



BLACK SWAN EVENTS: NAVIGATING ECONOMIC TRENDS & MARKET FORECASTS

PAULA MCMILLAN, CPA, CFP®, PFS, CEPA, CDFA®, CGMA

PAULA MCMILLAN CPA, CFP®, PFS, CEPA, CDFA®, CGMA

Wealth Advisor Making the Complex Simple

- Created two national AICPA podcast series Retirement Readiness and Women and Wealth.
- > A TEDx presenter on Retirement: Longevity and Security.
- Regularly published and quoted in national and local publications, including *The Wall Street Journal, CNBC, US News & World Report, Kiplinger's, The Business Journal, The Tax Adviser, Journal of Accountancy, NCACPA Interim Report, How Stuff Works* and more.



- AICPA Advanced Personal Financial Planning Conference Investment Committee Lead
- AICPA Personal Financial Specialist (PFS) Credential Committee Member
- Greensboro Estate Planning Council Board Member
- Society of Financial Service Professionals (SFSP) Board Member

- Society of Financial Service Professionals (SFSP) Board Member
- Society of Financial Service Professionals (SFSP) Foundation Board Chair
- NCACPA Triad Women's Initiatives Group Chair
- Women's Professional Forum Financial Divas Chair
- Plenteous Financial Forum Chair and Founder

www.linkedin.com/in/paulamcmillan/

ONE FINE DAY... AND THEN...





WITH CONNECTIVITY, CHANGE HAPPENS FASTER.





THE FRIGHTENING MATH OF EXPONENTIAL COMPOUNDING.

COVID-19 PANDEMIC: WORLDWIDE PANDEMIC LED TO ECONOMIC SHUTDOWNS

GDP Decline: Many countries experienced severe economic contractions. • U.S. GDP contracted by 3.5% in 2020, the largest decline since 1946.

Market Volatility: Stock markets experienced extreme fluctuations. • S&P 500 dropped by 34% from February to March 2020 before recovering.

Supply Chain Disruptions: Global supply chains were heavily impacted, leading to shortages and delays.

• Significant disruptions in industries such as automotive, electronics, and pharmaceuticals.



sources: https://apnews.com/article/us-economy-shrink-in-2020-b59f9be06dcf1da924f64afde2ce094c, https://www.cbc.ca/news/business/us-gdp-jobless-reports-1.5891351; <a href="https://www.cbc.ca/news/busine

IN GLOBAL FINANCIAL MARKETS, THERE ARE SOMETIMES UNEXPECTED EVENTS WITH FAR-REACHING CONSEQUENCES THAT OFTEN CATCH INVESTORS, ANALYSTS, AND EVEN GOVERNMENTS BY SURPRISE.

THESE EVENTS ARE OUR "BLACK SWANS"...



CHARACTERISTICS OF BLACK SWAN EVENTS

Unpredictability: An outlier nearly impossible to predict accurately.

High Impact: Extraordinary impact on financial markets.

Post-Event Rationalization: Tendency to rationalize after occurrence.



GLOBAL FINANCIAL CRISIS: HOUSING CRASH LED TO A GLOBAL RECESSION

Stock Market Crash: Major indices like the Dow Jones and S&P 500 plummeted. Dow Jones fell by 54% from its peak in October 2007 to its trough in March 2009.

Unemployment Spike: Millions lost their jobs as businesses closed or downsized.

• U.S. unemployment rate peaked at 10% in October 2009.

Global Economic Downturn: Widespread economic contraction and financial instability.

• Global GDP contracted by 1.7% in 2009.



sources: https://en.wikipedia.org/wiki/Financial_crisis_of_2007%E2%80%932008#Stock_market;; https://moneymorning.com/2008-stock-market-crash-causes-and-aftermath/; https://moneymorning.com/; <a

9/11 ATTACKS: ATTACKS LED TO MARKET SHOCK & ECONOMIC JOLT

Stock Market Closure: U.S. markets closed for several days. NYSE and NASDAQ closed from September 11 to September 17, 2001.

Economic Downturn: Immediate economic slowdown and increased security costs.

• U.S. GDP growth slowed to 0.8% in 2001 from 3.7% in 2000.

Increased Security Measures: Long-term changes in travel and security protocols. Implementation of the USA PATRIOT Act and creation of the Department of Homeland Security.



sources: https://www.investopedia.com/how-september-11-affected-the-us-stock-market-4773200; https://www.bea.gov/data/gdp; https://www.dhs.gov/about-dhs

POTENTIAL GEOPOLITICAL BLACK SWANS

Cybersecurity Threats: Increasing risk of cyberattacks from state and non-state actors.

• Potential impact on critical infrastructure and financial systems.

Climate Change: Extreme weather events and environmental disasters.

• Impact on agriculture, real estate, and insurance industries.

Pandemics: Future global health crises similar to COVID-19.

• Impact on public health, economy, and social stability.

Conflict in East Asia: Potential military conflict involving China and Taiwan.

• Impact on global trade and technology supply chains.

POTENTIAL GEOPOLITICAL BLACK SWANS

Middle East Instability: Escalation of conflicts involving Iran, Israel, and other regional powers.

• Impact on global oil supply and prices.

European Political Shifts: Potential political upheaval in major European economies.

• Impact on the Eurozone and global financial stability.

Artificial Intelligence Threats: Unknown future impact of new unregulated technologies.

• Potential impact on the health and human sustainability.

GMO (Genetically Modified Organism) Risks: Changes to the original composition of our primary food sources.

• Impact on agriculture and population health.

FINANCIAL MARKETS ARE HIGHLY SENSITIVE TO BLACK SWAN EVENTS, LEADING TO SIGNIFICANT VOLATILITY, PANIC AND MISPRICING OF ASSETS



RETROSPECTIVE RATIONALIZATION

After a black swan event, there is a tendency to rationalize and devise explanations for its occurrence.

This hindsight bias can lead to overconfidence in predicting future events.

It is crucial to remain vigilant and avoid complacency in risk management.



