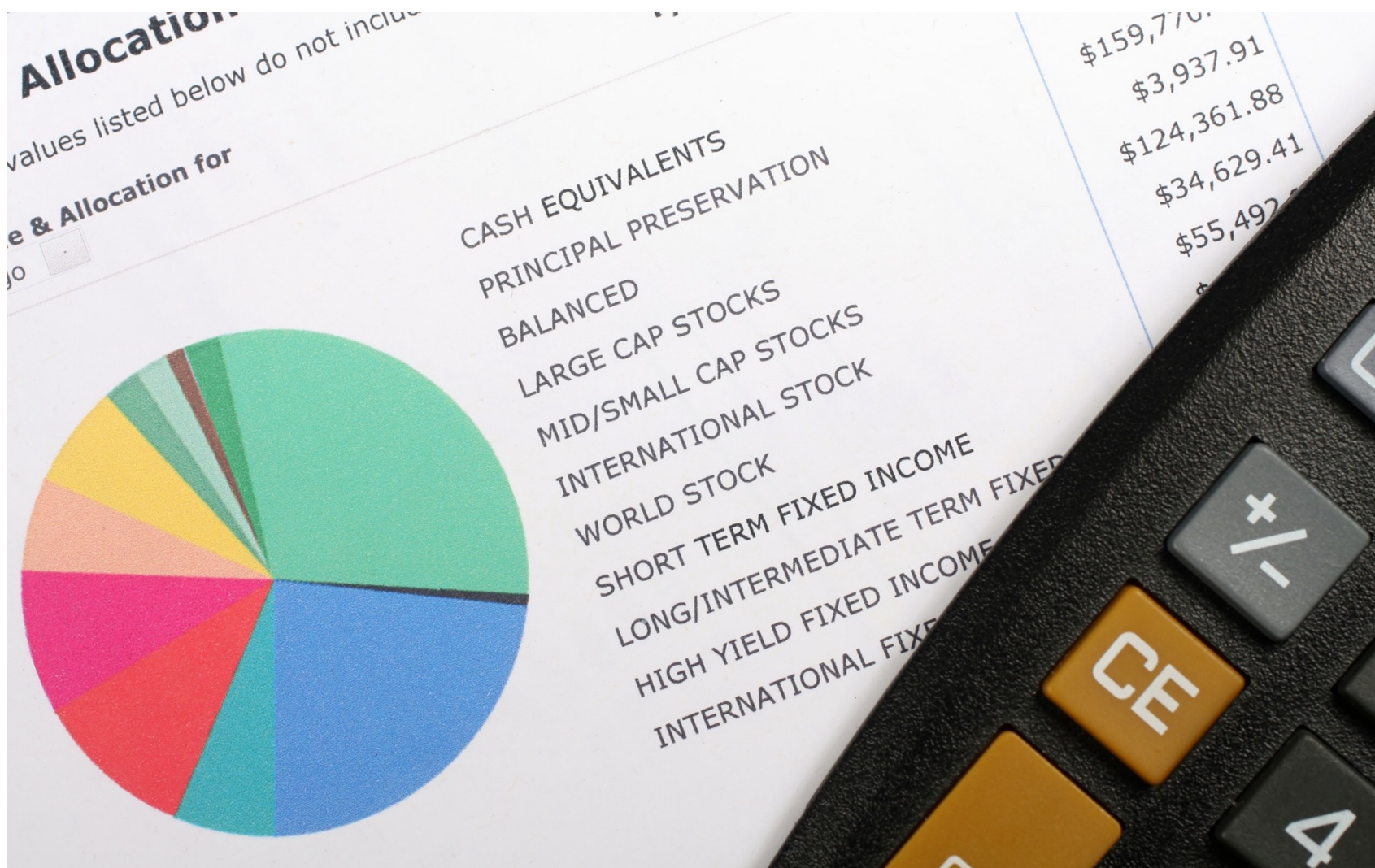
