Comparative Analysis of Pension Systems and Retirement Income in Developing Nations

Guna Durga R
MBA, 2022-24, Finance, CMS Business School, Faculty of Management Studies,
Jain (deemed-to-be University), Bangalore

Dr. Chaya Bagrecha
Professor, Area chair-Finance, CMS Business School, Faculty of Management Studies,
Jain (deemed-to-be University), Bangalore

Abstract: This study offers a comparative analysis of pension systems and retirement income dynamics in developing nations, with a focus on India. Through a comprehensive review of secondary data sources, including academic journals, government reports, and international databases, the research examines key metrics such as pension coverage, retirement ages, replacement rates, and tax implications across selected countries. India emerges as a significant case study, exhibiting unique challenges and opportunities in its pension system. The findings underscore the importance of understanding the intricacies of pension schemes and demographic trends to address the evolving needs of aging populations. Policy recommendations include enhancing pension coverage, improving investment strategies, and promoting financial literacy to ensure retirement income adequacy and system sustainability.

Keywords: comparative analysis, pension systems, retirement income, developing nations, India, pension coverage, retirement ages, replacement rates, tax implications, policy recommendations, financial literacy, system sustainability

1. Introduction

Let's imagine a big piggy bank, which can hold as much as wealth it can, but only in coins but also in stock, bonds, and other financial instruments. This piggy bank belongs to a group of people, like the company's employees, and grows bigger over time to regular contributions from both employees and employers. This, in a nutshell, is called as pension fund.

The goal of this special piggy bank is to provide future income for its members, mainly when they retire. The fund's managers invest the money carefully, aiming to grow it and eventually pay out regular payments to retirees. Think of it as a long-term savings plan managed by professionals, offering a steady income stream in retirement alongside other sources like Social Security. There are different types of pension funds, but generally, the more we and our employer contribute, and the better the investments perform, the bigger our future retirement payout will be. It's important to remember that these investments carry some risk, so the final amount may vary. However, pension funds can offer tax benefits and professional management, potentially leading to better returns than individual investing.

A pension fund, in essence, operates as a meticulously constructed intergenerational wealth transfer mechanism, safeguarding financial security during an individual's post-labor phase. Imagine a meticulously curated portfolio, meticulously managed by financial alchemists, where contributions from both present and past cohorts coalesce to generate a sustainable stream of income in the twilight years. This, in essence, is the core ethos of a pension fund.

Contributions are a steady influx of capital from active members, often supplemented by employers, fueling the fund's growth. Investment managers navigate the complex world of financial markets, allocating funds across various asset classes to maximize returns while mitigating risk. Actuarial calculations involve skilled actuaries predicting the longevity and retirement needs of future beneficiaries, ensuring the fund's solvency and sustainability.

Upon retiring, members receive regular distributions that supplement their income and ensure a dignified standard of living. This is the golden harvest, the culmination of years of meticulous planning and investment. Pension funds play a pivotal role in ensuring financial security and stability for individuals in their retirement years. As economies evolve, it is essential to assess and compare the performance and structure of pension systems to ensure their sustainability and effectiveness.

This comparative study explores various dimensions of pension funds, including regulatory frameworks, investment strategies, coverage, adequacy, and governance structures. By juxtaposing India's pension landscape

with that of other developing nations, the study seeks to identify best practices, challenges, and areas for collaboration and reform. The findings aim to inform evidence-based policy decisions and foster dialogue towards building more inclusive, sustainable, and resilient pension systems in India and beyond.

2. Research Objective

To evaluate and compare the effectiveness, adequacy, and sustainability of pension systems and retirement income in developing nations, with a focus on factors such as contribution-based vs. minimum contributory pensions, retirement age dynamics, gross and net pension replacement rates, tax implications, and gender disparities in pension wealth.

3. Research Methodology

The research methodology for this study involves a comprehensive review of secondary data sources related to pension systems, retirement income, and demographic trends in developing nations. This entails gathering information from various sources such as academic journals, government reports, international organizations' databases (e.g., OECD, World Bank), and reputable online resources. The analysis relies on comparative methods to examine the differences and similarities between pension systems, retirement ages, pension replacement rates, tax implications, and demographic projections across selected developing countries, including India, Brazil, China, Argentina, Indonesia, and Saudi Arabia. The study employs quantitative data analysis techniques to assess pension wealth, replacement rates, and demographic trends, utilizing statistical measures and comparative metrics to draw insights into the effectiveness and sustainability of pension systems of India with other developing nations to know, where India stands among them. Overall, this research methodology ensures a rigorous and systematic examination of pension systems and retirement income dynamics in developing nations, offering valuable insights for policymakers, researchers, and stakeholders in the field of social security and retirement planning.

