Mega Trends

5D: Impact of Long-Term Trends on Insurance and Pension Sectors

Economic Research

Executive Summary

Offering an alternative to traditional investment strategies, thematic investments aim to generate superior returns and successful performance over time by analysing the impact of long-term economic, political and social trends on regions and sectors.These investment themes cover a wide range, from green energy to artificial intelligence, demographics to security, and are based on different portfolio strategies. (1)

Thematic investments have been around since the 1950s, but it was the rapid advancements in technology in the 2000s and their impact on various sectors, particularly the economy, that truly accelerated the change in investment trends. We have seen a significant evolution in investment themes, with examples such as chemistry, nuclear energy, and underwater agriculture evolving into areas like space, financial technologies, and robotics.

The structural changes initiated by the pandemic and amplified in recent years necessitate a more expansive future outlook. While inflation, a consequence of the pandemic, has become a new 'normal', the transformative power of AI has already impacted numerous sectors and industries.Conversely, while global indebtedness levels are rising, the risk to the world's demographics has reached alarming levels.

The recently emerged Five Ds (5Ds) concept offers insights into potential future investment environment trends.Our study aims to define these long-term trends, providing comprehensive analyses and data. Additionally, we will examine the impact of these trends on the insurance and pension sectors from multiple perspectives.

We hope you will find this study useful and we wish you a pleasant reading experience.

Gürol Sami ÖZER
Fund Management and Economic Research Director

Implications

Deglobalization

- We believe it would be erroneous to label the current state of trade relations as a rupture. However, it is accurate to state that trade relations are currently undergoing a period of restructuring. As supply routes become increasingly focused on friendly and allied countries, even if the associated costs are significant, China, a nation that has long been regarded as the production base of the world, is gradually experiencing a decline in its strategic standing.

- The anti-globalisation movement may result in a decline in demand for commercial insurance products, such as cargo, shipping and trade credit insurance, as it will reduce the volume of global trade. Localisation may require an update in the insurance industry's global risk-oriented modelling.

Decarbonization

- In the short term, the carbon tax and increases in fossil energy prices have the potential to increase inflation, but if current policies continue, this will be counterbalanced by a much greater threat to growth. High-risk areas prone to disasters such as floods or forest fires run the risk of being completely excluded from coverage, while individuals and businesses are likely to pay higher premiums as a result of rising costs.

Demographics

- An increase in life expectancy and a fall in birth rates will result in a greater financial burden on the government as it attempts to provide medical care and pension benefits to an ageing population. This will put pressure on social assistance and transfer items in the fiscal budget, and make monetary policies more sensitive.

Debt

- Higher borrowing may result in higher inflation and higher interest rates. This could potentially create a vicious circle that may limit access to services in order to ensure long-term growth and continuity of public services. Conversely, the pension and insurance sectors may benefit from higher bond yields and could significantly increase their investment income due to their high cash positions.

Digitalization

- Research estimates that AI will increase productivity by around 1.5 per cent annually, contributing between $2.6 trillion and $4.4 trillion across industries. AI-led innovations improve modelling and forecasting for insurance, enabling more accurate risk pricing and increasing operational efficiency. Furthermore, it provides instant solutions while transforming customer services through virtual assistants.

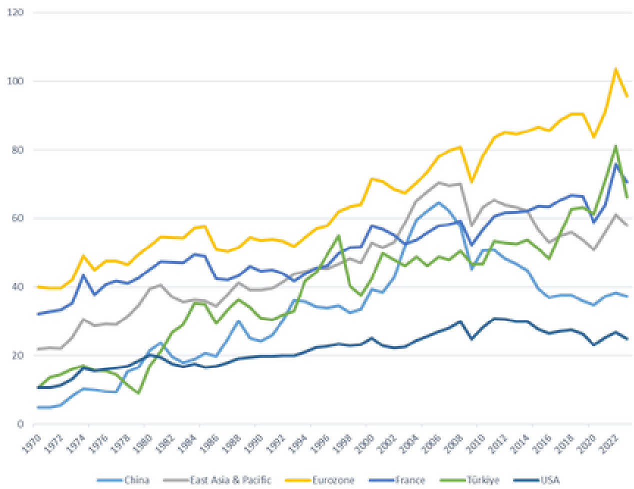
Deglobalization

Neoliberal policies, which started in the 1970s, have made a breathless rise in economic literature and economic policies. The turning point of these policies, which reached its peak with the prosperity brought by globalisation, was 2020, when Covid-19 made itself felt all over the world. In the process that started with the breakdown of global supply chains, the world became unable to find many products. This break was also an important reason that fuelled price increases.

