WELCOME!

3:00 – 4:00 PM

MONEY SMART DAY 2022

Hosted By: Student Support and Advocacy Center
Financial Well-Being Team

Presented By: William H. Bunn, CFA.,
Thomas L. Finn, CFA., William T. Sena, Jr. CFA, CFP

GEORGE MASON UNIVERSITY

INVESTMENT 101

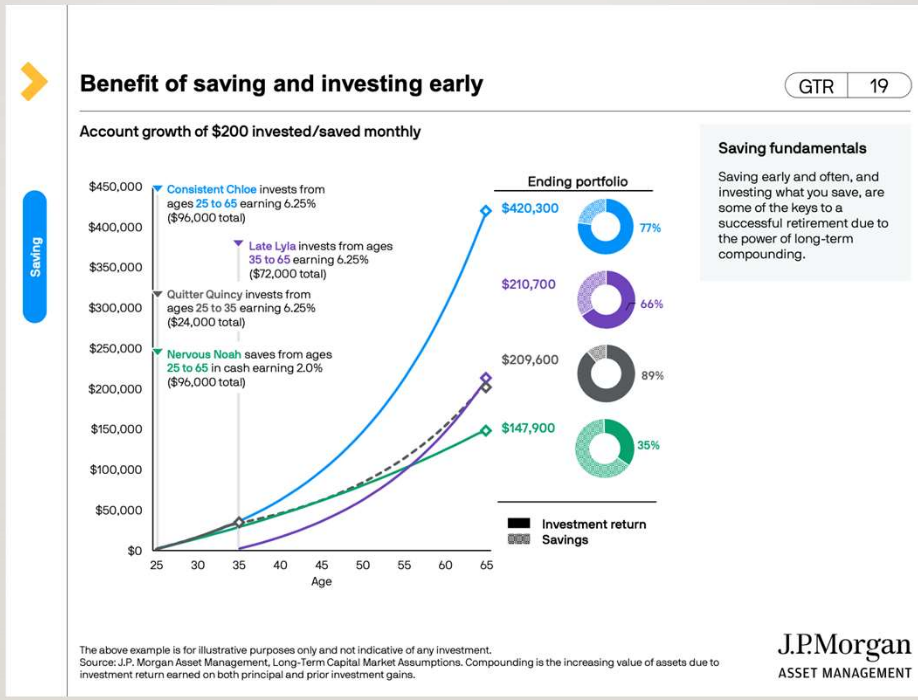
PRESENTERS:

WILLIAM H. BUNN, CFA, RETIRED FROM FORT WASHINGTON INVESTMENT ADVISORS, INC.

THOMAS L. FINN, CFA, FORT WASHINGTON INVESTMENT ADVISORS, INC.