4. Literature Review

A literature review is crucial for understanding existing knowledge and gaps in a field, especially in pension systems and retirement planning. It informs policy decisions, guides institutional reforms, and shapes financial strategies. This review explores pension funds, investment strategies, regulatory frameworks, and behavioral dynamics influencing retirement planning globally. Drawing from disciplines like economics, finance, public policy, sociology, and behavioral science, it provides nuanced insights into the complex interplay between individual behavior, institutional dynamics, market forces, and regulatory frameworks shaping pension systems.

Yermo (2012) provides recommendations for countries using pension funds for infrastructure development, emphasizing the potential for long-term return objectives and economic growth. Key findings include a stable regulatory environment, a national long-term infrastructure strategy, appropriate risk transfer, adapted prudential frameworks, investment vehicles and collaboration, transparent valuation and reporting, and capital market development.

Foster (2017) discusses the challenges faced by young people in saving for retirement, highlighting factors such as limited knowledge about pensions, distrust in providers, perceived financial constraints, and a short-term perspective on pensions. The UK government has introduced auto-enrolment as a method to encourage saving, but its effectiveness is debated. The author suggests exploring additional options, such as more flexible saving schemes tailored to younger individuals, and a deeper understanding of young people's attitudes and requirements regarding retirement and saving.

Stewart (2017) examines the impact of members switching between pension fund providers and portfolios on long-term investment allocation, finding a positive correlation between increased switching and holdings of short-term, liquid assets. However, excessive switching can lead to lower returns for members and reduced ability of funds to provide long-term financing.

Teulings (2007) examines the relationship between individual financial planning and the role of collective pension schemes in facilitating it, highlighting the trade-offs between individual choice and the advantages of collective risk-sharing and smoothing within pension schemes.

Schmukler's (2013) study on pension fund herding behavior in Chile reveals that pension funds significantly herd across different asset classes, particularly less transparent assets. This behavior increases during high-risk periods and is more common among similar fund types within the same administrator. Andonov (2015) found that larger pension funds benefit from economies of scale, lower costs, and higher returns, while smaller funds rely more on fund-of-funds, resulting in poorer performance. The study suggests pension funds should consider various approaches and avoid extended chains of intermediaries, especially smaller funds using fund-of-funds. Cremers (2017) examined the impact of regulatory frameworks on asset allocation, liability

International Journal of Recent Engineering Research and Development (IJRERD)
ISSN: 2455-8761
www.ijrerd.com || Volume 09 – Issue 02 || Mar - Apr 2024 || PP. 18-28

discount rates, and contractual inflation protection of public and corporate pension funds in the US, Canada, and Europe. It reveals that US public funds exhibit distinct behavior due to their broader discretion in choosing liability discount rates, potentially driven by opaque incentives. Rauh (2018) examined the impact of political representation on governance and decision-making in public pension funds, focusing on their performance in private equity investments. The study found that political boards heavily populated by state-appointed, state-exofficio, and participant-elected trustees invest in lower-performing funds, favoring investments aligned with political goals.

Pangestutia (2020) examined the factors affecting pension fund investment portfolio performance from 2014-2016 in Indonesia. It found that asset allocation, institutional ownership, and diversification strategies have a strong link with portfolio performance. However, portfolio turnover has no significant effect on performance, and board size has no evidence of influence on performance. Saikia (2018) investigated the investment behavior of young adults aged 17-25 in Mumbai, India, focusing on their financial literacy, risk appetite, and preferred investment choices.

Saikia's 2018 study explores investment behavior among young adults aged 17-25 in Mumbai, India, focusing on financial literacy, risk appetite, and preferred investment choices. The research highlights the growing per capita income and young population as a demographic dividend in understanding youth investment patterns. Safety and security are primary considerations, and diversified portfolios are preferred. Return on investment is the most crucial factor influencing investment decisions. Traditional savings accounts are still popular, but mutual funds are gaining favor. Further research could explore factors beyond risk and return.

Through a comprehensive examination of regulatory frameworks, investment strategies, coverage, adequacy, and governance structures, this review underscores the importance of benchmarking and learning from diverse contexts. By analysing the experiences of other countries alongside India, policymakers, stakeholders, and researchers can identify best practices, challenges, and opportunities for improving pension systems. This comparative approach enables the identification of innovative solutions and policy interventions that can enhance the sustainability, inclusivity, and effectiveness of pension provision. Moreover, the literature review emphasizes the interconnectedness of global pension systems and the importance of collaboration and knowledge-sharing in addressing common challenges and achieving common goals.

