

**GLOBAL PERSPECTIVE PRESENTATION:  
HOW CAN PENSION FUNDS FUEL INFRASTRUCTURE DEVELOPMENT  
AND IMPACT ECONOMIES USING INTERNATIONAL BEST PRACTICE?**

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# The Road Map of this Presentation

- Introduction
- Pension Funds: The Global Landscape
- Proposed Theory of Change: Pension Funds Can Fuel Infrastructure Development and Economic Growth
- Some Persistent Challenges?
- International Best Practice for Pension Funds Management
- Conclusion and AERC Research Programme

# The Global Landscape

- The pension fund industry globally is estimated to be over USD60 trillion
- 91% of the assets in the top 22 pension fund markets are held by 7 markets: US, Japan, Canada, the UK, Australia, Netherlands and Switzerland
- The largest pension fund globally is Japan's Government Pension Investment Fund(GPIF) worth around USD1.62 trillion, followed by Norway's Government Pension Fund valued at USD1.58 trillion
- Over the years, there has been a shift from Defined Benefit (DB) to Defined Contribution (DC) plans
- There is also a growing interest in Environmental, Social, and Governance (ESG) and infrastructure investments

**Sources: Think Ahead Institute (2024/2025);OECD Global Pension Statistics; Financial Sector Conduct Authority (FSCA), 2022**

**Total assets of global pension funds have been growing steadily between 2018-2021, with a dip in 2022 and a recovery trend through 2023 and 2024**



**Figure 1: Trends in growth of global pension fund assets**  
**Sources: Think Ahead Institute(2025); OECD Global Pension Statistics**

The US leads in total asset value, while countries like Australia, Switzerland, and Canada have the highest pension assets relative to their GDP