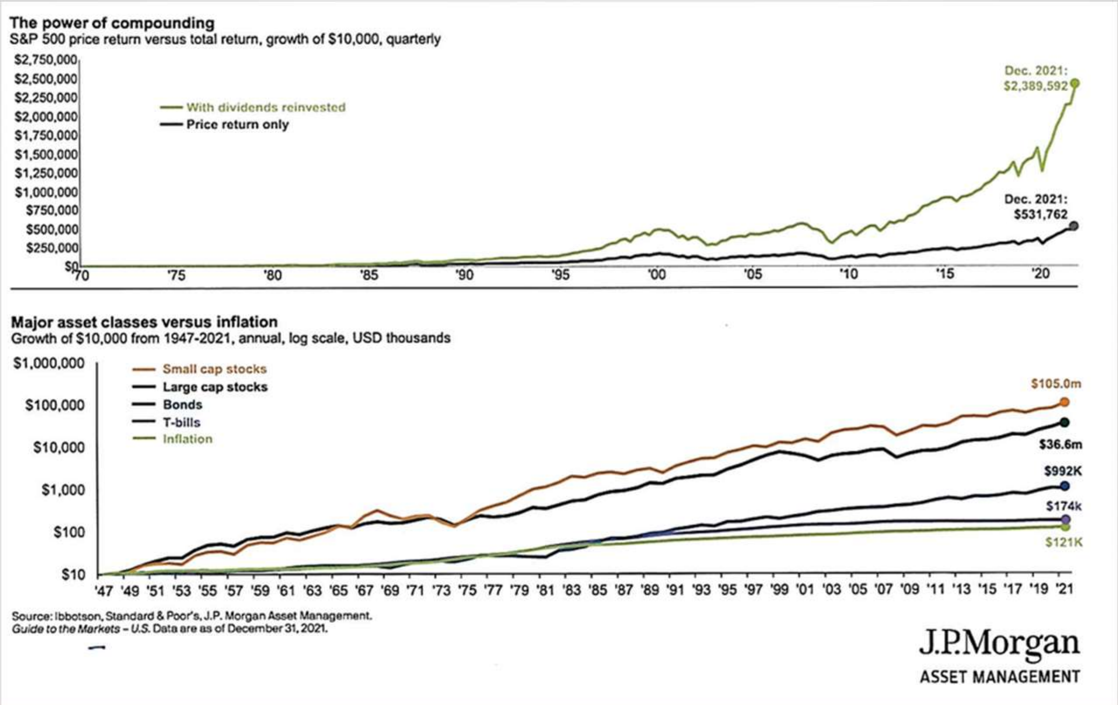
WILLIAM T. SENA, JR. CFA, CFP, OSBORN, WILLIAMS & DONOHOE

SAVING

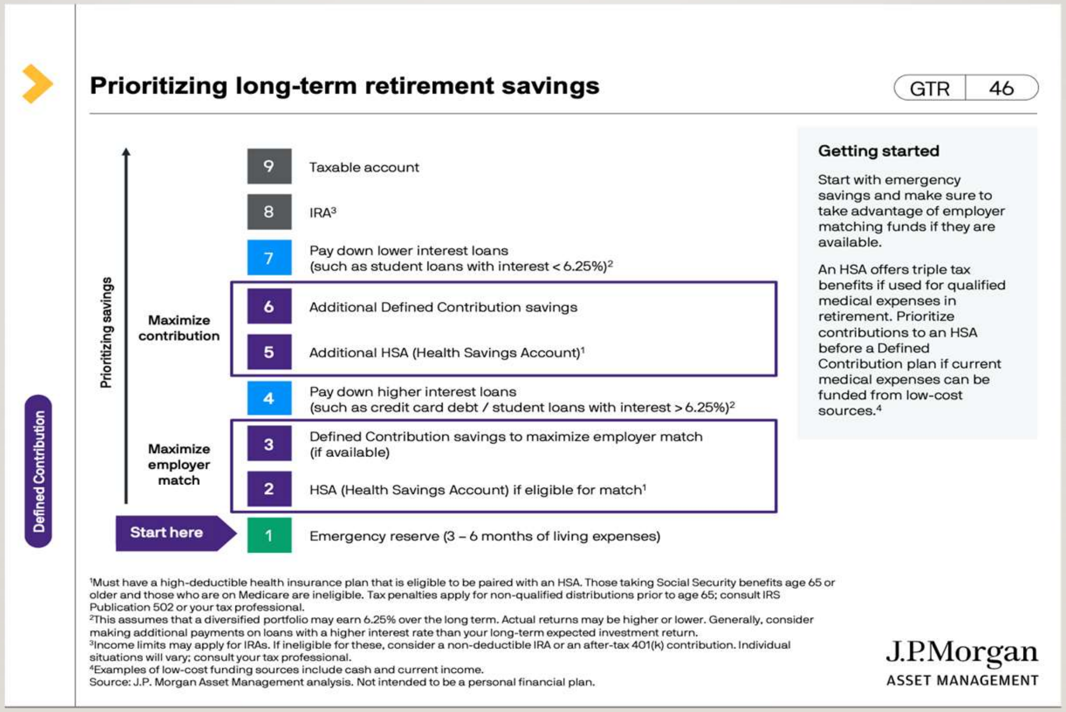


Benefit of saving and investing early
GTR 19
Saving
Account growth of $200 invested/saved monthly
Consistent Chloe invests from ages 25 to 65 earning 6.25% ($96,000 total)
Late Lyla invests from ages 35 to 65 earning 6.25% ($72,000 total)
Quitter Quincy invests from ages 25 to 35 earning 6.25% ($24,000 total)
Nervous Noah saves from ages 25 to 65 in cash earning 2.0% ($96,000 total)
$450,000
$400,000
$350,000
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$0
25 30 35 40 45 50 55 60 65
Age
Ending portfolio
$420,300 77%
$210,700 66%
$209,600 89%
$147,900 35%
Investment return
Savings
Saving fundamentals
Saving early and often, and investing what you save, are some of the keys to a successful retirement due to the power of long-term compounding.
The above example is for illustrative purposes only and not indicative of any investment.
Source: J.P. Morgan Asset Management, Long-Term Capital Market Assumptions. Compounding is the increasing value of assets due to investment return earned on both principal and prior investment gains.
J.P.Morgan
ASSET MANAGEMENT

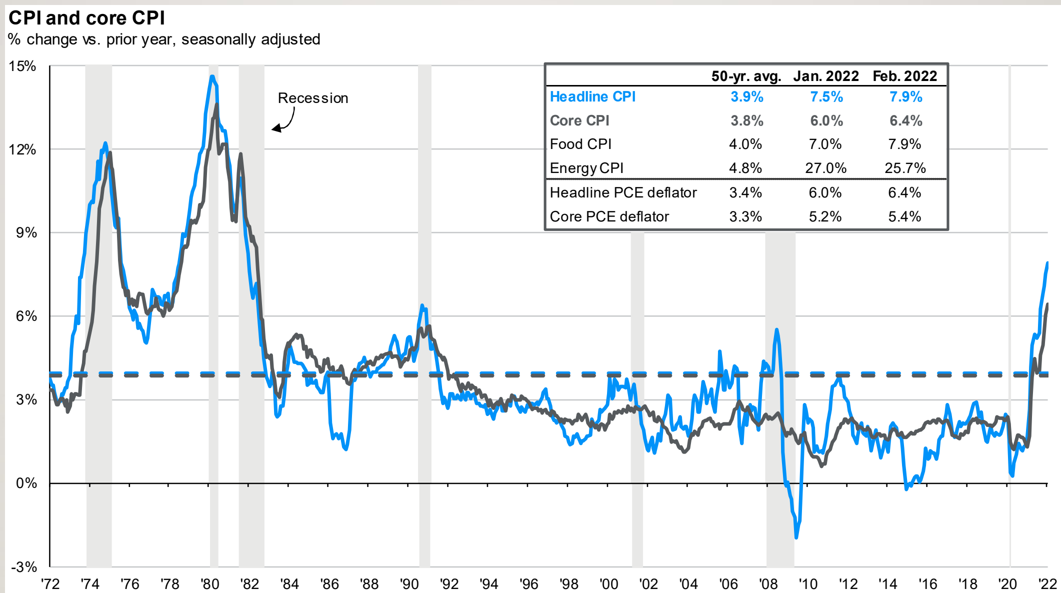
INVESTING PRINCIPLES: THE POWER OF COMPOUNDING



DEFINED CONTRIBUTION

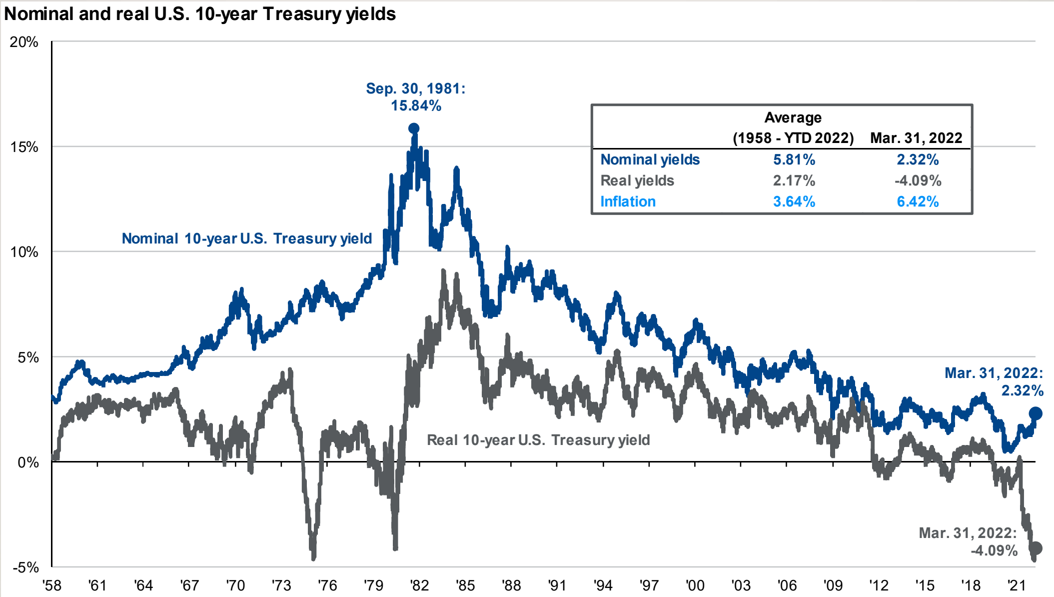


ECONOMY: INFLATION



Source: BLS, FactSet, J.P. Morgan Asset Management.
CPI used is CPI-U and values shown are % change vs. one year ago. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed-weight basket used in CPI calculations.
Guide to the Markets – U.S. Data are as of March 31, 2022.

FIXED INCOME: INTEREST RATES AND INFLATION



	Average (1958 - YTD 2022)	Mar. 31, 2022
Nominal yields	5.81%	2.32%
Real yields	2.17%	-4.09%
Inflation	3.64%	6.42%

Source: BLS, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month. For the current month, we use the prior month's core CPI figures until the latest data is available.
Guide to the Markets – U.S. Data are as of March 31, 2022.

EQUITY INVESTING 101: WHAT IS A STOCK?

Stocks are securities that represent an ownership share in a company. For companies, issuing stock is a way to raise money to grow and invest in their business. For investors, stocks are a way to grow their money and outpace inflation over time. When you own stock in a company, you are called a shareholder because you share in the company's profits.

A **bond** is loan from an investor to a borrower such as a company or government. The borrower uses the money to fund its operations, and the investor receives interest on the investment. The market value of a **bond** can change over time.

What is a mutual fund? A mutual fund is an investment that pools money from investors to purchase stocks, bonds and other assets. A mutual fund aims to create a more diversified portfolio than the average investor could on their own. Mutual funds have professional fund managers buy securities for you.