5. Findings and Analysis
5.1 Contribution-Based Pensions and Minimum Contributory Pensions:
Contribution-Based Pensions and Minimum Contributory Pensions are two distinct approaches to providing financial support for individuals during their retirement years. Let's delve into the details of each system to understand how they operate and their key differences.

Contribution-based pensions, often likened to a "Contribution Jar," operate on the principle that the more an individual contributes to their pension fund throughout their working life, the higher their retirement income will be. Picture this jar as a savings container where our deposit coins represent our contributions. The larger and heavier our jar, symbolizing more years of consistent contributions, the more coins (pension benefits) we accumulate. This system is directly linked to the effort and commitment an individual puts into saving for their retirement. For instance, in Canada, a full pension is granted after 40 years of contributions, but even after just 10 years, individuals can receive a reduced benefit.

One notable feature of Contribution-Based Pensions is the eligibility requirement tied to a minimum number of years of contributions. This period can range from 10 to 40 years, depending on the country. The eligibility criteria encourage individuals to make sustained contributions over an extended period, with the understanding that longer contributions result in higher pension benefits. The variability in benefits is a key aspect of this system, as the pension amount is influenced not only by the years of contribution but also by investment returns. Therefore, the retirement income under Contribution-Based Pensions can fluctuate based on individual circumstances and market performance.
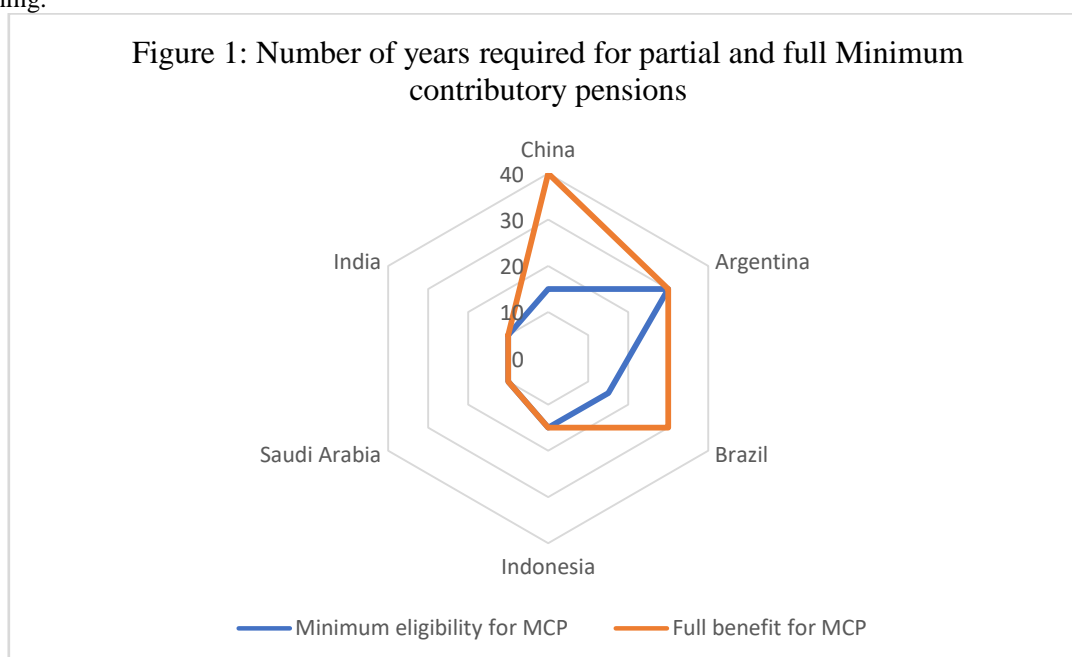
On the other hand, Minimum Contributory Pensions, represented by the "Minimum Jar," operate as a safety net for retirees. In this system, individuals are entitled to a fixed minimum pension amount, irrespective of the number of years they have contributed. Visualize this jar as a universal container that only needs a few coins (minimum contributions) to unlock a basic pension. The eligibility requirement for this type of pension is typically shorter, ranging from 15 to 30 years, making it more accessible for a broader population. For instance, in France, a minimum pension can be obtained after just one contribution period, but a higher amount is offered for those contributing for 40 years.

The defining characteristic of Minimum Contributory Pensions is the consistency in benefits. Unlike Contribution-Based Pensions, the pension amount is fixed and less susceptible to fluctuations based on individual contributions or investment returns. This system ensures that everyone who meets the minimum

contribution requirements receives a basic pension, offering financial security even for those who may not have been able to contribute for an extended period.