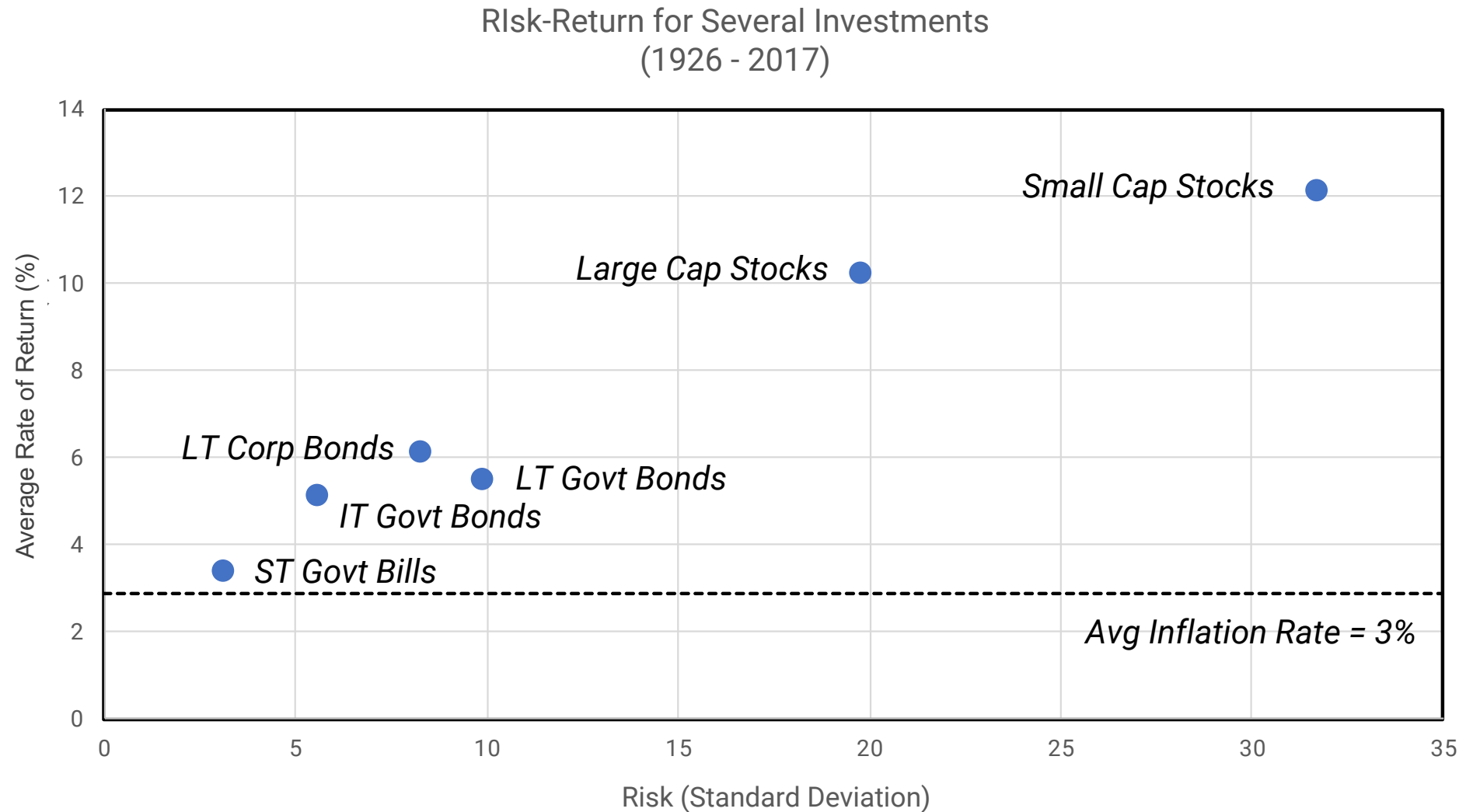


