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NPS and NSSF: A Comparative Analysis of Pension Schemes in India & China

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Abstract

Pension is a regular payment made by the government or employer to the person of or above the retirement age. In the year 2000, the National Social Security Fund was created in China and it is supervised by the national council of social security fund. Whereas in India, the New Pension Scheme was created in 2004, supervised by Pension Fund Regulatory and Development Authority(PFRDA).This paper has made an effort to compare the pension schemes of two countries i.e. India and China, on the basis of varoius parametres such as retirement age applicable to receive pension, assets allocation through pension fund and tax benefits to the pensioners.This paper is based on a purposive sampling method and to analyze pension schemes for both the countries secondary source of data is used.This paper has three-goal, first, comparision between the age of the pensioners (male and female) of India and China, followed by second objectiveto compare the assest allocation of penion fund and then further tocompare the tax benefits from pension schemes.Paper concluded that in India, retirement age is more comparing to China and many taxbenefits are provided to pensioners for their contribution. Paper has also identified that in India, a pensioner caninvest his contributionwith a specified limit under the scheme whereas in Chinacomplete contribution amount is being invested in annuities.

Keywords:Pension,Pension Funds,Assets Allocation,Tax Benefits,Investment Preference.

JEL Code: G23,G28

Introduction

The significance of the Pension System has been majorly accepted by many countries over a period of time at various levels of development to ensure the economic strength of the country and the safety of their elderly population. Several pension systems that deal with defined- benefit design operated on a 'PAY AS YOU GO' basis. The common objectives of worldwide pension system are only to provide a security of an income to a person in their old age.

Pension, the first impression that comes to mind and in layman language is the fixed monthly amount that a person will receive after retirement when they are no longer earning. Pension scheme offers financial security and stability during old age when people do not have a regular source of income. Retirement plan ensures that people live with superiority and without compromising on their standard of living during advancing years. Pension scheme gives an opportunity to invest and accumulate savings and get lump sum amount as regular income through annuity plan on retirement.

The social security funds, which include retirement and pension funds, are considered as conventional and finest way of getting desired retirement security. The pension provides a regular income to meet with day to day expenses and to maintain an average standard of living while retirement savings are the best source for unexpected expenditures. Pensions are also a good source for the improvement of local economies during the financial crisis.

General believe is that pension investment and savings are one and the same thing while investing in pensions and savings are fundamentally two different aspects. A pension investment provides fixed monthly income to an individual for the lifetime on a regular basis while savings are a fixed sum of money collected over a period of time. Few other benefits which are associated with pension investments are disability protection, pension to the spouse in case of death of the pensioner. These special and exceptional features of pension schemes make it more attractive from other fixed contribution schemes.

Pension: Meaning & Benefits

Periodic payments are drawn to support the old age of any individual from a fund which is created by an employee out of the sum of money collected in the course of his employment is called Pension.

A pension scheme is a retirement benefit which provides a regular, stable income to the person during their retirement when they do not have any other fixed source of income or employment. Pension funds are created in the course of employment which involves the contribution from both the employer and employee to ensure a consistent income after the retirement. It is also a Tax benefit scheme which allows for the tax-free collection of the fund to be used in the future. Labor unions, government agencies, and self-funding schemes, NGO's are the few funding sources which provide for Pension Funds. Hence, Pension schemes are also considered as "deferred compensation".

Various countries have taken the retirement benefit initiatives to ensure the secured future of their citizens by creating pension funds. Creation of these pension funds involves the payments throughout the working life of a person by which an individualcan take the benefits at a later stage.

PENSION FUNDS IN INDIA

In a developing economy like India, annuity funds play a vital role. The system of annuity in India was introduced in 1857 but came into effect in 1871 under the pension act of 1871. Under this act various schemes were introduced for public welfare like employee pension scheme, employee deposit linked insurance scheme, employee provident fund, civil servant pension, occupational pension plan, and other social security schemes.

