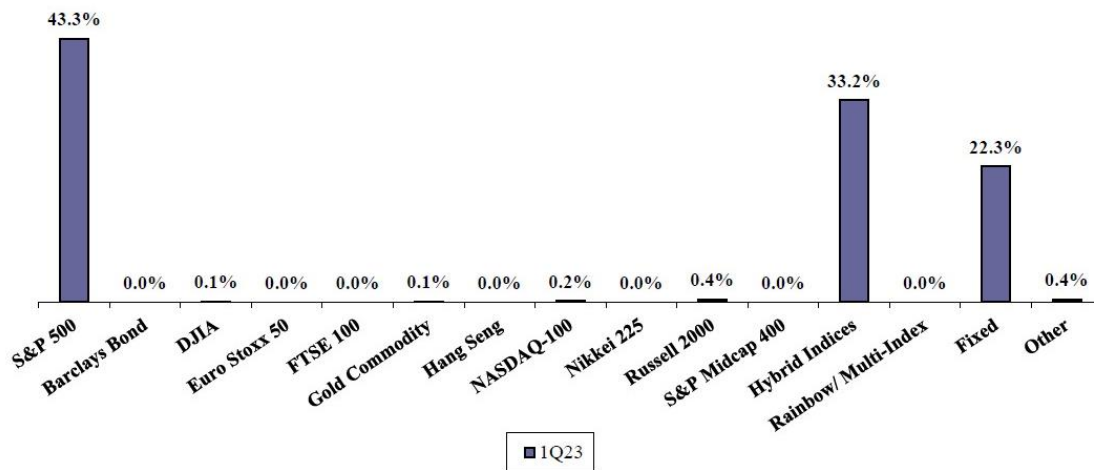
FIGURE 5: 1Q 2023 FIA SALES IN THE U.S. BY INDEX STRATEGY



TEP: Term End Point, A-PTP: Annual Point-to-Point, AVG: Daily/Monthly Averaging, M-PTP: Monthly Point-to-Point.
 Source: Wink Intel: 1Q2023 Wink’s Sales & Market Report

In terms of reference indices, as Figure 6 shows, FIA policies in U.S. are mainly allocated to S&P 500 index and hybrid indices. Hybrid indices are basically reference indices combined with a secondary component such as a defined portfolio allocation, volatility control mechanisms, or a proprietary index. In Japan, almost all FIA products use a customized index from an investment bank, with only a few exceptions currently offering public indices such as Nikkei and S&P 500. While the customized index may have the potential to offer policyholders more stability in the returns, many of them lack actual historical performance records and are probably too complicated for average policyholders to understand, particularly in Japan where the product is currently targeted to the elderly.

