

Take too much risk



Sasin | School of Management

Andrew Stotz, PhD, CFA



Diversify to reduce risk



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Learning outcomes

- Understand how to reduce the four main risks related to investing in stocks

Learning outcomes

- Risk 1: Shortfall risk
- Risk 2: Company-specific risk
- Risk 3: Price risk
- Risk 4: Country or sector risk

Shortfall risk is a silent killer

- ★ Have you ever heard someone say that they are conservative with their money or are not a risk-taker?

Shortfall risk is a silent killer

- ★ What do they do with their money?
 - They keep it as cash in the bank

Shortfall risk is a silent killer

- ★ But, if you are too conservative with your money, you expose yourself to “shortfall risk”
 - The risk that you will not have enough money at the end of your investment period

Shortfall risk is a silent killer

- ★ This happens to people who think it is “safe” to keep their money at the bank
- ★ They are willing to accept a very low interest rate

Shortfall risk is a silent killer

- ★ But the cost is that their money will not grow faster than inflation

Shortfall risk is a silent killer

- ★ You can also cause shortfall risk by making financial mistakes early on,
 - like postponing investing or paying too much in fees

Shortfall risk is a silent killer

- ★ The best ways to reduce shortfall risk are:
- ★ Keep your allocation to the stock market high in your younger years,

Shortfall risk is a silent killer

- ★ Own a diversified portfolio to avoid catastrophic losses
- ★ Keep your fees low

Shortfall risk is a silent killer

- ★ Shortfall risk is a “silent killer” as most people don’t even realize they are exposed to it

Shortfall risk is a silent killer

- ★ Also, since the consequence of this risk will only be felt in the distant future, many financial advisors will put less focus on it

Diversify to reduce company specific risk

- ★ If you owned all stocks you would be fully diversified
 - Today, it is easy and cheap to own every stock in the stock market

Diversify to reduce company specific risk

- ★ Various fund management companies offer passively managed index funds (or a similar instrument called an “exchange-traded fund” or “ETF”), which owns all the stocks in the stock market

What remains is market risk

- ★ If you own all stocks in the market, your portfolio is diversified and can now only be damaged by the entire stock market falling, what is called “market risk”

What remains is market risk

- ★ But remember that, over time the stock market has always risen again, so you could probably assume that this will happen again
 - Though nothing is guaranteed!

What remains is market risk

- ★ Even if you only owned one stock, you would still be exposed to this same market risk

An ETF is a fund that trades like a stock

- ★ Exchange traded funds (ETF) are relatively new instruments which acts almost identically to a mutual fund
 - The S&P 500 SPDR ETF was the first, started in 1993

An ETF is a fund that trades like a stock

- ★ One of the main differences is that it can be bought and sold as a stock
- ★ This is different than a mutual fund that you must buy or sell from the mutual fund company

An ETF is a fund that trades like a stock

- ★ Because an ETF can be bought or sold as a share in the stock market, its low price makes it more accessible to a person who may not be able to invest a lot each time

An ETF is a fund that trades like a stock

- ★ You invest in an ETF through a brokerage account
- ★ You invest in a mutual fund through an account at a mutual fund company

An ETF is a fund that trades like a stock

- ★ Whether a fund or ETF is better for you depends on your situation

Passive funds have extremely low fees

- ★ Let's consider the Vanguard Total Stock Market ETF (Ticker code: VTI)

Passive funds have extremely low fees

- ★ The fee you pay to Vanguard to manage this ETF is only 0.03% of the total money you put in, one of the lowest management fees in the world!

A look at the website of the VTI fund

VTI Vanguard Total Stock Market ETF

Also available as an [Admiral™ Shares](#) mutual fund.