# Building Your Retirement Portfolio

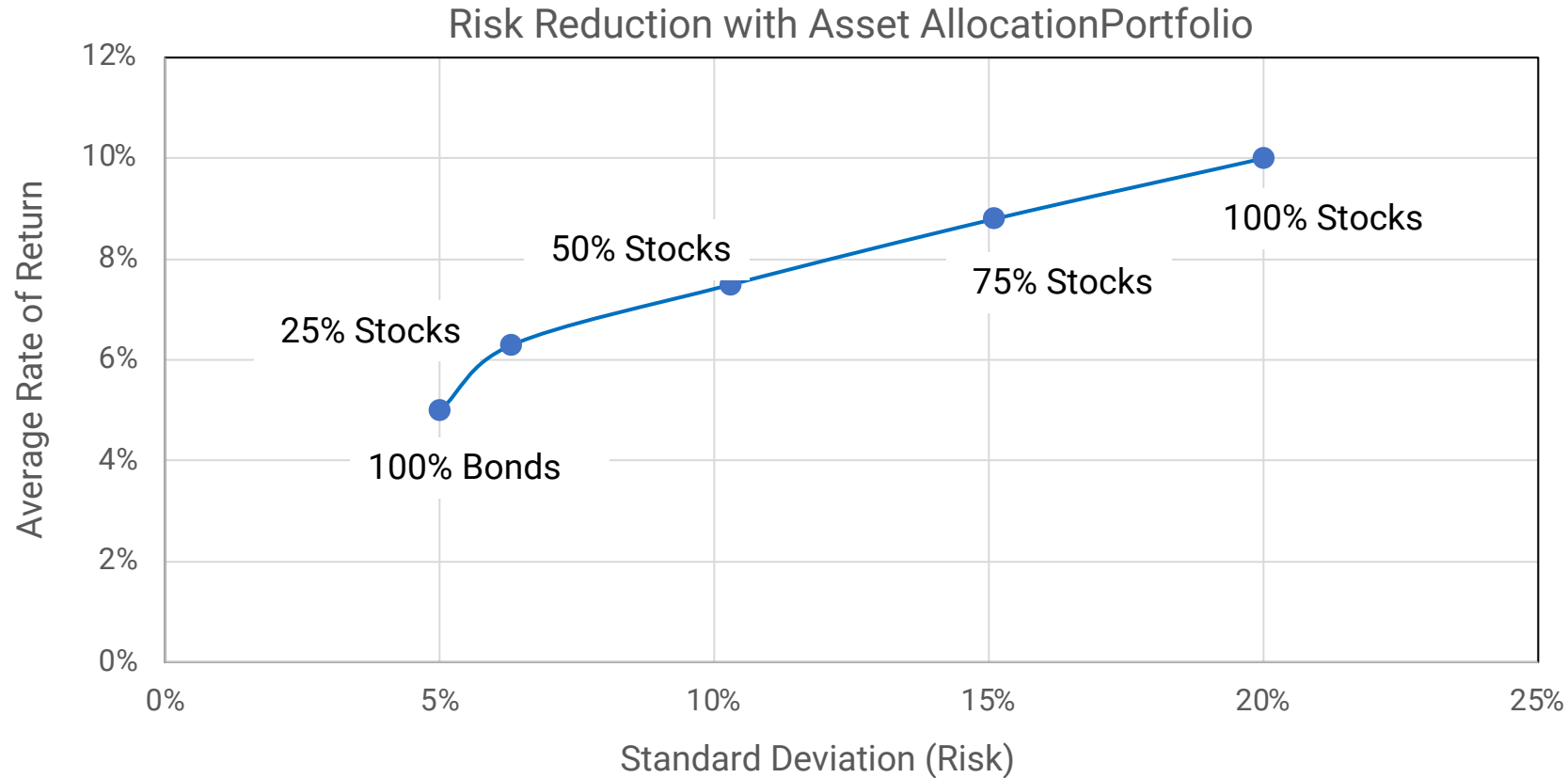


# Risk – Returns for Investment Types



# Risk Mitigation: The Portfolio Concept

*Asset Allocation: identifying the % of each fund you want*



Blending your assets can lead to large reduction in risk without much loss in return!

# Asset Allocation Strategies

Asset Allocation: investing in several types of funds minimizes variability (risk) and establishes the portfolio's anticipated rate of return.

The process involves answering 2 questions:

How many different asset classes do you want to own?

*the more asset classes you own, the more complex your portfolio...*

How much risk do you want to take?