FIGURE 6: 1Q 2023 FIA SALES IN THE U.S. BY INDEX

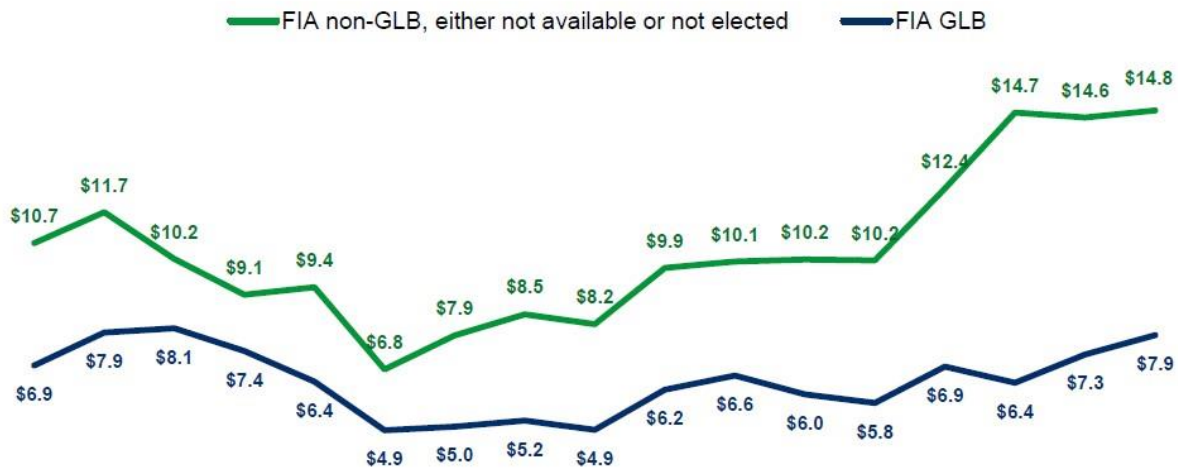


Source: Wink Intel: 1Q2023 Wink’s Sales & Market Report

Optional riders

As mentioned in the prior section, most of the top FIA sellers in the U.S. include the option to attach enhanced death benefit and/or GLWB riders to the contracts. Enhanced death benefit rider designs are mainly either basic return of premium or benefit base with guaranteed roll-up rates. For GLWB riders, these usually have a benefit base with guaranteed roll-up rates up until the point of GLWB payment election and with payout rates that typically vary by attained age. These riders usually have their specific charges deducted from the account value. Figure 7 shows the sales of FIAs in the U.S. with and without GLWB riders.

