Get real about stock market return

Part 1: Understand the role of luck

Part 2: Build focused, long-term thinking

<u>Part 3: Determine your expected stock market return</u>

Learning outcomes

- Understand the past range of outcomes of the equity markets
- Consider the US and global equity markets

Sasin School of Management

Andrew Stotz, PhD, CFA

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT FNEGE

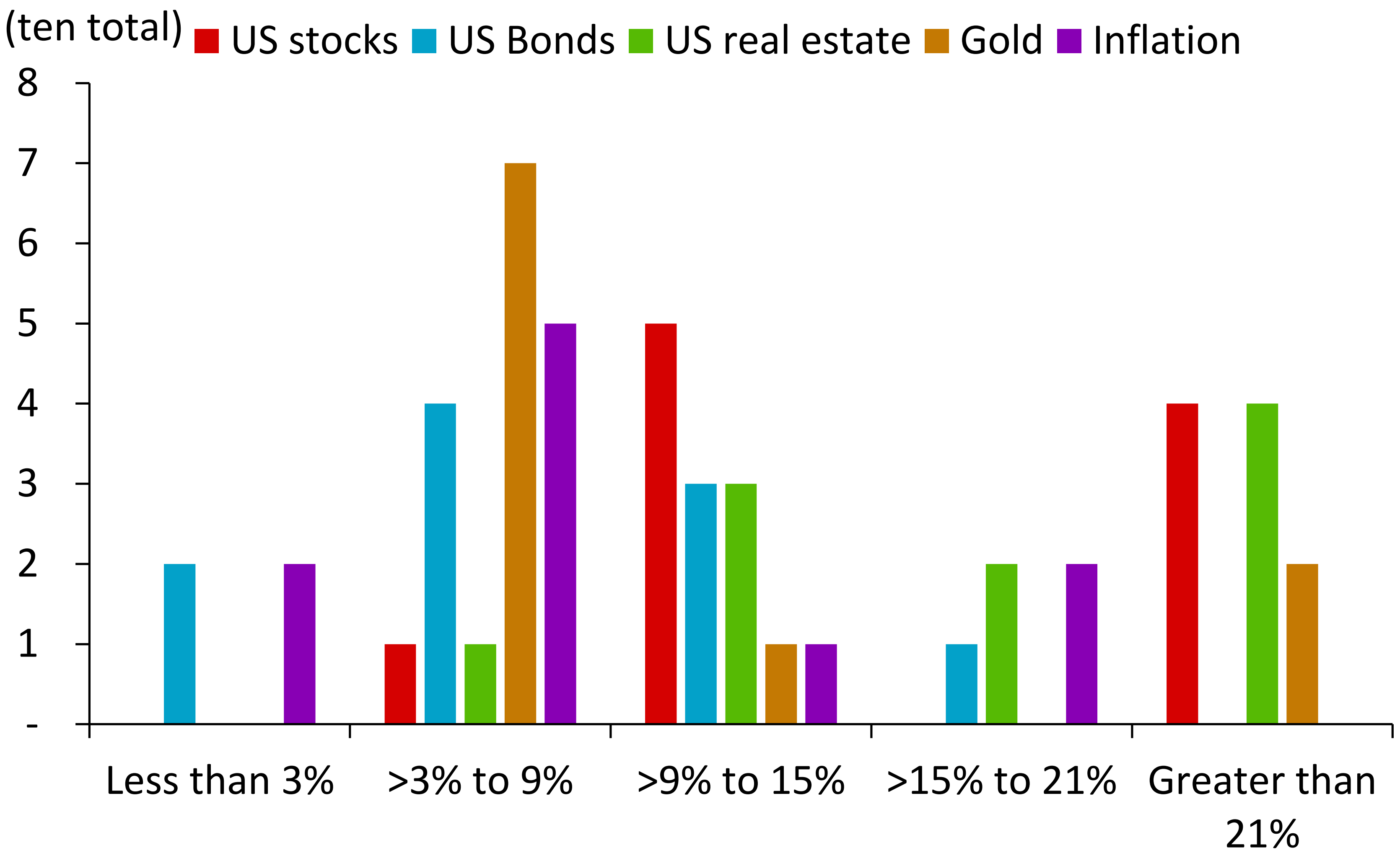
Learning outcomes

- Understand how when you were born has a big impact on your long-term returns
- Set your own expected long-term equity return

Sasin School of Management

Andrew Stotz, PhD, CFA

What you think



Sasin School of Management

Andrew Stotz, PhD, CFA

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT FNEGE

Where you are investing

- ★ SCB
- ★ Bualuang Securities
- ★ Pi Securities, TTB
- ★ DBS Vickers
- ★ IBKR
- ★ Asia Plus
- ★ UOB
- ★ Kbank

Steps **1** 2 3 4 5 6 7 8 9 10 11 12

Sasin School of Management

Andrew Stotz, PhD, CFA

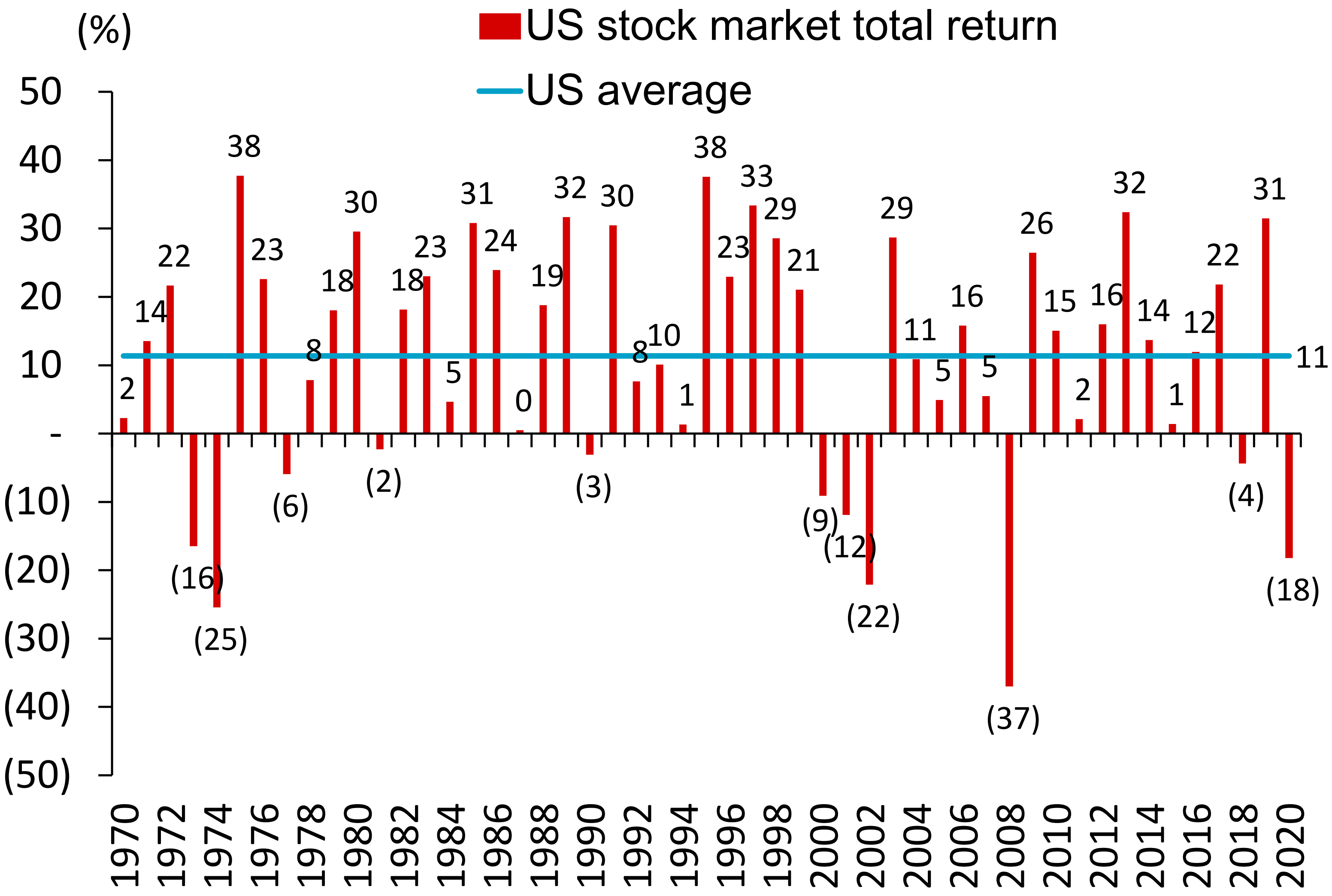
What will be the US stock market return?