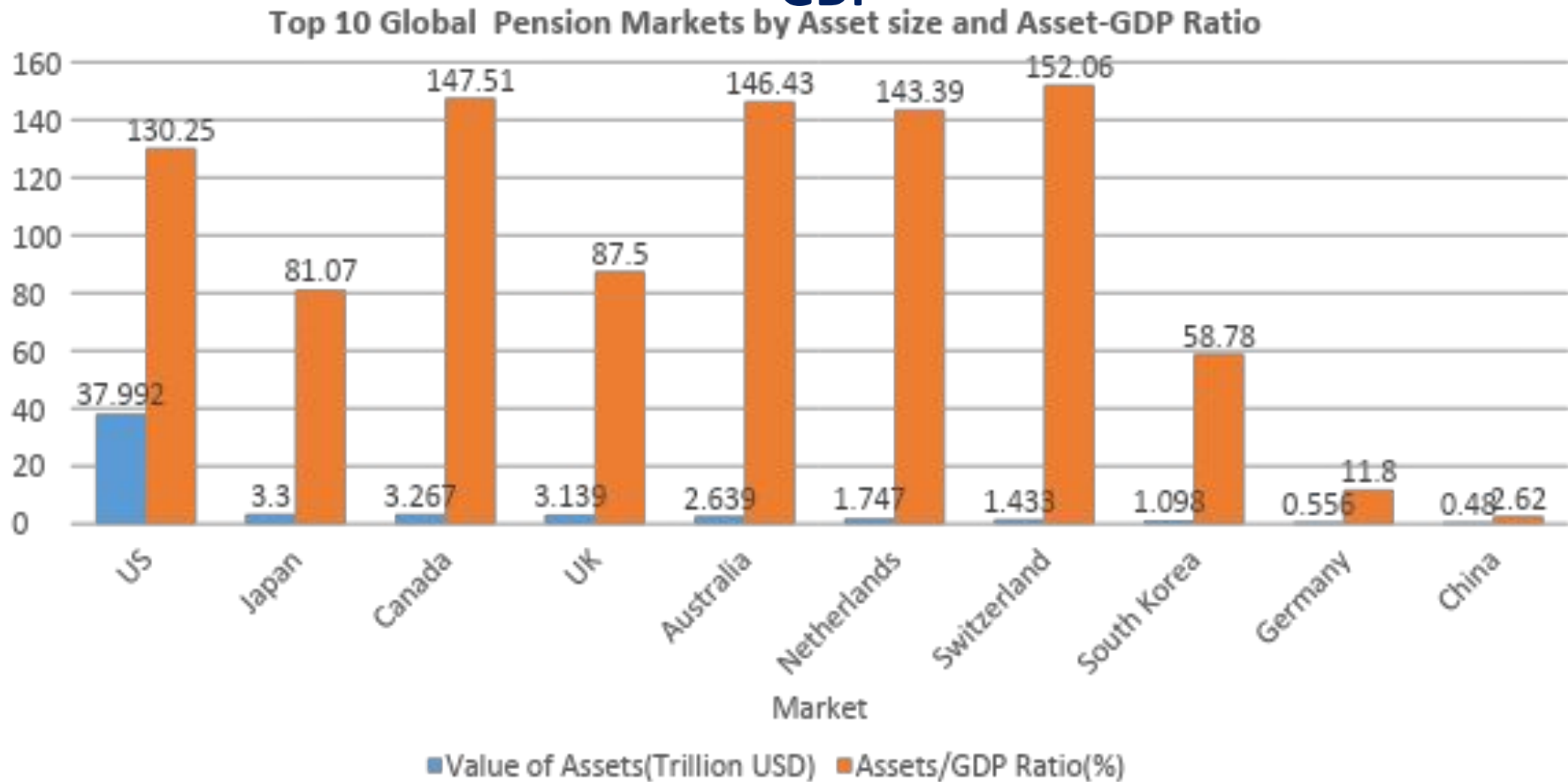