In 2022, the process that started with the Russia-Ukraine war was the second biggest test of globalisation. The Eurozone, one of the world's largest economies, found itself in the middle of an energy crisis when Russia cut off natural gas, and this situation affected the whole world.

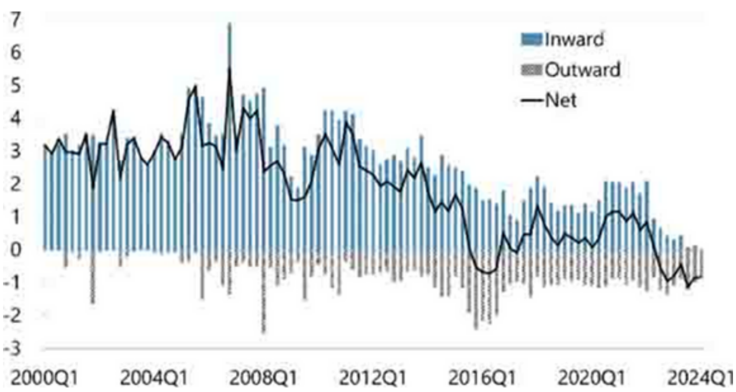
The disruption of supply chains caused by both the pandemic and the Russia-Ukraine war, and the use of strategically important goods and services as a weapon, have increased economic nationalism and accelerated the regionalisation of trade. According to the International Monetary Fund (IMF), the number of trade restrictions imposed each year around the world increased from around 1,000 in 2019 to over 3,000 in 2023. (2)

Table 1: Share of Trade in GDP (%)



Source: World Bank national accounts data, and OECD National Accounts data files.

Table 2: China's Foreign Direct Investment (SA, in percent of GDP)



Sources: SAFE; National Bureau of Statistics of China; Haver Analytics; and IMF staff calculations.

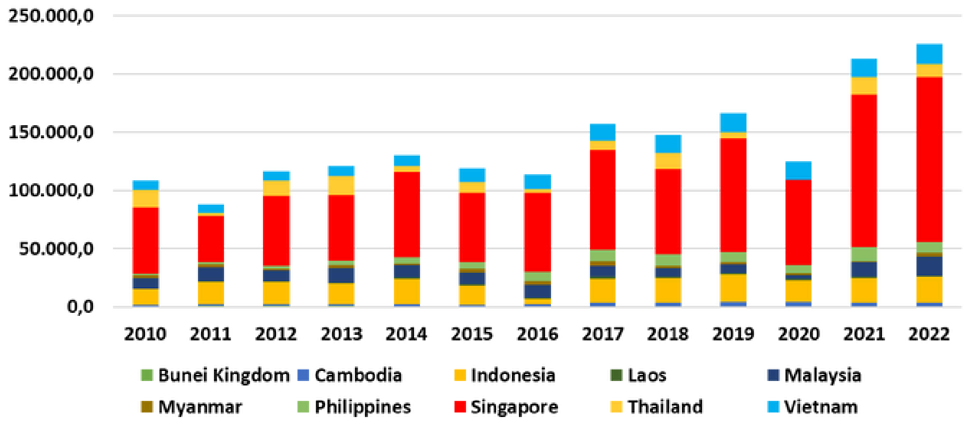
As shown in Table 1, the historical ratio of the sum of exports and imports of goods and services of certain economies to gross domestic product has been impacted by the pandemic. However, a recovery trend is noticeable between 2021-2022.Between 2022 and 2023, there were sharp declines in the trade statistics of all economies given in the graph. The trade contraction was -2.7 per cent in China, -4.99 per cent in East Asia & Pacific economies, -7.61 per cent in the European Union and -7.41 per cent in the United States.