It's crucial to recognize that countries may adopt different pension systems, and some may even have hybrid models that incorporate elements of both Contribution-Based and Minimum Contributory Pensions. This flexibility allows individuals to choose between the two systems or combine them based on their preferences and financial circumstances. The choice between these systems boils down to personal priorities – whether one values the potential for higher returns through sustained contributions or prefers the security of a fixed minimum pension.

Contribution-Based Pensions and Minimum Contributory Pensions represent distinct strategies in providing retirement income. Contribution-based pensions reward individuals who contribute more throughout their careers with the promise of higher pension benefits, whereas Minimum Contributory Pensions offer a safety net, ensuring a basic pension for everyone who meets the minimum contribution requirements. The choice between these systems, influenced by individual preferences and circumstances, underscores the importance of understanding the specific details of one's country's pension system for effective retirement planning.

Figure 1: Number of years required for partial and full Minimum contributory pensions

Source: OECD Glance 2023 available at: http://oe.cd/pag

India stands out as one of the countries with the lowest requirements for both partial and full minimum contributory pensions compared to other developing nations. With a minimum eligibility period of just 10 years, individuals can start receiving partial benefits relatively early, and full benefits after only 10 years of contributions. This makes India's minimum contributory pension scheme more accessible in terms of eligibility requirements, potentially providing financial security to retirees with fewer years in the workforce. This could be advantageous for individuals with shorter careers due to factors such as early retirement, career interruptions, or economic constraints.

India's relatively short minimum eligibility period and quick access to partial and full pension benefits under the minimum contributory pension scheme could potentially encourage youths in India to participate in pension funds. The prospect of contributing to a pension fund and starting receiving partial benefits after a decade of work may serve as a significant incentive for young individuals starting their careers. Additionally, the accessibility of the pension scheme in India, with the opportunity to receive full benefits after just 10 years of contributions, may further motivate youths to participate. This accessibility may make saving for the future seem more appealing and worthwhile, making it easier for young individuals to grasp the importance of planning for their financial security later in life.

5.2 Retirement ages:
- **Normal Retirement Age (NRA)**:
The Normal Retirement Age (NRA) is the age at which a person becomes eligible to receive full retirement benefits from their pension or social security system. It's typically determined by the government and

is based on various factors such as life expectancy, economic conditions, and the sustainability of the retirement system.

The OECD reported, that the average normal retirement age for men with a full career starting at age 22 is projected to be 66.3 years across countries. This means that, on average, men can expect to receive their full retirement benefits at around age 66.3, although this can vary by country.

Normal retirement age is usually the age at which individuals are expected to stop working and begin relying on their retirement savings or pension for financial support.

- **Early Retirement**:

Early retirement refers to the option of starting to receive retirement benefits before reaching the normal retirement age. It's a choice made by individuals who wish to retire earlier than the standard retirement age for personal reasons such as health, lifestyle, or job satisfaction.

However, opting for early retirement often results in reduced benefits compared to what would be received if retirement was delayed until the normal retirement age. This reduction is typically imposed to account for the longer period over which benefits will be paid out.

The OECD reported, that the average early retirement age across OECD countries is 62.2 years. This means that, on average, individuals can choose to start receiving retirement benefits at around age 62.2, which is slightly over two years before the normal retirement age.

- **Late Retirement**:

Late retirement involves delaying the start of retirement benefits beyond the normal retirement age. This option is available to individuals who wish to continue working past the standard retirement age for various reasons, such as financial need, a desire to remain active in the workforce or to maximize their retirement benefits.

In some retirement systems, delaying retirement can result in increased benefits as a way to incentivize individuals to work longer and contribute more to the retirement system. These increased benefits may take the form of higher monthly payments or bonuses for each year of delayed retirement.

Late retirement options and incentives can vary significantly by country and by the type of retirement scheme or pension plan in place. In some cases, there may be a maximum age limit beyond which individuals cannot delay retirement and still receive increased benefits.

In a nutshell, the normal retirement age is the age at which full retirement benefits can be received, early retirement allows for benefits to be claimed before reaching the normal retirement age but often at a reduced rate, and late retirement involves delaying retirement past the normal retirement age, potentially resulting in increased benefits. Each option comes with its own implications for financial planning and retirement income.

Table 1: Current and future normal retirement ages for a man with a full career from age 22

Country	Current	Future	OECD: current	OECD: future
Argentina	65	65	64.44	66.34
Brazil	65	65	64.44	66.34
Indonesia	58	65	64.44	66.34
China	60	60	64.44	66.34
Saudi Arabia	47	47	64.44	66.34
India	58	58	64.44	66.34

Source: OECD Glance 2023 available at: http://oe.cd/pag.