- To try to predict long-term stock market returns let's look at the past
- First, let's consider the US stock market over the past 50 years

Sasin School of Management

Andrew Stotz, PhD, CFA

11% average US market return since 1970



Sources: A. Stotz Investment Research, Refinitiv

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT

What about global stock market return?

- ★ The prior charts were of the US, now let's look at the US plus all other countries in the world

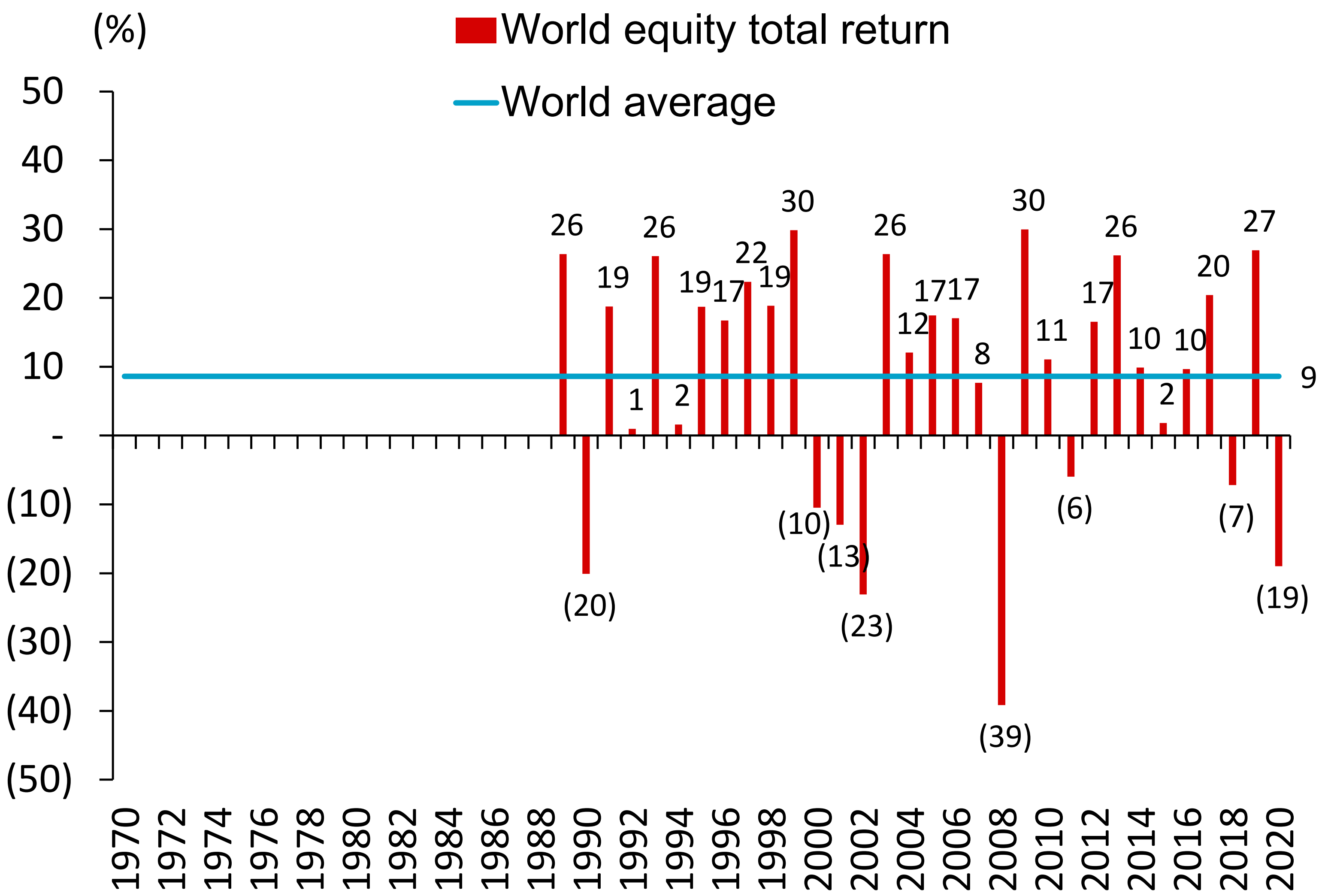
Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT

9% average global market return since 1989



Sources: A. Stotz Investment Research, Refinitiv

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

What stock market return should you expect?

- The US market has swung from negative 37% to positive 38%
- But has averaged 11%

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT

What stock market return should you expect?

- To be conservative, maybe set your expectation of US stock market average annual returns over the coming decades to 8%

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

What stock market return should you expect?

- If you are optimistic, then 10%, pessimistic, 6%

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT EFMD GLOBAL FNEGE

What stock market return should you expect?

- The global market has swung from negative 39% to positive 30%
- But has averaged 9%

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT

What stock market return should you expect?

- ★ To be conservative, maybe set your expectation of global stock market average annual returns over the coming decades to 6-8%

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT

What stock market return should you expect?