Definitions from Nerd Wallet 7/6/21

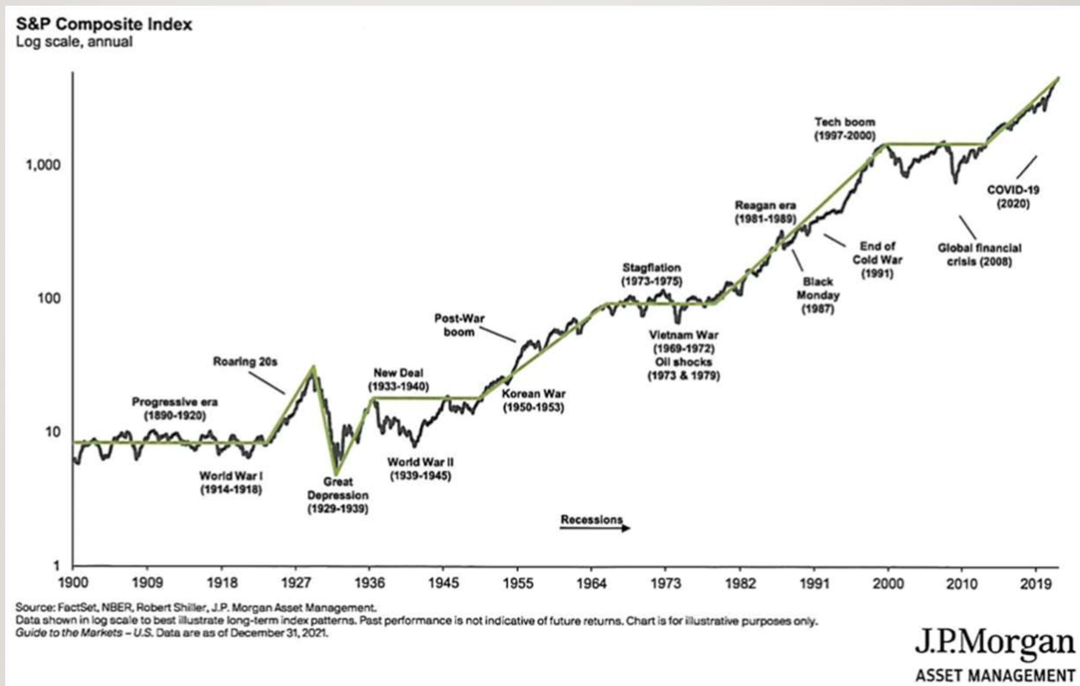
EQUITIES: S&P 500 INDEX AT INFLECTION POINTS

S&P 500 Price Index

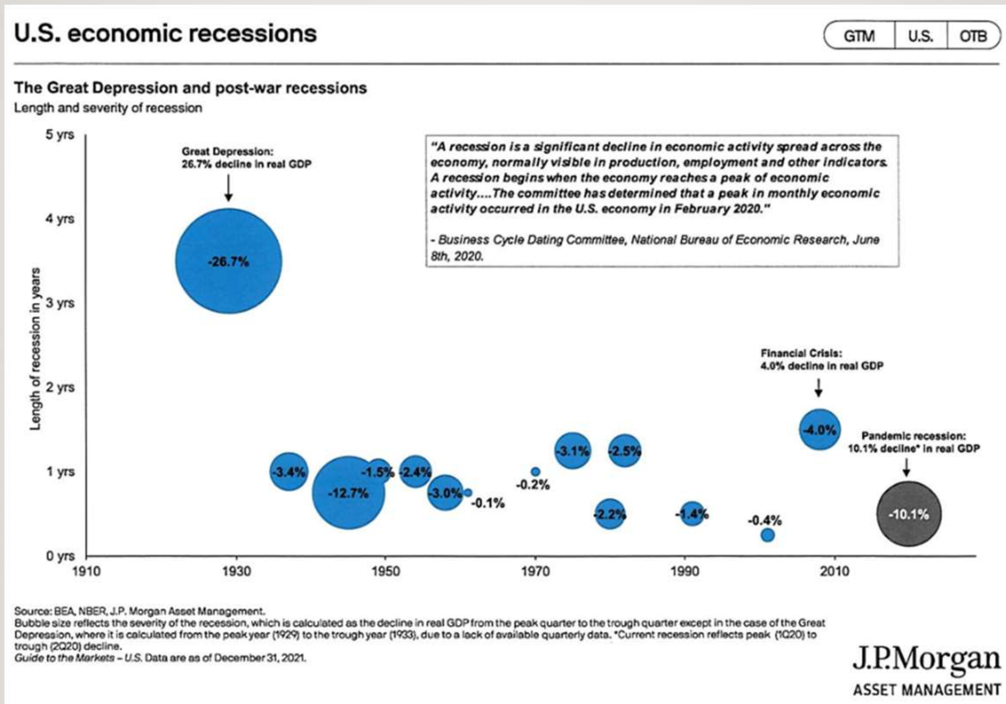
Characteristic	3/24/2000	10/9/2007	2/19/2020	3/31/2022
Index Level	1,527	1,565	3,386	4,530
P/E Ratio (fwd.)	25.2x	15.1x	19.2x	19.5x
Dividend Yield	1.4%	1.9%	1.9%	1.5%
10-yr. Treasury	6.2%	4.7%	1.6%	2.3%

Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on IBES estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of March 31, 2022.