The table indicates that
- Argentina and Brazil, countries have a current and future normal retirement age of 65. This means that individuals who start their careers at age 22 can expect to retire at 65 and receive full retirement benefits.
- Indonesia currently has a retirement age of 58, but it is projected to increase to 65 in the future. This indicates a policy shift towards raising the retirement age, aligning with global trends to ensure the sustainability of pension systems.

- China's normal retirement age is 60 for both the current and future scenarios. This suggests that China's retirement age is relatively lower compared to some other countries, possibly reflecting unique demographic and economic considerations.
- Saudi Arabia has a current and future retirement age of 47. This is notably lower than the other countries listed, and it could be influenced by specific factors such as economic policies or workforce dynamics.
- India's current and future retirement age is 58. Similar to Indonesia, it indicates a potential policy shift towards increasing the retirement age, though it remains lower than some other nations in Table 1.
- The average normal retirement age for OECD countries is approximately 64.44 currently, and it is projected to increase to around 66.34 in the future. This average reflects the overall trend of countries considering an increase in retirement age, possibly in response to longer life expectancies and fiscal sustainability concerns.

Table 1 doesn't directly provide information on minimum contributory pensions. However, the retirement age can be associated with pension eligibility, indicating the age at which individuals can start receiving full pension benefits based on their contributions to the pension system. India's retirement age of 58 aligns with its current policy on pension eligibility. This suggests that individuals need to contribute to the pension system until they reach the age of 58 to qualify for full pension benefits.

The relatively lower retirement age in India (58) compared to some other countries might not necessarily encourage youth participation in pension funds on its own. The projected increase in retirement age to 65 in the future could potentially incentivize younger individuals in India to start contributing to pension funds earlier, ensuring financial security in their later years.

Encouraging youth participation in pension funds depends on various factors such as the accessibility, benefits, and trustworthiness of pension funds in India. It also relies on the overall awareness and financial literacy among the youth regarding retirement planning. Incentives, educational campaigns, and policies that promote long-term financial planning could further encourage participation in pension funds among the youth in India.

In a nutshell, table 1 suggests variations in current and future retirement ages across countries, and India's position reflects a potential shift towards an increased retirement age. Whether this encourages youth participation in pension funds depends on broader factors such as policy implementation, financial education, and the overall attractiveness of pension schemes.

5.3 Gross pension replacement rates:

The Gross Pension Replacement Rate is a critical metric that sheds light on the effectiveness of our country's pension system in replacing our pre-retirement income after we stop working. It essentially tells what percentage of our salary can expect our pension to cover in retirement. Imagine it like a report card for our future financial security. Countries with high pension systems, such as Greece or Spain, can replace 70% or more of pre-retirement income. Mid-range scores, around 50%, reflect the average across OECD countries, where half of pre-retirement income is replaced by pensions. Lower scores, under 30%, may result in a smaller share of pre-retirement earnings, potentially around 20% or less.

Imagine, we are working and earning a certain amount of money every month or year. Our gross pension replacement rate is like a measure that tells us how much of that income we will still have when we retire and start getting our pension. It's usually expressed as a percentage. For example, let's say I was earning Rs. 30,000 a month before I retired, and my pension will give me Rs. 15,000 a month after retirement. In this case, my gross replacement rate would be 50% because my pension replaces half of my pre-retirement earnings.

But what actually means Pre-retirement earnings is, Pre-retirement earnings refer to the money that is earned from working before retirement. This includes salary, wages, bonuses, and any other income employees receive from employment or self-employment. These earnings are crucial because it determine how much money is available to save for retirement and contribute to pension funds. The more earn before retirement, the more can potentially save, which can lead to a higher pension income in retirement.

Gross pension replacement rates refer to the proportion of a retiree's pre-retirement earnings that are replaced by pension benefits during retirement. It is a crucial measure used to assess the adequacy of a pension system in providing income security for retirees.

In a nutshell, gross pension replacement rates play a critical role in assessing the adequacy of pension systems, ensuring income security for retirees, guiding policy decisions, and helping individuals plan for retirement. They provide valuable insights into the effectiveness of pension policies and help address income inequality in retirement.

5.4 Net pension replacement rates:

The net pension replacement rate is a crucial metric that assesses the financial support retirees receive about their pre-retirement income. It measures the percentage of one's pre-retirement income that remains available after deducting taxes and social contributions. In essence, it represents the take-home pension or disposable income retirees have to sustain their livelihoods during retirement.

This metric reflects the actual financial support retirees receive after accounting for the impact of taxes and social contributions on their pension income. By considering these deductions, it provides a more accurate assessment of the income retirees can rely on during their retirement years. The net pension replacement rate takes into account the portion of income that retirees can effectively utilize for daily expenses, healthcare, housing, and other essential needs.