For more than 100 years this system of the annuity was followed but in the year 2003 the pension fund regulatory and development authority (PFRDA) brought some changes in the system and proved a good indication for the Indian citizens.NPS in India was formed in 2004, it refers to the contributory pension system where contribution is given by the employee and equal amount is also contributed by the employer. The New pension scheme is compulsory for all employees who join the service of the centralgovernment (except armed force). This scheme is followed by the exempt-exempt taxable structurewhich means that contribution of the new pension scheme are not taxable but the lump sum withdrawn on exist of the new pension scheme is taxed.

Fund Allocation in NPS

Under the New Pension Scheme in India, 50% of the augmented fund can be invested into future markets or commodity markets and it’s mandatory for PFRDA (Pension Fund Regulatory and Development Authority) to administer the function of the fund managers. NPS has a 2 tier account system for the investors under which tier 1 allows the investor to withdraw 20% of the contribution and remaining 80% becomes obligatory to invest in an annuity from a life insurer before retirement (i.e. the age of 60 years). Whereas after the age of 60 years, 60% of the amount can be withdrawn and balance to be invested like before. Tier 2 acts as a voluntary scheme for the pensioners. Here investor chooses their own saving preference where withdrawals have no limitation on.

PENSION FUNDS IN CHINA

The People’s Republic of China was founded in 1949 and its first formal Pension Scheme was introduced in the year 1951, named as BOISE (Basic Old-Age Insurance System for Employees). The aim of BOISE was to target urban employees and it also focused on income security for state employees. Further, the BOPSCS (Basic Old-Age Pension System for Civil Servants) was introduced in the year 1952. The period between1967-2004 is considered as the period of reform under which various pension reforms were acquainted such as state-owned enterprise and three- pillar pension systems.

The National Social Security Fund (NSSF) in China was formed in the year 2000. The National Council of the Social Security Fund was established as the directorial and management body of the National Social Security Fund (NSSF). The supervisory and management body of the country, National Council for Social Security Fund was also established at the same time.

The pension system of China has become strenuous with the advancementand rapid development in the economy. Thus, theresponsibility of national social security fund isincreasing. China being a socialist market economy limits the functioning of national social security fund till buying government bonds and bank deposits investment. Apart from these, it will even transfer the buying of mutual funds, corporate bonds and stock to only six charter companies of a mutual fund.

Review of Literature

Pension reform seems to be a prominent focus for every country in today's era. Various researches have been conducted by financial analyst, government officials, and bankers etc. to analyze the changes in pension reforms from their perspectives. For example financial analyst considered pension reform as a tax benefit tool where focus of bankers was on retirement benefit. Studies in past have been summarized as below dividing into 3 sections- Section I included the studies where pension system of various countries have been compared. Section II includes all those studies which have been conducted to analyze the pension reforms of India followed by Section III in which studies related to pension system of China have been summarized.

Section I

Muller, (1999) analyzed the different experiences of pension reform of Poland and Hungry on one side and the Czech Republic on other. In the comparison, the special focus was given on the relationship between the relevant set of political actors, the respective structural setting and the resulting institutional choice in old age security, shedding light upon the political economy of pension reform in the region. At the end of paper concluded that the structural setting, constellations , and instructions of relevant political actors lead to the difference in the institutional choice made in old-age security.

Rajan, S. I., Perera, M., & Begum, S. (2002) The present study proposes to identify the modalities of comprehensive pension and social security scheme for the elderly population in South Asia, from the experience of India, Sri Lanka and Bangladesh. The recent emphasis on studies pertaining to elderly in the developing world is attributed to their increasing numbers and deteriorating living conditions. While their increasing numbers are attributed to demographic transition (low fertility and higher life expectancy), their deteriorating conditions are the result of the fast eroding traditional family system in the wake of rapid modernization, urbanization, and migration. Study is based on the Evaluation of the ageing scenario- past, present and future, Conduct a sample survey to assess the nature, magnitude and adequacy of various forms of social assistance now available to the elderly, Review the existing policies and programs for the elderly, Suggestions for a broad-based comprehensive pension, social security and assistance schemes for the elderly .