While it would be unwise to characterise trade relations as a rupture, it is more accurate to state that trade relations are undergoing a restructuring process. As countries seek to secure more efficient supply routes, even if it means higher costs, China, once a major player in global production, is gradually seeing a shift in its strategic position.

When we analyse the ratio of China's net foreign direct investment to GDP, we observe that it has been on a downward trend since its peak in the aftermath of the 2008 crisis. (3) (Table 2) However, in recent years, large firms have halted their investments in China, while some have withdrawn from the country completely. In the last few years, Bridgestone, Japan's largest tyre manufacturer, announced the closure of its Shenyang plant, while Apple is shifting its production base to India in order to reduce its dependence on China.

We observe that the exit from China is generally in favour of other Asia-Pacific economies. As can be seen in Table 3, FDI in the Association of Southeast Asian Nations (ASEAN) has increased due to the pandemic and the Russia-Ukraine war. Compared to 2020, FDI in the region increased by 77.8% in 2021, while this rate was 281.3% in Malaysia and around 77% on average in Singapore and the Philippines.

Table 3: Foreign Direct Investment in ASEAN Countries (FDI, Million USD)



Source: ASEAN and TS Economic Research Department

The rise in anti-globalisation sentiment may present challenges to growth, but research indicates that it also carries significant risks to inflation. Studies by the Bank for International Settlements (BIS) and the IMF demonstrate that more open economies typically exhibit lower inflation rates, even after accounting for other price-increasing factors. (4)

Tariffs and trade policies implemented by the Trump-Vance administration in the US are likely to accelerate the trend of production bases moving towards strategic and friendly countries. While direct and indirect investments will trigger economic growth in these countries, they are expected to become more prominent in the near future.

Impact Analysis: It may be necessary to update global risk-focused modelling of the insurance sector.

While anti-globalisation movements cause supply chains to shift to friendly and reliable regions, strategic routes such as the Arctic route are emerging with global warming. According to sources such as the International Trade Centre (ITC) and the International Maritime Organisation (IMO), maritime transport accounts for approximately 80-90% of world trade, presenting significant opportunities and challenges for the insurance industry.

As the Arctic route becomes more accessible, travel time between Asia, Europe and North America will shorten, resulting in increased shipping traffic. This will create a growing market for marine insurance policies covering cargo, hull and liability insurance. In addition, the development of specialised insurance products covering environmental risks and other extreme weather conditions will accelerate. However, premiums may hover at high levels in the first phase due to reasons such as inadequate infrastructure on the route and uncertainty of legal regulations.

In addition, anti-globalisation movements may lead to a decline in demand for commercial insurance products such as cargo, shipping and trade credit insurance, as they will reduce the volume of global trade. Localisation may require an update in the insurance industry's global risk-oriented modelling.

For the pension sector, we expect the main impact to be on investment income in the short term. While protectionism currents increase volatility in the markets, it is likely to have a negative impact especially on participants who are a short time away from retirement and who collect their payments through salaries. In addition, the unemployment rate is likely to increase in the short term.

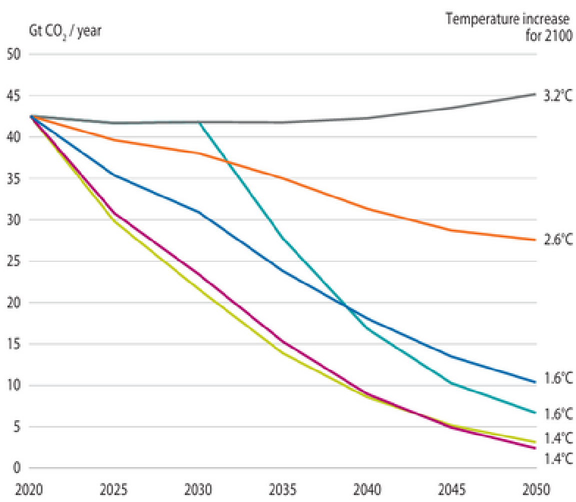
Decarbonization

As the climate change process turns into a climate crisis, world-renowned scientist Dr Ram Ramanathan states that global warming will occur faster than we think. He also warns that if emissions are not brought under control, climate change may occur as early as 2030 and everyone will be locked at home as in the Covid-19 period.