For individuals planning for retirement, understanding the net pension replacement rate is crucial as it helps in assessing the adequacy of retirement savings and pension benefits. A higher net replacement rate indicates a more favorable financial situation for retirees, ensuring a better standard of living during retirement. Conversely, a lower net replacement rate may signal potential financial challenges and the need for additional sources of income or adjustments to retirement plans.

Overall, the net pension replacement rate provides valuable insight into the real purchasing power of pension benefits and helps policymakers, retirees, and financial planners make informed decisions regarding retirement planning, social security systems, and pension reforms.

Net replacement rates are generally higher than gross replacement rates due to progressive taxes and reduced contributions, where pensioners pay less due to allowances and lower income levels, and reduced contributions from many countries with lower or no social security contributions for retirees. These rates vary significantly between countries, ranging from under 35% in some countries to over 90% in others. Low earners typically see a higher net replacement rate than high earners, as they benefit more from tax breaks and may have paid less into the system in the first place.

Figure 4:

Net and gross pension replacement rates: Average earners (%)

Source: OECD Glance 2023 available at: http://oe.cd/pag

Figure 4 compares the **Net** and **Gross Pension Replacement Rates** for average earners in five developing countries: Indonesia, India, Saudi Arabia, China, and Argentina.

- **India:** The net pension replacement rate for average earners in India is 44.2%, while the gross replacement rate is 38.9%. This indicates that, on average, pensions replace around 44.2% of an individual's pre-retirement income after taxes and deductions.
- **Indonesia:** Indonesia's net pension replacement rate is 55.8%, and the gross replacement rate is 53.5%. This suggests that pensions in India replace approximately 55.8% of an average earner's pre-retirement income after taxes and deductions, which is relatively higher compared to Indonesia.
- **Saudi Arabia:** The net replacement rate in Saudi Arabia is 66.2%, while the gross replacement rate is 59.6%. This indicates that pensions in Saudi Arabia provide a higher replacement rate compared to both Indonesia and India.
- **China:** China's net replacement rate is 88.3%, and the gross replacement rate is 68.3%. This implies that pensions in China offer a relatively high level of income replacement for average earners, both before and after deductions.
- **Argentina and Brazil:** Both countries have relatively high replacement rates, with Argentina at 90.1% (net) and 78.7% (gross), and Brazil at 96.9% (net) and 88.4% (gross). This indicates that pensions in these countries provide significant income replacement for average earners.

India's net replacement rate of 44.2% and gross replacement rate of 38.9% are relatively lower compared to the other countries listed in Figure 4. In comparison to other developing countries like Indonesia, Saudi Arabia, China, Argentina, and Brazil, India's net and gross replacement rates are lower. This suggests that retirees in India receive a smaller percentage of their pre-retirement income through pension benefits compared to retirees in these other developing countries. Lower replacement rates, as observed in India, may indicate challenges in the pension system such as lower benefits, inadequate contributions, or inefficiencies in pension administration.

Figure 4 reveals the significant impact of taxes and social security contributions on net replacement rates, with countries offering higher rates due to lower deductions for pensioners. The type and structure of pension systems also influence replacement rates, with some relying heavily on mandatory public schemes.

5.6 Gross Pension Wealth Vs Net Pension Wealth:

- **Gross Pension Wealth**: Imagine this as the total sum of all the retirement benefits we are entitled to receive from mandatory pension schemes or any other retirement plans throughout our working life. It's like looking at the full promised payouts without considering any deductions or taxes. This represents the theoretical maximum amount could receive in retirement if there were no deductions or taxes.

For instance, if we're part of a pension plan that promises to pay a certain amount each month after retirement based on our years of service and salary, the total of all those promised payments would be our gross pension wealth.

- **Net Pension Wealth:** Net pension wealth, on the other hand, provides a more realistic view by factoring in the deductions that will be made from our pension payments before we receive them. Just as our salary gets reduced by taxes and other deductions before reaching our bank account, our pension benefits will also be subject to similar reductions.

This includes deductions such as taxes and social security contributions. These deductions are subtracted from our gross pension wealth to arrive at our net pension wealth, which represents the actual amount we'll receive after retirement. Both gross and net pension wealth serve different purposes in retirement planning:

- o **Gross Pension Wealth**: This provides an overview or a starting point, helping us understand the potential benefits we might accumulate throughout our working life. It's like setting a target or understanding the maximum potential income we could receive in retirement.
- o **Net Pension Wealth**: This offers a more practical and accurate picture of the actual amount we'll have available to us in retirement after accounting for taxes and deductions. It helps us plan more effectively by giving us a clearer understanding of our future financial situation.