Bongaarts, (2004) discussed the pension and social security system that afflict a population of developed nations and also reviewed the development of OECD countries. The main discussion is all about the aging population and effects of the "pay–as-you-go" system. Author also suggested the reform in the pension system due to expected increase in the pension expenditure as the population of country ages. Study confirms the findings that current public pension planning in the largest OECD countries is unsound in the long run because they rely almost completely on pay-as-you-go schemes.

Section II

Goswami R., (2001) reviewed the existing state of the Indian pension system of 2001. In other developing countries the policy decisions might be influenced by the Indian experience, mainly those with the same dependence on the national provident fund system. The author discussed the different retirement benefit schemes with their importance and their insignificance. It is argued that under-performance of provident fund schemes due to investment limit and financial complication in managing public pension programs, and low coverage level, which is not funded properly, have to make the current system unsuccessful and not able to uphold. "The failed experiments with ad-hoc reform initiatives in recent past further emphasize the need for a structural and lasting change." The Paper concluded policy directions for reforming the Indian pension system.

Asher, M. G., &; Shankar, S. (2007) paper argued that to expand coverage of micro-pensions, social entrepreneurship will be needed by the financial sector, including the MFIs, insurance companies, and mutual funds. Such entrepreneurship should aim to drastically reduce overall transaction costs, including fund management costs. The paper has also argued that micro-pensions sector requires a regulator. "The PFRDA as an overall pension regulator is an appropriate agency for regulating micro-pensions. But it must closely co-ordinate with EEBI, IRDA, RBI, and NABARD. The PFRDA should have a separate wing for micro-pensions in recognition of the special requirements. This wing should help develop appropriate products and delivery mechanisms, help instill confidence, promote professionalism and encourage financial literacy and inclusion. Research on micro-pensions is in its infancy. Implications of alternative designs and delivery systems for micro-pensions need to be rigorously researched for financial Sustainability and for their impact on the level of benefits to members. Different risk-sharing arrangements among all the stakeholders also need to be explored". Paper concluded that a prospective for micro-pensions to play a limited but useful role as an integral component of India's social security system.

H. Sadhak, (2009) studied pension reform modules that take care of the changing demographic profile of a population. A big objective of the welfare state is a defined benefit pension plan, the author also observed in the paper that a fund having 100% investment in equity is expected to provide comparatively much greater. Fund value and retirement income to an investor is not advisable to invest in it completely. On the other hand "investing entire saving into debt instrument would generate insufficient walk to comfortably take care of retirement needs."

Sanyal, A., Gayithri, K., &Erappa, S. (2011) discussed the national pension scheme and analysis of the auto choice option of the new pension system. The demographics transition reveals potential future imbalance in the investment structure among the assets class. The descriptivepaper concluded that pension reform in India has a long way to go before they serve the interest of both the employee and not the employer alone.

Sane, R., & Thomas, S. (2014) examined the new pension scheme implementations according to his goals. Author find that there are certain areas in which new pension scheme has been diverging in a multiplicity of the scheme, lack of investment system, low transparency of the system and lack of focus on keeping assets management. Author concluded that these gaps can be corrected with regulatory intervention and the PFRDA also empowered the necessary statutory authority to supervise the institutions of the new pension scheme. Such a regulator can build trust in the system by ensuring that the interest of the new pension scheme customers is the primary focus.

Unnikrishnan, V. and Imai, K.S., (2018) examined the effect of Indira Gandhi National Old Age Pension Scheme (IGNOAPS) on both short and long-term household welfare indicators, such as consumption expenditure. Using the household longitudinal data based on the Indian Human Development Survey in 2004-05 and 2011-12, author applied the Propensity Score Matching (PSM) to build a counterfactual group and have used the fixed effects model to eliminate time-invariant unobservable characteristics to estimate the effect of IGNOAPS on household welfare. To address the issue of endogeneity, author used the instrumentalvariable model. Author concluded by showing that IGNOAPS reduces household poverty by increasing consumption expenditure, food and non-food expenditure.