FIGURE 7: FIA SALES BETWEEN CONTRACTS WITH AND WITHOUT GLWB RIDERS



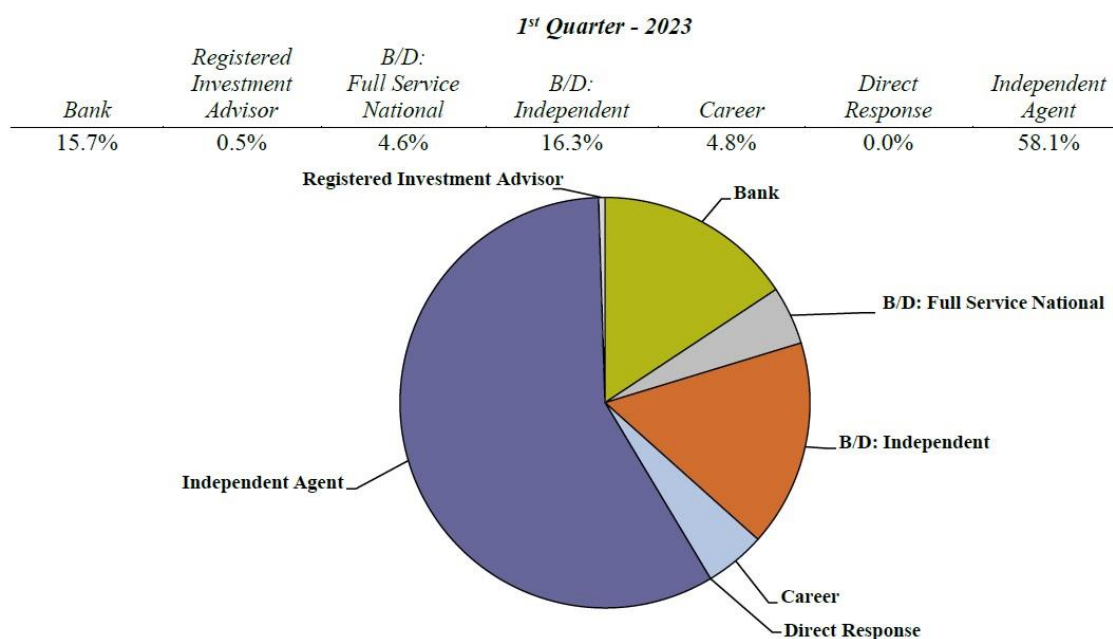
Source: LIMRA

In Japan, enhanced death benefit and GLWB riders are not offered. Instead, it is common to include target and conversion riders in the foreign-currency-denominated FIAs. One objective of these riders is to provide an opportunity for the policyholders to lock in gains from the exchanged rate (foreign currency appreciating against yen), whereas the annuity (or life) benefits after the end of the FIA term are still in yen, matching the actual currency needs of the policyholders. Therefore, policyholders would in fact bear a foreign exchange movement risk when purchasing a foreign currency product. FIA products in Japan are primarily sold in USD, AUD, and JPY, with a substantial portion of sales coming from foreign-currency-denominated products. Given the low interest rates in Japan, foreign currency denominated products are usually more attractive with their relatively higher credited rates. However, recent rise of USD against yen has allegedly led to elevated lapse activities, and combined with tighter market conduct regulations, the sales focus has shifted somewhat back to yen products.

DISTRIBUTION CHANNELS

In the U.S., insurers typically work with marketing organizations, which hire and support independent agents, to design and launch FIA products. As such, FIAs are largely sold through independent agents, followed to a lesser extent by banks and independent broker-dealers. In the first quarter of 2023, as shown in Figure 8, FIA sales through independent agents made up 58% of total sales while sales through banks and independent broker-dealers made up around 16% each.

FIGURE 8: 1Q 2023 FIA SALES IN THE U.S. BY DISTRIBUTION CHANNEL



Source: Wink Intel: 1Q2023 Wink's Sales & Market Report

In Japan, FIAs currently are sold almost exclusively through bancassurance. The relationship between the insurance carrier and their commercial bank partners is critical in the success of selling FIAs (or other deferred annuities). Very often, an investment bank can play a critical role in the design and marketing of the FIA product by embedding their proprietary indexing strategy in the product as well as bringing commercial bank partners to the carrier.

SALES ILLUSTRATION

In the U.S., FIA sales illustrations are governed by the NAIC's Annuity Disclosure Model Regulation in which a set of standards is established for the purpose of providing consumers with full and fair disclosure. Aside from terms and conditions stated in the policy contract, insurers are also required to disclose information about how the interest credited to the annuity is calculated based on the performance of an external index, such as the S&P 500 or another specified index; information on the indices used for crediting, including a measurement of their past performance; and details on cap rates, participation rates, or other features that may limit interest credits. Although the model regulation helps to provide transparency to consumers, some insurers have still faced lawsuits from potential misrepresentations.

In recent years, there have been several lawsuits filed against FIA insurers that alleged that actual returns fell short of what was illustrated at the time of sale. In some of these lawsuits,¹ the plaintiffs would seek damages from insurers for either allegedly misleading policyholders into expecting above-market returns when the FIA product included features that effectively limited returns, or providing sales illustration that showed consistent returns but in reality the policyholders earned close to zero returns over several years. These lawsuits are still in progress as this article is being written, and the outcome of the lawsuits may have material impact on future illustration of FIAs.

In contrast, Japan does not have an official set of guidelines or regulations that governs disclosure and sales illustration requirements specific to FIAs. In general, insurers in Japan do have to ensure that any guarantees in coverage (such as cap rates and floors) are adequately disclosed and that any potential risks (such as foreign currency exposure) are thoroughly explained. It is also the responsibility of the sales agents to ensure that the product is deemed "fit and proper" for the target consumer.

1 Hilton, J. (2023). Texas lawsuit: Lincoln Financial annuity fell far short of illustration promises. InsuranceNewsnet.com. Available at: <https://insurancenewsnet.com/inarticle/texas-lawsuit-lincoln-annuity-fell-far-short-of-illustration-promises>

Godoy, J. (March 2023). U.S. Appeals Court Revives Investor Lawsuit Against Annuity Company. USNews.com. Available at: <https://money.usnews.com/investing/news/articles/2023-03-28/u-s-appeals-court-revives-investor-lawsuit-against-annuity-company>

TARGET CUSTOMERS

In the U.S., FIA policies are typically sold to middle- to high-income families with average annual income of USD \$150,000 and an average age of 60. These target customers are usually older, married citizens that own a home and are close to retirement. As such, these customers are more likely to consider FIA policies since they have more disposable income to invest, have a relatively lower risk appetite compared to equity investments, and would be actively seeking retirement solutions in the near term.

