A Brief Guide to Postdoc Retirement

NGAPS+

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Disclaimer

This guide is provided by NGAPS+ for informational purposes only. This document is provided as a guide to retirement accounts and investing in general, aimed at postdocs and early career scientists who don't have access to employer-sponsored retirement plans. This guide is not official NASA GSFC recommendations and GSFC is not responsible for the conditions and accuracy of the information provided.

Introduction

If you're new, we would like to first welcome you to Goddard! We hope that we motivate you to take the big step towards building your solid and prosperous financial future. You're probably inundated with onboarding, so as the name implies, this brief postdoc retirement guide is meant to be an easily digestible guide to retirement options for postdocs at GSFC. That said, this document's scope limits us to a broad overview, but we included references in case you need clarification or you want to do more research. Also, because many of the authors of this guide are part of the NPP program, and because it does not have an employer-sponsored retirement account, this guide focuses only on investment accounts accessible to individuals. First off, let's clarify the difference between saving and investing:

- **Saving**—placing the difference of your earnings and spending into a bank's savings account. A savings account is useful for short-term goals, and is insured by the US government as long as your account stays under the Federal Deposit Insurance Corporation (FDIC) limits. Your savings will either barely keep up with, or be slowly eroded by inflation.
- **Investing**—buying assets that grow in value such as individual stocks, property, mutual funds, or index funds for long-term saving goals. Unlike saving, your investments are not insured by the US government, but in general the rate of return is higher over a long time period.

The choice between saving and investing boils down to your goals, risk tolerance, and financial situation. The general advice is to have a 3-6 month emergency fund saved before you start investing.

The Three Steps To Investing

If you read this far then perhaps we have your attention. So how do you start investing? You need to take the following three steps that are expanded on below:

1. choose a company to invest with,
2. open an investment account, and
3. buy assets.

Step 1: Choose a company to invest with

Your first first step is to pick a company to hold your investments with. There are many investment companies out there and it is beneficial to research a few of them to learn what they offer. We suggest that you search for “retirement account companies”, or a something query, to learn more about investment companies (in order to be impartial, we won’t explicitly mention any companies here).

Step 2: Open an investment account

The next step is to open an investment account with the investment company you chose in the previous step. The accounts that we describe below fall into two broad categories: tax-advantaged and other. The difference lies in how the Internal Revenue Service (IRS) taxes the money that you *contribute*, *earn* (via interest and dividends), and *withdraw*. Tax-advantaged accounts are typically better from a tax point of view, but you have to abide by rules.

Individual Retirement Account (tax-advantaged)

An Individual Retirement Account (IRA) is a tax-advantaged account that is yours (in contrast to an employee-sponsored account) so you have it independent of your job. Before we dive into the details let’s first address a misconception: you may have heard that as a postdoc you don’t qualify for an IRA because you receive a stipend and not an income. As of 2019 this is no longer an issue! Thanks to the Graduate Student Savings Act of 2019 you can contribute to an IRA even if you earn a stipend. How much you can contribute depends on your income and age, but say if you're an NPP who is younger than 50 years old, the annual contribution limit is $6,000 in 2021. You may have multiple IRAs so be aware that this is a combined limit for all contributions to IRAs that you hold, not $6,000 per IRA.

There are two main types of IRAs: a **Traditional IRA** and a **Roth IRA**. There are numerous differences summarized by the IRS and by Charles Schwab, but the main difference is from a tax point of view. Let's be clear: one way or another you will pay taxes on the money you invest in an IRA. For a Traditional IRA you can defer your taxes by contributing your pre-tax earnings (you deduct it when you do your taxes) and your *distributions* are taxed, while for a Roth IRA you pay taxes up front and you can avoid taxes and fees when you take out *distributions* if you follow the rules. In general you can take out Roth IRA *contributions* whenever, tax and penalty free.

The choice between a Traditional and a Roth IRA boils down to if you want to pay taxes now or later. If you expect that you're in a higher tax bracket now as compared to in retirement, a Traditional IRA is advantageous; on the other hand, if you expect your retirement tax bracket to be higher, a Roth IRA is advantageous. Another difference is that you can take out your Roth IRA *contributions* (not *earnings*) at any time, tax and penalty free, but for a Traditional IRA you have to pay fees and taxes. For more information, this investopedia article dives into the pros and cons of choosing a Roth vs a Traditional IRA. If you end up withdrawing your Roth IRA contributions, you can re-deposit all of the funds within 60 days. After 60 days, you can re-deposit some of the funds, as long as you stay under the total annual contribution limit.

Be aware that the IRA rules (i.e., contribution caps, and tax deductions) change once you're married, get an employer-sponsored account, or your earnings exceed limits.

By this point you may be feeling analysis paralysis and be overwhelmed by the details of each IRA account. But as the saying goes, "perfect is the enemy of good" so it is more important that you open and contribute to an IRA than to "get it perfect" on the first try. Open an IRA account today and set up automatic transfers and investments. Your future you will thank you! As a last reminder, the exact IRA rules can get complex and they change, so double check them before you make a significant financial decision! See the IRS.gov website for the overwhelming details.

Health Savings Account (tax-advantaged)

Another popular account that can help you offset medical expenses as you grow older is a Health Savings Account (HSA). The benefit of this account is that it allows you to contribute $3,550/year (for the 2020 tax year) and the contribution is never taxed if you spend it on qualifying medical expenses. This money rolls over the year. You can invest this money, so if you don't have large medical expenses now you can let your contributions grow.

To be eligible for this account you must be covered by a high deductible health insurance with a minimum deductible of $1,400 (for a single person filing in the 2020 tax year). For more information see the IRS.gov publication p969.