Section III

Benartzi and H.Thaler, (2007) examined the decisions employees make about whether to join a savings plan, how much to contribute and how to invest. The Research paper also contains the probable part of intercession point to get better retirement decision, such as pension plan. Study conclude that retirement saving is a difficult decision; most employees have to train for making the appropriate decision. Due to this investors are relatively passive despite the reforms in the 1970s and 1980s clear that demographic change would eventually collapse the pension system in China, at a low income emerging market China present a special case.TheChinese government takes many constructive steps to help employees like a change in plan, significant default option and give chance to increase savings and balanced portfolio routinely.

Leckie.S and Pan, N. (2007) Paper provides an overview of the national social security fund. Researchers also discussed the sources of assets and investment activities included it's overseas investment activities with the help of some design and governance issues at the fund as well as their possible consequences. Paper concluded that the national social security fund has an progress in terms of assets base, national social security fund needs to introduce these issue in a proactive manner and there should be no compromised in strategic goals and priorities.

Zhu, W. (2016) describe pension investment's impact on the development of China's capital market. The study showed that "if a pension investment has a positive effect on the Capital market, capital market development will enhance overall economic development and it can in turn increase pension output. This phenomenon can be used as evidence to support pension investment in China. Besides, the study explores the optimal asset allocation and makes a risk assessment of pension investment in China. Data used in this study is taken from international and domestic historical data and survey. Study finds out that pension investment in China causes the development of capital markets. In addition, refer to risk tolerance of the pension fund in America, it is optimal to limit the investment proportion of stock under 20%, invest the majority in enterprise bond and the rest into bank deposits at present in China. Under such asset allocation, there is a 5% probability that loss will exceed 12.4% of the total amount" .

Zhu, H., & Walker, A. (2018) analyzed amelioration in a pension scheme and its impact over the past 3 decades. This analysis emphasized the 30 years prolonged pension system of Chinacovering the majority of people under social pension. This drastic change constructed new socio-economic strata of five level pension scheme classes and a new pension model thus strengthening the link between social security and benefaction. The hierarchical linear model was used for scrutinizing the stratification effects of pension reform from the viewpoint of individual family and domain. Finally, the article derived on a conclusion that de-stratification and equality should be the main objective of the forthcoming pension plans in China.over and above these aspects further prioritiestook care by some researchers such as the integration of all social pension schemes into one, transitioning the pension organization from local to the central government and adjusting pension model accordingly.

Research Methodology

Research gap

As summarized in review of literature, it can be said that extensive research work has been done to study the pension schemes of various countries such as India, China, Poland, Hungary, and SriLanka etc. Literature review has also included studies which gaveananalysis of pension plans of India and China on the basis of age, assets allocations and tax benefit independently. But no study was found which focuses on the comparative analysis of pension schemes of two countries India and China. Thus due to inaccessibility of any research work done in this area,this paper focuses on the comparative analysis of pension schemes of two countries India and China.

Objectives

1) To compare the pension schemes of India and China on the basis of retirement age applicable for pensioners.

2)To compare the allocation of invested amount by pensioners in various classes of assets in India and China.

3)To compare the tax benefitsreceived by the pensionersfromthe pension schemes of India and China.

Research design

A mixed approach of research design is used for this paper which is the combination of descriptive research and exploratory research design has been used. A literature evaluation presents more than discussion on this subject. While, exploratory research uses to analysis of the literature to know the outlook of previous researches on this area. Exploratory research is a flexible approach to undertaking the research where is sampling is generally non-probability.

For the current paper sampling method ispurposive,a non-probability sampling technique,it is selected onthebasis of the objectives of the study, to compare the pension schemes of India and China.

Study Period

For the comparison of pension schemes of India & China i.e., NPS and NSSF respectively, the study period is 2016. These two pension schemes have been compared for the data available on the basis of year 2016. Pension reforms of both the countries have been changed from old to new schemes, but this paper has considered only year 2016 as study period for analyzing and comparing the pension schemes.