Management style	Asset class
Index	Domestic Stock - General
Category	Risk / reward scale
Large Blend	<div><div></div><div>4</div><div></div></div> <div>LessMore</div>
Expense ratio	30 day SEC yield
0.03%	1.39% B
<small>as of 04/28/2023</small>	<small>as of 12/31/2023</small>
Market price (MP)	NAV price
\$242.94	\$242.91
<small>as of 02/01/2024</small>	<small>as of 02/01/2024</small>

Passive funds/ETFs have extremely low fees

US stocks	Code	Fee (%)	# of stocks	AUM (US\$bn)
Vanguard Total Stock Market Index Fund	VTSEX	0.04	3,551	841
Vanguard Total Stock Market ETF	VTI	0.03	3,551	841
Schwab Total Stock Market Index Fund	SWTSX	0.03	3,073	9
Schwab U.S. Broad Market ETF	SCHB	0.03	3,551	13
Fidelity® Total Market Index Fund	FSKAX	0.02	3,454	39
iShares Russell 3000 ETF	IWV	0.02	2,881	8
iShares Core S&P Total U.S. Stock Market ETF	ITOT	0.03	3,643	21

Those passive funds own every stock in the US

- ★ The previous slide showed passively managed index funds and ETF which are created to match the US stock market

Those passive funds own every stock in the US

- ★ So, if you owned any one of them you could tell your friends
 - “Yes, I own Apple, Alphabet, and Microsoft!...and every other stock in the US”

The benefit of international diversification

- ★ Imagine that the U.S. stock market was going into a long downslide, but that stocks in other parts of the world were going down less, or even going up

The benefit of international diversification

- ★ An international fund would allow you to experience less of a downside in your own portfolio, because the US would be only one of the countries you would be invested in

The benefit of international diversification

- ★ In the upcoming table we show Funds/ETFs that invest money across almost every stock market in the world

The benefit of international diversification

- ★ A look inside the iShares MSCI All Country World Index ETF shows the same stocks that were in the Vanguard VTI ETF

The benefit of international diversification

- ★ But also other large global companies such as Nestle SA and Novartis AG

Funds/ETFs that invest internationally

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- ★ April 2020
- ★ As of Feb. 2023 VT owns 9,767 stocks

All world stocks	Code	Fee (%)	# of stocks	AUM (US\$bn)
Vanguard Total World Stock Index Fund	VTWAX	0.10	8,438	18
Vanguard Total World Stock ETF	VT	0.08	8,438	116
iShares MSCI ACWI ETF	ACWI	0.33	2,285	10

The benefit of international diversification

- ★ These Funds/ETFs holds stocks across most countries in the world

The benefit of international diversification

- ★ About 50% of those are stocks of US-based companies
- ★ This helps reduce country or sector risk

The benefit of international diversification

- ★ They also include developed market countries like Japan and the United Kingdom
- ★ And include emerging market countries like China, India, and Brazil

International diversification reduces price risk

- ★ International diversification can reduce some price risk, the risk that you buy a stock or a market when it is too high because

International diversification reduces price risk

- ★ You are not buying individual stocks
- ★ You are buying every market in the world, when some are high, others are low

Buying every month also reduces price risk

- ★ If you set a plan to put \$1,000 into a broad-based Fund/ETF every month, no matter what

Buying every month also reduces price risk

- ★ You would sometimes be buying when the market was high, and sometimes when it was low

Buying every month also reduces price risk

- ★ Over the long-run, you would have bought into the market at an average price
- ★ This is called, “Dollar cost averaging”
 - It can help you reduce price risk

Keep it simple, but buy one Fund/ETF for life

- ★ To keep it most simple
 - For your stock market investing, focus on buying one mutual fund or ETF and never buy any individual stocks or other funds again

Keep it simple, but buy one Fund/ETF for life

- ★ You will get the benefit of owning stocks, without the risk of picking the wrong ones

Keep it simple, but buy one Fund/ETF for life

- ★ You will also get the benefit of owning stocks in many different countries
 - So if the stock market in one country is going down, it is often the case that another is going up

Keep it simple, but buy one Fund/ETF for life

- ★ How much simpler could it get?
- ★ For the rest of your life, just buy one Fund/ETF

A review of the four main risks with stocks

- ★ Company-specific risk – The risk that you own only a few stocks, and they crash

A review of the four main risks with stocks


- ★ Shortfall risk – The risk that you do not have your planned amount of money at your financial independence day

A review of the four main risks with stocks

- ★ Price risk – The risk that you buy into the stock market at a very high price and the price falls


A review of the four main risks with stocks

- ★ Country/sector risk – The risk that you own too much of any one country or sector and that goes down more than others



What you
have
learned

- Try to reduce these four main investing risks:
- Reduce company-specific risk by owning a portfolio of stocks