*long way to go: you can accept greater risk (higher returns)*

*almost there: very little risk (lower returns)*

*Most portfolios end up a mix of stock funds and bond funds:*

- Stock Funds: higher returns but higher risk*
- Bond Funds: lower risk but lower returns*

# Asset Allocation Strategies

Asset Allocation: investing in several types of funds minimizes variability (risk) and establishes the portfolio's anticipated rate of return.

The process involves answering 2 questions:

*Higher Returns: More Stock Funds than Bond Funds*

*Lower Risk: More Bond Funds than Stock Funds*

*almost there: very little risk (lower returns)*

*Most portfolios end up a mix of stock funds and bond funds:*

- *Stock Funds: higher returns but higher risk*
- *Bond Funds: lower risk but lower returns*

# Building Your Retirement Portfolio

*Let's say you want to retire in 40 years...*

You can tolerate considerable risk because your time horizon is long enough to ride out any downward market blips.

## *One Possible Investment Portfolio:*

Total US Stock Market Fund:	60%
Total International Stock Fund:	30%
Total US Bond Fund:	7%
<u>Total International Bond Fund:</u>	<u>3%</u>
Total:	100%

Stocks: 90%

Bonds: 10%

Risk Level: High

Expected Return: 8-10% (or more)

# Building Your Retirement Portfolio

*Let's say you want to retire in 5 years...*

You can't tolerate much risk because your time horizon isn't long enough to ride out any downward fluctuations.

## *One Possible Investment Portfolio:*

Total US Stock Market Fund:	40%
Total International Stock Fund:	20%
Total US Bond Fund:	30%
<u>Total International Bond Fund:</u>	<u>10%</u>
Total:	100%

Stocks: 60%

Bonds: 40%

Risk Level: Moderate

Expected Return: 4-6%

# Building Your Retirement Portfolio

*Let's say you are already retired...*

You can tolerate NO risk because you are now living off your investments.

## *One Possible Investment Portfolio:*

Total US Stock Market Fund:	20%
Total International Stock Fund:	10%
Total US Bond Fund:	40%
Total International Bond Fund:	10%
<u>Short-Term Treasury Bonds:</u>	<u>10%</u>
Total:	100%

Stocks: 40%

Bonds: 60%

Risk Level: Low

Expected Return: 2-4%

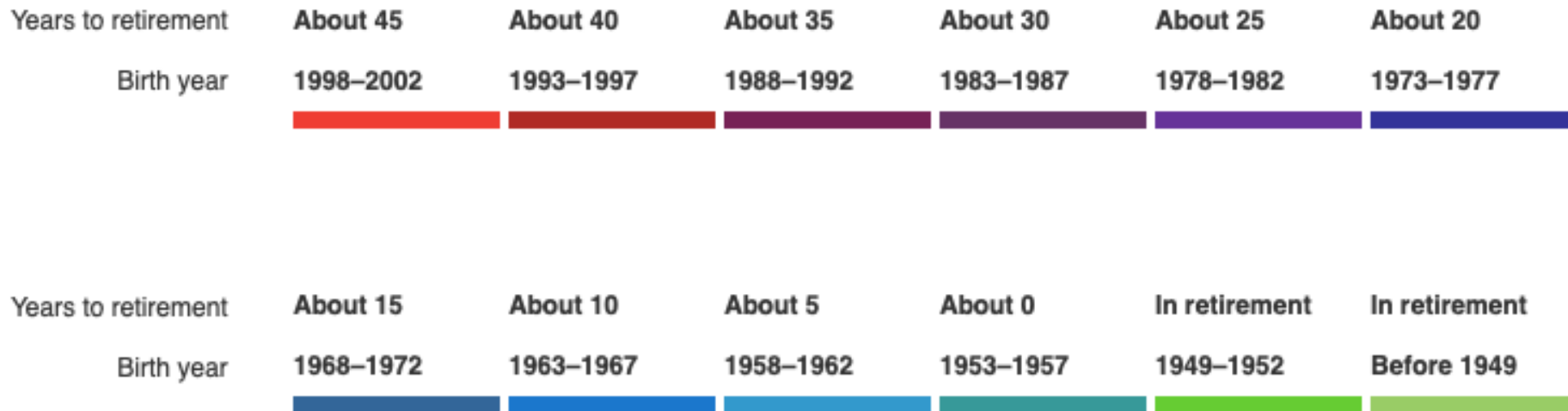


# Target Retirement Funds

*Do your homework, or let someone else do it for you...*

## Which Target Retirement Fund fits your timeline?

Find out by starting with either the number of years until you expect to retire or your current age. Then select the corresponding bar to get details about the Target Retirement Fund we believe best matches that time frame.