Sources of Data Collection

Secondary sources of data are usedto analyze pension schemes for both the countries which include data collected from the OECDreport 2017 named as "Pension at Glance 2017: OECD And G20 Indicators OECD 2017". The report has analyzed the various pensions systems applicable in various countries for the year 2016. Thus this report is considered as a reliable source of information for the current paper and used for the analysis.

Data Analysis& Interpretation

India &China, both are being neighboring country, most populace in the world. This paper made an attempt to compare the pension schemes of these two countries. For the purpose of comparing the tax benefits from the pension schemes of both countries the New Pension Scheme (tier-1) of India and National Social Security Fund of China is taken.While for thepurpose of comparison of investment criteria for India and China in the study, the tier-1 type of New Pension Scheme of India and National Social Security Fund of China is analyzed.

Following table 1 provides a comprehensive view for comparing pension schemes of India and China under various bases such as retirement age,assets allocation and tax benefits.

Table-1 Comparison of Pension Schemes of India and China

Basis of Comparison	Rationale	India	China
Retirement age	Male Female	65 65	60 Blue Collar- 50 White Collar-55*
Asset Allocation	• Bank deposits and government bonds • Corporate bonds • Equities and funds • Alternate funds	15% 30% 50% 5% (maximum)	50% 10% 40% -
Tax benefits (80C)	• 80CCD(1) • 80CCD(1B) • 80CCD(2)	1.5 lakh and 10% of salary whichever is lower; Maximum limit 50,000 and for investment 2,00,000 For employer contribution	No additional tax benefit is available for pensioners.

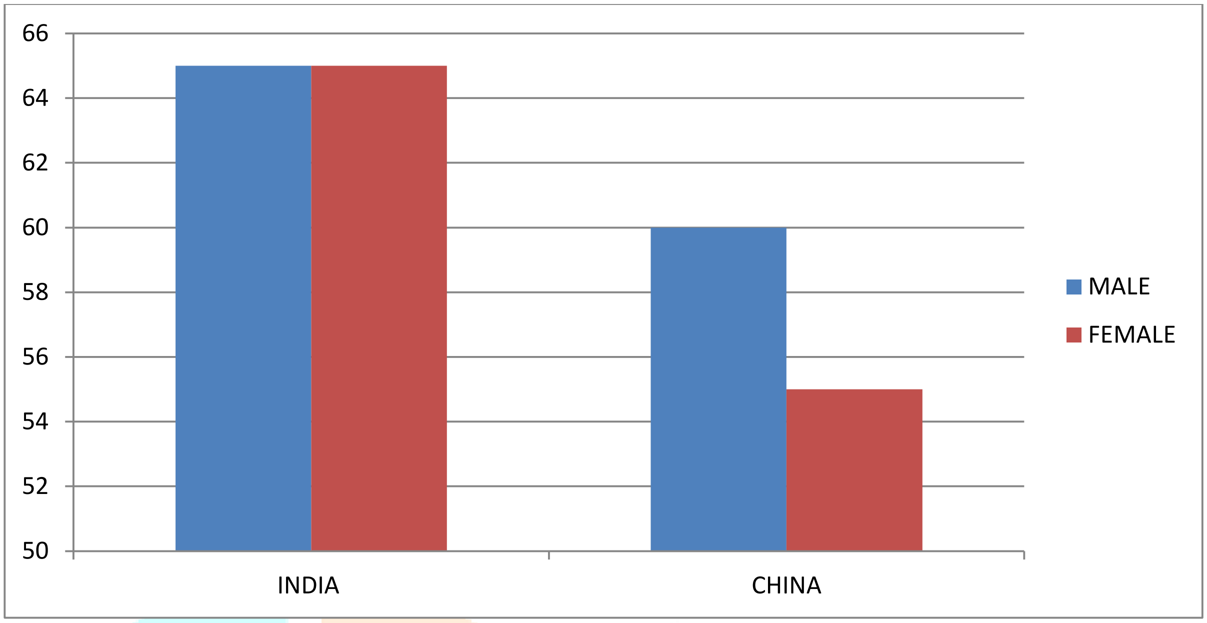
Source:Pension at Glance.2017: OECD And G20 Indicators OECD 2017