In Japan, data on the FIA target customers is still scarce, but the profile is expected to be similar to that of single-premium annuity target customers. The primary customers for single-premium annuities are the elderly (typically over age 65), who typically have certain amount of assets. These products are often denominated in foreign currencies and the product design can be perceived as complicated. The Japan Financial Services Agency (JFSA) has been concerned that older customers in particular do not fully understand these product features and thus may not purchase such product for their best needs. Misselling, therefore, is something the JFSA has been monitoring particularly related to sales of foreign currency single premium annuities (including FIAs).

LOCAL STATUTORY RESERVE AND CAPITAL

In the U.S., the statutory reserve for FIAs is based on the Commissioners' Annuity Reserving Valuation Method (CARVM). This is a formulaic or rules-based approach that follows the Actuarial Guidelines XXXIII (AG 33) and XXXV (AG 35). Under AG 33, the present value (PV) of guaranteed elective and non-elective policyholder benefits under each possible elective policyholder behavior scenario is calculated using appropriate regulatory valuation interest rates and prescribed mortality rates. AG 35 provides guidance on various computational methods to project equity-based index accounts. The greatest PV of the total integrated benefits across all possible elective policyholder behavior scenarios is then held as the final reserve.

Under the current National Association of Insurance Commissioners (NAIC) Risk-Based Capital (RBC) framework, companies that issue FIAs are required to maintain a minimum amount of capital to support asset (C-1), insurance (C-2), interest rate/market (C-3) and business risks (C-4). This is calculated by applying prescribed factors to various asset, premium, claim, expense, and statutory reserve items. For the derivation of C-3 capital requirement, it is noted that fixed deferred annuities and variable annuities adopt a cash-flow testing approach while FIAs are required to use a factor-based approach.

With the introduction of principle-based reserving (PBR) for life insurance (VM-20) and variable annuities (VM-21), the Annuity Reserve Working Group (ARWG) has started to develop a similar PBR framework for non-variable annuities that includes FIAs (VM-22). Under a PBR framework, companies would be able to better reflect their block's experience and hedging programs in their reserve calculations. In addition, there are parallel discussions to extend the principle-based framework to calculate C-3 capital requirement for FIAs, which could possibly lead to capital relief. As of the publication date of this paper, it is expected that the PBR framework for non-variable annuities will be approved and effective in 2026.

There is a general consensus that the current statutory framework for FIAs is overly conservative due to the prescriptive nature of the actuarial guidelines where there is no allowance for company's own policyholder behavior assumptions. As such, it is not uncommon for U.S. based companies to engage in surplus relief arrangements with either internal or external parties. It is also expected that, in general, the new PBR reserve would be lower, which may lessen to a large extent the need for surplus relief solution going forward.

Under Japan's current statutory requirement, the statutory reserve, or JGAAP reserve, follows a net premium reserve methodology, where reserve is valued by discounting future liability cash flows based on an assumed interest rate locked in at the time of sale. JGAAP reserve also includes some other mandatory reserves such as contingency and price fluctuation reserves. The assumed interest rate is determined by an approach prescribed by the regulator. Liability assumptions are typically not best estimate but contain conservative margins. The required capital follows a factor approach, and aims to represent VaR (95%) for one future year.

Japan's new economic value based solvency regulation (ESR) is expected to be implemented as of March 31, 2026. The ESR capital follows the Insurance Capital Standards (ICS) requirements where required capital is determined by calculating the change in market-value-based net asset value under various stress scenarios reflecting VaR (99.5%) for one future year. However, JGAAP will remain Japan's statutory reserve, and hence the total asset required will essentially be subject to a floor of the existing JGAAP reserve. Liability assumptions are meant to be best estimates with no conservative margins.