Floods in Europe, rainfall in Dubai, increasing hurricanes and fires in the USA are just examples of the climate 'crisis' from different geographies, while also revealing the seriousness of the situation. In 2015, the Paris Agreement set a target to achieve net zero carbon dioxide emissions by 2050, while carbon pricing policies have also come into force. (5) In addition, sustainable investments that incorporate ESG (Environmental, Social, Governance) principles have been an important financial support element for the decarbonisation process.

According to the modelling of the Network for Greening the Financial System (NGFS), the average temperature is expected to increase by 3.2 degrees by 2050 if current climate policies continue, while coordination with net zero carbon policies manages to keep global warming below 2 degrees.

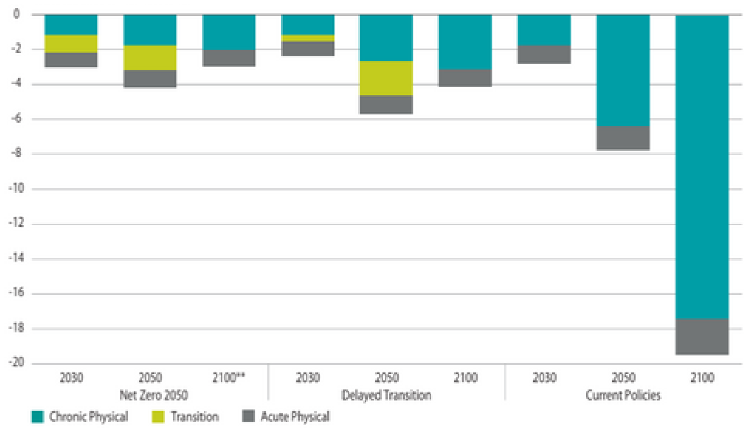
Table 4: CO2 Emissions by Scenarios



Source: The Network for Greening the Financial System (NGFS)

— Delayed Transition — Divergent Net Zero — Current Policies — NDCs — Net Zero 2050 — Below 2°C

Table 5: GDP Analysis by Scenarios



Source: The Network for Greening the Financial System (NGFS)

**Acute physical impacts include GDP impacts from extreme events, but exclude capital stock impacts.*

In the short term, the carbon tax and increases in fossil energy prices pose an upside risk to inflation, but a much greater threat to growth awaits us if current policies continue. In Table 5, GDP losses vary in parallel with the different temperatures projected for each scenario. While the effects are similar in the first half of the century, they start to diverge strongly in the following periods. By 2100, when temperature targets and corresponding decarbonisation are delayed, the impacts are by far the highest in the current policies scenario (up to 20% of GDP loss).

Delayed Transition assumes that annual emissions will not decrease until 2030. Strong policies are needed to limit warming below 2°C, while negative emissions are limited.

Differentiated Net Zero reaches net zero around 2050, but at higher costs due to different policies applied across sectors.

Current Policies assumes that only currently implemented policies are maintained, leading to high physical risks.

Nationally Determined Contributions (NDCs) include all committed targets, even if they are not yet supported by effective policies implemented.

Net Zero 2050 limits global warming to 1.5°C through stringent climate policies and innovation and achieves global net zero CO2 emissions around 2050. Countries such as the US, the EU, the UK, Canada, Australia and Japan achieve net zero for all greenhouse gases.

2 Below 2°C gives a 67 per cent chance of limiting global warming below 2°C by gradually increasing the stringency of climate policies.

Impact Analysis: Sustainability emerges as a strong theme.

It is an irrefutable fact that the climate crisis has multidimensional effects, particularly with regard to the insurance sector, where natural disasters are set to become both more frequent and severe. This situation will significantly affect the profitability of the insurance industry and will also lead to an increase in reinsurance premiums.Furthermore, an increase in the dose and frequency of climatic shocks may lead to stricter capital regulations.