On the basis of Retirement Age of Pensioners

In both the countries, India and China, the retirement age of pensioners is categorized according to their gender i.e. Male & Female. The average retirement age in Indiais same i.e. 65 yearsforMale and Female. While in China the retirement age for male is 60 years while, for females the retirement age is based on their job such as white collar job and blue collar job. Thus the retirement age for female is 50 years for those who are in blue collar jobs and 55 years for those who are in white collar jobs.

Following graph 1.1 is showing the comparison of retirement age applicable for pensioners of India & China.

Graph 1.1- Retirement Age for Male and Female of India and China 2016

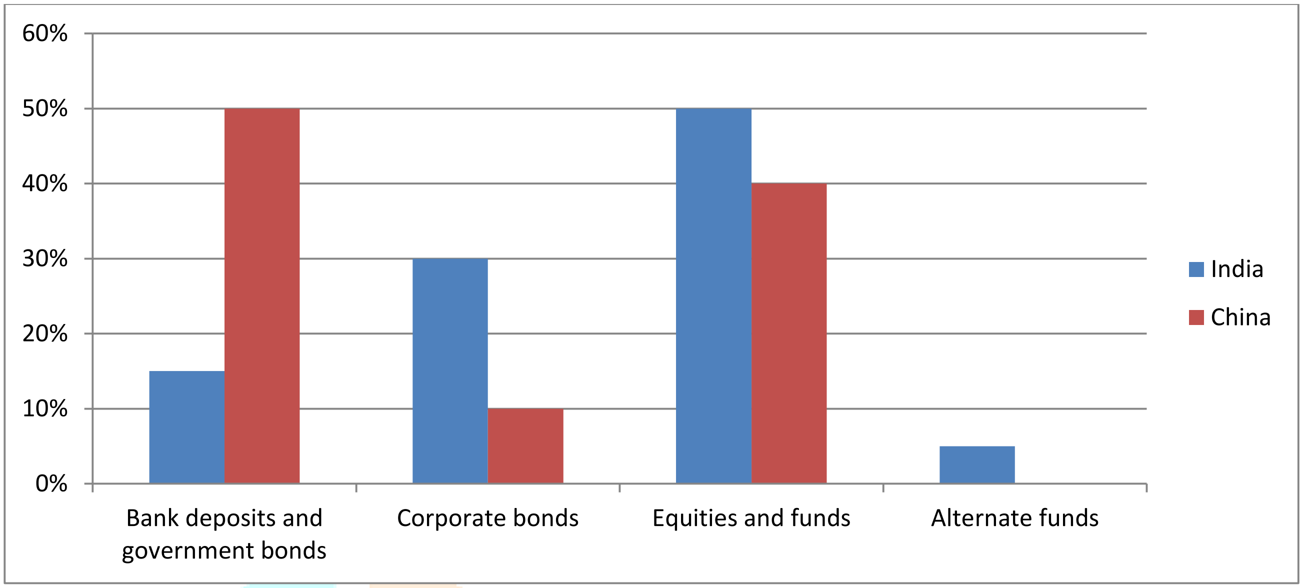


The above graph 1.1 shows that in India, both male and female will retire at the same age whereas in China the age of retirement is early i.e. 60 years for male and 55 years or 50 years in case of females. Thus it can be interpreted that in China, people are retiring at an early age comparing to India and applicable to receive pension amount from the NSSF.