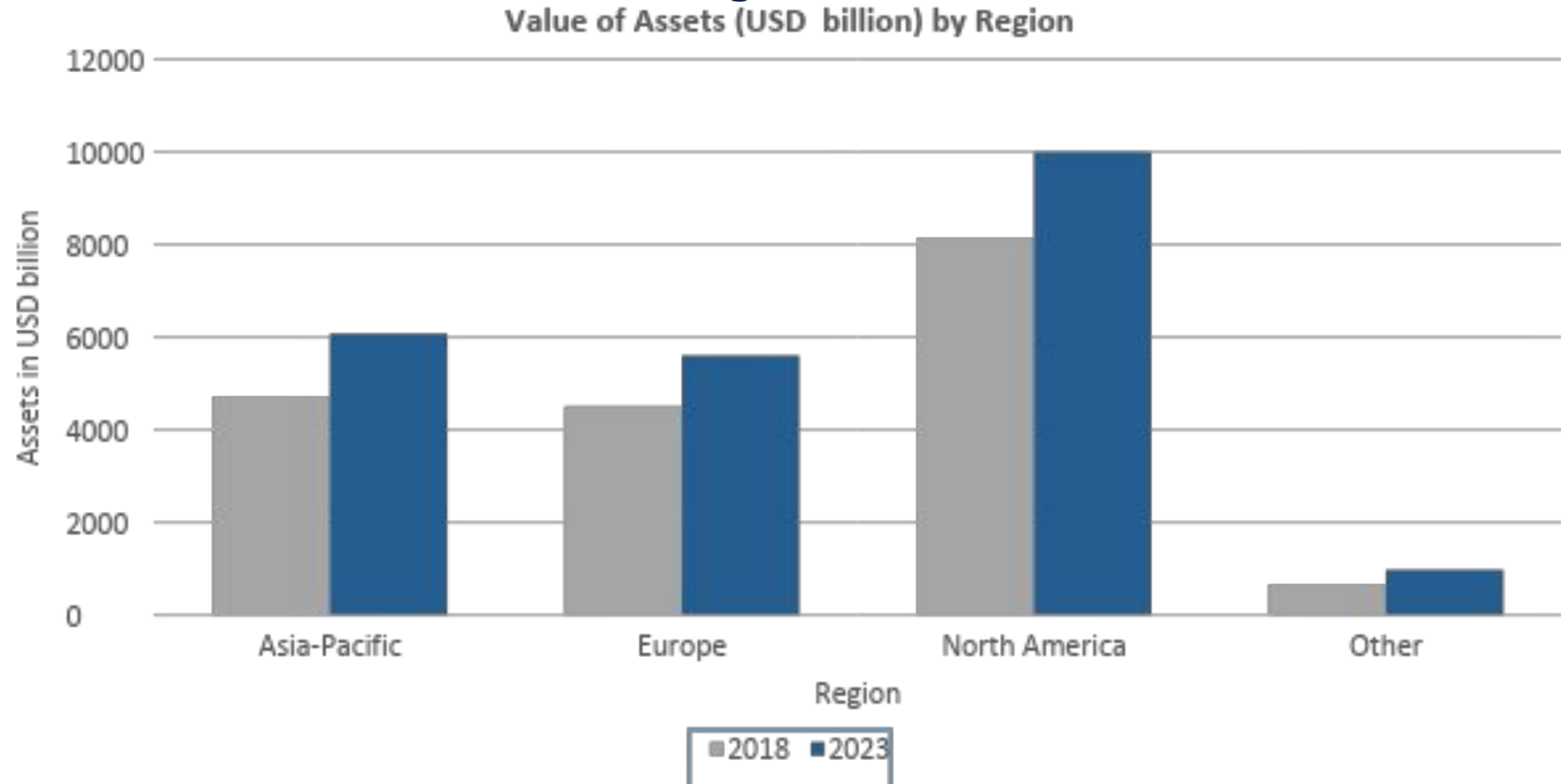