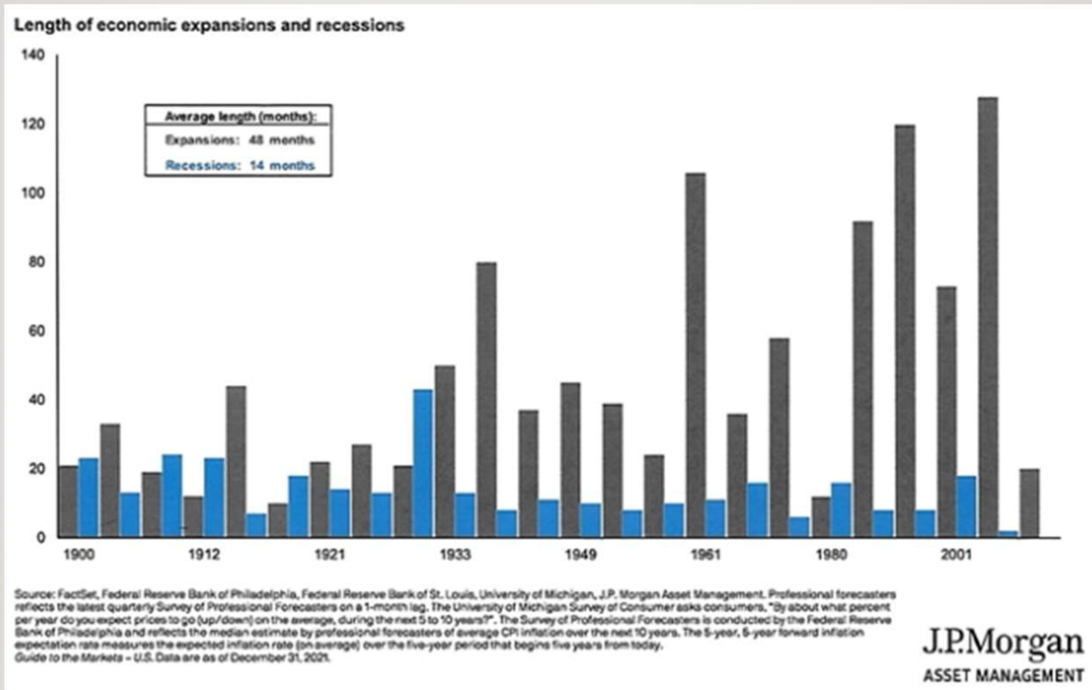
EQUITIES: STOCK MARKET SINCE 1900



ECONOMY: U.S. ECONOMIC RECESSIONS

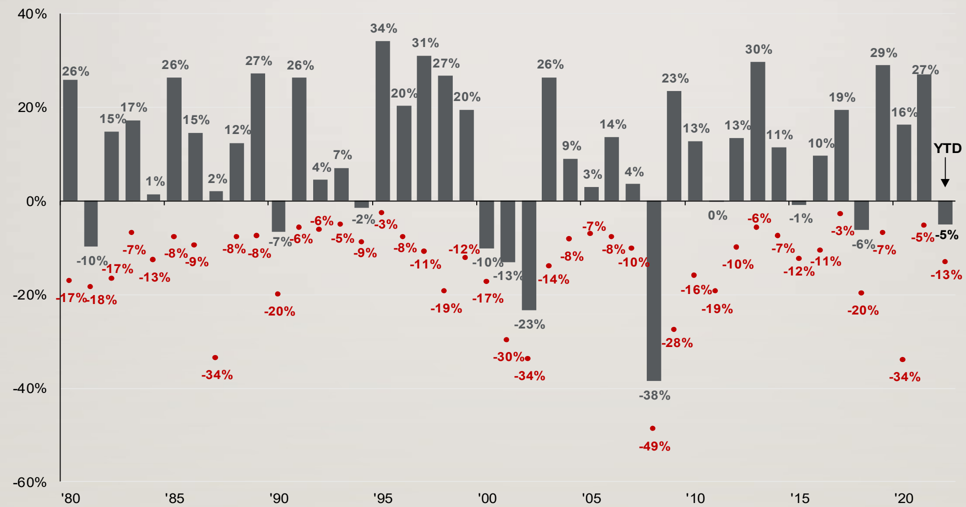


ECONOMY: LENGTH AND STRENGTH OF EXPANSIONS



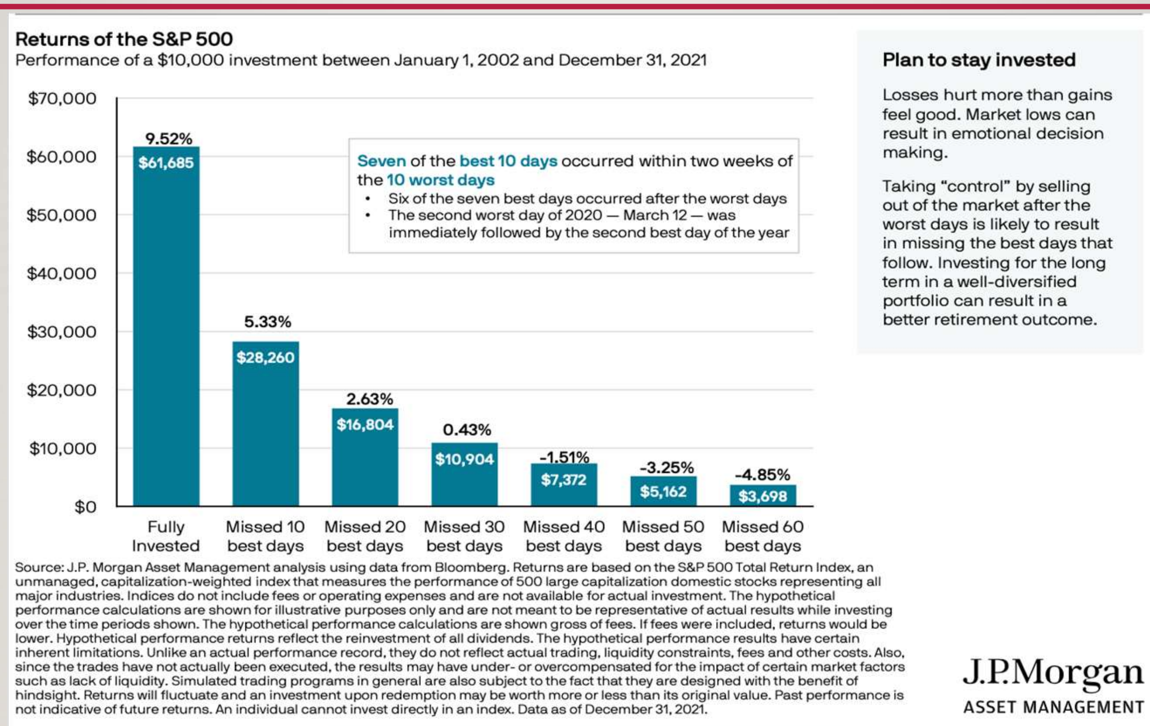
EQUITIES: ANNUAL RETURNS AND INTRA-YEAR DECLINES

S&P intra-year declines vs. calendar year returns
Despite average intra-year drops of 14.0%, annual returns were positive in 32 of 42 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2021, over which time period the average annual return was 9.4%.
Guide to the Markets – U.S. Data are as of March 31, 2022.

INVESTING: IMPACT OF BEING OUT OF MARKET



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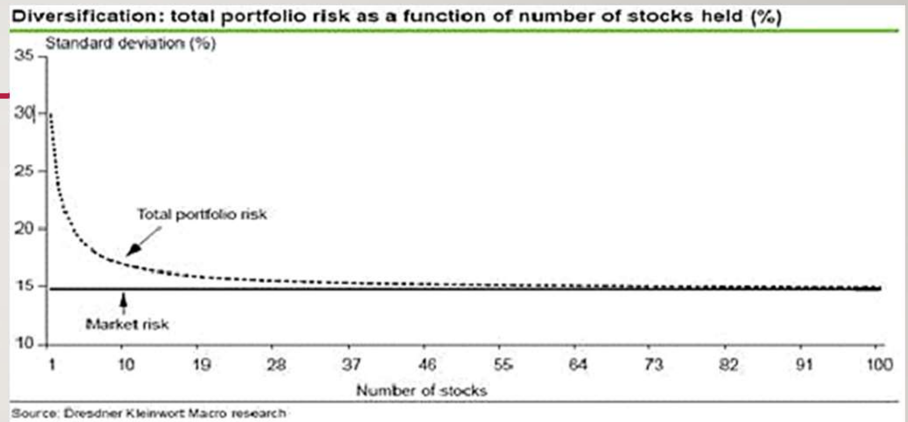
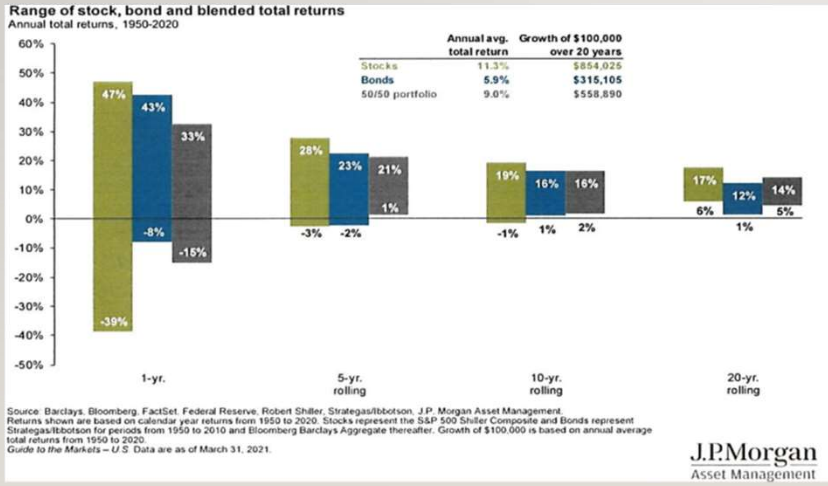
EQUITY INVESTING 101: RISK AND THE IMPORTANCE OF TIME AND DIVERSIFICATION



Ways to measure Risk

- Volatility – how much the price of a security fluctuates
- Standard Deviation – a measure of dispersion from the average
- Beta – how volatile is a stock compared to the Index



Cautionary Tales!