INCENTIVES FOR STICKING IT OUT

Historical

Resilience: Markets have historically rebounded from black swan events. Long-term investors often see significant gains post-recovery.

Diversification

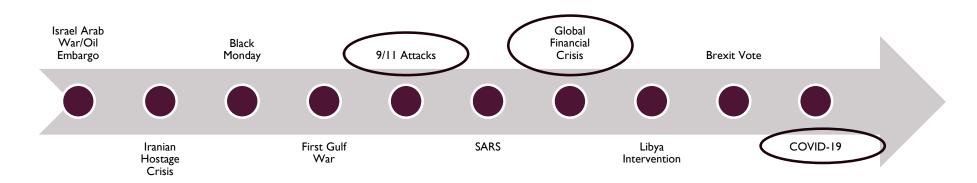
Benefits: Well-diversified portfolios tend to recover faster.

• Reduces the impact of any single event on overall portfolio performance.

Government Support: Fiscal and monetary policies often support recovery.

• Stimulus packages and regulatory changes can accelerate economic stabilization.

RECOVERY TIME FROM BLACK SWAN EVENTS



Event	Start of Sell-Off / Previous Peak	Size of Sell-off	Duration of Sell-off (Trading Days)	Duration of Recovery (Trading Days)
Israel Arab War/Oil Embargo	29-Oct-73	-17%	27	1475
Iranian Hostage Crisis	5-Oct-79	-10%	24	51
Black Monday	13-Oct-87	-29%	5	398
First Gulf War	I-Jan-91	-6%	6	8
9/11 Attacks	10-Sep-01	<mark>-12%</mark>	<mark>6</mark>	<mark>15</mark>
SARS	l 4-Jan-03	-14%	39	40
<mark>Global Financial Crisis</mark>	<mark>9-Oct-07</mark>	<mark>-57%</mark>	<mark>356</mark>	<mark>1022</mark>
Intervention in Libya	18-Feb-11	-6%	18	29
Brexit Vote	8-Jun-16	-6%	14	9
COVID-19	<mark>19-Feb-20</mark>	<mark>-30%</mark>	<mark>19</mark>	<mark>46</mark>

ACTIONABLE RECOMMENDATIONS

- Scenario Planning
- 2. Stress Testing
- 3. Liquidity Management
- 4. Continuous Learning
- 5. Consistent Communication
- 6. Diversification



ACTIONABLE RECOMMENDATION – SCENARIO PLANNING

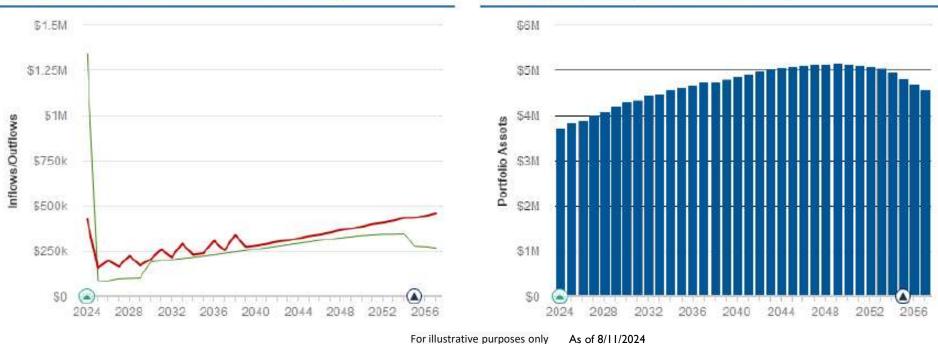
Scenario Planning: Develop multiple contingency plans to prepare for various potential disruptions, be able to pivot quickly and reduce recovery time post event.

Consider a range of possible outcomes and plan accordingly. Regularly update and review contingency plans.

SCENARIO PLANNING - APPLIED

Inflows and Outflows Base Case (5% Returns)

Portfolio Assets Base Case (5% Returns)



Financial Planning 101: Table Stakes

- Does your "most likely" base case get you to age 100 without running out of money?
- What is your margin of safety from your projected inflows and outflows?

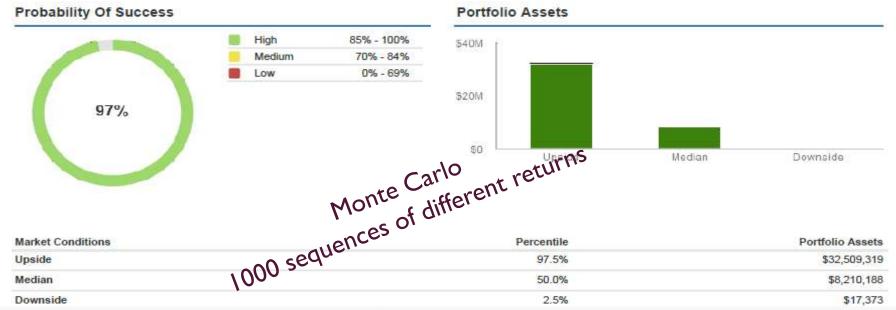
- What else would you like to see/model?
 - Other dreams or financial decisions considered
 - Contingency plan
 - Potential needs that may arise from dependents

ACTIONABLE RECOMMENDATION – STRESS TESTING

Stress Testing: Regularly test financial plans against extreme scenarios to ensure robustness.

Identify potential vulnerabilities and address them proactively. Use historical black swan events as benchmarks for stress tests.

STRESS TESTING - APPLIED



For illustrative purposes only. Tools such as the Monte Carlo simulation will yield different results depending on the variable inputted, and the assumptions underlying the calculation. The outcomes presented using the Monte Carlo simulation represent only a few of the many possible outcomes. Since past performance and market conditions may not be repeated in the future your investment goals may not be fulfilled by following advice that is based on the projections.