Brokerage Account

If you maxed out your IRA, or you don't want to tie up your money in an account with complex rules, a brokerage account may be a good option. This account is usually offered by the same companies that offer IRAs. Brokerage account gives you full flexibility: no maximum contribution, you can invest in any fund, and you can take out your contributions and earnings at any time. But this flexibility comes with a cost: you have to pay taxes on dividends every year, and pay either short term or long term capital gains taxes on the earned interest (long term means assets held for longer than a year).

Step 3: Buy assets

This can be done as frequently as you want (monthly, annually, etc), and you can even automate your investing. For example, every month you can have a set amount transferred from your bank and invested. This will remove your doubts with investing, typically fueled by sensational news, and has the side benefit of dollar cost averaging. It is worth emphasizing that you will need to automate both your bank transfers to your account and asset purchases.

When you start investing you will have an endless sea of assets to choose from: property, stocks, bonds, bills, mutual funds, index funds, etc. and your investment decision is personal. Bonds and bills, such as Treasury bills, offer a rate of return of up to a few percent, and your money is usually locked away for a fixed time period. On the other hand, you can own individual stocks, or a collection of stocks in mutual funds and index funds.

You can own individual stocks, but that is generally ill-advised because it is difficult to predict what companies are going to do well. In hindsight, it is extremely easy to identify what companies you *should* have invested in! You can read up on Reddit's Wall Street Bets to appreciate how unpredictable and speculative investing in individual stocks can be.

You may have heard of the phase: "don't put all of your eggs in one basket", or something similar. In the investing world this means diversifying your investments over many, up to thousands, of stocks. The easiest way to diversify your investments is to buy **mutual funds**: a collection of assets. Mutual funds can be actively managed, that is, the investment company actively picks stocks to try to outperform the market, and some funds are passively managed.

Index funds are a category of mutual funds, they are passively managed, and their goal is to only track an economic index. There are many indices with a corresponding index fund out there, but the three common ones in the US are: the Standard & Poor's 500 (S&P 500), the Dow

Jones Industrial Average (called DJIA, Dow Jones, or simply Dow), and the Nasdaq Composite (NASDAQ). Let's see how the S&P 500 works.

The S&P 500 index measures the stock performance of the top 505 US companies. This way, if one company goes bankrupt and falls off the S&P 500, the company next in line will then take its place. You can think of the S&P 500 as a self-cleansing system that keeps you invested in hundreds of successful companies. **In general, index funds are relatively "boring", but you can expect a modest interest rate. For example, historically the average annual return for the S&P 500 index was 8% (7% when adjusted for inflation).**

The last fund type that we will mention is a **Target-Date Retirement Fund**. These funds hold a combination of stocks and bonds according to your planned retirement year. They are weighted towards stocks when you're young and have time to recover from market crashes, and towards bonds as you approach your retirement date and need a more stable investment income.

Be aware that investing with a company has fees---that is, after all, how they stay in business! If you go with actively-managed funds, it is ideal to look for funds that are No-Load and have an expense ratio fee that is way under 1%. Why? Well, if your investment earns 5% interest in a fund that has a 1% expense ratio fee, then you will earn 4%. Thus, this 1% fee is deceivingly small because in reality it takes away a whopping 20% of your earnings! Passively-managed funds, on the other hand, traditionally have much lower fees than mutual funds. For example, Charles Schwab's SWPPX index fund (Schwab's equivalent of the S&P 500 index fund) has a 0.02% expense ratio. For this reason, once you account for the fund's performance and fees, passive index funds often outperform actively-managed mutual funds.

Considerations for International Postdocs

Unfortunately, with our limited experience, we can not provide accurate investment information for international postdocs. Furthermore, everyone's situation is unique and requires a tailored approach. That said, the Providing Benefits for Postdocs Guide contains some advice for international postdocs.

Conclusion

That is it! We hope that we gave you the inspiration and knowledge for you to open an investment account to save for retirement. Your future self will thank you for starting early and taking advantage of decades of investment growth in your career. Lastly, please see an investor.gov brochure on investing.

We would like to leave you with an inspiration quote from *The Simple Path to Wealth* by JL Collins: "Your future is so bright it hurts my eyes to look at it."

Useful References

- How to open an IRA:
  - With Vanguard (Vanguard is owned by the funds managed by the company and is therefore owned by its customers)
  - With Fidelity
  - With Charles Scwab
- Similar retirement guides:
  - Providing Benefits for Postdocs Guide
  - Investor.gov, Saving and Investing
- Books:
  - “The Simple Path to Wealth” by J. L. Collins
  - “Your Money or Your Life” by Vicki Robin and Joe Dominguez
- Still have questions and/or need professional advice? NASA Credit Union provides free consultations with *advisors* to learn which retirement plans are available to you and find out which is best for you.

Bibliography (Links in the order they appear)

- FDIC - https://www.fdic.gov/resources/deposit-insurance/
- here - https://investorjunkie.com/stock-brokers/vanguard-vs-fidelity-vs-charles-schwab/
- Graduate Student Savings Act of 2019 - https://www.congress.gov/bill/116th-congress/house-bill/1194
- IRS - https://www.irs.gov/retirement-plans/traditional-and-roth-iras
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- Target-Date Retirement Fund - https://www.investor.gov/introduction-investing/investing-basics/investment-products/mutual-funds-and-exchange-traded-6
- No-Load - https://www.investopedia.com/terms/n/no-loadfund.asp
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- SWPPX - https://www.schwabfunds.com/products/swppx
- passive index funds often outperform actively-managed mutual funds - https://www.cnbc.com/2020/11/24/heres-when-active-mutual-funds-tend-to-outperform-index-funds.html
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