Asset Allocation for Retirement: Strategies for Risk Management and Growth

Zihan Zhao^{1,a,*}

¹Business School, Dalian University of Foreign Languages, Dalian, 116000, China a. 200161036@student.dlufl.edu.cn *corresponding author

Abstract: The US ex-president Franklin D. Roosevelt once famously said the test of our progress is not whether we add more to the abundance of those who have much, it is whether we provide enough for those who have too little. From the big picture, the aging problem has been or already slopped in many countries and regions. With the development of technology and healthcare, it is foreseeable to result in a longer lifetime and a healthier body, which should be good news for all human beings. However, the collateral costs are also unavoidably rising. By 2050, it is projected that one in six people in the world will be over the age of 65. This shift in demographics will have far-reaching social, economic, and political implications. Policies, like Social Security, National Pension System, National Insurance Scheme, etc., are all implemented based on the current economic environment, more to the point, the world is in a state of flux, and linear increment can never produce the order of magnitude achievements. To achieve real financial freedom, technical asset allocation may be a bite of the cherry, by financially operating retirement planning by almost any measure, can help to identify and mitigate more potential risks, achieve retirement goals and secure a financial future.

Keywords: retirement plans, pension, investment strategies

1. Introduction

In developing countries, mostly in Asia, the public retirement system is facing a more obstinate situation, especially in Japan, which has the oldest population in the world, with over 28% of its population aged 65 or older. Both Koran and China are also in the same way. Take China for instance, it is all the more imperative given its rapidly aging population, the repercussion of the 'one-child' policy has felt beyond the imagination of the government after being strictly implemented for more than 30 years.

Before the 'baby boom' happens, what the pension system has to deal with is the largest 'retirement boom' since the 'gaokao' system is reimplemented. Obviously, after one after another strikes the pension system is in the red for years. Even China has promised to gradually open its financial market since joining the WTO, however, from the perspective of people, owing to strong credit from the Chinese government, the public traditionally prefers to preserve their savings in some national banks instead of adept financial tools like bonds and insurance. Fortunately, with the development and normalization of the financial market, stocks, bonds, and insurance are gradually

^{© 2023} The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

playing a more important role in the retirement system, facilitating the pension system and corporate with some upholding policies like delayed retirement and stimulation of births.

Retirement planning is complex and subject to changes, which matches the policy and pension system, and typically works by the employer or government entity contributing money to a pension fund on behalf of the employee. This money is then invested in various financial instruments, and over time, the investments generate returns, which are added to the pension fund. When employees reach their retirement age, they can start receiving a regular pension payment from the pension fund. However, as a national retirement system, what the portfolio chosen to invest are always relative to infrastructure, national defense, and policy-directed realms, absolutely safer but less profitable. On the other hand, in the foreseeable 'low-rate' future, the rate of interest will go down continuously.

Inflation, shown in the increasing CPI, is contagious from both our wallet and the number of zero after the decimal point in price tags. Over 70% of Americans expressed serious concerns about its effect on their retirement savings plan, according to Fidelity's 2022 State of Retirement Planning study [1]. Furthermore, nearly one-third of respondents are uncertain how to ensure that their retirement savings keep pace with inflation. Worryingly, a significant number of people surveyed indicated that they had halted their retirement savings during the pandemic and do not plan to resume until conditions improve. This is a cause for concern, as high inflation and volatile markets make it more important than ever to develop and maintain sound financial habits for long-term financial stability. Now, Asset allocation is a crucial aspect of retirement planning as it can have a significant impact on an individual's retirement income and financial security. The main goal of asset allocation in retirement planning is to balance risk and return in a way that meets an individual's financial goals, while also taking into account their risk tolerance and time horizon.

To achieve long-term financial goals while managing risk, properly maneuvering asset allocation is important. Through Three dimensions (Time horizon, risk tolerance, and diversification), it is predictable to draft a routine for retirement planning. Compared with defined contribution plans, Hybrid Plans and Individual Retirement Accounts (IRAs) are more vital given more flexible financial tools can be adopted, and more profitable portfolios can be invested in promising industries.