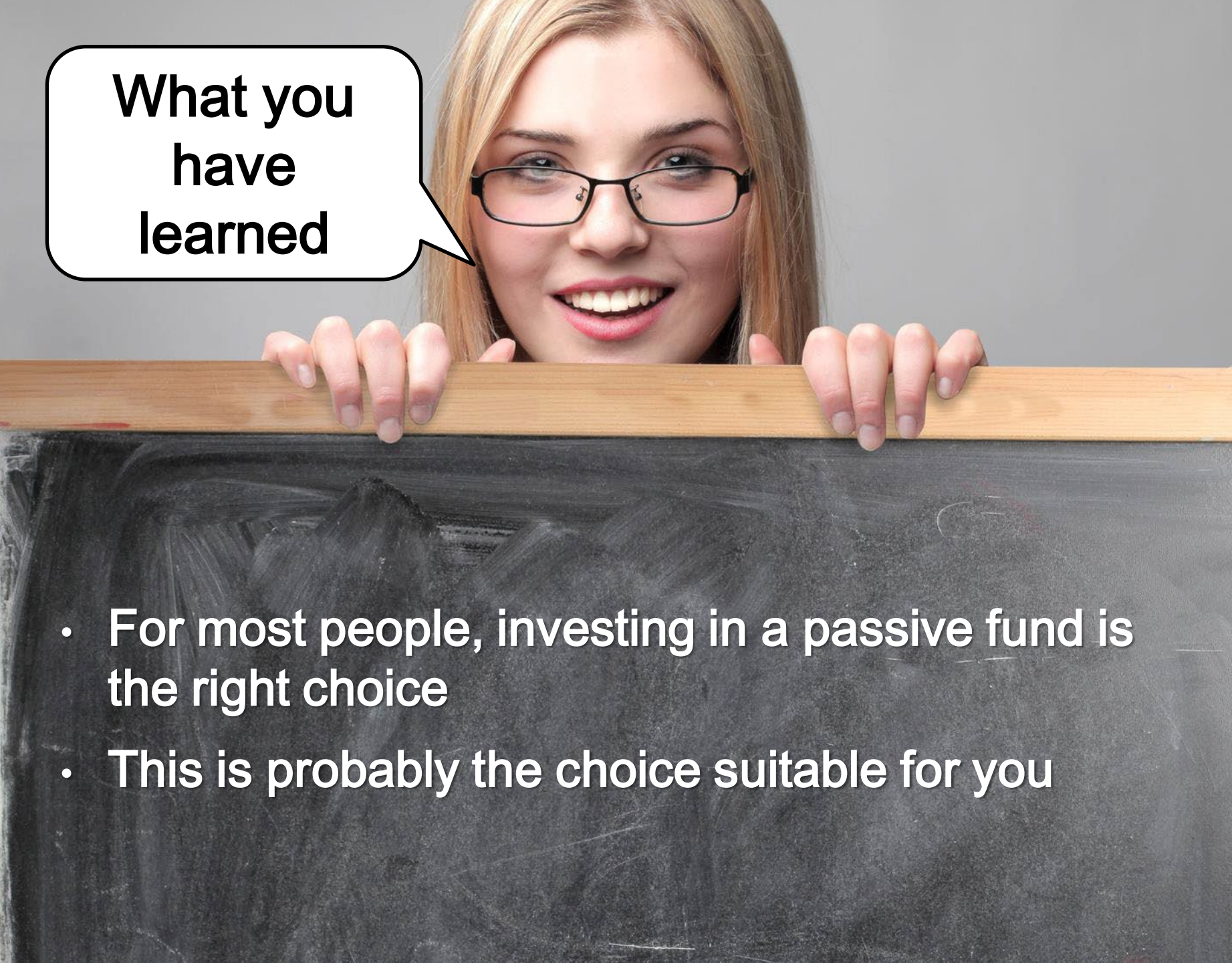


What you
have
learned

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- Reduce shortfall risk by staying invested in the stock market and keeping costs low



What you
have
learned

- Reduce price risk by using an equal amount of money each month to buy stocks, no matter what is happening with the stock market




What you
have
learned

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- Reduce overexposure to one country or sector by buying a globally diversified fund/ETF



What you
have
learned

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- For your stock investments consider only owning a passively managed index Fund/ETF

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Diversify to reduce risk



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