- Now, try to "break the plan" with more scenarios like these:
 - Varying return and inflation projection over time periods to reflect different market and/or allocation.
 - Additional annual spend to leave minimal portfolio assets (available buffer)
 - More aggressive taxation

- Then, correct for identified shortfalls/gaps with options like:
 - Downsize home
 - Retire in a lower tax state
 - Decrease spending or increase income
- Determine what may need to be done now versus what could be done in the future if/as needed

ACTIONABLE RECOMMENDATION – LIQUIDITY MANAGEMENT

Liquidity Management: Maintain sufficient cash reserves to better handle unexpected disruptions.

Ensure access to liquid assets in times of crisis. Avoid overleveraging and maintain a healthy cash flow.

LIQUIDITY MANAGEMENT - APPLIED

Year	Age	Schwab IRA R/O (AG) -	Schwab IRA R/O (MG) -	Schwab IRA	Schwab Individual -	Schwab Individual -	Schwab Individual -	Surplus Savings Account -	Total Withdrawals	Total Portfolio Assets (BoY)	Withdrawal Percentage
2024	67/70	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,674,441	0.00%
2025	68/71	\$0	\$0	-h flow	needs	\$0	\$0	\$71,234	\$71,234	\$3,720,863	1.91%
2026	69/72	\$0	Project	cash flow	\$0	\$0	\$0	\$112,287	\$112,287	\$3,832,987	2.93%
2027	70/73	\$0	\$0	\$10,267	\$0	\$0	\$0	\$66,744	\$77,011	\$3,909,817	1.97%
2028	71/74	\$0	\$0	\$10,800	\$0	\$ 0	\$0	\$124,790	\$135,590	\$4,025,695	3.37%
2029	72/75	\$0	\$0	\$11,316	\$0	\$0	\$0	\$70,091	\$81,407	\$4,089,056	1.99%
2030	73/76	\$32,962	\$53,8 <mark>1</mark> 0	\$11,856	\$0	\$0	\$0	\$13,702	\$112,330	\$4,209,580	2.67%

For illustrative purposes only

- How long can you pay fixed expenses in a crunch?
- Could you afford to be more conservative, if desired?
- What is the projected impact of different allocations over your lifetime?
- Where will you take funds from to make up negative cash flow needs throughout life? (i.e. tax implications, return implications, access)

ACTIONABLE RECOMMENDATION – CONTINUOUS LEARNING

Continuous Learning: Stay informed about global political developments, emerging trends and potential risks.

Engage in ongoing education and professional development. Monitor geopolitical, economic, and technological developments.

CONTINUOUS LEARNING - APPLIED

- Continue to monitor the economic environment
- Learn more about personal financial planning and investing
- Consider working with an advisor or taking part in a financial planning group or investment group
- Consider reading some related books:
 - The Black Swan: The Impact of the Highly Improbable by Nassim Nicholas Taleb
 - Antifragile: Things that Gain from Disorder by Nassim Nicholas Taleb
 - Safe Haven: Investing for Financial Storms by Mark Spitznagel
 - Chaos Kings: How Wall Street Traders Make Billions in the New Age of Crisis by Scott Patterson

IN ATTEMPTING TO MITIGATE BLACK SWAN RISK

Have respect for time and non-demonstrative knowledge	Avoid optimization; learn to love redundancy	Avoid prediction of small-probability payoffs – though not necessarily of ordinary ones
Beware of "atypical" remote events	Beware of moral hazard with bonus payments	Avoid some risk metrics
Positive or negative Black Swan?	Do not confuse absence of volatility with absence of risk.	Beware of presentations of risk numbers.

Source: The Black Swan - The Impact of the Highly Improbable by Nassim Nicholas Taleb

TEN PRINCIPLES FOR A BLACK SWAN ROBUST SOCIETY

What is fragile should break early, while it's still small.

No socialization of losses and privatization of gains.

People who were driving a bus blindfolded (and crashed it) should never be given a new bus.

Don't let someone making an "incentive" bonus manage a nuclear risk – or your financial risks.

Compensate complexity with simplicity.

Do not give children dynamite sticks, even if they come with a warning label.

Only Ponzi schemes should depend on confidence. Governments should never need to "restore confidence".

Do not give an addict more drugs if he has withdrawal pains.

Citizens should not depend on financial assets as a repository of value and should not rely on fallible "expert" advice for their retirement.

Make an omelet with the broken eggs.

DIVERSE APPROACHES TO MANAGING FINANCIAL CHAOS

- Nassim Nicholas Taleb
- Mark Spitznagel
- Didier Sornette
- Robert F. Engle
- Eric Ghysels



ACTIONABLE RECOMMENDATION – CONSISTENT COMMUNICATION

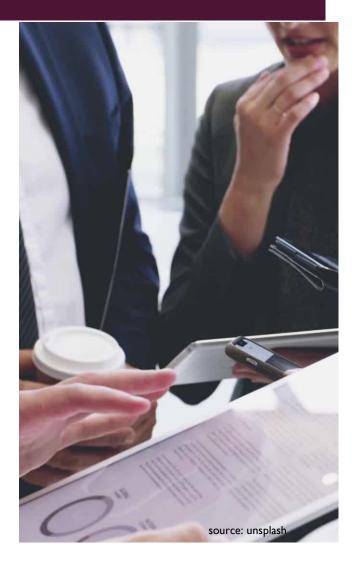
Consistent Communication: Stay in touch with relevant, timely and effective information.

Support good communication between individual and advisor for customized understanding. Allow for more nimble response, particularly in times where situations are evolving quickly.

CONSISTENT COMMUNICATION - APPLIED

CPAs and Financial Advisors play a crucial role in guiding clients through uncertainty and helping them navigate financial disruptions.

- Clear, honest and effective communication with clients is essential during black swan events.
- Keep clients informed about potential risks and recommended actions. Provide advice on risk management and financial planning.
- Assist clients in stress testing and scenario planning, which can include restructuring debt and managing cash flow.
- Use multiple channels to communicate, including emails, webinars, and face-to-face meetings.
- Effective communication during crises is important for client retention.



ACTIONABLE RECOMMENDATION – DIVERSIFICATION

Diversification: Spread investments across asset classes for a welldiversified portfolio to help mitigate risk and experience less severe losses.