2. Public Information

Generally, in the field of retirement planning, asset allocation strategy should shift towards more conservative investments as an individual approaches retirement age. This is because they will have less time to recover from any market downturns or losses. Common conservative investments for retirement planning include bonds, fixed-income securities, and cash equivalents. One commonly used rule of thumb is the 100 minus age rule, which suggests that an individual should subtract their age from 100 to determine the percentage of their portfolio that should be invested in equities [2]. For example, if someone is 65 years old, they would invest 35% of their portfolio in equities and the remaining 65% in more conservative investments. However, to technically optimize the return, the government has provided some room and loosened constraints for individuals to play their own tricks.

In addition to Social Security, in the US, the implementation of an Individual Retirement Account (IRA) is governed by the Internal Revenue Service (IRS) and the rules outlined in the Internal Revenue Code. Individual Retirement Accounts are personal retirement accounts that individuals can set up and contribute to on their own. Contributions may be tax-deductible, and the funds grow tax-free until retirement age. Basically, there are two types of IRAs, a traditional IRA, and a Roth IRA, the traditional IRA allows individuals to make contributions with pre-tax dollars, meaning the contributions are tax-deductible in the year they are made [3]. The earnings in the

account grow tax-free until withdrawal, at which point they are taxed as regular income. Individuals are required to begin withdrawing from their traditional IRA at age 72 and face penalties if they withdraw before then. On the other hand, a Roth IRA allows individuals to make contributions with after-tax dollars, meaning the contributions are not tax-deductible. However, the earnings in the account grow tax-free, and withdrawals are tax-free as long as they are qualified distributions, which generally means the account holder must be at least 591/2 years old and have had the account for at least five years and no required minimum distributions for Roth IRAs. Combined with Social Security and IRAs, there are also some Employer-sponsored retirement savings programs, such as the 401(k) plan, which is typically offered by employers as a benefit to attract and retain employees and can provide a valuable source of retirement income [4]. It is named after the section of the Internal Revenue Code that governs it. The 401(k) plans are also sometimes called "defined contribution" plans because the employer typically defines the amount of money that an employee can contribute. Employees can choose to have a portion of their paycheck withheld and deposited into the account. The money in the account can be invested in various ways, including stocks, bonds, and mutual funds.

China, on the other end of the earth, is trying to accelerate the process of marketability and enhancing the function of more financial tools implemented in the retirement market, as the current pension system is no more suitable to address the moment demographic changes. To further relieve the pressure from aging and retirement, the Chinese government has unveiled a new private pension system that enables individuals to deposit money into a personal pension account and invest in secure financial products [5]. The scheme is widely deemed to try to give the full-loaded pension system a breather. Different from the Personal pensions in the UK and the IRAs in North America, where the personal retirement concept has been cultivated and has largely opened to the financial firms in the market, the Chinese government sticks to products with "safe, mature and stable, have standardized objectives, and a focus on long-term value preservation" and confines the participations to a relatively high ruled range [6]. The private pension scheme is a relatively new development and is subject to strict regulations to ensure the safety and quality of the products offered to the public. While the scheme has been implemented in limited regions, as the market grows and regulators gain experience, it is expected to see the expansion of the scheme to more areas and the reduction of barriers for both companies and the types of products that can be offered. As the private pension market matures, it is foreseeable a wider variety of investment options will become available to individuals seeking to save for retirement.

3. Investment Strategies

There are three dimensions that deserve consideration, time period, risk tolerance, and financial goals.

3.1. Time Period

The first dimension is the time period also called the time horizon, when combined with retirement planning, age-based allocation is always unavoidable.

The younger, the more a portfolio invest in volatile assets like stocks, and with time passing by when getting closer to retirement age, it is wise to be more conservative and shift more to bonds and cash to help preserve savings. Logically, the capacity of withstanding the risk and downturn of the market will escalate as one approaches retirement. When comes to retirement, there is a further important concept that naturally complements, called target-date fund allocation. Technically, as a type of age-based asset allocation, it is implemented through a specific type of mutual fund known as a target-date fund, Target-date funds are designed to be a one-stop investment solution for

retirement planning, with a mix of stocks, bonds, and other investments that are automatically adjusted over time to become more conservative as the target date approaches.