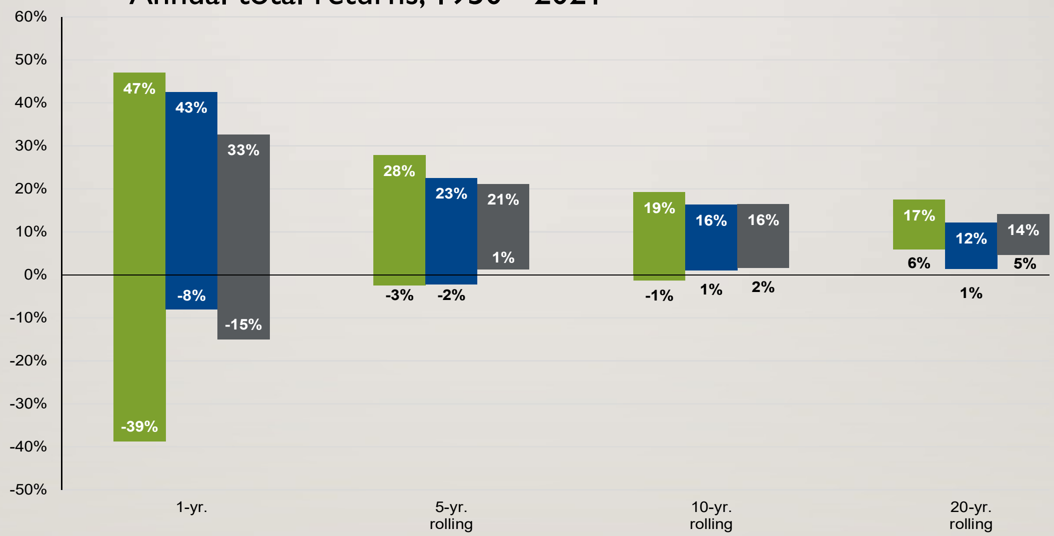
June 2000 -Just 17 months after taking the top job at Procter & Gamble Co., Durk I. Jager abruptly quit. And P&G was stunningly blunt about what went wrong. Investors promptly knocked 9% off a stock that has already suffered this year -- more than 50% below its high of the past 52 weeks.

After a brutal **2008**, **Fifth Third's** shares have plunged from $8.26 at the beginning of this year to below $2 a share, an 80 percent decline... **Fifth Third** wouldn't comment on the **stock price** or on analysts' opinions.

As of February 2020, GE **shares** have fallen a whopping 59% since January 2017, when the company announced it would cut 12,000 jobs. The company's market cap, ...

INVESTING PRINCIPLES: TIME, DIVERSIFICATION AND THE VOLATILITY OF RETURNS

Range of stock, bond and blended total returns
Annual total returns, 1950 - 2021



Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, Strategas/Ibbotson, J.P. Morgan Asset Management.
Returns shown are based on calendar year returns from 1950 to 2021. Stocks represent the S&P 500 Shiller Composite and Bonds represent Strategas/Ibbotson for periods from 1950 to 2010 and Bloomberg Aggregate thereafter. Growth of $100,000 is based on annual average total returns from 1950 to 2021.
Guide to the Markets – U.S. Data are as of March 31, 2022.

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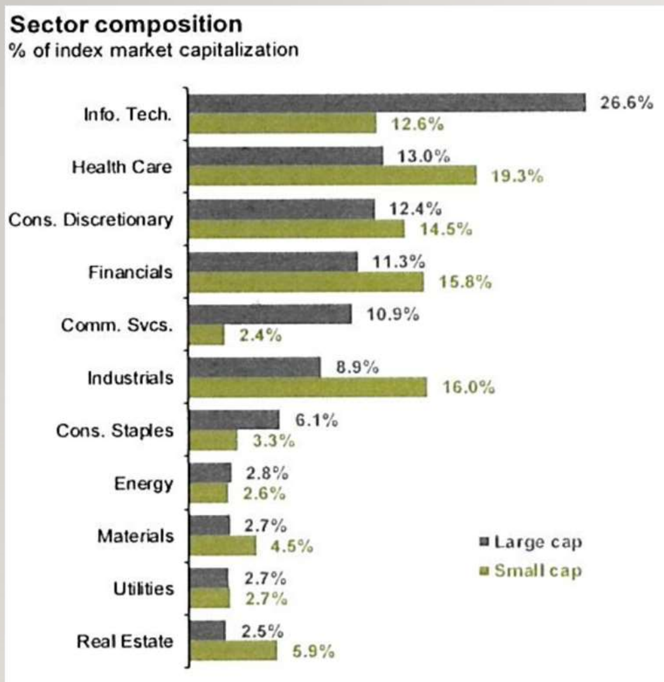
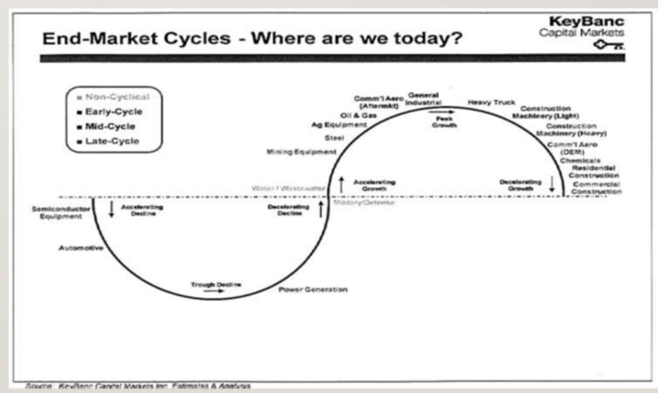
EQUITY INVESTING 101: INDUSTRY SECTORS

- **Technology** - computers, software, semiconductors, known for growth
- **Health Care** – pharma, biotech, devices, diagnostics
- **Consumer Discretionary** – retail, auto's, housing, restaurants, travel
- **Financials** – banks, insurance, financial services (ie. brokers)
- **Communications Services** – telco's, cable TV, anything that goes through airwaves or wires (media, search, social)
- **Industrials** – aerospace, ag, transportation, electrical, construction, defense.
- **Consumer Staples** – food, soft drinks, alcohol, household products
- **Energy** – oil, gas, and exploration services
- **Materials** – chemicals, mining, paper, fertilizer, and packaging
- **Utilities** – electric, nat gas, and water
- **Real Estate** – malls, office, apts, nursing homes, self storage, and cell towers