Furthermore, high-risk areas susceptible to catastrophes such as floods or forest fires may face complete exclusion from insurance coverage, while individuals and businesses are likely to incur higher premiums due to increased costs.

In analysing the pension sector, it is evident that Environmental, Social and Governance (ESG) principles are gaining significant prominence. Sustainability is a prevailing theme, and pension funds are substantially increasing their investments to align with sustainability goals. While these investments play an important role in combating the climate crisis, we, **as Türkiye Sigorta and Türkiye Hayat Emeklilik, strongly support the construction of a sustainable future.**

Türkiye Hayat ve Emeklilik Sustainability Equity Pension Fund

With the Türkiye Hayat ve Emeklilik Sustainability Equity Pension Fund, more than 250 thousand participants in 2024 stand against climate change and continue to strive for more effective governance.

The size of our Sustainability Equity Pension Fund increased by 68.3% to TL 4 billion in 2024.

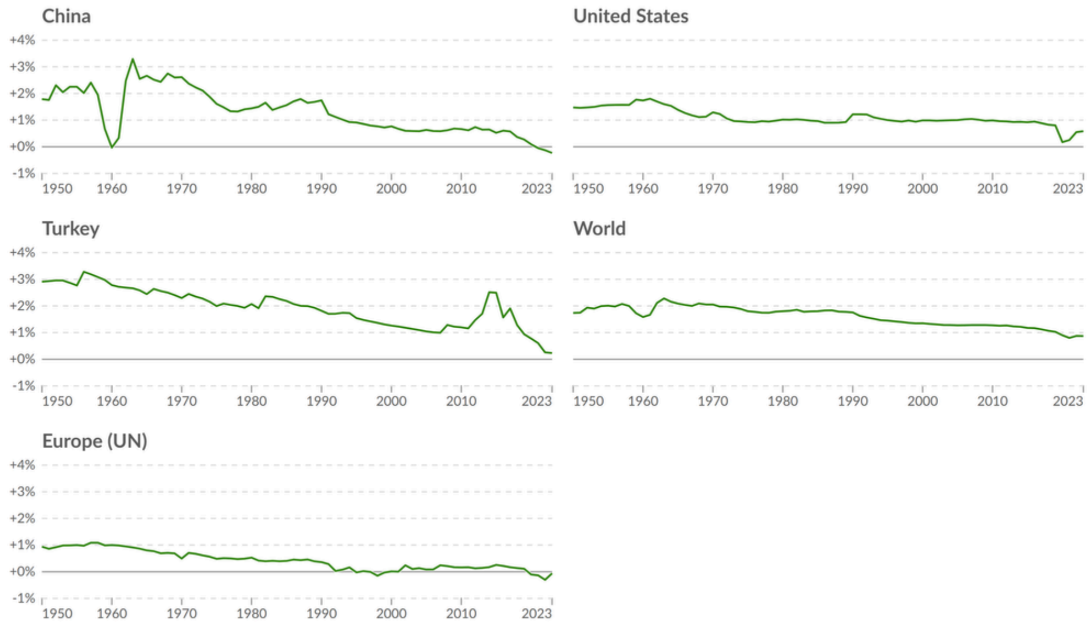
Demographics

Many countries have faced serious problems as birth rates have fallen below the replacement level of 2.1. As well as having social or economic repercussions, ageing populations also have an impact on critical aspects such as defence.

Longer life expectancy and falling birth rates further increase the financial burden of providing medical care and pension benefits to an ageing population. (6) This puts pressure on social assistance and transfer items in the fiscal budget and makes monetary policies more sensitive.

An ageing population and a rapid decline in birth rates without achieving economic prosperity threaten sustainable growth and may turn structural problems into chronic ones.

Table 6: Population Growth Rate, 1950-2023



Source: UN, World Population Prospects (2024) – OurWorldinData.org/population-growth

Impact Analysis: We expect demand for long-term care insurance to increase significantly.

It is evident that demographic shifts will have a substantial impact on the pension sector, presenting significant opportunities for the industry.