On the basis of Assets Allocation

According to Tier-1 of New Pension Schemeof India, the person investing in pension schemes can withdraw only 20% of the contribution before the age of 60 years, and investor compulsorilyinvested remaining 80% of contribution in annuities and while, tier-2 is voluntary addition as same as saving account because amount can be withdrawn whenever the beneficial require.
On the other hand in the National Social Security Fundtotalcontribution by the investor is applicable for investments in annuities which are chosen by the investor on their risk desires. The investment in the pension scheme is either by directly invest in assets (bank deposits andgovernment bonds) or with the help of licensed investment managers which is approved by the ministry of human resource social security fund. The categories of assets allocation of investment in NSSF refers to “low risk”, “comparatively low risk”, and “high-risk high return investment” respectively.

Graph 1.2- Assets Allocation of Investment in India and China 2016



Above graph 1.2 is showing the amount (%) of investment in assets allocation by the pensioner of both the countries India and China, explained as below:

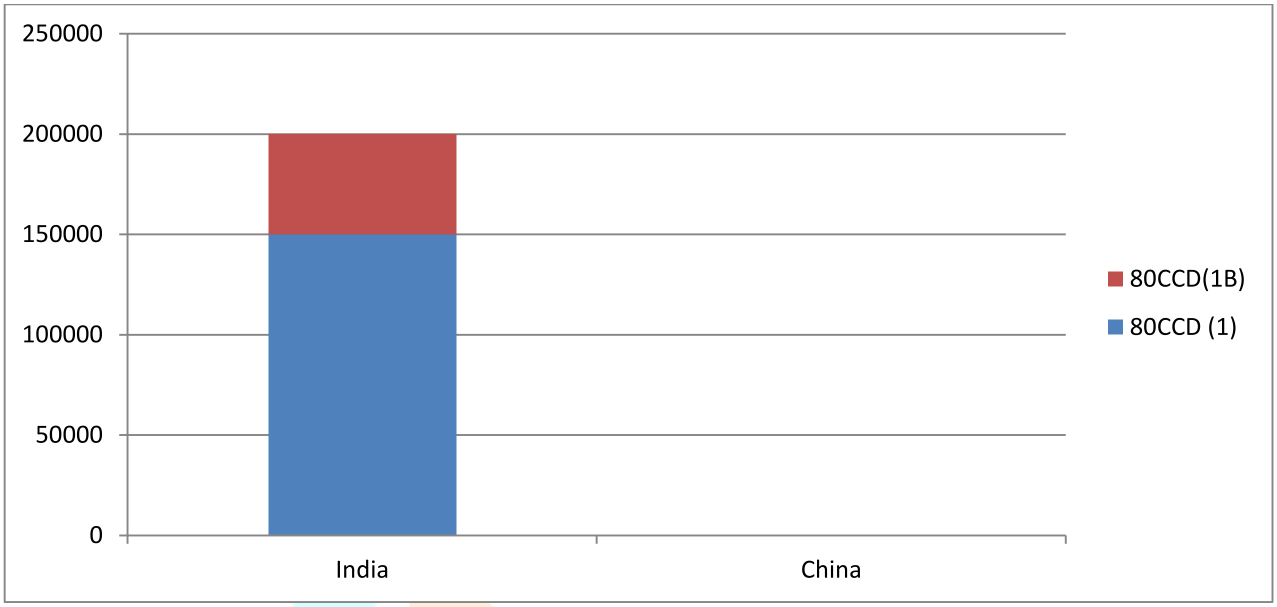
- For the bank deposits and government bonds the amount is 15% in India while in China it is 50%, which shows that in China the amount of pensioners is more secure comparing to India.
- For corporate bonds it is 30%in India while in china the pensioner could invest 10% in corporate bonds which indicates that in India majority of funds are utilizing for corporate developments.
- In equities and funds the amount forIndia's pensioner is 50%. While for China's pensionerit is 40%. This shows that in India pension funds are more in equity which is a riskier source whereas in China less funds would be put in equity.
- In alternate funds the maximum amount invested is 5% in India. But for china there is no specified limit for investment in alternate funds.