Avoid concentration in any single sector or asset type. Include a mix of stocks, bonds, real estate, and alternative investments.

DIVERSIFICATION -APPLIED

Diversification is an important part of risk management.

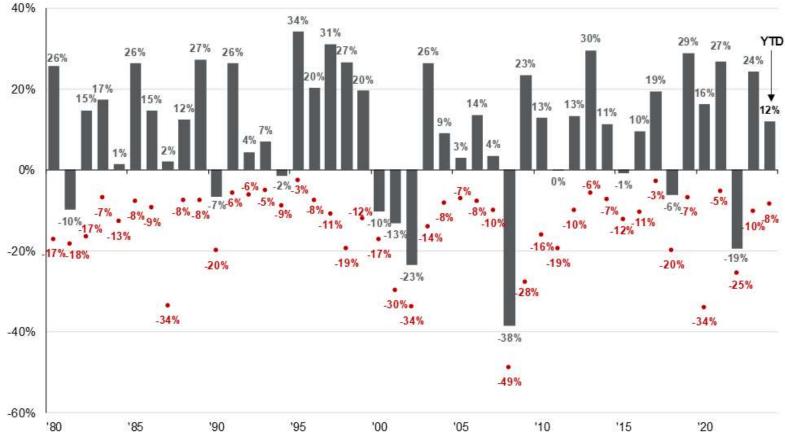
- Black swan events highlight the importance of diversification and risk management.
- Investors should avoid over-reliance on any single asset class or strategy.
- Incorporating alternative investments and hedging strategies can enhance portfolio resilience.



ANNUAL RETURNS AND INTRA-YEAR DECLINES

S&P intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.2%, annual returns were positive in 33 of 44 years



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, Condty: 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 12/31/2009 to 12/31/2023. 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 August 9, 2024.

ASSET CLASS RETURNS

2009	-2023																
Ann.	Vol.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD
Large Cap	Small Cap	EM Equity	REITS	REITS	REITS	Small Cap	REITS	REITS	Small Cap	EM Equity	Cash	Large Cap	Small Cap	REITS	Comdty.	Large Cap	Large Cap
14.0%	21.9%	79.0%	27.9%	8.3%	19.7%	38.8%	28.0%	2.8%	21.3%	37.8%	1.8%	31.5%	20.0%	41.3%	16.1%	26.3%	13.0%
Small Cap	RETS	High Yield	Small Cap	Fixed Income	High Yield	Large Cap	Large Cap	Large Cap	High Yield	DM Equity	Fixed Income	REITS	EM Equity	Large Cap	Cash	DM Equity	REITS
11.3%	21.2%	59.4%	26.9%	7.8%	19.6%	32.4%	13.7%	1.4%	14.3%	25.6%	0.0%	28.7%	18.7%	28.7%	1.5%	18.9%	6.1%
REITS	EM Equity	DM Equity	EM Equity	High Yield	EM Equity	DM Equity	Fixed Income	Fixed Income	Large Cap	Large Cap	REITS	Small Cap	Large Cap	Comdty.	High Yield	Small Cap	EM Equity
10.9%	20.3%	32.5%	19.2%	3.1%	18.6%	23.3%	6.0%	0.5%	12.0%	21.8%	-4.0%	25.5%	18.4%	27.1%	-12.7%	16.9%	6.0%
High Yield	DM Equity	REITS	Comdty.	Large Cap	DM Equity	Asset Allec.	Asset	Cash	Comdty.	Small Cap	High Yield	DM Equity	Asset	Small Cap	Fixed Income	Asset Allec.	Asset Alloc.
8.6%	18.4%	28.0%	16.8%	2.1%	17.9%	14/9%	5.2%	0.0%	11.8%	14.6%	-4.1%	22.7%	10.6%	14.8%	-13.0%	14.1%	5.9%
Asset Alloc.	Comdty.	Small Cap	Large Cap	Cash	Small Cap	/ligh /Yield	Small Cap	DM Equity	EM Equity	Asset	Large Cap	Asset	DM Equity	Asset	Asset	High Yield	High Yield
8.1%	16.6%	27.2%	15.1%	0.1%	16.3%	7.3%	4.9%	-0.4%	11.6%	14.6%	-4.4%	19.5%	8.3%	13.5%	-13.9%	14.0%	5.3%
DM Equity 7.4%	Large Cap 16.1%	Large Cap 26.5%	High Yield 14.8%	Asset Allec.	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Allec. -2.0%	REITS	High Yield 10.4%	Asset Allec. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	DM Equity 11.8%	DM Equity -14.0%	REITS	DM Equity 4.5%
EM	High	Asset	Asset	Small	Asset	Cash	High	High	Asset	REITS	Small	High	High	High	Large	EM	Small
Equity 6.9%	Yield 11.5%	Allec. 25.0%	Alloc. 13.3%	Cap -4.2%	Allec. 12.2%	0.0%	Yield 0.0%	Yield -2.7%	Alle. 8.3%	8,7%	Cap -11.0%	Yield 12.6%	Yield 7.0%	Yield 1.0%	Cap -18.1%	Equity 10.3%	Cap 3.5%
Fixed Income 2.7%	Asset Alloc. 11.5%	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%	EM Equity -19.7%	Fixed Income 5.5%	Cash 3.3%
Cash	Fixed Income	Fixed Income	Fixed Income	Comdty.	Cash	EM Equity	DM Equity	EM Equity	DM Equity	Comdty.	DM Equity	Comdty.	Comdty.	Fixed Income	Small Cap	Cash	Fixed Income
0.8%	4.5%	5.9%	6.5%	-13.3%	0.1%	-2.3%	-4.5%	-14.6%	1.5%	1.7%	-13.4%	7.7%	-3.1%	-1.5%	-20.4%	5.1%	2.4%
Comdty.	Cash 0.7%	Cash 0.1%	Cash 0.1%	EM Equity -18.2%	Comdty.	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITS	EM Equity -2.2%	REITS	Comdty.	Comdty.