- If you are optimistic, then 10%, pessimistic, 5%

Sasin School of Management

Andrew Stotz, PhD, CFA

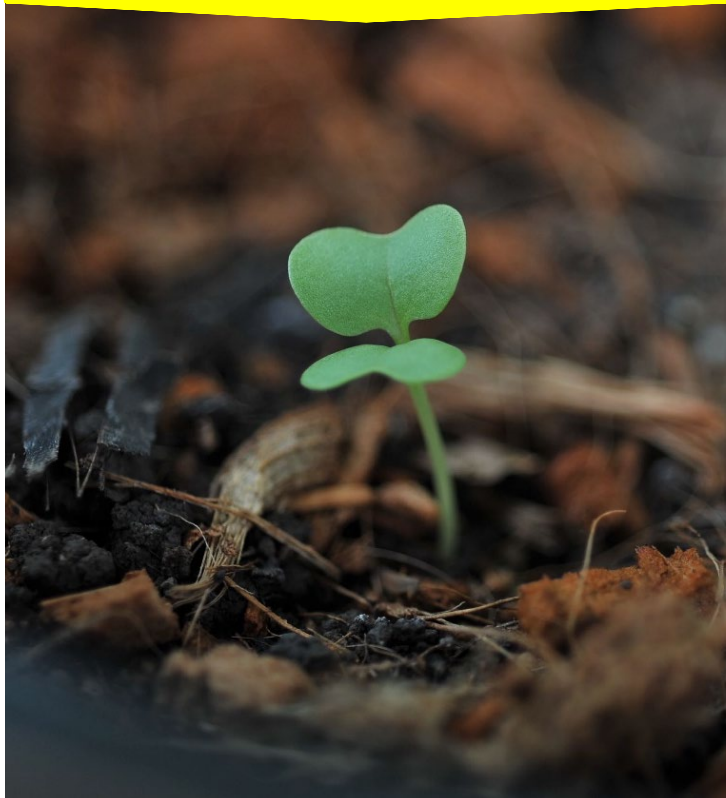
Research

Open the financial plan file and enter this info

Estimate your expected long-term equity return	
Your expected annual return from equities (no more than 12%)	8.0

Sasin School of Management

Andrew Stotz, PhD, CFA

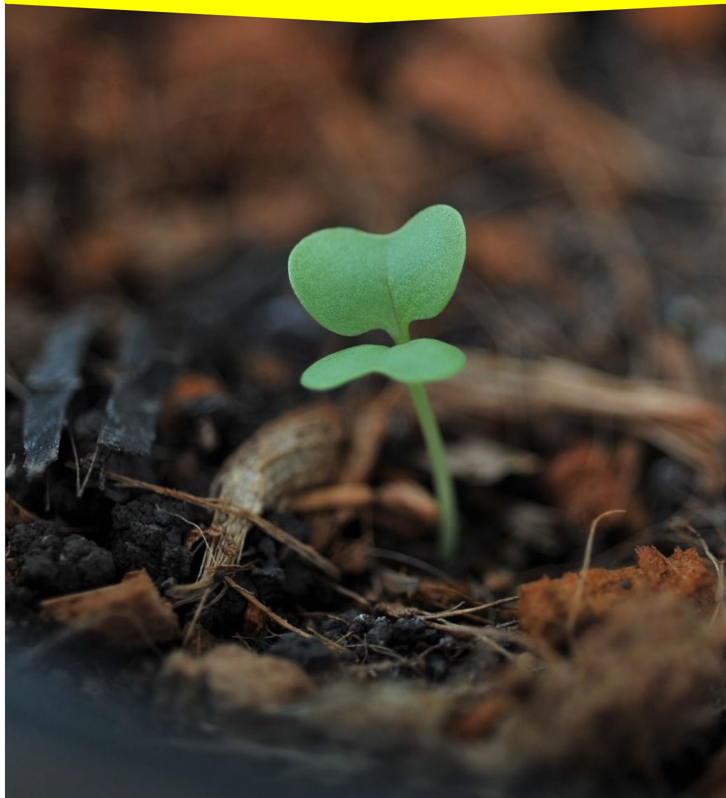


You will see this output

My long-term time horizon	
1.	I am 22 years old, and I want to be FI when I am 60.
2.	I plan to live a happy life until I am 90 years old.
3.	My investment horizon is 38 years and my retirement horizon is 30.
4.	I will manage my money for the next 68 years.
My long-term expectations and allocations	
5.	I expect LT returns for stocks of about 8%.

Sasin | School of Management

Andrew Stotz, PhD, CFA



Be conservative about the stock market

- You might say, "But the stock market in MY COUNTRY was up 30% over the past year!"

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

Sasin | School of Management

Andrew Stotz, PhD, CFA

Be conservative about the stock market

★ Remember, that this is only over one year, but you will be investing over many years

Sasin School of Management

Andrew Stotz, PhD, CFA

Be conservative about the stock market

Sasin | School of Management

Andrew Stotz, PhD, CFA

- The bad news is that you won't get rich in the stock market over a few years if you earn average annual returns of 8%

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

AACSB ACCREDITED | EQUIS ACCREDITED | OBSIS IMPACT | EFMD GLOBAL | FNEGE

Be conservative about the stock market

Sasin School of Management

Andrew Stotz, PhD, CFA

- ★ And, the really bad news is that you will probably earn much less than 8%
  - We'll get to that later

Does it matter when you start investing?

- To think about this further, let's go back in time to the first day of 1900

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

Does it matter when you start investing?

- ★ Imagine a person invested $100 in the US stock market that year and then left it to grow for 30 years, until the end of 1929

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED · EQUIS ACCREDITED · OBSIS IMPACT · FNEGE

Does it matter when you start investing?

- ★ After 30 years, at the end of year 1929, based on actual market returns, the final sum would have grown to $1,080 – about an 8% average annual return

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT FNEGE

Does it matter when you start investing?

- Imagine another person start investing $1,000 starting from each year, for 30 years

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT

Does it matter when you start investing?

- From 1901 until 1930
- From 1902 until 1931

★ And continue until

- From 1990 until 2019

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT FNEGE

Does it matter when you start investing?

- ★ From this we can calculate the returns in the US stock market over 30 years from each starting year until 1990
- ★ We can then calculate an average 30-year return for each decade

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT

Does it matter when you start investing?