Historically, the global pension sector has witnessed a notable decline in the active-passive ratio, indicating a shift towards a smaller number of employees per pensioner.This trend is further compounded by the projected increase in life expectancy, attributable to advancements in health and nutrition. Consequently, public pension plans are under mounting pressure. Conversely, private pension schemes may be well-positioned to address this impending void.As savings are increasingly directed towards pension plans, the investment performance of these funds will assume greater significance.

Within the insurance sector, there is a strong likelihood of a substantial surge in demand for critical illness policies and long-term care insurances (LTC), particularly health insurances. (8) Within the context of Turkey, the discourse surrounding long-term care insurance is anticipated to gain prominence in forthcoming periods, as it is a component of the Medium Term Programme.

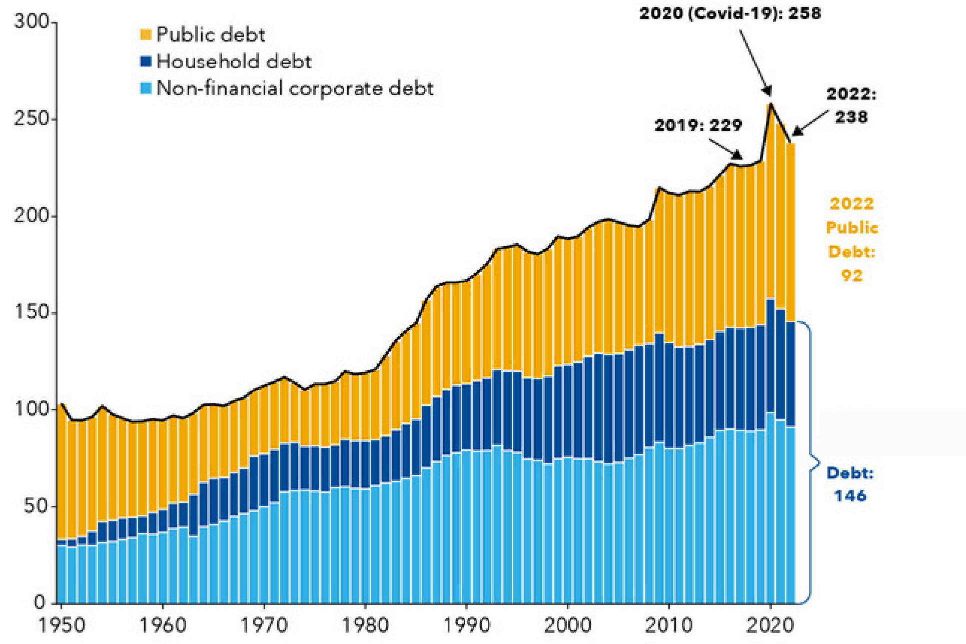
Debt

The period of the pandemic has seen a significant increase in global indebtedness, which has become a key factor in the deterioration of the budget balance. The unprecedented scale of fiscal stimulus packages and financial aid to mitigate the economic impact of the pandemic has resulted in a substantial rise in global debt to $226 trillion in 2020, representing more than 350 per cent of GDP. Indeed, global debt has continued to increase since 2020, reaching $307 trillion.

Higher borrowing may result in higher inflation and interest rates, which increases the risk of the economy being dragged into a vicious circle and may limit access to services that will ensure long-term growth and continuity of public services.In the US, for example, debt servicing costs are expected to exceed the defence budget this year.

The ongoing trend of increased global borrowing indicates the likelihood of sustained elevated interest rates in the future, a circumstance that may exert significant influence on a broad spectrum of sectors, most notably capital markets.

Table 7: Historical Trends in Global Debt Levels *(Percentage share in GDP)*



Source: IMF, 2023 Global Debt Database

Impact Analysis: Investment income can play a critical role.