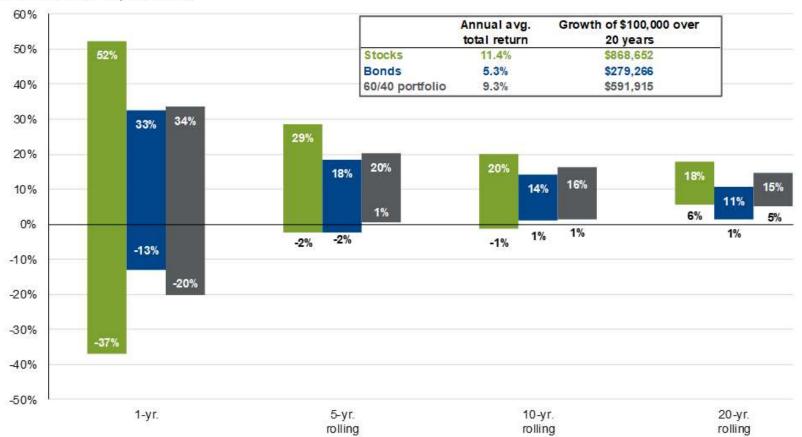
Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.

Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Condty: 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 12/31/2009 to 12/31/2023. 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 August 9, 2024.

TIME, DIVERSIFICATION AND RETURN VOLATILITY

Range of stock, bond and blended total returns

Annual total returns, 1950-2023



Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, Standard & Poor's, Strategas/Ibbotson, J.P. Morgan Asset Management.

Returns shown are based on calendar year returns from 1950 to 2023. Stocks represent the S&P 500 Shiller Composite for periods prior to 1936 and the S&P 500 thereafter. Bonds represent Strategas/Ibbotson for periods prior to 1976 and the Bloomberg Aggregate thereafter. Growth of \$100,000 is based on annual average total returns from 1950 to 2023.

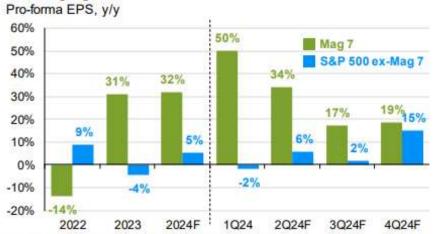
Guide to the Markets - U.S. Data are as of August 9, 2024.

MAGNIFICENT 7 PERFORMANCE AND EARNINGS

Performance of "Magnificent 7" stocks in S&P 500* Indexed to 100 on 1/1/2021, price return

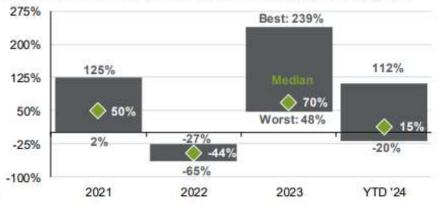






Magnificent 7 performance dispersion

Price returns, best, median and worst performing Mag 7 stock by year



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

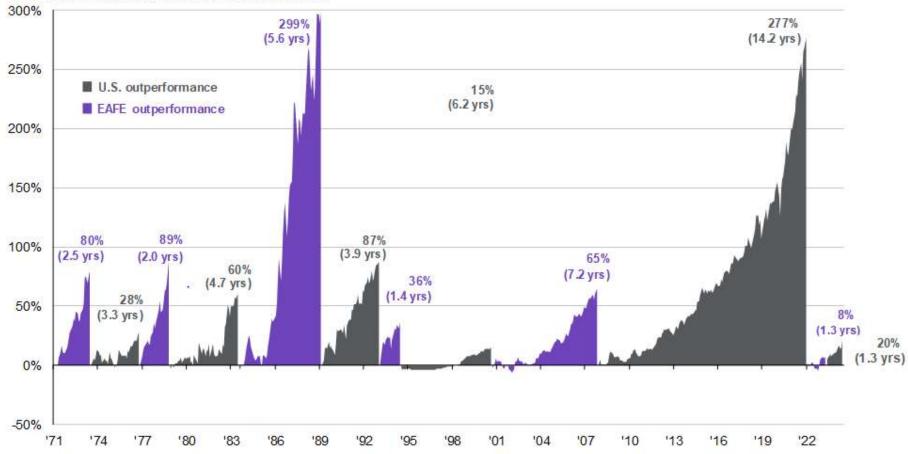
*Magnificent 7 includes AAPL, AMZN, GOOG, GOOGL, META, MSFT, NVDA and TSLA. Earnings estimates for 2024 are forecasts based on consensus analyst expectations. **Share of returns represent how much each group contributed to the overall return. Numbers are always positive despite negative performance in 2022. Outdate the Martineta ILL & Date are as of August 0, 2024.

Guide to the Markets - U.S. Data are as of August 9, 2024.

CYCLES OF US EQUITY OUTPERFORMANCE

MSCI EAFE and MSCI USA relative performance

U.S. dollar, total return, cumulative outperformance



Source: FactSet, MSCI, J.P. Morgan Asset Management.

Regime change determined when cumulative outperformance peaks and is not reached again in the subsequent 12-month period. Guide to the Markets – U.S. Data are as of August 9, 2024.