- The average annual return for the decade of 1900-1909 was 7.1%
- So the average person who invested $1,000 for 30 years, starting in the decade of 1900-1909 would have earned an average annual return of about 7.1%

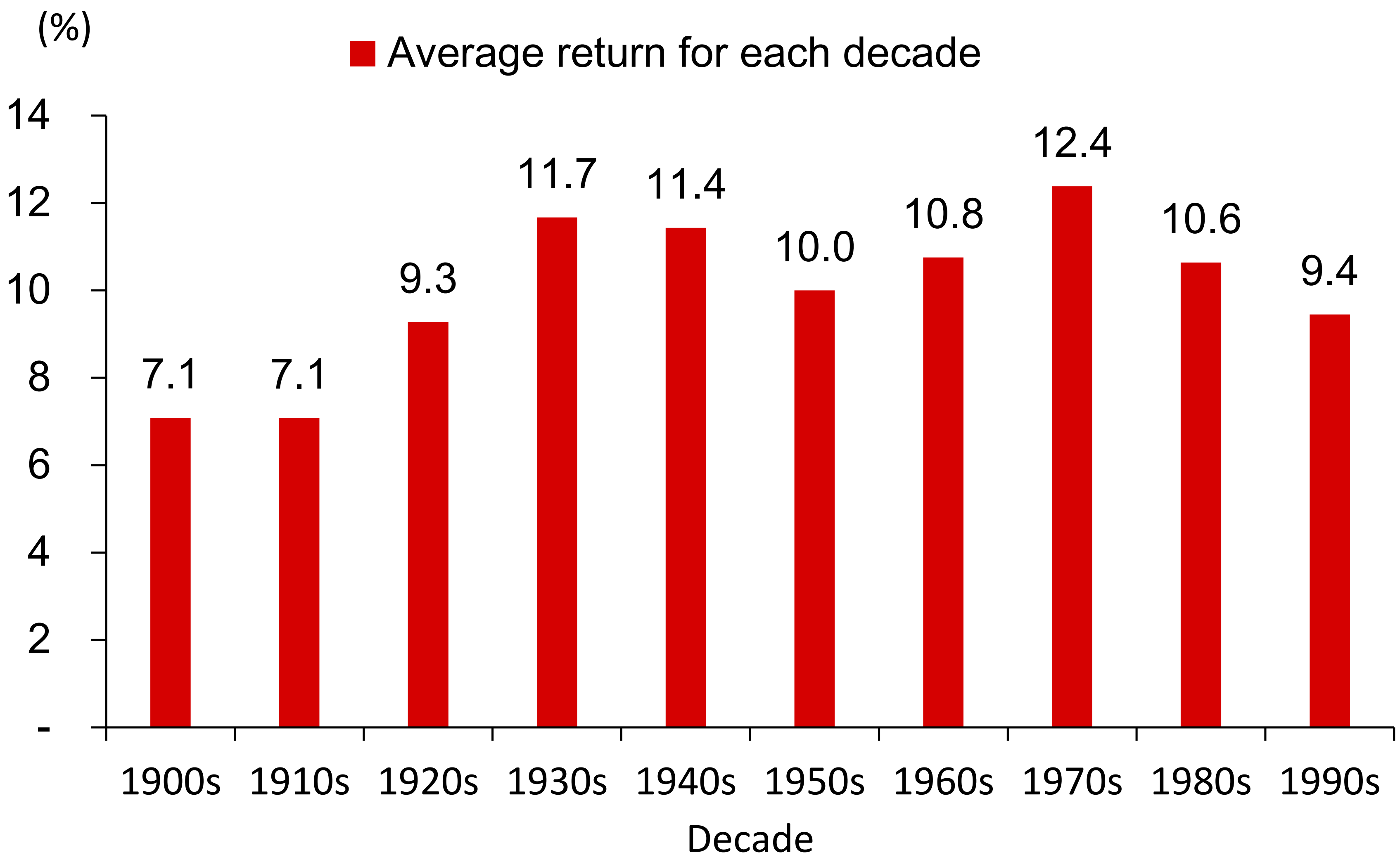
Sasin School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT

It matters when you start investing



Sasin School of Management

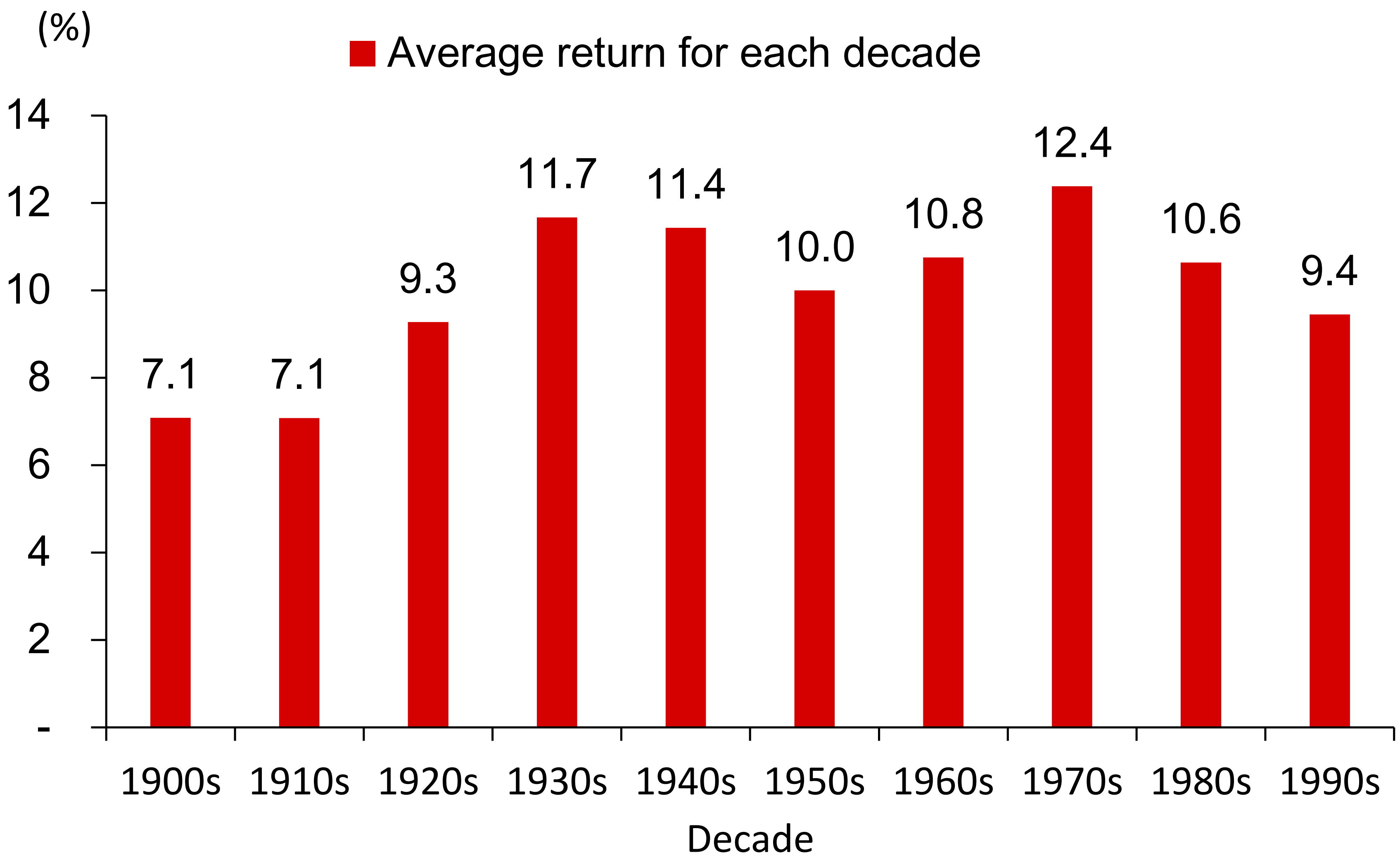
Andrew Stotz, PhD, CFA

★ Bad time to start was 1900s or 1910, you would have earned an average annual return of 7%