EQUITIES: SECTOR RETURNS

										2012-2021	
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Ann.	Vol.
Financials 28.8%	Cons. Disc. 43.1%	Real Estate 30.2%	Cons. Disc. 10.1%	Energy 27.4%	Info. Tech 38.8%	Health Care 6.5%	Info. Tech 50.3%	Info. Tech 37.6%	Energy 54.6%	Info. Tech 24.0%	Energy 29.0%
Cons. Disc. 23.9%	Health Care 41.5%	Utilities 29.0%	Health Care 6.9%	Telecom 23.5%	Materials 23.8%	Utilities 4.1%	Comm. Services 32.7%	Cons. Disc. 30.6%	Real Estate 46.2%	Cons. Disc. 19.6%	Financials 18.9%
Real Estate 19.7%	Industrials 40.7%	Health Care 25.3%	Cons. Staples 6.6%	Financials 22.8%	Cons. Disc. 23.0%	Cons. Disc. 0.8%	Financials 32.1%	Comm. Services 23.0%	Financials 35.0%	Health Care 17.2%	Materials 17.6%
Telecom 18.3%	Financials 35.6%	Info. Tech 20.1%	Info. Tech 5.9%	Industrials 18.9%	Financials 22.2%	Info. Tech -0.3%	S&P 500 31.5%	Materials 16.6%	Info. Tech 34.5%	S&P 500 16.5%	Info. Tech 17.6%
Health Care 17.9%	S&P 500 32.4%	Cons. Staples 16.0%	Real Estate 4.7%	Materials 16.7%	Health Care 22.1%	Real Estate -2.2%	Industrials 29.4%	S&P 500 15.5%	S&P 500 28.7%	Financials 16.3%	Industrials 16.9%
S&P 500 16.0%	Info. Tech 28.4%	Financials 15.2%	Telecom 3.4%	Utilities 16.3%	S&P 500 21.8%	S&P 500 -4.4%	Real Estate 29.0%	Health Care 10.8%	Materials 27.3%	Industrials 14.2%	Cons. Disc. 16.8%
Industrials 15.3%	Cons. Staples 26.1%	S&P 500 13.7%	S&P 500 1.4%	Info. Tech 13.8%	Industrials 21.0%	Cons. Staples -8.4%	Cons. Disc. 27.9%	Industrials 10.0%	Health Care 26.1%	Real Estate 13.1%	Real Estate 13.9%
Materials 15.0%	Materials 25.6%	Industrials 9.8%	Financials -1.5%	S&P 500 12.0%	Cons. Staples 13.5%	Telecom -12.5%	Cons. Staples 27.6%	Cons. Staples 9.1%	Cons. Disc. 24.4%	Materials 12.8%	S&P 500 13.9%
Info. Tech 14.8%	Energy 25.1%	Cons. Disc. 9.7%	Industrials -2.5%	Cons. Disc. 6.0%	Utilities 12.1%	Financials -13.0%	Utilities 26.3%	Utilities 0.1%	Comm. Services 21.6%	Cons. Staples 12.2%	Health Care 12.9%
Cons. Staples 10.8%	Utilities 13.2%	Materials 6.9%	Utilities -4.8%	Cons. Staples 5.4%	Real Estate 10.8%	Industrials -13.3%	Materials 24.6%	Real Estate -2.8%	Industrials 21.1%	Utilities 11.0%	Utilities 12.1%
Energy 4.6%	Telecom 11.5%	Telecom 3.0%	Materials -8.4%	Real Estate 3.4%	Energy -1.0%	Materials -14.7%	Health Care 20.8%	Financials -5.0%	Cons. Staples 18.6%	Energy 1.2%	Cons. Staples 10.9%
Utilities 1.3%	Real Estate 1.6%	Energy -7.8%	Energy -21.1%	Health Care -2.7%	Telecom -1.3%	Energy -18.1%	Energy 11.8%	Energy -33.5%	Utilities 17.7%	Comm. Servies N/A*	Comm. Servies N/A*

Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Telecommunications was renamed Communication Services at the end of September 2018. All data are based on Standard & Poor's GICS indexes and represent total return for stated period. Annualized (Ann.) return and volatility (Vol.) represents period of 12/31/11 – 12/31/21. Please see disclosure page at end for index definitions. Past performance is not indicative of future returns. *Communication Services (formerly Telecommunication Services) does not have a 10-yr. annualized return and volatility due to the sector reshuffle in September 2018.
Guide to the Markets – U.S. Data are as of December 31, 2021.

J.P.Morgan
ASSET MANAGEMENT

INVESTING PRINCIPLES: ASSET CLASS RETURNS

																2007 - 2021	
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD	Ann.	Vol.
EM Equity 39.8%	Fixed Income 5.2%	EM Equity 79.0%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 37.8%	Cash 1.8%	Large Cap 31.5%	Small Cap 20.0%	REITs 41.3%	Comdty. 25.5%	Large Cap 10.6%	REITs 23.2%
Comdty. 16.2%	Cash 1.8%	High Yield 59.4%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 25.6%	Fixed Income 0.0%	REITs 28.7%	EM Equity 18.7%	Large Cap 28.7%	Cash 0.0%	Small Cap 8.7%	EM Equity 22.9%
DM Equity 11.6%	Asset Alloc. -25.4%	DM Equity 32.5%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 21.8%	REITs -4.0%	Small Cap 25.5%	Large Cap 18.4%	Comdty. 27.1%	Asset Alloc. -3.9%	REITs 7.5%	Small Cap 22.5%
Asset Alloc. 7.1%	High Yield -26.9%	REITs 28.0%	Comdty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Comdty. 11.8%	Small Cap 14.6%	High Yield -4.1%	DM Equity 22.7%	Asset Alloc. 10.6%	Small Cap 14.8%	Large Cap -4.6%	High Yield 6.6%	Comdty. 19.1%
Fixed Income 7.0%	Small Cap -33.8%	Small Cap 27.2%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	Asset Alloc. 14.6%	Large Cap -4.4%	Asset Alloc. 19.5%	DM Equity 8.3%	Asset Alloc. 13.5%	REITs -5.3%	Asset Alloc. 5.7%	DM Equity 18.9%
Large Cap 5.5%	Comdty. -35.6%	Large Cap 26.5%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	High Yield 10.4%	Asset Alloc. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	DM Equity 11.8%	High Yield -5.7%	EM Equity 4.8%	Large Cap 16.9%
Cash 4.8%	Large Cap -37.0%	Asset Alloc. 25.0%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 8.7%	Small Cap -11.0%	High Yield 12.6%	High Yield 7.0%	High Yield 1.0%	DM Equity -5.8%	DM Equity 4.1%	High Yield 12.2%
High Yield 3.2%	REITs -37.7%	Comdty. 18.9%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 3.5%	Comdty. -11.2%	Fixed Income 8.7%	Cash 0.5%	Cash 0.0%	Fixed Income -5.9%	Fixed Income 4.1%	Asset Alloc. 11.7%
Small Cap -1.6%	DM Equity -43.1%	Fixed Income 5.9%	Fixed Income 6.5%	Comdty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Comdty. 1.7%	DM Equity -13.4%	Comdty. 7.7%	Comdty. -3.1%	Fixed Income -1.5%	EM Equity -6.9%	Cash 0.8%	Fixed Income 3.3%
REITs -15.7%	EM Equity -53.2%	Cash 0.1%	Cash 0.1%	EM Equity -18.2%	Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITs -5.1%	EM Equity -2.2%	Small Cap -7.5%	Comdty. -2.6%	Cash 0.7%

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.
Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg US Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg US Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2006 to 12/31/2021. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of March 31, 2022.

EQUITY INVESTING 101: WHAT MAKES A GREAT BUSINESS?

Economic Moats

- Size
  - Cost Advantages
  - Distribution Networks
  - Location, Location, Location
- The Industry Matters
  - Some industries are structurally advantaged
- Intangible Assets
  - Brands
  - Patents
  - Regulatory
- Switching Costs
  - Make it tough for customers to use a competitor's product
- Network Effects
  - The value of a product or service increases with the number of users

QUESTIONS?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GLASBERGEN
"This toy company looks like a good investment.
Their board of directors includes Santa Claus, the
Easter Bunny, Mother Goose and the Great Pumpkin."

RESERVED SLIDES

SAVING

Annual savings needed if starting today

Household income ≤$90k | GTR | 16

Saving

Current age	Current household income: $30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000
	Savings rate (x current household income)						
25	3%	5%	5%	6%	7%	8%	8%
30	4%	6%	7%	8%	9%	10%	10%
35	5%	8%	9%	10%	12%	13%	14%
40	6%	10%	12%	14%	16%	17%	18%
45	9%	14%	17%	19%	22%	23%	25%
50	13%	21%	25%	28%	33%	35%	38%

Values assume you would like to maintain an equivalent lifestyle in retirement.
Household income is assumed to be gross income (before taxes and savings).