Tax Benefits

InNew Pension Scheme, pensioners are applicable for tax benefit under section 80C in which section 80CCD (1), 80CCD (1B) covered the benefit of self-contribution of a person in pension scheme. The overall limit of 80C is Rs. 1.5 lakhs, where an individual can claim 10% of annual salary or actual investment in pension fund, whichever is less, under section 80CCD (1) and the claimedamount should not exceed the overall limit of benefit. An individual can claim additional tax benefit under section 80CCD (1B), which has a maximum limit of Rs. 50,000. Thus, deduction in regarding of investment in pension scheme can be claimed up to Rs. 2 lakhs.

Section 80CCD (2) covered the employer contribution and deduction is limited to 10% of salary and no maximum monetary limit is specified. Under section 80CCD (1B) of Income Tax Act 1961, "the benefit of additional investment Rs.50,000 is deductible from taxable income. Any remittance to NPS up to 10% of the salary (Basic +Dearness Allowance) is deductible under taxable income u/s 80CCD (1) of the Income Tax Act, 1961 subject to a Rs. 1.5lakhs limit of section 80C". These tax benefits are not seenin any other investment options offered by the government.

Graph 1.3Tax Benefit for Self-ContributionUnderSection 80CLimit



Above graph 1.3 is related tothe NPS tax benefits while investing (for tier1 account) showing that:

- Under section80CCD (1), which is a subs section of 80C, an individual (10% of annual income) or an employee's (10% of basic +DA) contribution in pension scheme is applicable up to Rs.1.5 lakh for tax deduction, if not invested in any other scheme.
- Under section 80CCD (1B) there is the additional benefit of Rs.50,000 over and above limit of section 80C or claimed under section 80CCD(1).

In contrary to this, China has imposed many taxes on an individual with benefits but there is no additional tax relief was provided for pensioners.

This implies that in India, individuals will get more tax benefits by contributing in pension funds where as in China no such benefit is given to the individual for investing in pension fund.

In India, individual can further get benefit under section 80CCD(2) in which employer's contribution is also eligible for deduction. This benefit is not available for self-employedindividualsandunder following conditions, lowest amount is eligible for deduction:

(1) Actual contribution by Employer; (2) 10% of salary (basic +DA); (3) GrossTotal Income.

The above deduction is not the part of 80C limit and individual will get additional tax benefit if employer is also investing in pension fund of the employee.

On the contrary, if an enterprise in China provides enterprise annuity plans, there is a tax exemption available for employers i.e. 4% of wages. But there is no additional tax benefit is given to employee for their contribution.In recent years the tax system of China has been transformed and different type of taxes, which are common in other countries and engage actively in world trade, has adopted bythe country. But still tax system in China is unable to provide benefit to its country people which indicate that there is a requirement of a tax system which offers benefit to an individual at his old age.

Conclusion

The objective of this paper was to compare the pension schemes of two countries, India and China, on the basis of retirement age, assets allocation, and tax benefits. It has been found that both the countries have different reforms for pensions and providing benefits to its people in one or the other way. In India, both male and female are retiring at the same age whereas in China the age of retirement is early. Thus people in China are eligible for pension at an early age comparing to India, which may further helpful to maintain their desired quality of life. On the contrary part tax deductions are available for pensioners on their self-contribution amount and on the amount contributed by the employer under section 80C in India but in China, there are several taxes imposed on an individual with various benefits but for pensioners there is no additional tax relief is available. This shows that in India, people are self-motivated for contributing in pension fund due to tax benefits but such motivation does not exist in China. It is concluded that both the countries are generating benefits from the current pension schemes for its people. But it has been observed that both the countries need to develop their pension schemes for the benefit of the people. They may gain experience from the other country's pension plans or from the success and failure of their own initiatives related to pension schemes.

Limitation of the study

- The current paper is limited to two countries India and China only. Pension schemes of other countries are out of the purview of this paper.
- Pension reforms of a country can be analyzed with various perspectives. But variables in this paper arelimited, which have been extracted fromthe literature review and by taking care of common variables for both the countries.
- The current studyis limited for theperiod 2016; the changes taken place before or after this duration have been eliminated from the current study.

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