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT FNEGE

It matters when you start investing



Sasin School of Management

Andrew Stotz, PhD, CFA

★ Good time to start was 1930s, 1940s, or 1970, you would have earned an average annual return of 11-12%

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT FNEGE

It matters when you start investing

★ This teaches us that just when we start investing has a big impact on our long-term returns

Sasin School of Management

Andrew Stotz, PhD, CFA

Research

It matters when you start investing

- Oftentimes the decade we can start investing is a matter of your date of birth, hence, a matter of luck
  - Bad luck means you need to contribute more
  - Good luck and you need to contribute less

Sasin | School of Management

Andrew Stotz, PhD, CFA

Research

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT

Now the bad news

- ★ We all know it is impossible to consistently predict the future
- ★ And that nobody can consistently predict stock market returns

Steps 1 2 3 4 5 6 7 8 9 10 11 12

Sasin School of Management

Andrew Stotz, PhD, CFA

Be careful of advice from professionals!

- ★ A financial professional may advise you not to invest for your first decade because he thinks the stock market is expensive
- ★ At another time, he may advise you to wait until the market gets cheap

Sasin School of Management

Andrew Stotz, PhD, CFA

Be careful of advice from professionals!

★ But if you get out of the stock market, then you would miss the long-term compounding effect that you need in order to create wealth

Sasin | School of Management

Andrew Stotz, PhD, CFA

Be careful of advice from professionals!

★ And, even if he was right (a 50/50 chance), he would still have to correctly predict the right time to tell you to put your money into the market

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

Sasin | School of Management

Andrew Stotz, PhD, CFA

Be careful of advice from professionals!

- ★ And you would need to have nerves of steel to follow his advice!

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

Sasin School of Management

Andrew Stotz, PhD, CFA

Now you have realistic expectations!

- ★ So now you are realistic about stock market returns and expect about an 8% average annual return over your lifetime

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

Sasin School of Management

Andrew Stotz, PhD, CFA

AACSB ACCREDITED EQUIS ACCREDITED OBSIS IMPACT FNEGE

Now you have realistic expectations!

- You know that this 8% is a long-term average and that some years it could be as high (or low) as 40%

Sasin School of Management

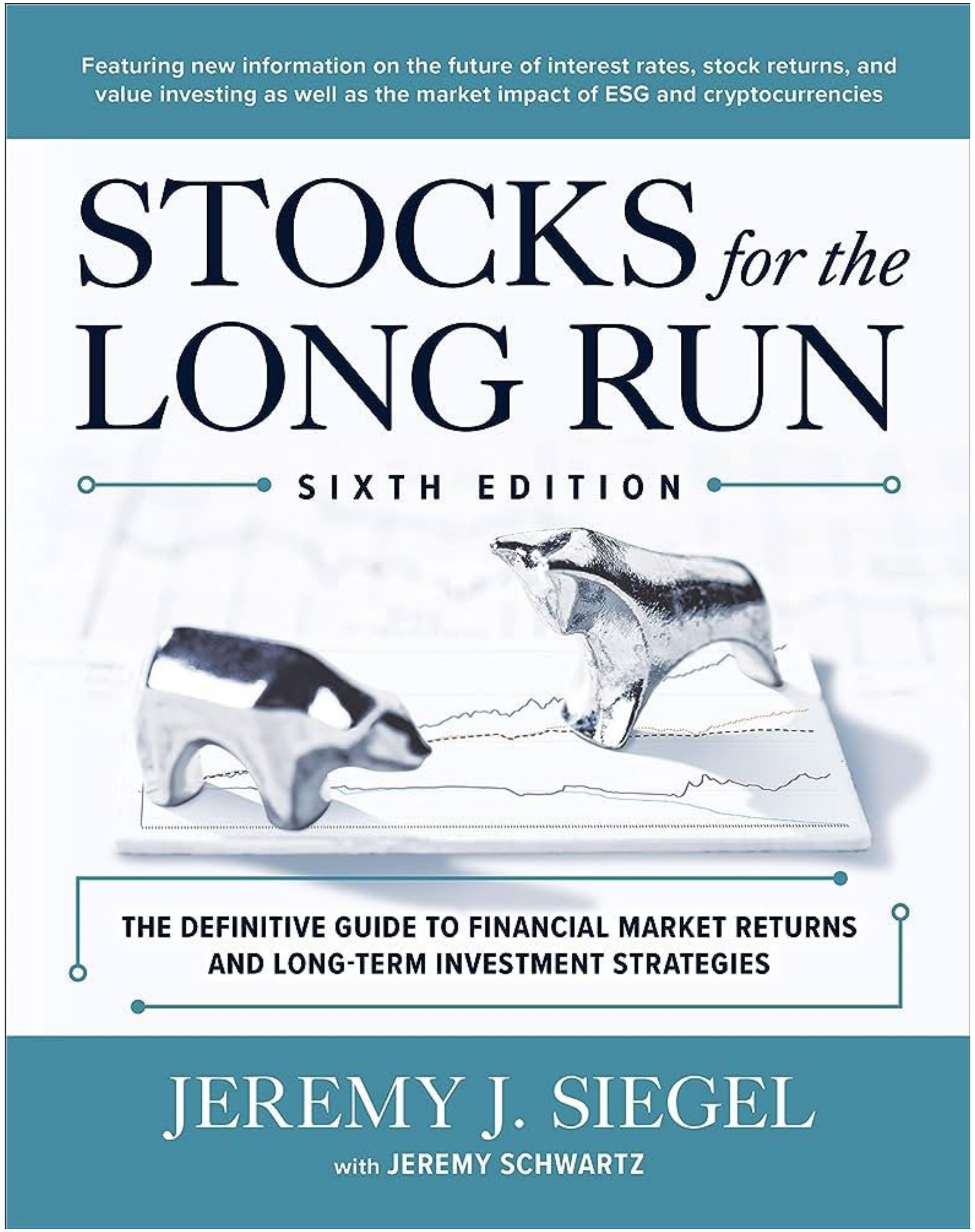
Andrew Stotz, PhD, CFA

Now you have realistic expectations!