The change in the Japan solvency requirement is broadly in line with the worldwide changes in the life insurance solvency regulations: from book-value-driven to market-value-driven (in contrast to the U.S., which stays largely on book value basis), from formulaic-based to principle-based, and from prescribed conservatism to insurer specific tail risk reflection.

POLICYHOLDER BEHAVIOR

In the U.S., there is enough credible experience to study the drivers of policyholder behavior. Broadly speaking, policyholder behavior is largely driven by surrender charge schedule, equity market performance, GLWB rider benefit utilization, and interest rate levels.

Based on industry studies, there is usually a marked increase in surrenders following the end of the surrender charge period. Given that surrender charge works as a penalty to deter policyholders from surrendering, it is not unreasonable to see surrender rates increase once the penalty is removed. When the surrender charge period has ended, policyholders would be more likely to analyze their current policies and shop around for better products.

A weak equity market performance can lead to less-than-favorable index crediting, which can lead to higher surrenders. However, there is a natural offset for FIA policies that have a GLWB rider attached, as the rider guarantees will entice policyholders to persist instead.

Interest rates have historically remained low but have been rising in the recent years. The general expectation is that higher interest rates would lead to higher lapses due to competitive offerings.

Lastly, in the U.S., partial withdrawals and GLWB utilizations are typically driven by tax status and attained age. In the U.S., tax qualified policies see higher withdrawals and utilizations since withdrawals are penalty-free after the age of 59½. In addition, policies that are purchased under a retirement plan will be subjected to a required minimum distribution after the age of 72, and this will drive higher withdrawals and utilizations at those older ages.

In Japan, the FIA surrender charge period is typically the same as the product term, at the end of which policyholders would typically either receive a lump sum or enter into an annuity payment stage. Therefore, the shock lapse observed in the U.S. at the end of the surrender charge may not apply in Japan, depending on the specific product design.

Given the much shorter history, the experience of FIAs in Japan is still evolving. Dynamic lapse is not always assumed, but compared to the U.S. we expect that exchange rate movement between the foreign currency and JPY may also affect policyholder behavior. In particular, the existence of a target rider may trigger a “mass lapse” event when a large number of policies have their targets triggered.

How FIA products could evolve in the Japanese market

To close this article, we will endeavor to pick up some areas where FIAs in Japan may further evolve, in particular to contrast with the U.S. market data as our basis. The discussion here reflects solely the views of the authors and does not represent an official Milliman opinion.

To start with, Japan has been in an ultra low interest environment for decades, and its monetary policy has kept a soft cap on both interest rate and the USD/JPY exchange rate. How the Japanese monetary policy changes (if at all) in the next decade will have substantial impact on everything in Japan, including life insurance product design and sales. We may see much more focus on JPY products, which would alleviate some of the misselling concern in the foreign currency product. With foreign currency products in Japan, policyholders would bear the exchange rate risk in the hope of gaining from positive foreign exchange rate movements. However, typical FIA customers may not fully understand and appreciate the risk.

There also needs to be more education of the general public in Japan about the risks and benefits of FIAs. FIAs are a great insurance solution that provides a relatively secure way to indirectly tap into equity gains, but they still have their risks. The insurance carriers in Japan can potentially contribute to this by making the product more transparent, holding educational seminars to both the distribution channels and the customers, and publishing articles and research on the product.

Insurers in Japan could also consider offering more traditional index options instead of customized indices. Some of the customized indices are based on investment algorithms that are complicated and likely lacking transparency, making it very challenging for policyholders to understand. Policyholders also need to understand that the illustrated returns may be based on back-test results rather than actual historical returns. While the customized indices typically provide less volatile returns, they are also associated with high fees, and thus the actual returns to the policyholders may not necessarily be attractive.

In addition, insurers in Japan can take a page from their U.S. counterparts and start marketing FIAs to a relatively younger generation with FIAs designed for the purposes of wealth accumulation. This could in turn open up opportunities for sales through other channels in addition to banks.



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