In comparison, One of the key differences between age-based allocation and target-date fund allocation is the level of customization. Age-based allocation is typically implemented by working with a financial advisor who can help to create a personalized investment plan based on one's unique goals and risk tolerance. Target-date funds, on the other hand, are designed to be a one-size-fits-all solution that is appropriate for investors with similar retirement goals.

Another difference between the two strategies is the level of control over the investments. With age-based allocation, individuals have more control over the specific investments in the portfolio and can make adjustments as needed based on changes in their financial situation or market conditions. With target-date funds, take 401(k) plan, for example, the fund manager makes all investment decisions, so there will be less space for control in the duration.

3.2. Risk Tolerance

The next dimension is risk tolerance, it refers to an individual's ability and willingness to take on financial risk, acting as a measure of how much risk an individual is comfortable with when investing their money. It is influenced by a variety of factors, including an individual's age, financial goals, investment experience, and personal circumstances.

Risk-based allocation works when taking 'risk' as the subject asset during the planning. Influenced by a variety of factors, it includes a wide range from an individual's age, financial goals, and investment experience, to even personal circumstances. Plans and tools that are implemented are all designed to satisfy individuals' financial goals, so the first thing first is to consider the investment motion and estimated achievement, take retirement planning for instance, by judging the flexibility of your income, estimated time period, or combination of both, it can help to roughly determine the degrees and classes of the portfolio to set up a buffer for risk. The next step is the evaluation of the financial situation, the current includes one's income, assets, and debts, these statistics can serve as a reference to predict a benchmark for risk tolerance.

More often to the time, the three dimensions are inter-winded, which was discussed before. Time horizon also deserves consultancy. It is common practice to view Treasury bills as the 'Risk-free asset', however, from the perspective of finance, even the default-free guarantee by itself is not sufficient to make the bonds 'risk-free' in real terms, without the presence of a time horizon, even the FEDL01 can be greatly ups and downs. But if a longer period is concluded, the changes in interest rates, inflation expectations, and economic conditions will not cause huge fluctuation. Moreover, The longer the time horizon, the more risk individual may be able to take on, and the more time available to ride out market fluctuations. To help clients get a more specific risk aversion, many financial firms and institutions designed quizzes to make assessments and provide a risk tolerance score or range.

More to the point, it is important to notice that there is no right or wrong level of risk tolerance. It is a personal preference that varies from individual to individual. It is also important to periodically reassess the risk tolerance and adjust portfolios accordingly as real circumstances change over time.

3.3. Diversification

One last dimension is Diversification. Roma is not built in one day, the diversified application of IRA also has a long way to go, just like the primary goal of portfolio construction: Achieve a balance between risk and return' which is also compatible with retirement planning [7]. Compared with diversification, it is hedging that actually runs the underlying logic. From another point of

view, it can take stocks for example, when allocating those which enjoy great market depth, it is obvious to find a big variance between different stocks in different markets in both the Markowitz model and the Index model. What can be generated is: When shifting wealth from a risky portfolio to a risk-free asset, it is less useful to adjust the relative proportions of the assets in the portfolio, but reduce the relative weights of the portfolio as a whole.

Overall, diversified asset allocation is an important aspect of retirement planning. By spreading investments across multiple asset classes, it can help reduce risk, increase long-term growth potential, generate income, and maintain flexibility in a retirement portfolio.

4. Recommendation

Benefits should be weighted against costs, retirement policy in the worldwide are all designed to periodically satisfy the demand of the citizens, only continuous updates can make the policies match with the whole society and government mechanisms. The most typical comparison is between the US and China, it's more like the difference between Social Security and State-run Pension System, in the United States, Social Security is the main retirement program, which is funded by payroll taxes and provides benefits based on a worker's earnings history. In China, the State-Run Pension system covers both urban and rural residents and is financed by contributions from employers and employees.

The aging problem can be prioritized in the burden list of the Chinese pension system, the Opening-up policy does have accumulated a good amount of social wealth in the more than past 40 years, but now, with the gradual receding of the demographic dividend, factors such as competition among major powers, anti-globalization, historical border issues, and local instability have brought more uncertainty to China's population and pension policies. Due to the special supervision in the financial sector, doubts from the public have been growing concerning the future reform of the pension system.