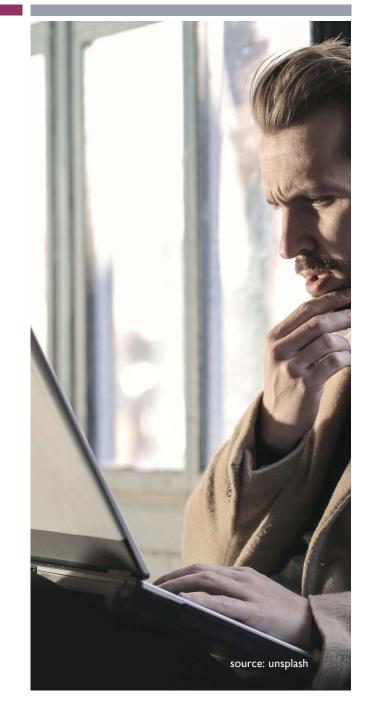


THE COST OF TAIL RISK PROTECTION

CONSIDERATIONS

There can be a large variance between the returns in all of these tools making it important to understand:

- Attributes of strategy/offering
 - Perpetual bleeding
 - Correlated versus uncorrelated
 - Understanding of the mechanics. (i.e. rebalance frequency, whether triggers, such as 200 day moving average, will be effective in a fast-moving market)
 - Longevity
- Uniqueness of Black Swan event (and related recovery)
- Element of Luck
- The Cost of Tail Risk Protection



TOOLS

Examples

Strategies

- Amplify BlackSwan Growth & Treasury Core ETF [SWAN]
- Cambria Tail Risk ETF [TAIL]
- ■iShares MSCI USA Min Vol Factor ETF [USMV]
- Innovator US Equity Power Bffr ETF [PJUL]
- Quality companies with strong balance sheets
- Other sources of uncorrelated risk (i.e. fixed income, gold [IAU], mortgages [MBB], alternative investments)





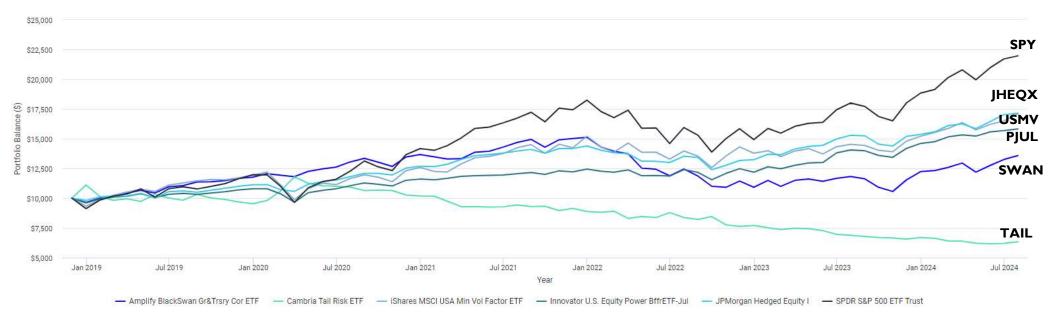
FUND INFORMATION

	SWAN	TAIL	USMV	PJUL	JHEQX
Name	Amplify BlackSwan Gr&Trsry Cor ETF (SWAN)	Cambria Tail Risk ETF (TAIL)	iShares MSCI USA Min Vol Factor ETF (USMV)	Innovator U.S. Equity Power BffrETF-Jul (PJUL)	JPMorgan Hedged Equity I (JHEQX)
Asset Class	Alternative	Miscellaneous	U.S. Equity	Alternative	Alternative
Category	Options Trading	Inverse Equity	Large Blend	Options Trading	Options Trading
Fund Benchmark	S-Network BlackSwan Core TR USD (100.00%)	Bloomberg Short Treasury TR USD (100.00%)	MSCI USA Minimum Volatility (USD) GR USD (100.00%)	S&P 500 TR USD (100.00%)	S&P 500 TR USD (100.00%)
Selected Benchmark	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)
Yield (SEC)	3.16%	3.41%	1.57%	-0.75%	N/A
Yield (TTM)	2.69%	4.40%	1.70%	N/A	0.85%
Assets	175.41 M	78.83 M	24.83 B	989.91 M	19.7 <mark>4</mark> B
Equity Holdings	2	0	170	0	161
Bond Holdings	10	1	0	0	0
Total Holdings	15	13	175	4	164
Turnover	218%	13%	23%	0%	27%
Expense Ratio	0.49%	0.59%	0.15%	0.79%	0.58%
Inception Date	11/05/2018	04/05/2017	10/18/2011	08/07/2018	12/13/2013

Source: Portfolio Visualizer as of 8/12/24 For illustrative purposes only.

SWAN | TAIL | USMV | PJUL | JHEQX

PORTFOLIO GROWTH



Source: Portfolio Visualizer as of 8/12/24 For illustrative purposes only.