- ★ You also know that this return could vary depending on when you started, but that you have no control over this

Sasin | School of Management

Andrew Stotz, PhD, CFA



A. Stotz
ACADEMY

What long-term return do you expect for US stocks?

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

In Siegel's "Stocks for the Long Run," he tells us to expect a 5% LT real US stock market return

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

I became a finance teacher in Thailand in 1992

A.Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

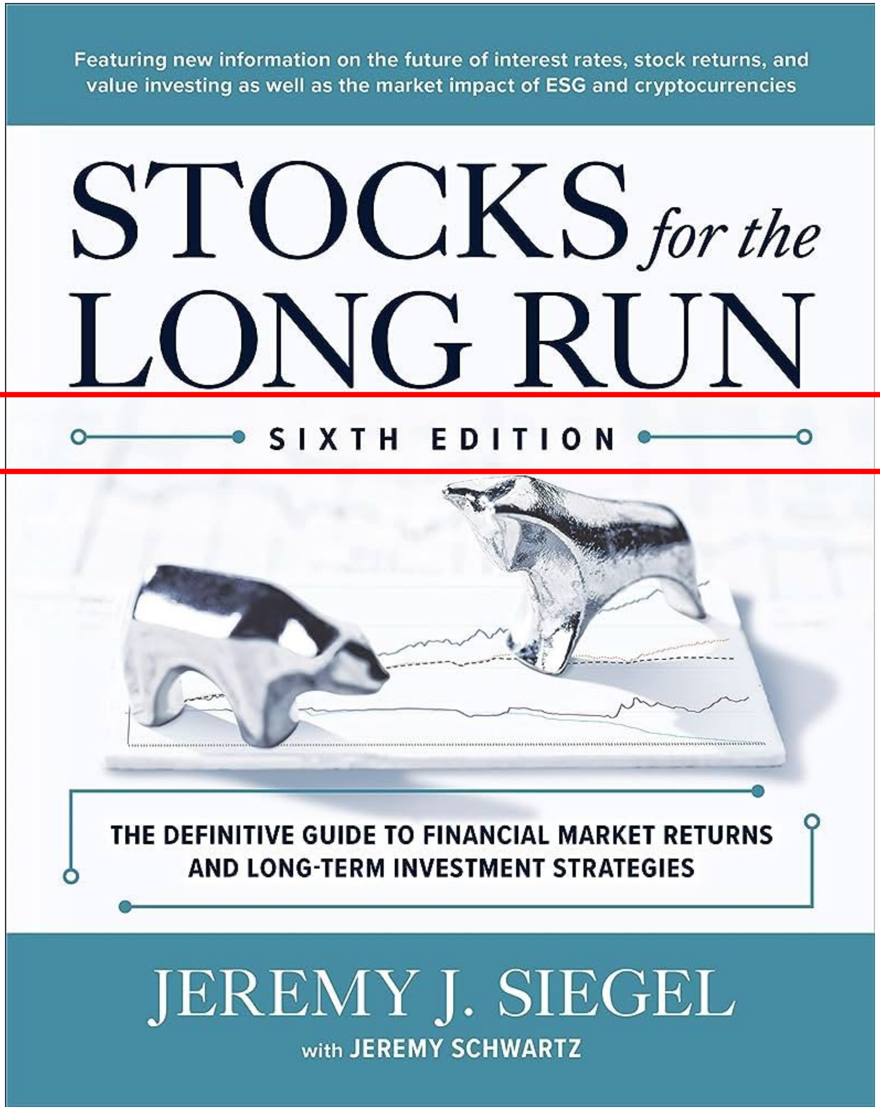
Then started as a financial analyst in 1993

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

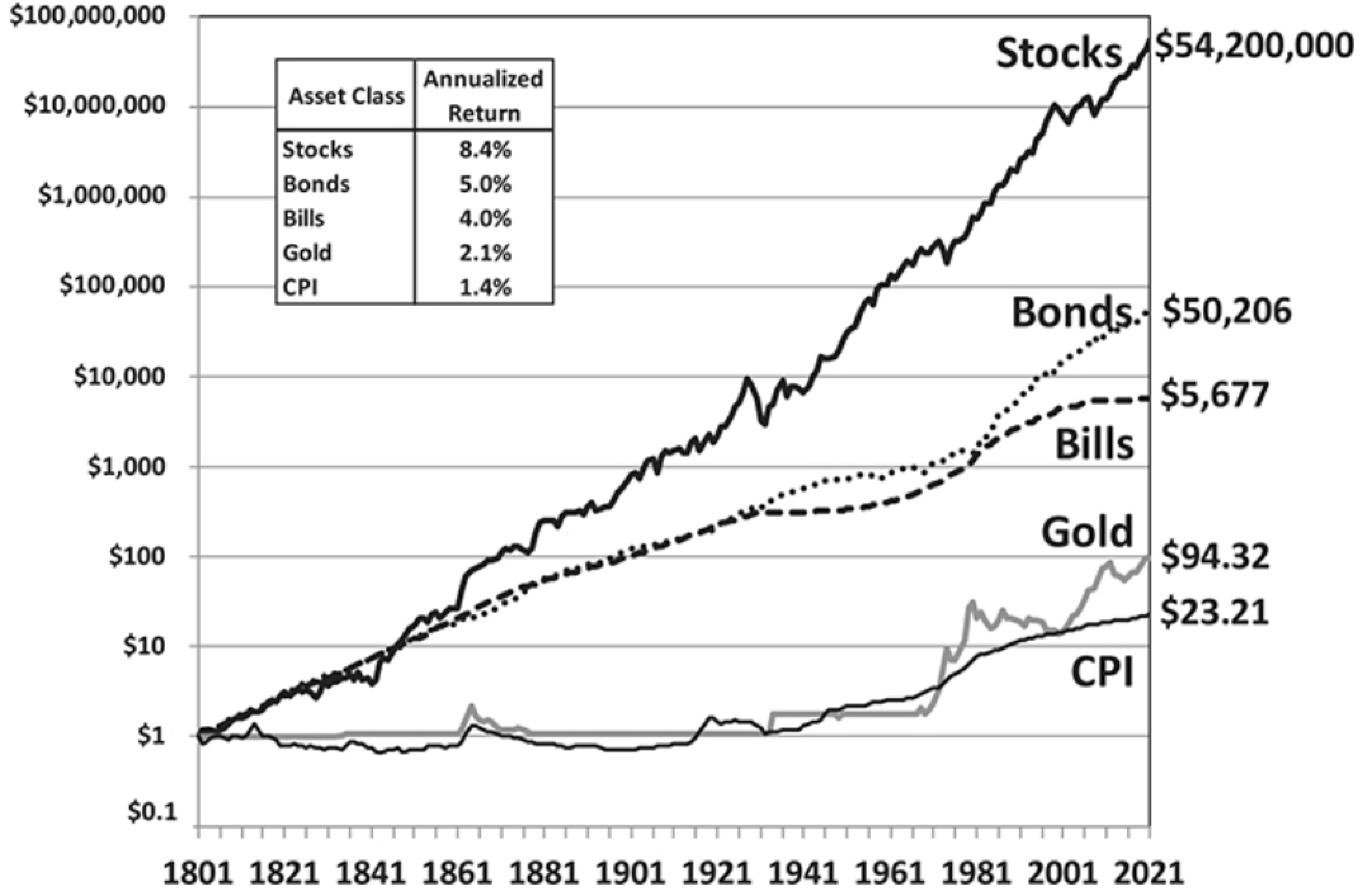
Siegel's book came out in 1994 and was one of the best references available at the time