How to use:

- Go to the intersection of your current age and your closest current household income.
- This is the percentage of your current household income to contribute annually going forward if you have $0 saved for retirement today.
- **Example: A 40-year-old with household income of $50,000 and $0 saved for retirement today may need to save 12% every year until retirement.**

Model assumptions

Pre-retirement portfolio:
60/40 diversified portfolio

Post-retirement portfolio:
40/60 diversified portfolio

Inflation rate: **2.3%**

Retirement age:
- Primary earner: **65**
- Spouse: **63**

Years in retirement: **35**

J.P.Morgan
ASSET MANAGEMENT

SAVING

Saving

Retirement savings checkpoints

Household income ≤$90k GTR 13
Annual savings rate: 5%

Current age	Current household income: $30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000
	Checkpoint (x current household income)						
25	See "Annual savings needed" on slide 16*	0.1	0.1	0.3	0.5	0.6	0.8
30		0.2	0.5	0.7	1.0	1.1	1.3
35		0.6	0.9	1.1	1.5	1.7	1.9
40	0.3	1.1	1.4	1.7	2.2	2.4	2.6
45	0.7	1.6	2.1	2.4	3.0	3.2	3.5
50	1.1	2.3	2.8	3.2	3.9	4.1	4.5
55	1.7	3.0	3.6	4.1	4.8	5.2	5.6
60	2.2	3.7	4.4	4.9	5.8	6.1	6.7
65	2.5	4.1	4.9	5.5	6.5	6.9	7.5

This analysis assumes you would like to maintain an equivalent lifestyle in retirement.
Household income is assumed to be gross income (before taxes and savings).

How to use:

- Go to the intersection of your current age and your closest current household income.
- Multiply your current household income by the checkpoint shown. This is the amount you should have saved today, assuming you continue contributions of 5% going forward.
- **Example: For a 40-year-old with a household income of $50,000: $50,000 x 1.4 = $70,000**

Model assumptions

Annual gross savings rate: **5%**

Pre-retirement portfolio: **60/40 diversified portfolio**

Post-retirement portfolio: **40/60 diversified portfolio**

Inflation rate: **2.3%**

Retirement age:

- Primary earner: **65**
- Spouse: **63**

Years in retirement: **35**

*Households age 25-35 earning $30k may need to save less than the 5% annual savings rate assumed in this analysis. If they were to save 5% annually going forward they would not need to have current assets to be on track. They should refer to the annual savings rate they need to be saving today found on slide 16. This chart is for illustrative purposes only and must not be relied upon to make investment decisions. J.P. Morgan Asset Management's (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions (first 10 years) and equilibrium returns, and an 80% confidence level. Portfolios are described as equity/bond percentages (e.g., a 40/60 portfolio is 40% equities and 60% bonds). Assumptions include household income replacement rates shown on slide 15. Consult with a financial professional for a more personalized assessment. Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

J.P.Morgan
ASSET MANAGEMENT

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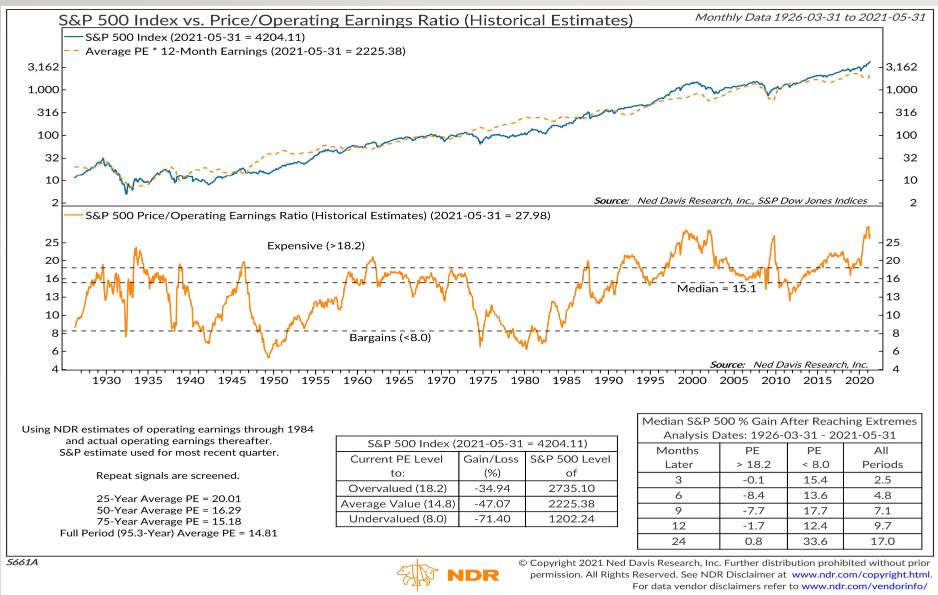
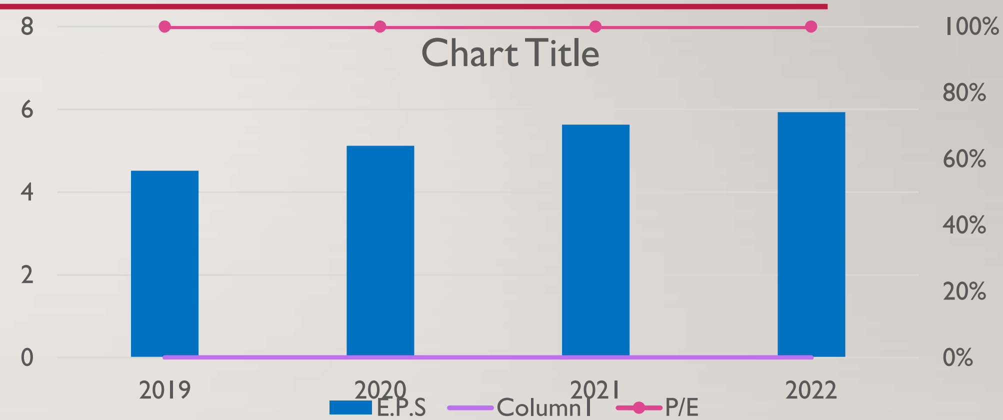
EQUITY INVESTING 101: HOW DO YOU VALUE A STOCK?

P/E Ratio
Price of a stock/Earnings per Share





Other Valuation Methods

- Price to Sales
- Price to Book
- Dividend Discount Model
- EV/EBITDA
- Discounted Future Cash Flows
- *"A company's value is equal to all the cash it will generate in the future."* Pat Dorsey

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EQUITY INVESTING 101: HISTORICAL RETURNS – STOCKS, BONDS, BILLS AND INFLATION ®