Figure 2: Top 10 Pension Markets by Asset Size and Assets/GDP Ratio  
Source: Think Ahead Institute (2025)

# Pension assets have grown across all regions, with North America maintaining the largest asset base



**Figure 3: Value of Pension Assets by Fund Domicile**

Source: Think Ahead Institute(2025)

Note: Other includes, Latin America and Africa

# Pension coverage remains low in Africa compared to other regions

**Table 1: Effective Pension Coverage by Region and Scheme (2023)**

Region	Contributory	Tax Financed	Total
<b>Africa</b>	<b>10.3</b>	<b>8.7</b>	<b>19.1</b>
Northern Africa	25.9	9.9	35.8
<b>Sub-Saharan Africa</b>	<b>6.9</b>	<b>8.5</b>	<b>15.4</b>
Americas	50.6	17.6	68.2
Latin America & the Caribbean	36.8	24.4	61.2
Northern America	74.8	5.8	80.6
Arab States	16.2	13.8	30
Asia and the Pacific	33.6	20	53.6
Eastern Asia	63.6	14.9	78.5
South-Eastern Asia and the Pacific	19.4	28.2	47.6
Southern Asia	14.1	21.3	35.4
Europe & Central Asia	66.7	18.5	85.2
Central & Western Asia	43.8	19.5	63.3
Eastern Europe	73.1	13.5	86.6
Northern, Southern & Western Europe	72.4	21.2	93.6
<b>World</b>	<b>35</b>	<b>17.3</b>	<b>52.4</b>

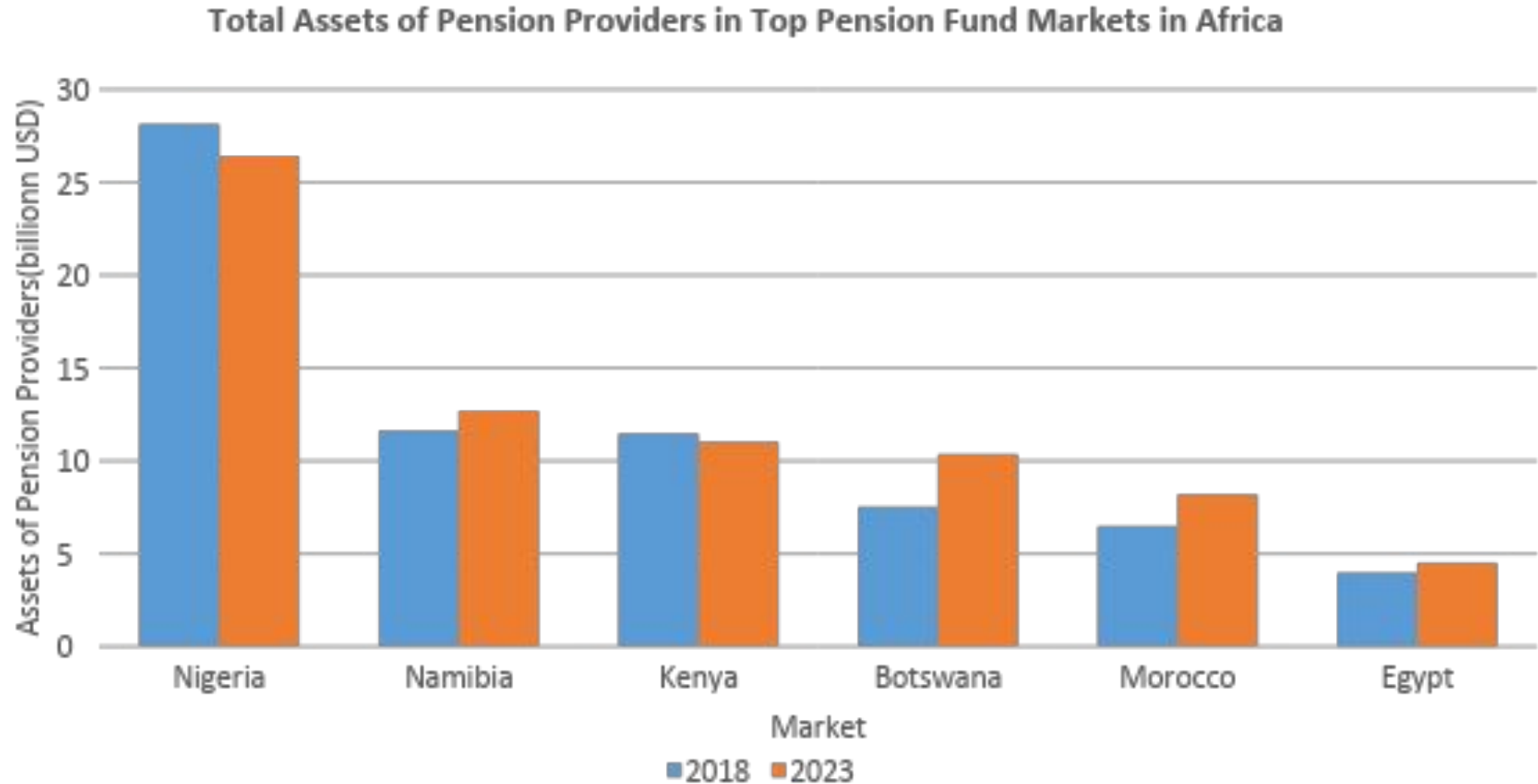
**Source: ILO, World Social Protection Database**