In summary, while gross pension wealth gives an idea of the total benefits one might receive, net pension wealth provides a more realistic view of what is available to support a retirement lifestyle. Understanding both allows one to make informed decisions and better plan for a secure and comfortable retirement.

Table 2: Net vs Gross pension wealth for average earners by gender, multiple of annual earnings

Country	Net pension wealth		Gross pension wealth	
	Men	Women	Men	Women
China (60)	20.3	25.4	15.71	19.50
Saudi Arbia (47)	19.4	20.0	17.43	18.02
Argentina (65)	17.6	22.6	15.40	19.74
Brazil (65)	17.4	22.2	15.87	20.31
India (58)	9.1	9.6	8.04	8.43
Indonesia (65)	8.0	8.6	7.66	8.45

Source: OECD Glance 2023 available at: http://oe.cd/pag.

Comparing the net and gross pension wealth Table 2 for India with other developing nations like Brazil, China, Argentina, Indonesia, and Saudi Arabia provides insights into the relative effectiveness of pension schemes and the impact of gender disparities on retirement benefits.

India's net pension wealth for both men and women (9.1 for men and 9.6 for women) is relatively low compared to other developing nations in Table 2. This indicates that after accounting for taxes and deductions, individuals in India, on average, have a lower level of retirement income compared to their pre-retirement earnings. Similarly, India's gross pension wealth is also comparatively lower (8.0 for men and 8.4 for women) than other countries in Table 2. This suggests that even before taxes and deductions, the total value of retirement benefits promised by pension schemes in India is relatively modest compared to those in other developing nations.

When comparing India's net and gross pension wealth with other developing nations, several observations can be made, especially in Table 2 highlights significant gender disparities in pension wealth across all countries. In India, as well as in other nations, women generally have higher net and gross pension wealth compared to men. This disparity can be attributed to various factors such as differences in labor force participation, wage gaps, and women's longer life expectancy leading to larger pension accumulations.

India's pension wealth, both net and gross, is relatively lower compared to countries like Brazil, China, Argentina, and Saudi Arabia. This suggests that India may have less generous pension schemes or lower levels of retirement benefits compared to these nations.

The lower net pension wealth compared to gross pension wealth in all countries indicates the significant impact of taxes and deductions on retirement benefits. This underscores the importance of considering the net value of pension benefits when evaluating the adequacy of retirement income.

The comparison of net and gross pension wealth for India and other developing nations highlights the importance of considering both measures in assessing the adequacy of pension schemes and addressing gender disparities in retirement benefits. It underscores the need for policy efforts to enhance retirement security and ensure equitable access to pension benefits for all individuals.

6. Policy suggestions and recommendations

- **Increase Pension Coverage:** India should strive to increase pension coverage, particularly among informal sector workers who often lack access to formal pension schemes. Implementing targeted outreach programs and incentives could encourage greater participation in pension funds, ensuring more individuals have financial security during retirement.
- **Enhance Minimum Pension Benefits:** India could consider revising minimum pension benefits to ensure a more robust safety net for retirees. This may involve increasing the minimum pension amount or adjusting eligibility criteria to provide adequate support, especially for low-income earners.
- **Improve Investment Strategies:** Enhancing the investment strategies of pension funds could potentially boost returns and improve the sustainability of retirement income. Diversifying investment portfolios,

adopting innovative financial instruments, and leveraging technology for efficient fund management can help maximize pension fund growth over the long term.

- **Rethink Retirement Age:** Given demographic shifts and increasing life expectancy, policymakers should review the retirement age in India to ensure alignment with changing demographic and economic realities. Gradually increasing the retirement age and promoting flexible retirement options could help balance retirement system sustainability while accommodating individual preferences.
- **Address Tax Implications:** India should assess the tax implications on pension income to ensure fairness and adequacy in retirement benefits. Reviewing tax policies related to pension contributions, investment returns, and pension withdrawals could help alleviate tax burdens on retirees and incentivize pension participation.
- **Promote Financial Literacy:** Enhancing financial literacy and retirement planning awareness among the population is crucial. Implementing educational campaigns, workshops, and digital tools can empower individuals to make informed decisions regarding pension savings and retirement planning, ultimately improving retirement outcomes.
- **Strengthen Pension Governance and Regulation**: Strengthening pension governance frameworks and regulatory oversight is essential to ensure the integrity and stability of pension systems. Implementing transparent and accountable governance structures, enforcing compliance with pension regulations, and enhancing monitoring mechanisms can safeguard pension funds and protect retirees' interests.
- **Leverage Demographic Dividend:** India should leverage its demographic dividend by harnessing the potential of a growing working-age population to bolster pension system sustainability. Encouraging workforce participation, promoting employment opportunities, and facilitating pension fund contributions among younger demographics can strengthen the long-term viability of India's pension system.