Exhibit 2.2a: Logarithmic Scale

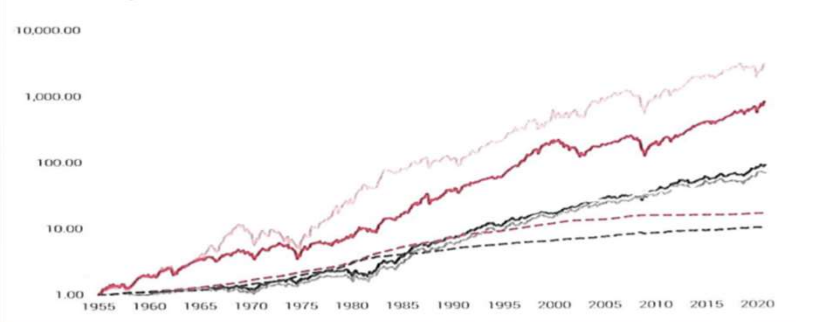
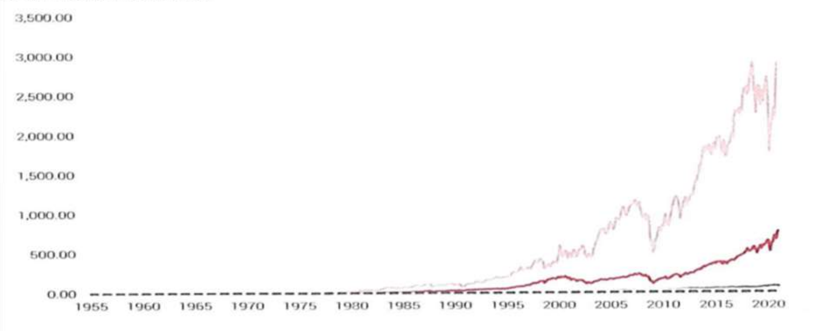


Exhibit 2.2b: Linear Scale



2021 SBBI® Yearbook 2-3

Asset Class	Average Return	Standard Deviation
Large-Cap Stocks	10.3%	19.7%
Small-Cap Stocks	11.9%	31.3%
Long-term Corp Bonds	6.2%	8.5%
Long-term Gov't Bonds	5.7%	9.8%
Inter-term Gov't Bonds	5.1%	5.6%
U.S. Treasury Bills	3.3%	3.1%
Inflation	2.9%	4.0%

The New Normal. In 2009 Bill Gross suggested that investors would need to question many long-held beliefs as they adjust to this new normal. Among them is the idea that risky assets such as stocks are always better for the long run. In the subdued economic climate ahead, risk-taking is simply not going to be as rewarding, so investors may want to switch down to a more sedate asset allocation mix with more bonds and stable blue chip stocks.

EQUITIES: FACTOR PERFORMANCE

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD	2007 - 2021 Ann.	2007 - 2021 Vol.
Momen. 17.8%	Min. Vol. -25.7%	Value 38.8%	Small Cap 26.9%	High Div. 14.3%	Cyclical 20.1%	Value 43.2%	Value 17.7%	Momen. 9.3%	Small Cap 21.3%	Momen. 37.8%	Min. Vol. 1.5%	Cyclical 36.3%	Momen. 29.6%	Value 29.2%	Defens. 2.6%	Momen. 11.8%	Small Cap 22.5%
Defens. 17.7%	Defens. -26.7%	Cyclical 36.9%	Multi-Factor 18.3%	Min. Vol. 12.9%	Value 16.8%	Small Cap 38.8%	Min. Vol. 16.5%	Min. Vol. 5.6%	High Div. 16.3%	Cyclical 27.3%	Momen. -1.6%	Quality 34.4%	Cyclical 27.8%	Cyclical 27.6%	High Div. -1.5%	Quality 11.5%	Value 20.7%
Quality 10.1%	High Div. -27.6%	Multi-Factor 29.8%	Momen. 18.2%	Defens. 10.1%	Small Cap 16.3%	Multi-Factor 37.4%	High Div. 14.9%	Quality 4.6%	Value 15.9%	Quality 22.5%	High Div. -2.3%	Momen. 28.1%	Small Cap 20.0%	Quality 27.2%	Min. Vol. -3.8%	Cyclical 11.2%	Cyclical 19.9%
Multi-Factor 5.5%	Quality -31.2%	Small Cap 27.2%	Cyclical 17.9%	Quality 7.5%	Multi-Factor 15.7%	Cyclical 35.0%	Multi-Factor 14.8%	Cyclical 2.6%	Cyclical 14.0%	Value 22.2%	Defens. -2.9%	Min. Vol. 28.0%	Quality 17.1%	Multi-Factor 25.1%	Value -3.8%	Min. Vol. 10.5%	Momen. 17.7%
Min. Vol. 4.3%	Small Cap -33.8%	Quality 24.9%	High Div. 15.9%	Multi-Factor 7.3%	Momen. 15.1%	Momen. 34.8%	Momen. 14.7%	High Div. 0.7%	Multi-Factor 13.7%	Multi-Factor 21.5%	Cyclical -5.3%	Value 27.7%	Multi-Factor 11.4%	Defens. 25.0%	Multi-Factor -4.1%	Multi-Factor 10.1%	Multi-Factor 17.7%
Value 1.1%	Value -36.9%	High Div. 18.4%	Min. Vol. 14.7%	Momen. 6.1%	Quality 12.8%	Quality 34.3%	Cyclical 13.6%	Multi-Factor 0.4%	Min. Vol. 10.7%	High Div. 19.5%	Quality -5.6%	Multi-Factor 26.6%	Min. Vol. 5.8%	High Div. 21.9%	Momen. -7.3%	High Div. 9.4%	Quality 15.7%
High Div. 0.0%	Multi-Factor -39.3%	Min. Vol. 18.4%	Quality 14.2%	Value -2.7%	Min. Vol. 11.2%	High Div. 28.9%	Defens. 13.0%	Defens. -0.9%	Quality 9.4%	Min. Vol. 19.2%	Multi-Factor -9.7%	Small Cap 25.5%	Defens. 5.2%	Min. Vol. 21.0%	Quality -7.4%	Defens. 9.1%	High Div. 15.1%
Cyclical -0.8%	Momen. -40.9%	Momen. 17.6%	Value 12.7%	Cyclical -3.4%	Defens. 10.7%	Defens. 28.9%	Quality 10.7%	Small Cap -4.4%	Defens. 7.7%	Small Cap 14.6%	Small Cap -11.0%	High Div. 22.5%	High Div. 1.7%	Small Cap 14.8%	Small Cap -7.5%	Value 9.1%	Defens. 13.9%
Small Cap -1.6%	Cyclical -44.8%	Defens. 16.5%	Defens. 12.0%	Small Cap -4.2%	High Div. 10.6%	Min. Vol. 25.3%	Small Cap 4.9%	Value -6.4%	Momen. 5.1%	Defens. 12.3%	Value -11.1%	Defens. 21.4%	Value -0.2%	Momen. 12.9%	Cyclical -7.7%	Small Cap 8.7%	Min. Vol. 13.2%

Source: FactSet, MSCI, Russell, Standard & Poor's, J.P. Morgan Asset Management. The MSCI High Dividend Yield Index aims to offer a higher than average dividend yield relative to the parent index that passes dividend sustainability and persistence screens. The MSCI Minimum Volatility Index optimizes the MSCI USA Index using an estimated security co-variance matrix to produce low absolute volatility for a given set of constraints. The MSCI Defensive Sectors Index includes: Consumer Staples, Energy, Health Care and Utilities. The MSCI Cyclical Sectors Index contains: Consumer Discretionary, Communication Services, Financials, Industrials, Information Technology and Materials. Securities in the MSCI Momentum Index are selected based on a momentum value of 12-month and 6-month price performance. Constituents of the MSCI Sector Neutral Quality Index are selected based on stronger quality characteristics to their peers within the same GICS sector by using three main variables: high return-on-equity, low leverage and low earnings variability. Constituents of the MSCI Enhanced Value Index are based on three variables: price-to-book value, price-to-forward earnings and enterprise value-to-cash flow from operations. The Russell 2000 is used for small cap. The MSCI USA Diversified Multiple Factor Index aims to maximize exposure to four factors – Value, Momentum, Quality and Size. Annualized volatility is calculated as the standard deviation of quarterly returns multiplied by the square root of 4. *Guide to the Markets* – U.S. Data are as of March 31, 2022.

RETIREMENT LANDSCAPE