# The Pension Funds Landscape in Africa

- African pension funds account for less than 1% of global pension assets and are valued at between \$400-\$500 billion
- The pension assets are concentrated in South Africa, Nigeria, Namibia, Kenya, and Botswana
- South Africa holds the largest share with assets worth approximately USD 347.2 billion, accounting for nearly 70% of the continent's total pension assets
- Pension funds are rapidly expanding due to rising formal employment, demographic changes, and regulatory reforms
- Asset allocation remains conservative with investments largely in government bonds and fixed income with limited exposure to infrastructure and alternative investments



# After South Africa, Nigeria leads in pension assets with most countries recording overall growth

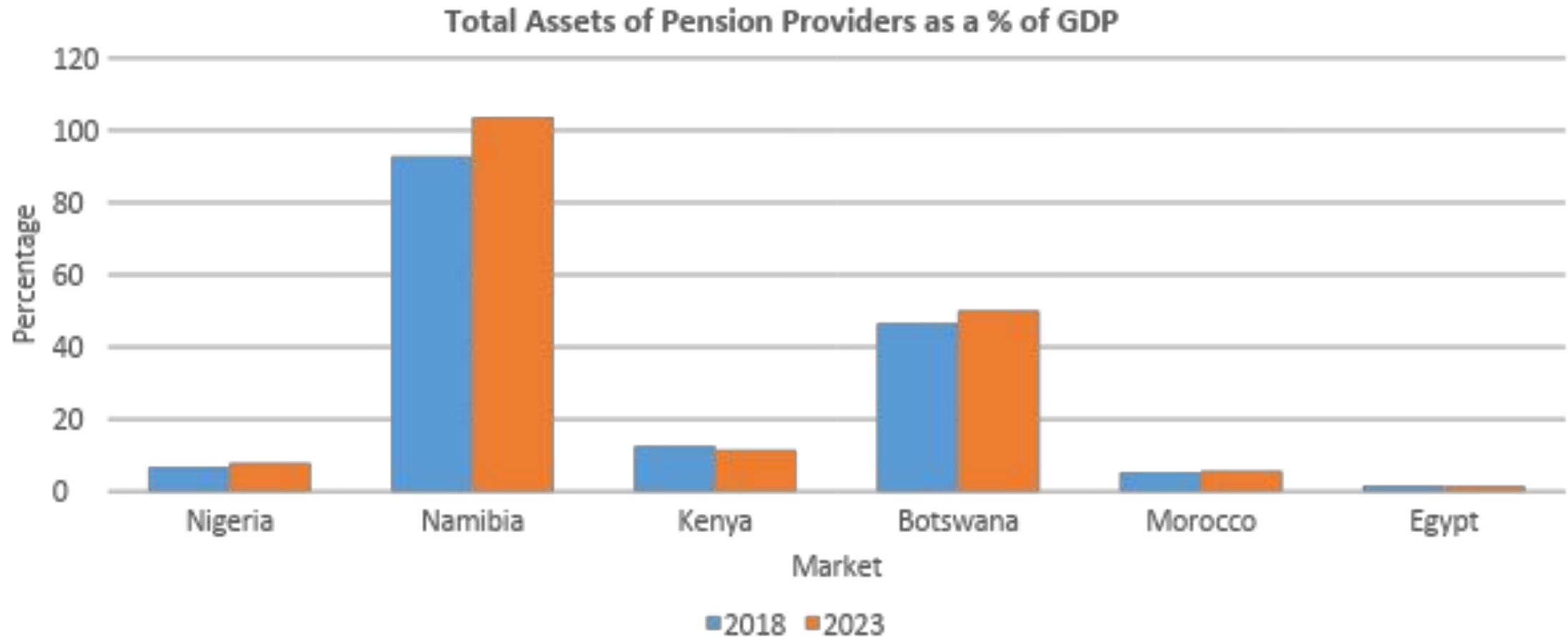


**Figure 4: Total Assets of Pension Providers in Selected African Countries**

**Source: OECD Global Pension Statistics (2024)**

Note: South Africa is excluded due to lack of data

# A high asset-GDP ratio implies a well-developed and relatively large size of the pension fund sector relative to the size of the overall economy



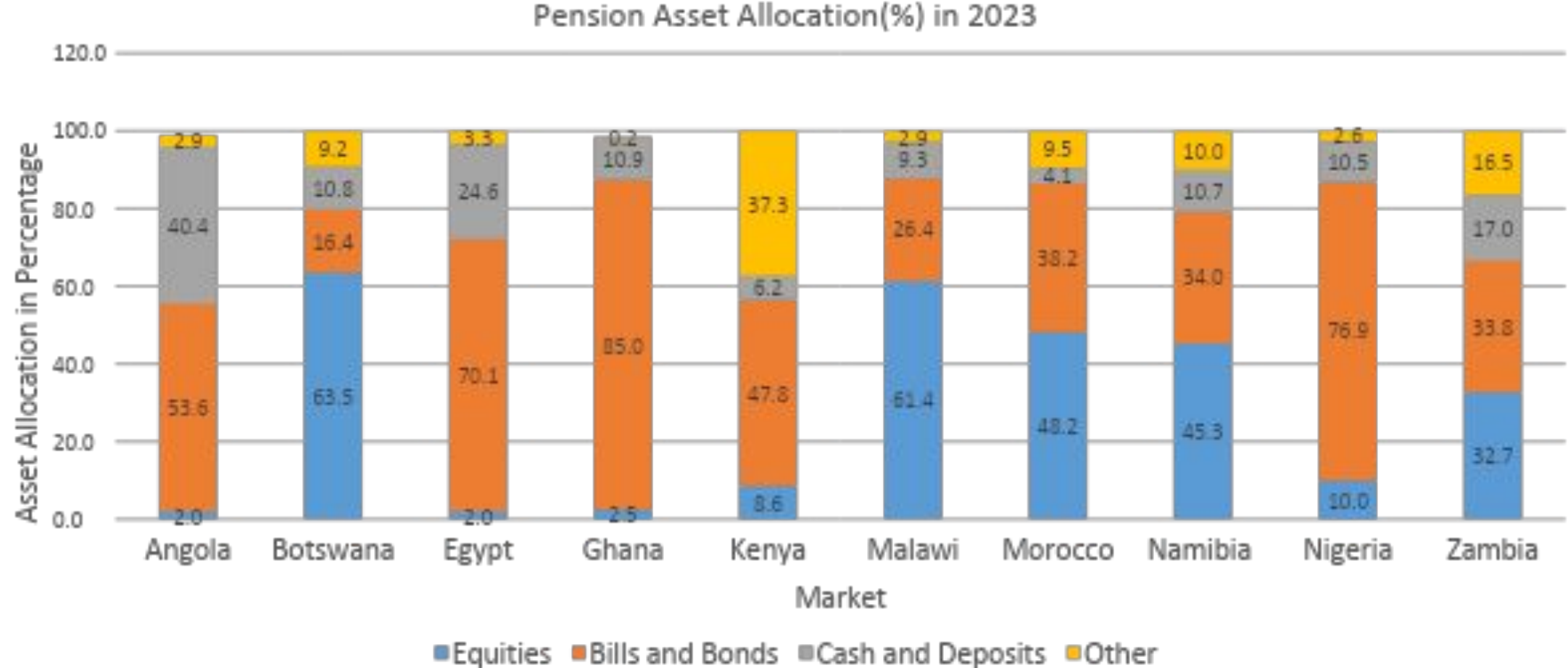
**Figure 5: Total Assets of Pension Providers as a % of GDP for Selected African Countries**