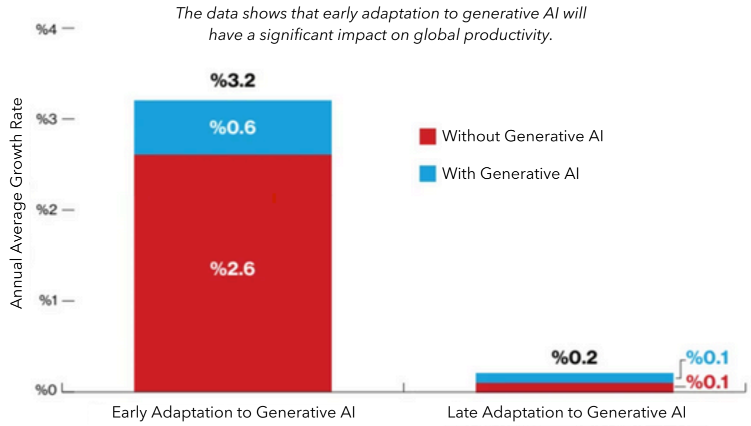
It is evident that elevated global debt levels give rise to elevated interest rates, which in turn exert an influence on borrowing costs and economic growth. However, it is important to note that the pension and insurance sectors have the potential to benefit from higher bond yields, with the capacity to significantly increase their investment income due to their high cash positions.

Digitalization

Dozens of AI applications have been introduced in the past year alone, and technology companies are delivering a memorable performance. Digitalization, productive AI or, more broadly, digital innovations have managed to be a driving force despite all the bad factors of the global economy. Research estimates that AI alone will boost productivity by around 1.5 per cent annually, contributing between $2.6 trillion and $4.4 trillion across sectors.

However, there are also some risks. While technological innovations trigger the formation of a 'digital monopoly', this may disrupt the healthy functioning of market pricing. In addition, while data security is becoming increasingly important, the ethical and moral aspects of artificial intelligence should be discussed. In this context, we believe that significant legislative updates are required.

Table 8: The Impact of Productive Artificial Intelligence on Worldwide Productivity Growth



Source: Bloomberg Businessweek, Issue: 13 December 2024

Impact Analysis: Perhaps the strongest long-term trend that can turn many negatives in favour of the sector.

The theme of digitalization is perhaps one of the strongest long-term trends for the insurance and pension sectors that can turn many negatives in favour of the sector.

Innovations led by artificial intelligence improve modelling and forecasting for insurance, enabling more accurate risk pricing and increasing operational efficiency. On the other hand, it offers instant solutions while transforming customer services through virtual assistants.

In the pension sector, artificial intelligence creates a more accessible and personalised investment strategy for everyone, while many robotic advisory applications are already being launched by companies.

Fona Sor

Based on the model portfolio theory and offering recommendations for 4 different main risk groups, **Fona Sor** performs an analysis taking into account the participant's age, risk profile and fund change rights, including current expectations and dynamics in the market, and offers the most appropriate fund mix recommendation to the participant.

Footnotes

(1) Öncü, Sadık. Performance analysis of thematic mutual funds in Türkiye, Master Thesis, Marmara University,2024.

(2) IMF, High Uncertainty and the Unknown, https://www.imf.org/external/pubs/ft/ar/2024/in-focus/high-uncertainty-and-the unknown/#:~:text=Nearly%203%2C000%20trade%2Drestricting%20measures,of%20scale%2C%20and%20reduce%20competition. (Accessed:21.01.2025)

(3) International Monetary Fund. Asia and Pacific Dept. (2024). China's Foreign Direct Investment: Inward and Outward. IMF Staff Country Reports, 2024(276), A004. Retrieved Feb 11, 2025, from https://doi.org/10.5089/9798400285998.002.A004

(4) Forbes, K. J. (2019). Has globalization changed the inflation process? https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3420255 (Accessed: 11.02.2025)

(5) The Paris Agreement, https://unfccc.int/process-and-meetings/the-paris-agreement (Accessed: 11.02.2025)

(6) WEF, 5 transformational trends shaping global finance, https://www.weforum.org/stories/2025/01/5-transformational-trends-shaping-global-finance/ (Accessed:12.02.2025)

(7) Mbaye, Samba, Marialuz Moreno Badia, and Kyungla Chae, 2018, "Global Debt Database: Methodology and Sources," IMF Working Paper No. 18/111 (Washington, DC: International Monetary Fund).

(8) You can access the detailed review article of Para Magazine on care insurance by clicking here.

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