SWAN | TAIL | USMV | PJUL | JHEQX

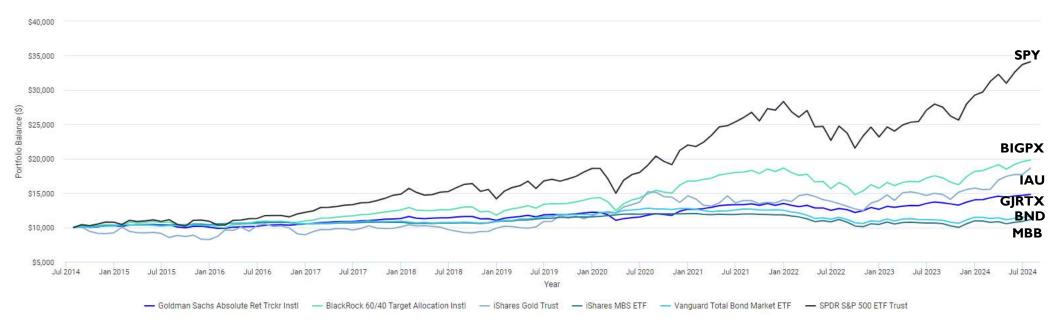
FUND INFORMATION

	GJRTX	BIGPX	IAU	MBB	BND
Name	Goldman Sachs Absolute Ret Trckr Instl (GJRTX)	BlackRock 60/40 Target Allocation Instl (BIGPX)	iShares Gold Trust (IAU)	iShares MBS ETF (MBB)	Vanguard Total Bond Market ETF (BND)
Asset Class	Alternative	Allocation	Commodities	Taxable Bond	Taxable Bond
Category	Multistrategy	Moderate Allocation	Commodities Focused	Intermediate Government	Intermediate Core Bond
Fund Benchmark	ICE BofA US 3M Trsy Bill TR USD (100.00%)	MSCI ACWI NR USD (100.00%)	LBMA Gold Price PM USD (100.00%)	Bloomberg US MBS TR USD (100.00%)	Bloomberg US Agg Float Adj TR USD (100.00%)
Selected Benchmark	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)	SPDR S&P 500 ETF Trust (SPY)
Price/Earnings (TTM)	19.21	24.94	N/A	N/A	N/A
Price/Book (TTM)	2.58	4.21	N/A	N/A	N/A
Yield (TTM)	2.57%	2.15%	N/A	3.64%	3.37%
Assets	4.30 B	1.64 B	29. <mark>77 B</mark>	32.77 B	329.58 B
Equity Holdings	914	0	0	0	0
Bond Holdings	5	0	0	5976	17763
Total Holdings	1017	20	1	6023	17767
Turnover	126%	93%	0%	219%	36%
Expense Ratio	0.74%	0.29%	0.25%	0.04%	0.03%
Inception Date	05/30/2008	12/21/2006	01/21/2005	03/13/2007	04/03/2007

Source: Portfolio Visualizer as of 8/12/24 For illustrative purposes only.

GJRTX | BIGPX | IAU | MBB | BND

PORTFOLIO GROWTH



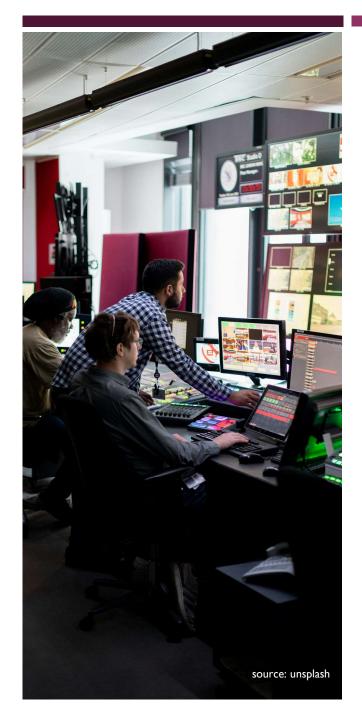
Source: Portfolio Visualizer as of 8/12/24 For illustrative purposes only.

GJRTX | BIGPX | IAU | MBB | BND

ACTIONABLE RECOMMENDATIONS

- Scenario Planning
- 2. Stress Testing
- 3. Liquidity Management
- 4. Continuous Learning
- 5. Consistent Communication
- 6. Diversification





ROLE OF BUSINESS

- Black swan events are inherently unpredictable and fall outside standard forecasting models.
- Traditional risk management tools often fail to anticipate these events.
- Reliance on historical data and normal distribution models can create a false sense of security.
- Strategies for enhancing corporate resilience and adaptability in the face of black swan events.
 - Implementing robust risk management frameworks.
 - Fostering a culture of adaptability and continuous improvement.
 - Leveraging digital tools and technology for effective risk management and preparedness.
 - Use data analytics and forecasting tools to identify potential risks.
 - Implement cybersecurity measures to protect against digital threats.

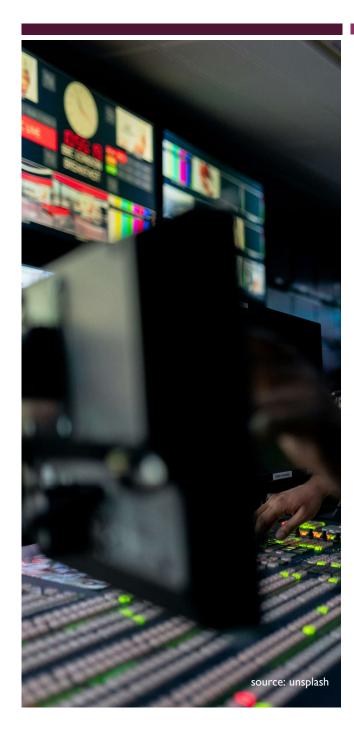


THE SIX MISTAKES EXECUTIVES MAKE IN RISK MANAGEMENT

- I. We think we can manage risk by predicting extreme events.
- 2. We are convinced that studying the past will help us manage risk.
- We don't listen to advice about what we shouldn't do.
- 4. We assume that risk can be measured by standard deviation.
- 5. We don't appreciate that what's mathematically equivalent isn't psychologically so.
- 6. We are taught that efficiency and maximizing shareholder value don't tolerate redundancy.

source:https://www.researchgate.net/profile/Daniel-Goldstein-

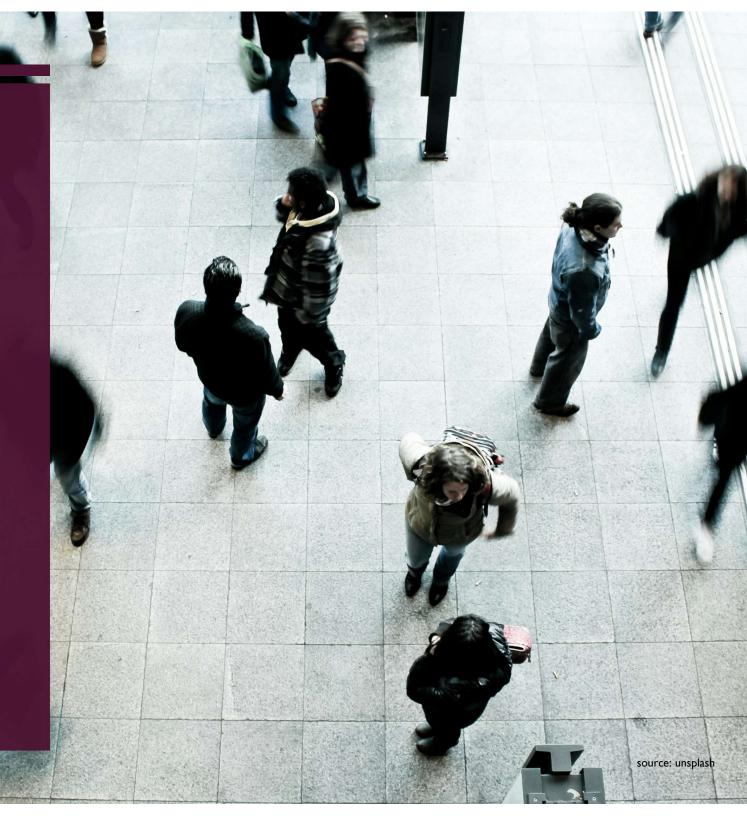
7/publication/236302921_The_Six_Mistakes_Executives_Make_in_Risk_Management_October_pg_81_2009/links/56f1d17208ae474 4a91efad0/The-Six-Mistakes-Executives-Make-in-Risk-Management-October-pg-81-2009.pdf