**Source: OECD Global Pension Statistics(2024)**

Note: South Africa is excluded due to lack of data

- Only Namibia and South Africa meet the required threshold of an average of 60% of assets to GDP ratio

# Investments in assets are largely regulated and asset allocation is concentrated in specific asset classes



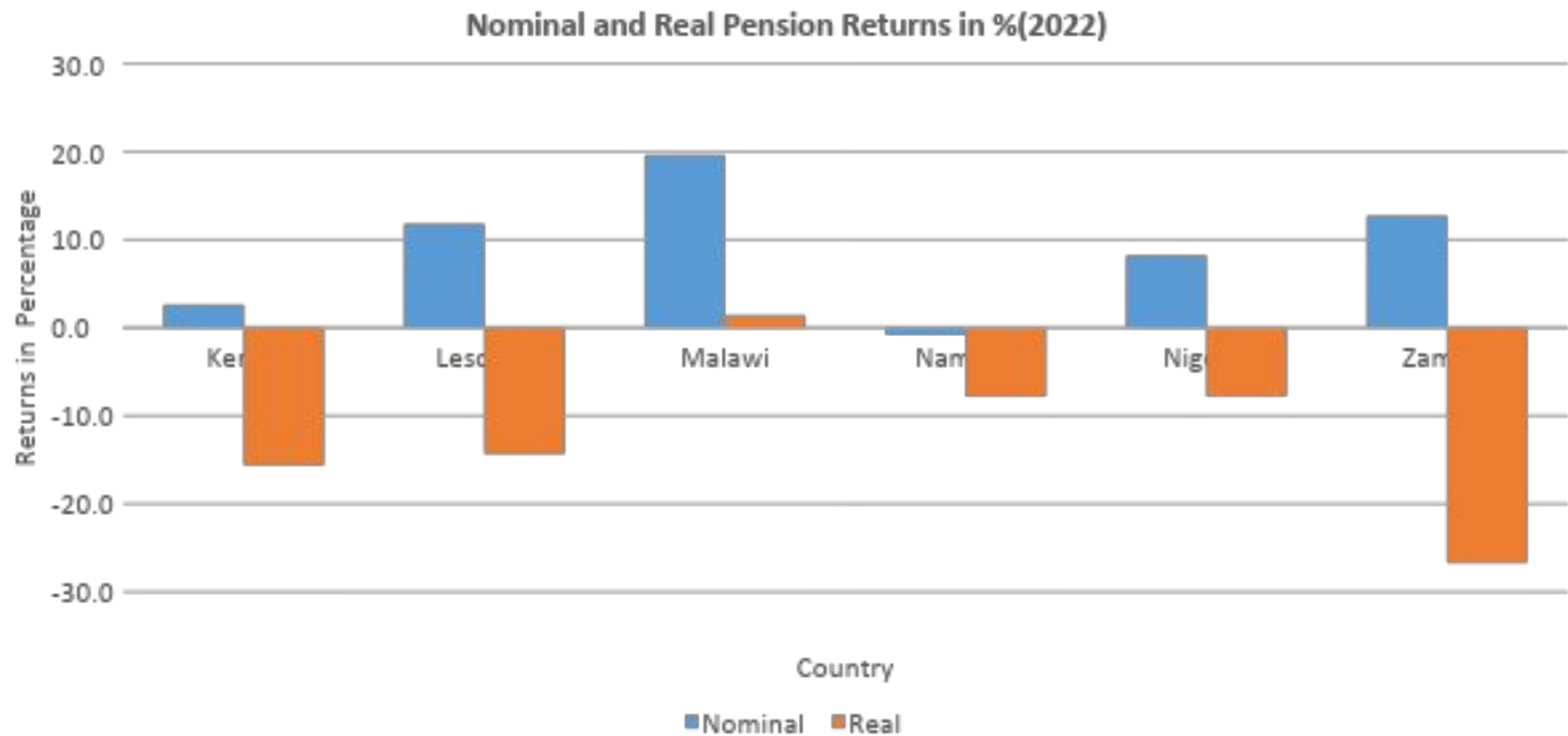
**Figure 6: Total Pension Allocation of Assets as a percentage of the Whole**

**Source: OECD Global Pension Statistics**

**Note:1** Other assets include land and buildings, unallocated insurance contracts, hedge funds, private equity funds, structured products, other mutual funds