Several fund companies now offer pre-set portfolios with specific risk-return profiles.

# Target Retirement Funds

## Target Retirement 2055 Fund...

- Designed for investors in their 30s.
- Asset Allocation:
  - 90% Stock Funds
  - 10% Bond Funds
- Return since 2010: 11%
- “Moderate to High” Risk
- Low Expense Ratio: 0.15%

### Vanguard Target Retirement 2055 Fund (VFFVX)

Overview	Price & Performance	Portfolio & Management	Fees & Minimums	Distributions	News & Reviews
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#### Product summary

Vanguard Target Retirement Funds offer a diversified portfolio within a single fund that adjusts its underlying asset mix over time. The funds provide broad diversification while incrementally decreasing exposure to stock and increasing exposure to bonds as each fund's target retirement date approaches. The funds continue to adjust for approximately seven years after that date until their allocations match that of the Target Retirement Income Fund. Investors in the funds should be able to tolerate the risks that come from the volatility of the stock and bond markets. You may wish to consider this fund if you're planning to retire between 2053 and 2057.

[View prospectus and reports](#)

#### Fund facts

Asset class	Life-Cycle
Category	Target-Date 2051+
Acquired fund fees and expenses as of 01/31/2021	0.15% This is <b>68% lower</b> than the average expense ratio of funds with similar holdings.*
Minimum investment	<b>\$1,000</b>
Fund number	1487
CUSIP	92202E847
Fund advisor	<a href="#">View advisor details</a>

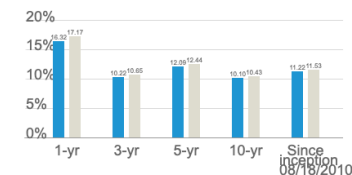
#### Price and yield

Price as of 03/17/2021	\$52.08
Change	<b>\$0.15 + 0.29% +</b>
30 day SEC yield as of 02/28/2021	1.58% <b>B</b>

#### Performance

Average annual returns as of 12/31/2020

Show **Quarter-end** Month-end [View as a table](#)



■ Target Retirement 2055  
■ Target Retirement 2055 Composite Index

#### Risk potential



[How the potential for risk affects your investment](#)

Hypothetical growth of \$10,000 as of 02/28/2021



# Target Retirement Funds

## Target Retirement 2055 Fund...

### Product summary

Vanguard Target Retirement Funds offer a diversified portfolio within a single fund that adjusts its underlying asset mix over time. The funds provide broad diversification while incrementally decreasing exposure to stock and increasing exposure to bonds as each fund's target retirement date approaches. The funds continue to adjust for approximately seven years after that date until their allocations match that of the Target Retirement Income Fund. Investors in the funds should be able to tolerate the risks that come from the volatility of the stock and bond markets. The 2055 fund invests in 4 Vanguard index funds, holding approximately 90% of assets in equities and 10% in bonds. You may wish to consider this fund if you're planning to retire between 2053 and 2057.

*So this Target Retirement Fund will automatically rebalance the % of stock funds and bond funds over time.*

### Portfolio composition

**Allocation to underlying funds**  
as of 02/28/2021

#### Ranking by percentage

1	Vanguard Total Stock Market Index Fund Investor Shares	54.00%
2	Vanguard Total International Stock Index Fund Investor Shares	36.30%
3	Vanguard Total Bond Market II Index Fund Investor Shares†	6.70%
4	Vanguard Total International Bond Index Fund Investor Shares	2.90%
5	Vanguard Total International Bond II Index Fund	0.10%
<b>Total</b>		<b>100.00%</b>