BUSINESS RISK MANAGEMENT TECHNIQUES

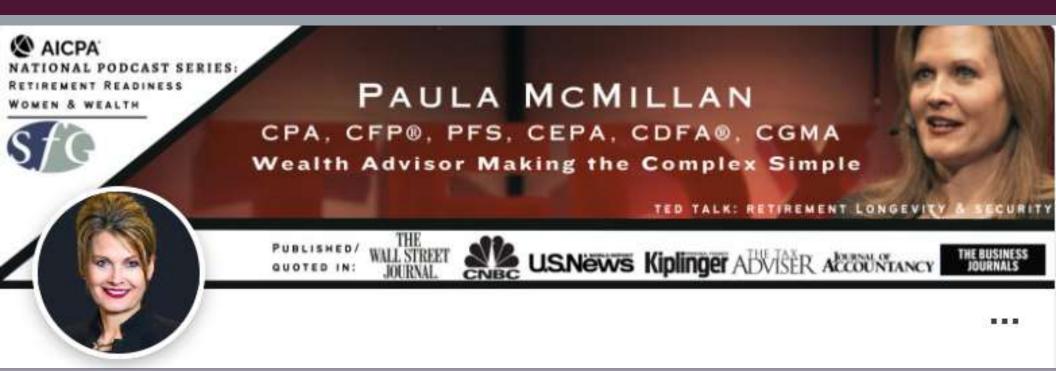
- Contingency Planning: Developing plans to respond to unexpected events.
 - Regularly updating and testing contingency plans is essential.
- Insurance: Protecting against specific risks through insurance policies.
 - Examples include business interruption insurance and credit default swaps.
- Hedging: Using financial instruments to offset potential losses.
 - Examples include options, futures, and swaps.

ONE FINE DAY... AND THEN...



Please Connect! I Would Love to Hear From You!

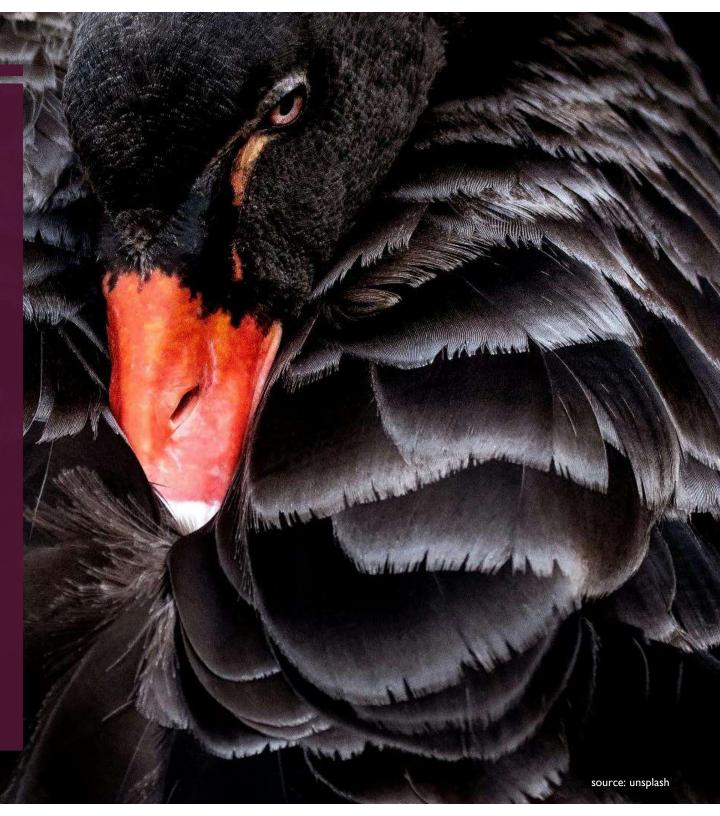
www.linkedin.com/in/paulamcmillan/



QUESTIONS?

Paula McMillan, CPA, CFP®, PFS, CEPA, CDFA®, CGMA

Wealth Advisor Stearns Financial Group <u>pmcmillan@stearnsfinanc</u> <u>ial.com</u> 336.230.1811



Stearns Financial Group is a group comprised of investment professionals registered with Hightower Advisors, LLC, an SEC registered investment adviser. Some investment professionals may also be registered with Hightower Securities, LLC, member FINRA and SIPC. Advisory services are offered through Hightower Advisors, LLC. Securities are offered through Hightower Securities, LLC. This is not an offer to buy or sell securities. No investment process is free of risk, and there is no guarantee that the investment process or the investment opportunities referenced herein will be profitable. Past performance is neither indicative nor a guarantee of future results. The investment opportunities referenced herein may not be suitable for all investors. All data or other information referenced herein is from sources believed to be reliable. Any opinions, news, research, analyses, prices, or other data or information contained in this presentation is provided as general market commentary and does not constitute investment advice. Stearns Financial Group and Hightower Advisors, LLC or any of its affiliates make no representations or warranties express or implied as to the accuracy or completeness of the information or for statements or errors or omissions, or results obtained from the use of this information. Steams Financial Group and Hightower Advisors, LLC assume no liability for any action made or taken in reliance on or relating in any way to this information. The information is provided as of the date referenced in the document. Such data and other information are subject to change without notice. This document was created for informational purposes only; the opinions expressed herein are solely those of the author(s) and do not represent those of Hightower Advisors, LLC, or any of its affiliates.