**2** Allocations not adding up to 100% are due to the methodological breakdown in the series

# High inflation rates worsen real returns leading to negative real interest rates



**Figure 7: Comparison of Nominal and Real Pension Returns for Selected African Countries**  
**Source: OECD Global Pension Statistics**

# Proposed Theory of Change: Pension Funds Can Fuel Infrastructure Development and Economic Growth

- The **UN Millennium Development Goals (2000-2015)** focused on poverty reduction and social equity, which pension funds support through income security
- The **Sustainable Development Goals (SDGs)** adopted by the UN in 2015 aim to achieve sustainable development by 2030
- SDG 1 emphasizes the importance of implementing comprehensive social protection systems, including pensions, to reduce poverty and provide support for vulnerable groups; SDG 10 calls for inclusive social protection and fiscal policies to address income inequality
- The **AU Agenda 2063** is Africa's blueprint for transforming the continent into a global powerhouse by 2063 by focusing on sustainable development, inclusive growth, regional integration, and peace and security
- The AU Agenda 2063 does not explicitly mention pension funds, but it emphasizes social security and protection for the vulnerable including those with disabilities, quality of life, and reducing income inequalities, which pension funds support

# Pension Funds and Infrastructure Financing

- Pension funds manage large pools of capital, making them well-suited for financing infrastructure projects
- Infrastructure investments create jobs, boost productivity, and enhance economic growth
- Pension funds can finance infrastructure through:
  - ✓ **Direct Investment in Infrastructure Projects** such as roads, bridges, railways, energy plants, and water supply systems; done through public-private partnerships (PPPs), where they co-invest with governments or private firms in large-scale projects
  - ✓ **Investing in Infrastructure Funds** by allocating capital to specialized infrastructure investment funds, which pool resources from multiple investors to finance large projects

Sources: Heathcote & Mulheirn (2018);Carlo et al. (2023);Lu& Wilson (2024);Gonzalez (2024)

# Pension Funds and Infrastructure Financing Cont'd...

- ✓ **Bonds and Debt Financing** where Governments and corporations issue infrastructure bonds, and pension funds can invest in these fixed-income securities to provide stable returns while funding infrastructure
- ✓ **Private Equity and Real Assets:** Pension funds can invest in private equity funds focused on infrastructure development. They can also own and operate real assets such as toll roads, airports, or energy grids
  - For example, in Canada, the Canada Pension Plan Investment Board (CPPIB) manages a diversified portfolio, including significant investments in infrastructure sectors such as transportation, energy, renewable energy, and social infrastructure in countries such as the UK, US, Denmark, and Spain
  - In South Africa, through the Public Investment Corporation (PIC), the Government Employees Pension Fund (GEPF) has invested in the Africa Infrastructure Investment Fund, supporting projects in transport infrastructure, power generation, and telecommunications

# Pension Funds and Infrastructure Financing Cont'd...

- Many developing countries face a funding shortfall for infrastructure projects
- **In Africa, there is an annual gap in infrastructure financing of between \$68 to \$108 billion and the gap is expected to accumulate to around \$1.59 trillion by 2040**
- Pension funds present an opportunity for infrastructure financing to close this gap
- They are ideal for infrastructure due to their long-term investment horizon which aligns well with the extended timelines and stable returns of infrastructure investments

**Sources: Heathcote & Mulheirn (2018); AfDB (2018); OECD Global Pension Statistics; Agrawal (2025); Dodge (2024); Morales (2017); Morina & Grima (2022)**



# Pension Funds Drive Sustainable Economic Growth?

- **Capital Formation:** Pension funds contribute to the deepening of financial markets by investing in stocks, bonds, and alternative assets; in 2022, 13 out of 38 OECD countries had more than 40% of their total investments in equities
- **Promoting domestic investment:** In emerging markets, pension funds reduce dependency on foreign capital by mobilizing domestic savings into productive investments. In Kenya, the National Social Security Fund (NSSF) invested in Government of Kenya securities and properties worth Ksh 126.3 billion and Ksh 43.3 billion, respectively
- **Financial Market Stability:** Primarily through their long-term investment behavior, diversification, and counter-cyclical role in markets thus reducing volatility and risk
- **Financing Small and Medium Enterprises (SMEs):** By investing in private equity and venture capital, pension funds can support the growth of SMEs, which are key drivers of employment and economic expansion
- **Supporting Green and Sustainable Development:** Pension funds are increasingly channeling investments into renewable energy and sustainable projects, helping economies transition to low-carbon growth e.g Norway's Government Pension Fund (Global) has by far the largest allocation to green investments, with approximately USD 114.3 billion