Personally, the root of the problem is entitlements. The situation in the US is the government has been crippled by social security, Medicare, Medicaid, welfare, by entitlements [8]. In spite of tax payroll, as well-developed human beings, what individuals are entitled to our jobs. America was built on the spirit of industry, people build their future instead of the handle. While the systems in each country have different strengths and weaknesses, they share common concerns about funding, sustainability, and adequacy of benefits. The worldwide retirement policy may vary from each other, but the underlying logic is always to gather social funds, invest in public utilities and gain profits from them. To be more profitable, technically wielding asset allocation is more efficient [9]. Besides combining the three dimensions discussed above, it is essential to rebalance regularly, over time, the portfolio may drift away from the desired asset allocation due to market fluctuations. It's important to rebalance to bring it back to the target allocation. Besides, liquidity also matters. While it's important to have a diversified portfolio, it's also important to have some assets that are easily accessible in case of an emergency [10]. It needs to be confirmed there are enough cash or other liquid assets to cover unexpected expenses.

Asset allocation is just a body aspect of personal retirement planning. There are also some components that deserve further consideration such as one's retirement income needs, Social Security benefits from SSA, and other sources of income when developing the overall retirement plan.

5. Conclusion

The world is in a state of flux, it is hard to tell whether potential risks or tomorrow will come first. However, what can be ensured is the finance market will face more indeterminacies, given

foreseeable geopolitics, local conflicts, and globalization. The ebb and flow of the US dollar settlement system and the RMB settlement system will cause more friction, which will widely spread from all walks of life. To build a buffer fully prepared, it's important to note that asset allocation should be personalized to an individual's specific financial situation, goals, and risk tolerance. Every single choice has its own pons and cons. The most important concept of diversification is discussed above, for example, when risks are dispersed, the possible profits are also dispersed, some underperform may lead to lower returns and comparatively high costs both physical and mental. While diversification has some drawbacks, however, there is no denying that its benefits typically outweigh its downsides. So Working with a financial advisor, and regularly reviewing and rebalancing an investment portfolio can ensure that it stays aligned with an individual's long-term goals and changing market conditions. By taking these measures, it is accessible to optimize asset allocation for retirement planning and help ensure a more secure financial future.

References

- [1] Traditional or Roth IRA? What's best for you. Fidelity. https://www.fidelity.com/viewpoints/retirement/traditional -or-roth-ira, last accessed 2023/4/1.
- [2] Rule of 100 minus your age. https://www.bankofbaroda.in/banking-mantra/thursday-thoughts/infographics/rule-of-100-minus-your%20age#:~:text, last accessed 2023/4/1.
- [3] Kilgour, J. G.: The Role and Importance of Individual Retirement Accounts. Compensation & Benefits Review (2020).
- [4] Bassett, W. A., Fleming, M. J., & Rodrigues, A. J.: How workers use 401(k) plans: the participation, contribution, and withdrawal decisions. National Tax Journal 51(2), 263–289 (1998).
- [5] China Private Pension Scheme Which Companies Can Take Part? China Briefing News. https://www.china-briefing.com/news/china-private-pension-scheme-who-can-take-part/, last accessed 2023/4/1.
- [6] China Pension Schemes: Private Plan Opens New Opportunities. China Briefing News. https://www.china-briefing.com/news/china-pension-schemes-private-plan-opens-investment-opportunities/, last accessed 2023/4/1.
- [7] Belief 5: Portfolio construction. Invest Blue. https://www.investblue.com.au/belief-5-portfolio-construction, last accessed 2023/4/1.
- [8] Fact Sheet: By The Numbers: Millions of Americans Would Lose Health Care Coverage, Benefits, and Protections Under Congressional Republicans' Plans. The White House. https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/01/fact-sheet-by-the-numbers-millions-of-americans-would-lose-health-care-coverage-benefits-and-protections-under-congressional-republicans-plans/, last accessed 2023/4/1.
- [9] Wray, J., Jones, O., McCaffrey, C. R., & Krumbmüller, F.: Prepare now for the new era of globalization. EY Global (2022).
- [10] Upson, R. B., Jessup, P. F., & Keishiro Matsumoto.: Portfolio Diversification Strategies. Financial Analysts Journal 31(3), 86–88 (1975).