# Target Retirement Funds

## Target Retirement 2055 Fund

### Portfolio composition

#### Allocation to underlying funds

as of 02/28/2021

#### Ranking by percentage

1	Vanguard Total Stock Market Index Fund Investor Shares	54.00%
2	Vanguard Total International Stock Index Fund Investor Shares	36.30%
3	Vanguard Total Bond Market II Index Fund Investor Shares†	6.70%
4	Vanguard Total International Bond Index Fund Investor Shares	2.90%
5	Vanguard Total International Bond II Index Fund	0.10%

90% Stocks, 10% Bonds  
10-Year Return: 11%

## Target Retirement 2025 Fund

### Portfolio composition

#### Allocation to underlying funds

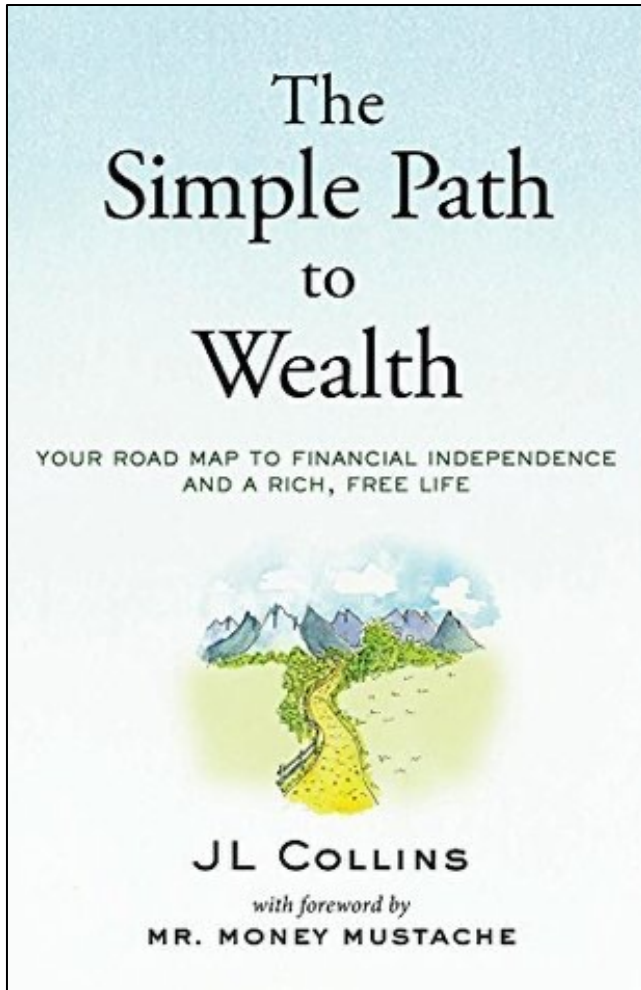
as of 02/28/2021

#### Ranking by percentage

1	Vanguard Total Stock Market Index Fund Investor Shares	35.10%
2	Vanguard Total Bond Market II Index Fund Investor Shares**	28.40%
3	Vanguard Total International Stock Index Fund Investor Shares	23.70%
4	Vanguard Total International Bond Index Fund Investor Shares	12.00%
5	Vanguard Short-Term Inflation-Protected Securities Index Fund	0.80%

60% Stocks, 40% Bonds  
10-Year Return: 7.3%

# Simplifying Your Investment Life



Collins is a real “Boglehead”...index fund investor w/ Vanguard

Total Stock Market Stock Index Fund

Total Bond Market Index Fund

That’s it...”set it and forget it” strategy

You set your asset allocation whether you’re in:

- Wealth Accumulation Mode (more stocks)
- Wealth Preservation Mode (fewer stocks, more bonds)

# Main Takeaways

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- Asset Allocation is all about finding the right mix of stock and bond funds that suits your risk tolerance.
- The longer your time horizon, the greater the risk you can tolerate, meaning a portfolio more heavily weighted towards stocks.
- As you approach retirement, you wind down your stock allocation for more lower-risk bond funds.
- Fund companies are now providing a lot of help here – effectively doing all this for you. (But you should still do your homework just to make sure...).