**Sources:** OECD Global Pension Statistics; Agrawal (2025); Dodge (2024); Morales (2017); Morina & Grima (2022); Khai et al. (2023); Liu et al. (2024); Bochiellini (2025); Otchere (2025); Soneryd (2024); NSSF

## But, some challenges have persisted....

- **Longevity Risk and Aging Population:** The the risk that retirees will **outlive their pension savings**, creating financial strain on pension systems
- **Underfunding issues and Low Coverage in Developing Countries:** Many pension funds face shortfalls where their obligations exceed their assets; this is worsened in developing countries where pension coverage is low, leaving a significant portion of the population without retirement security
- **Rigid Regulatory Environment:** In many African countries, the regulatory environment limits the diversification of pension funds and returns, by specifying what asset classes to invest in and in what proportions
- **Market Volatility and Investment Risks:** Economic downturns and financial crises can reduce pension fund values; market fluctuations affect investment returns, making it challenging to ensure long-term sustainability, especially for funds heavily invested in equities and bonds
- **Inflation Risk and Erosion of Pension Value:** Rising inflation can erode the purchasing power of fixed pension payouts, making it harder for retirees to maintain their standard of living. This is particularly concerning for funds that lack inflation-indexed benefits

Sources: Nyang'oro & Njenga (2022); Tudor (2025); Gonzalez (2024); Stoodley & Conroy (2024)

# Old-age dependency ratio is expected to rise as the population continues to grow and as life expectancy increases



**Figure 8: Trend in Growth of Old-age dependency ratio as a percentage of the working population**  
**Source: United Nations Population Division. World Population Prospects: 2024 Revision**

# International Best Practice: Some Examples

- *Diversified Investment Strategy*: Diversification to manage risks and maximize long-term returns; e.g. Canada Pension Plan Investment Board (CPPIB) follows a globally diversified portfolio strategy, investing in equities, fixed income, infrastructure, and alternative assets
- *Strong Governance and Regulatory Framework*: Good governance ensures transparency, accountability, and effective decision-making in pension fund management (e.g. the UK's National Employment Savings Trust (NEST) follows a low-cost, well-regulated, and member-focused approach and is overseen by The Pensions Regulator (TPR), ensuring compliance with strict governance standards)

# International Best Practice: Some Examples

## (Cont'd...)

- *Liability-Driven Investment (LDI) Strategies*: To ensure long-term sustainability by investing in assets that generate cash to pay for future financial liabilities; e.g. Netherlands' Algemeen Burgerlijk Pensioenfonds (ABP), Europe's largest pension fund, applies an LDI approach to balance risk exposure while securing returns; ABP fund hedges against inflation and interest rate risks, ensuring financial stability for retirees
- *Environmental, Social, and Governance (ESG)*; ESG criteria are integrated into investment decisions to promote long-term value; e.g. the California Public Employees' Retirement System (CalPERS) manages over \$500 billion in assets and prioritizes ESG investments, including renewable energy and sustainable infrastructure

Sources: CalPERS; Liu et al. (2024); Boichialini (2025)

# International Best Practice: Some Examples (Concluded)

- *Flexible Regulations*: There should be no restrictions for developed pension fund markets; e.g. Canada and the Netherlands have no limits on portfolio investment on pension fund investments
- *Insourcing Portfolio Management*: Managing investment assets internally rather than outsourcing them to external fund managers; due to cost savings, better control, and the ability to align investment strategies with long-term goals; e.g. in Sweden, the pension fund Alecta makes all its investments internally and has built an in-house investment team for each asset class

Source: PWC (2016)

## Conclusion and AERC Research Programme

- Pension funds play a crucial role in ensuring financial security for retirees while also serving as powerful drivers of economic growth through investment in infrastructure and capital markets
- However, pension funds in Africa face significant challenges, including longevity risk, market volatility, underfunding, inflation, and low coverage
- Addressing these issues requires strategic reforms, diversified investments, and strong regulatory frameworks; indeed, adopting best practices from successful pension systems like those in Canada, the UK, and South Africa
- The role of innovation, including AI & ML, FinTech are promising and require urgent attention by all stakeholders
- **AERC is embarking on a new research programme on Pension Funds in Africa; we count on you, stakeholders, from the private sector and government policy makers to be part of this 10-year research programme**





# Thank You



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