This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

US nominal returns

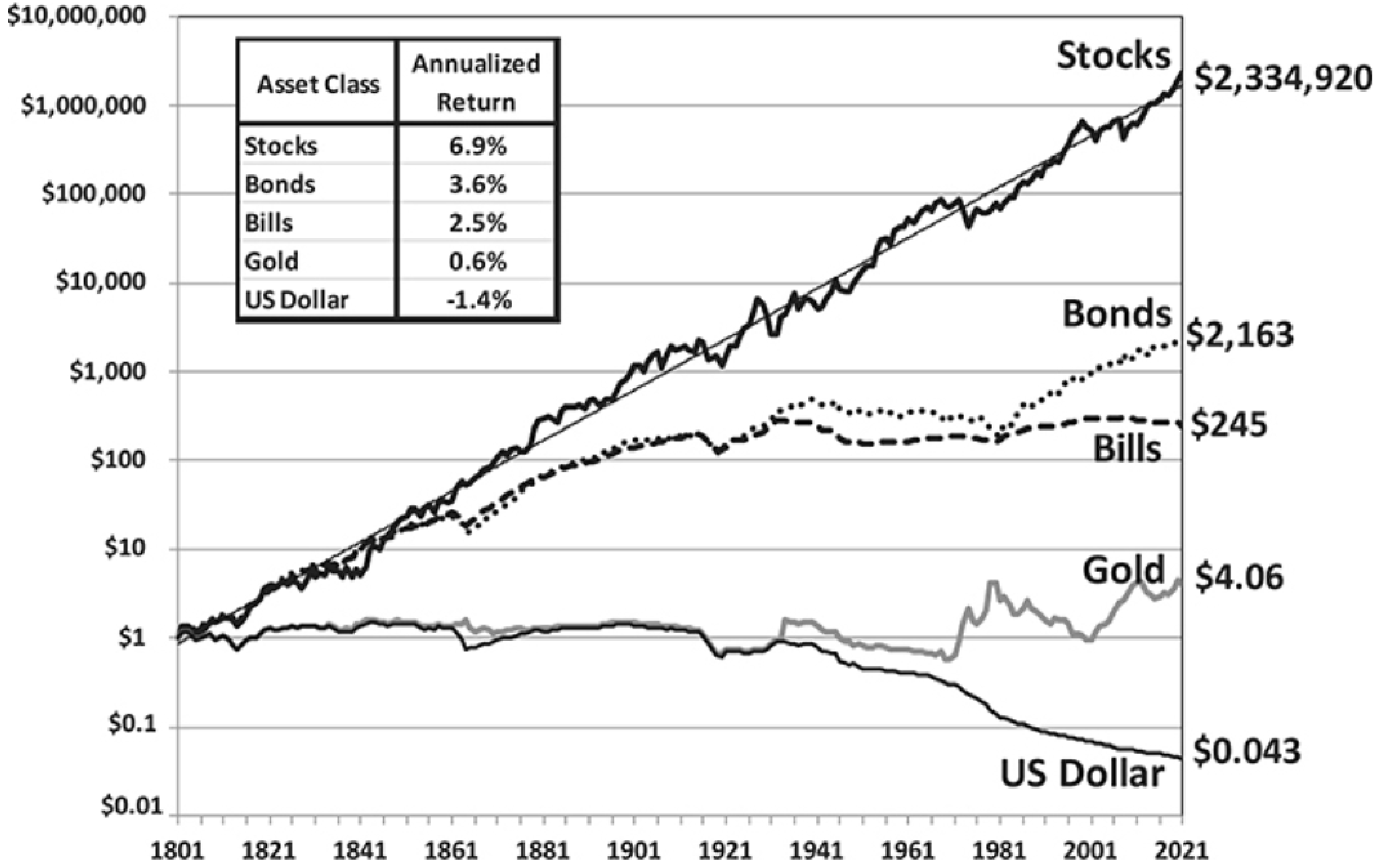


A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

US real returns



Asset Class	Annualized Return
Stocks	6.9%
Bonds	3.6%
Bills	2.5%
Gold	0.6%
US Dollar	-1.4%

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

More than 200 years of returns

US returns (%)	Post Rev. war 219 years 1802 to 2021
Inflation	1.4
US Stocks	8.4
Real	**6.9**
US LT Gov't bonds	5.0
Real	**3.6**
US ST Gov't bonds	4.0
Real	**2.5**
Gold - Real	**0.6**

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

Sources: A. Stotz Academy, Stocks for the Long Run, Jeremy J. Siegel

95 years of returns

US returns (%)	Post Rev. war 219 years 1802 to 2021	Post WWI 95 years 1926 to 2021
Inflation	1.4	2.9
US Stocks	8.4	10.2
Real	**6.9**	**7.1**
US LT Gov't bonds	5.0	5.6
Real	**3.6**	**2.6**
US ST Gov't bonds	4.0	3.3
Real	**2.5**	**0.4**
Gold - Real	**0.6**	**1.8**

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

- Higher inflation and higher nominal stock market returns, but only slightly higher real returns
- Slightly lower real LT bond return, near zero ST bond return

Sources: A. Stotz Academy, Stocks for the Long Run, Jeremy J. Siegel

Post WWII/Bretton Woods 75 years of high inflation

US returns (%)	Post Rev. war 219 years 1802 to 2021	Post WWI 95 years 1926 to 2021	Post WWII 75 years 1946 to 2021
Inflation	1.4	2.9	3.7
US Stocks	8.4	10.2	11.3
Real	**6.9**	**7.1**	**7.3**
US LT Gov't bonds	5.0	5.6	5.8
Real	**3.6**	**2.6**	**2.0**
US ST Gov't bonds	4.0	3.3	3.9
Real	**2.5**	**0.4**	**0.2**
Gold - Real	**0.6**	**1.8**	**1.6**

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

- Real stock returns up slightly
- Real LT bond returns down
- Real ST bond returns down to zero
- Gold outperformed ST bonds

Sources: A. Stotz Academy, Stocks for the Long Run, Jeremy J. Siegel

The 21 years after the Dot Com bubble saw an unprecedented level of globalization

