

The IAJ members won the prizes for outstanding papers at ICA2023

June 16, 2023

■ Prizes

Two IAJ members, who submitted papers at ICA2023, won prizes in two out of nine categories.

As an academic organization, IAJ has been working to enhance education and research so that many of its members will be able to present papers in preparation for the ICA2026 in Tokyo, and we hope that these prizes will help build momentum toward this effort.

Prize Categories	Name of prize Winners
Health/IAAHS	Akio Yamaki (Ministry of Health, Labour and Welfare)
Investment, Wealth, Finance and Banking	Naoki Sunamoto (Fukoku Mutual Life Insurance)

■ ICA

ICA (International Congress of Actuaries) is an international Congress of actuaries held every three years (previously every four years). The ICA includes the presentation of papers by actuaries around the world, as well as a lively exchange of ideas on interesting topics.

For the first time in 50 years, the ICA will be held in Tokyo, on November 8-13, 2026.

■ Prize categories for outstanding papers at ICA2023

Prizes given at ICA2023 were the following nine categories. Nine actuaries from seven countries (including two from Japan) received prizes.

- Best Researcher/s Under the Age of 35
- Actuarial Consulting/IACA
- General Insurance/Non-Life/P&C/ASTIN
- Life/IAALS
- AFIR/ERM/Risk Management
- Health/IAAHS
- Pensions and Social Security/Super/PBSS

- Investment, Wealth, Finance and Banking
- Professionalism, Ethics and Actuarial Education

(Presentation of ICA2023 in Sydney)

<https://www.actuaries.asn.au/microsites/ica2023/program/prizes>

(Reference) Abstracts of both authors' papers

Author	<p>Akio Yamaki</p> <p>Akio Yamaki is Special Officer for Health Expenditure Analysis at Actuarial Research Division, Ministry of Health, Labour and Welfare, Government of Japan. His current work includes analysis of health expenditure of Japan, along with research on health system and its analysis outside Japan. His previous work includes research on social security systems around the world including pensions and unemployment insurances, which he still has interest.</p>
Title	<p>New normal after COVID-19 - Observations on Medical Care Expenditure in Japan</p>
Summary	<p>COVID-19 made a significant impact on medical care. How people's behavior in terms of visiting medical institutions and medical providers' behavior in providing care have changed are of great interest. We analyzed impact of the COVID-19 pandemic to Japan's health systems as Japan's system is different from health systems used by previous studies. We analyzed the impacts and considered their backgrounds of how the effects on Japan's medical care have changed since the early months of COVID-19 pandemic, using MEDIAS, the database composed of all individual medical fee claim data of Japan's public health insurance system. We analyzed these data by decomposing into total days treated and medical expenditure per day in order to analyze the effects of COVID-19 more closely. We also analyzed these data by estimating average days stayed and the number of new admissions for inpatients. Our analysis shows while total medical expenditure has resumed from the sharp decline observed in the early months of COVID-19 pandemic, change in detailed data such as decrease in total days treated and increase in medical expenditure per day are still observed in very recent data, which suggests that this trend has taken root.</p>

Author	<p>Naoki Sunamoto</p> <p>Naoki Sunamoto is a Board member of Fukoku Mutual Life Insurance Company, in charge of the ERM Department and the financial Reporting and Actuarial Department. He is also a Board Member of the Institute of Actuaries of Japan, the Chairman of the Investment Theory Committee of the IAJ and Fellow of the IAJ, Chartered Member of the Securities Analysts Association of Japan, and Certified International Investment Analyst. He is a Bord member of AFIR-ERM section of IAA.</p>
Title	<p>A Study on Regime Shift in Stock Market during the Pandemic</p>
Summary	<p>The global economy exhibited strong resilience against the COVID-19 pandemic and recovered faster than the general forecast. The Japanese economy also fully recovered within a year following the onset of the pandemic. Japanese life insurers have historically struggled with the impacts of a prolonged low interest-rate environment. It necessitated increased risk-taking via equity investment to achieve sufficient earnings to cover guaranteed interest rates in liabilities. As a result, they faced a significant decline in unrealised capital gains due to market falls at the onset of the pandemic. However, backed by a strong capital base, many life insurers could maintain their strategic asset allocation and were not forced sellers of assets. Fortunately, the stock market soon recovered before severe losses crystallised. This paper has three main sections: – First, we review the impact of the pandemic’s onset on global stock markets. We study the behaviour of volatility indices VIX, NKvi, VSTOXX, and we examine the stock index changes of S&P, TOPIX, STOXX, looking at 30-day moving statistics. Finally, we identify four typical regimes for the studied indices: Turmoil, Bottoming, Recovery and Stability. – Secondly, we examine the behaviour of the Japanese stock market in some detail. Following a comprehensive review of the market’s composition, we focus on selected leading sectors. We group these sectors into four categories characterised by their different resistance and recovery attributes. – Third, we present a case study wherein we show that a combination of a collar hedging strategy and simple portfolio sector reallocation of strategic stock holdings can achieve an enhanced risk-return profile through improved diversification properties. And in our conclusion, we note that examining past market behaviour throughout the crisis provides valuable insight for informing insurers’ actions in the next pandemic.</p>