By implementing these policy suggestions and recommendations, India can address key challenges in its pension system, enhance retirement income security, and better meet the evolving needs of its aging population.

7. Conclusion

In conclusion, the comparative analysis of pension systems and retirement income in developing nations provides valuable insights into the complexities and challenges faced by individuals planning for retirement across different countries. The study reveals significant variations in pension schemes, retirement ages, replacement rates, tax implications, and demographic trends among the selected nations, including India, Brazil, China, Argentina, Indonesia, and Saudi Arabia. India emerges as a particularly noteworthy case, exhibiting lower gross and net pension wealth compared to other developing countries analyzed. Despite a relatively low gross pension replacement rate at retirement age, India's current and projected retirement age of 58 suggests a potential policy shift towards increasing retirement age to address demographic and economic factors. The analysis underscores the importance of understanding the intricacies of pension systems and the impact of policy decisions on retirement income adequacy. Moving forward, policymakers in India and other developing nations must prioritize reforms to enhance pension fund participation, improve fund management, and ensure the sustainability and adequacy of retirement benefits for future generations, thereby addressing the evolving needs of aging populations.

Reference:

[1]. Foster, L. (2017). Young people and attitudes towards pension planning. *Social Policy and Society*, *16*(1), 65-80.
[2]. Stewart, F., & Yermo, J. (2012). Infrastructure investment in new markets: challenges and opportunities for pension funds.
[3]. Pedraza, A., Fuentes, O., Searle, P., & Stewart, F. (2017). Pension funds and the impact of switching regulation on long-term investment. *World Bank Policy Research Working Paper*, (8143).
[4]. Bovenberg, L., Koijen, R., Nijman, T., & Teulings, C. (2007). Saving and investing over the life cycle and the role of collective pension funds. *De Economist*, *155*, 347-415.
[5]. Raddatz, C., & Schmukler, S. L. (2013). Deconstructing herding: Evidence from pension fund investment behavior. *Journal of Financial Services Research*, *43*, 99-126.
[6]. Andonov, A., Eichholtz, P., & Kok, N. (2015). Intermediated investment management in private markets: Evidence from pension fund investments in real estate. *Journal of Financial Markets*, *22*, 73-103.
[7]. Andonov, A., Bauer, R. M., & Cremers, K. M. (2017). Pension fund asset allocation and liability discount rates. *The Review of Financial Studies*, *30*(8), 2555-2595.

[8]. Andonov, A., Hochberg, Y. V., & Rauh, J. D. (2018). Political representation and governance: Evidence from the investment decisions of public pension funds. *The Journal of Finance*, *73*(5), 2041-2086.

[9]. Wahyudi, S., Hasanudin, H., & Pangestutia, I. (2020). Asset allocation and strategies on investment portfolio performance: A study on the implementation of employee pension fund in Indonesia. *Accounting*, *6*(5), 839-850.

[10]. Saikia, S. (2018). Investment Pattern of Youth in India with particular reference to Mumbai.

[11]. Home. (n.d.). Open Government Data (OGD) Platform India. https://data.gov.in/

[12]. Authority, P. F. R. a. D. (n.d.). Home-Pension Fund Regulatory and Development Authority (PFRDA). https://www.pfrda.org.in/index.cshtml

[13]. Giesecke, O., & Rauh, J. D. (2023). Trends in state and local pension funds. Annual Review of Financial Economics, 15(1), 221–238. https://doi.org/10.1146/annurev-financial-110921-022054

[14]. Stewart, F. & OECD. (2007). Pension fund investment in hedge funds. In OECD Working Papers on Insurance and Private Pensions (No. 12). OECD Publishing. https://doi.org/10.1787/086456868358

[15]. Megginson, W. L., López, D. M., & Malik, A. I. (2021). The rise of State-Owned investors: sovereign wealth funds and public pension funds. Annual Review of Financial Economics, 13(1), 247–270. https://doi.org/10.1146/annurev-financial-110420-090352

[16]. Stewart, F., & Yermo, J. (2012b). Infrastructure investment in new markets: challenges and opportunities for pension funds. OECD Working Papers on Finance, Insurance and Private Pensions, No. 26. https://www.pensjonsforum.net/images/nyheter/5k8xff424vln.pdf

[17]. India: value of assets under management in NPS 2022 | Statista. (2023, November 20). Statista. https://www.statista.com/statistics/1027896/india-value-of-assets-under-management-in-national-pension-scheme/