US returns (%)	Post Rev. war 219 years 1802 to 2021	Post WWI 95 years 1926 to 2021	Post WWII 75 years 1946 to 2021	Post Dot Com 21 years 2000 to 2021
Inflation	1.4	2.9	3.7	2.3
US Stocks	8.4	10.2	11.3	7.8
Real	**6.9**	**7.1**	**7.3**	**5.2**
US LT Gov't bonds	5.0	5.6	5.8	7.0
Real	**3.6**	**2.6**	**2.0**	**4.6**
US ST Gov't bonds	4.0	3.3	3.9	1.5
Real	**2.5**	**0.4**	**0.2**	**(0.8)**
Gold - Real	**0.6**	**1.8**	**1.6**	**6.3**

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

- Inflation was down, and real US stock returns also down
- Real US LT bond returns up
- Nominal ST bond collapse, and real returns turn neg.
- Gold beats all

Sources: A. Stotz Academy, Stocks for the Long Run, Jeremy J. Siegel

You can download this chart deck for free by clicking on the "Get the PDF" link at

MyWorstInvestmentEver.com

or by clicking the link in the description

Siegel's advice

- Over the long-term, an investor has paid about 15x PE for about 6-7% after inflation US stock market return
- In the future, expect to pay about 20x PE for about 5% after inflation return

A. Stotz ACADEMY

This is not a recommendation or investment advice.

Andrew Stotz, PhD, CFA

Sources: A. Stotz Academy, Stocks for the Long Run, Jeremy J. Siegel

Now you have realistic expectations!

★ Let’s move on to how to increase your chances of success in the market

Steps 1 2 3 **4** 5 6 7 8 9 10 11 12

Sasin | School of Management

Andrew Stotz, PhD, CFA

Sasin | School of Management

Andrew Stotz, PhD, CFA

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT EFMD GLOBAL FNEGE

…Until YOU change the way YOU think about it

Sasin School of Management

Andrew Stotz, PhD, CFA

What you have learned

- Over the long-term, the US market has swung from negative 37% to positive 37%, but has averaged 11%

Sasin School of Management

Andrew Stotz, PhD, CFA

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT

- Over the long-term, the global equity market has swung from negative 39% to positive 30%, but averaged 9%

Sasin School of Management

Andrew Stotz, PhD, CFA

What you have learned

- If you start investing when the stock market is high, then you will need to contribute more to hit your FI date

Sasin School of Management

Andrew Stotz, PhD, CFA

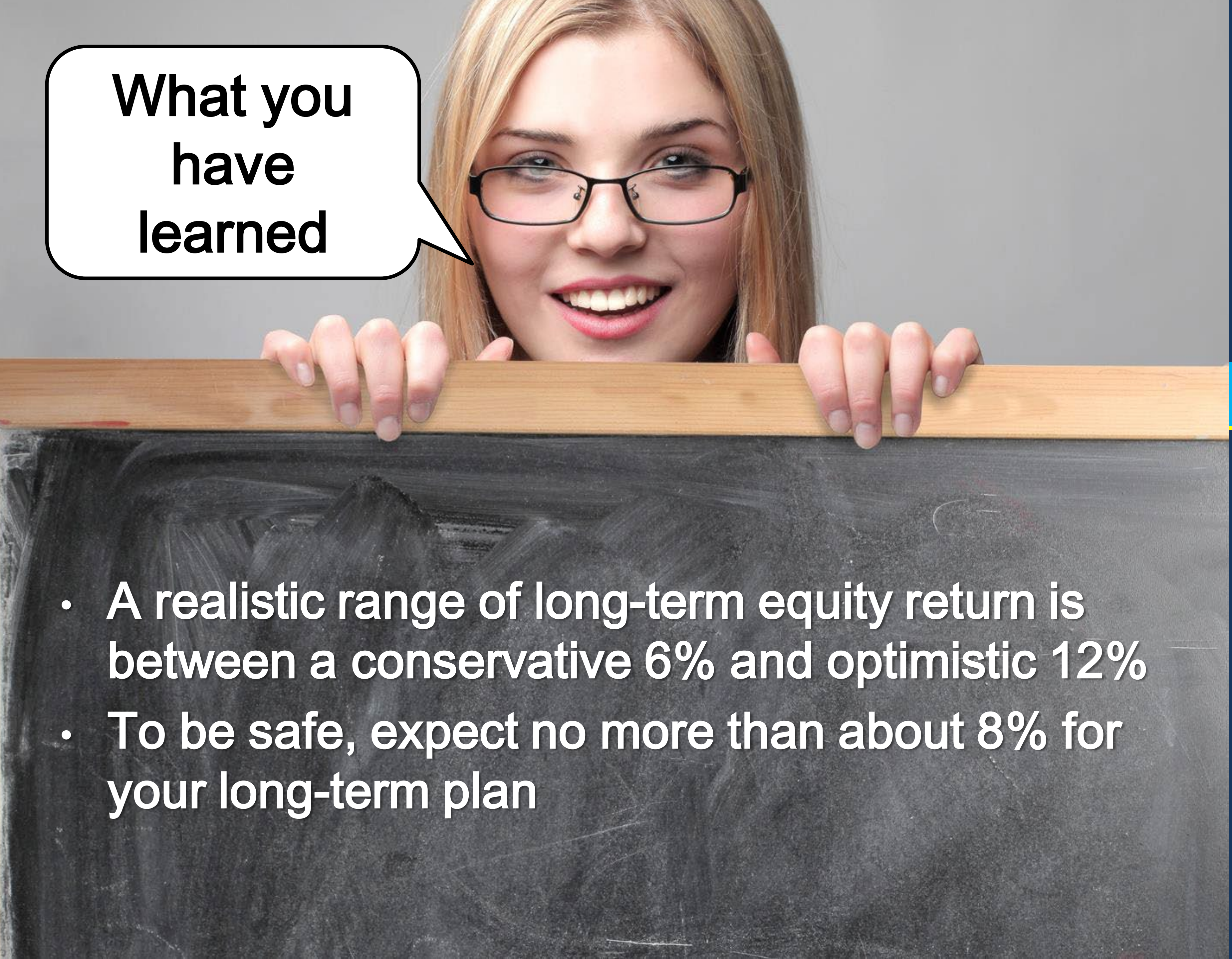
AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT

What you have learned

- Timing the market is too risky, so stay invested even through ups and down

Sasin School of Management

Andrew Stotz, PhD, CFA



- A realistic range of long-term equity return is between a conservative 6% and optimistic 12%
- To be safe, expect no more than about 8% for your long-term plan

Sasin School of Management

Andrew Stotz, PhD, CFA

Want to get rich quick in the market

Sasin School of Management

Andrew Stotz, PhD, CFA

4

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT

Get real about stock market return

Sasin School of Management

Andrew Stotz, PhD, CFA

AACSB ACCREDITED EQUIS ACCREDITED BSIS IMPACT