# *Congratulations! You Made It!*

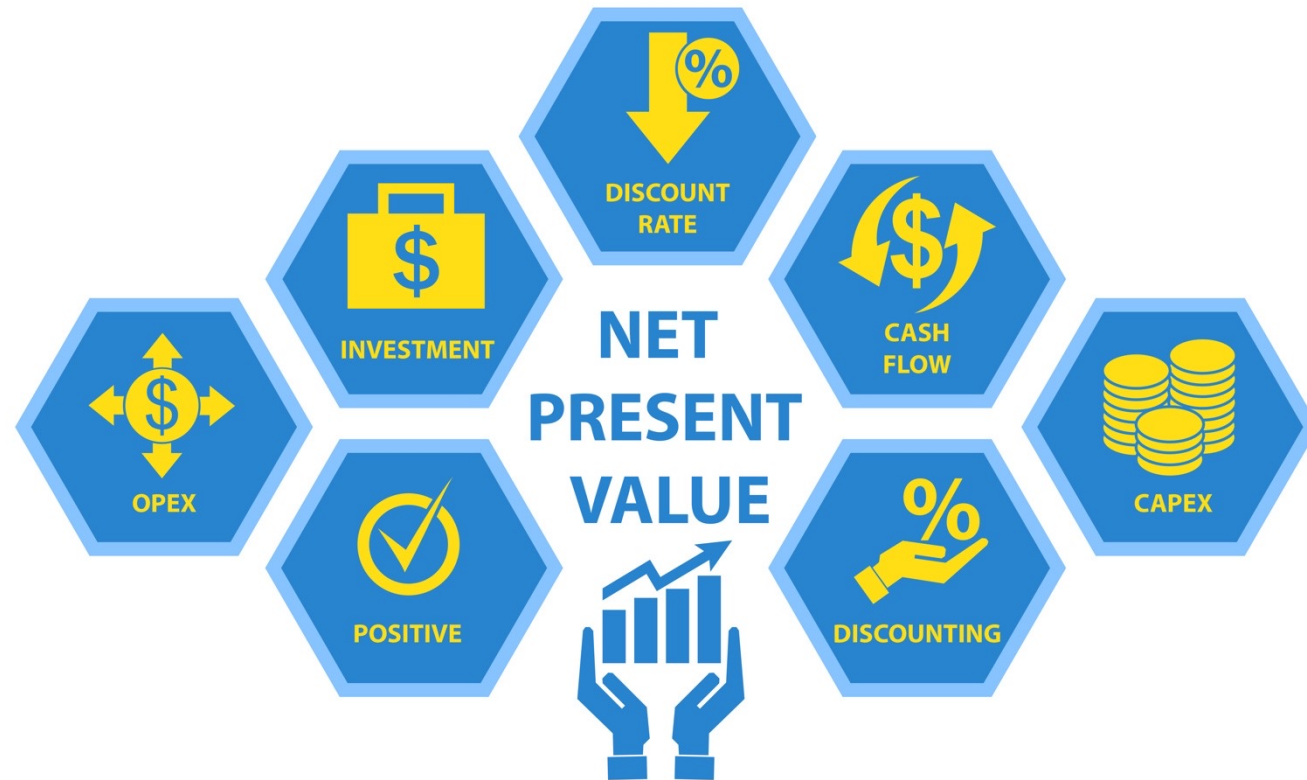
*Goal of Financial Management*  
*Costs & Cost Estimation Techniques*  
*Product Cost Analysis*  
*Cash Flows & Time Value of Money*  
*Personal Financial Planning*



# Next Time...

## *Finance for Technical Managers – II*

### *Project Valuation and the Capital Budgeting Process*





# Credits & References

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Slide 1: Investment Allocation Graph & Calculator by maxexphoto, Adobe Stock (19847787.jpeg).

Slide 9-12: Image from Vanguard website, <https://investor.vanguard.com/mutual-funds/profile/> (accessed May 6, 2022).

Slide 13: Simple Plan to Wealth image source: Amazon, <https://www.amazon.com/Simple-Path-Wealth-financial-independence> (accessed May 1, 2022).

Slide 15: Couple hikers success concept in mountains by blas, Adobe Stock (173768509.jpeg).

Slide 16: Concept of NPV - Net Present Value by Elnur, Adobe Stock (402998660.jpeg).