



INVESTMENT STRATEGY BRIEF:

AI Boom: Temporary or Enduring?

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STIFEL

Outlook 2024: Embracing Change

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Outlook 2024: *Embracing Change*



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2024 Forecasts

	2024 FORECAST
S&P 500	5,000 6.3% (Total Return)
10-Year Treasury (%)	3.75% – 4.25%
Market Pulse Publications*	25
Investment-Grade Spreads (bps)**	125 – 175 bps
High-Yield Spreads (bps)	400 – 450 bps

* The Stifel CIO Office issues a Market Pulse publication when the S&P 500 closes up or down by at least 2% on a given day.

** bps is basis points.

WHAT ARE SOME OF THE CHANGES IN THE WORLD CREATING OPPORTUNITY FOR INVESTORS TO EMBRACE THIS TRANSFORMATION?

3 Higher debt and higher rates and the ensuing *Fiscal Transition* call for greater focus, and opportunities, in debt and equity investing.

In focus: Companies with prudent capital allocation and manageable debt burdens that are poised to successfully navigate higher debt and rising rates while potentially capturing market share from competitors.

4 The 2024 global election supercycle, with 40 major elections, may well transform the geopolitical landscape.

In focus: Remain diversified and stick to your long-term objectives. Be prepared for risks and opportunities that may arise based on potential policy changes stemming from the election supercycle.

1 AI is rapidly changing how businesses improve processes and productivity.

In focus: Semiconductors, cloud computing, data storage, and cybersecurity companies driving AI advancements. Explore opportunities in AI applications within healthcare, industrials, finance, and retail.

2 The structural effects of the pandemic highlight the need for new supply chain and infrastructure investments.

In focus: Companies in strategic industries prioritized amid rising geopolitical tensions and supply chain restructuring. Consider investments in logistics services and infrastructure development.

5 Increasing geopolitical tensions are amplifying further deglobalization.

In focus: In addition to being diversified, consider companies benefiting from increasing militarization and defense spending. Identify companies that are able to execute well globally and penetrate local markets.

Artificial Intelligence/Markets

THE FIVE THEMES

3



FOURTH INDUSTRIAL REVOLUTION

Technological innovation has broken down the boundaries between the physical, digital, and biological worlds.

Data as a Commodity
|
Enhanced Computing
|
Workforce Optimization
|
Future of Transportation



SECURING STRATEGIC RESOURCES

Companies and governments are prioritizing the development and protection of critical industries, resources, and services.

Food and Water Security
|
Net Zero Transition
|
Renewable Energy
|
Circular Economy



SHIFTING DEMOGRAPHICS

Changes in global population dynamics will bring about challenges and opportunities.

Millennials
|
Emerging Global Middle Class
|
Aging Population
|
Future of Health



THE NEW CONSUMER

Consumer preferences, expectations, and behavior are altering business models and corporate strategies.

Reimagined Convenience
|
Digitalization of Human Connectivity
|
Future of Finance
|
Future of Leisure



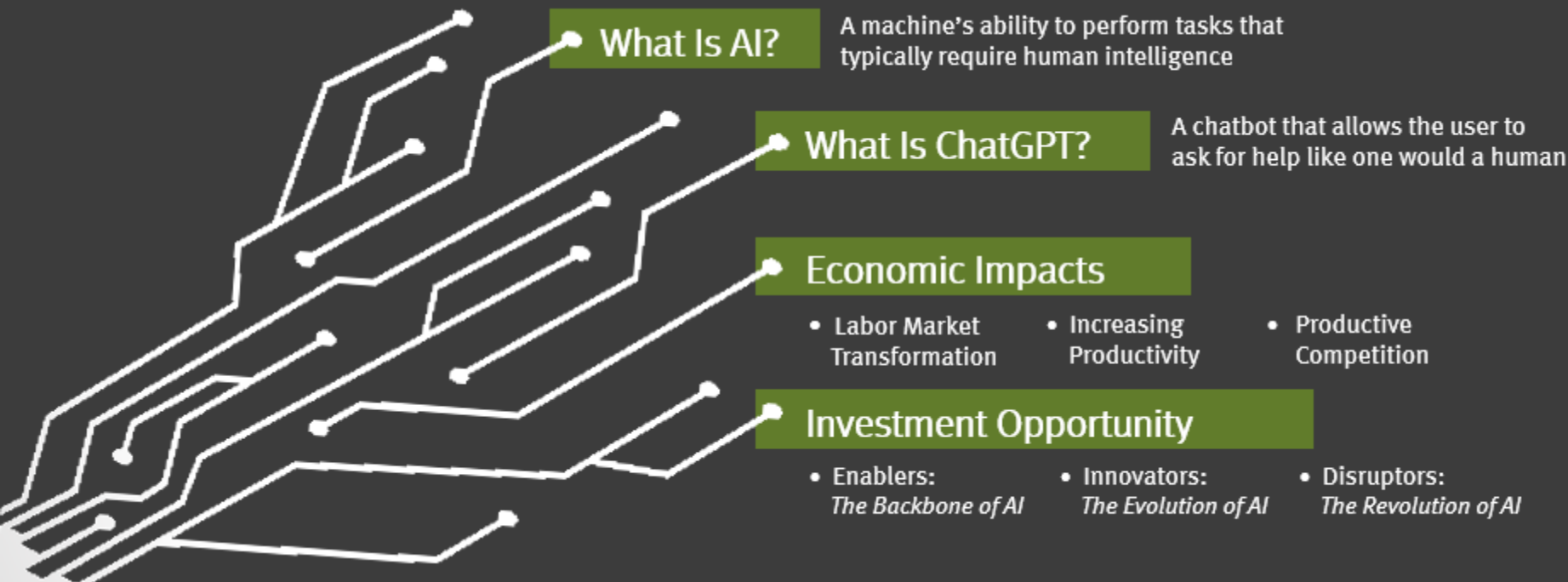
PRODUCTIVE COMPETITION

Rivalry ultimately drives innovation, improves quality of life, and creates value for consumers and the economy.

The New Cold War
|
Geopolitical Tensions
|
Localization
|
Transforming Business Models

Get to Know Our Long-Term Investment Themes

Source: Stifel CIO Office via *From Vision to Value: Our Long-Term Investment Themes*



2.5 billion gigabytes (GB) of data are created each day. That's equivalent to more than **19 million 128GB iPhones**

By 2030  **One-Third** of hours worked could be automated

In **200 seconds**, a quantum computer can solve a problem that the world's current **fastest computer** would need **10,000 years** to compute

Sources: Stifel CIO Office via Oberlo, McKinsey & Company, Google as of June, 2023.

Current
S&P 500 Index
Level

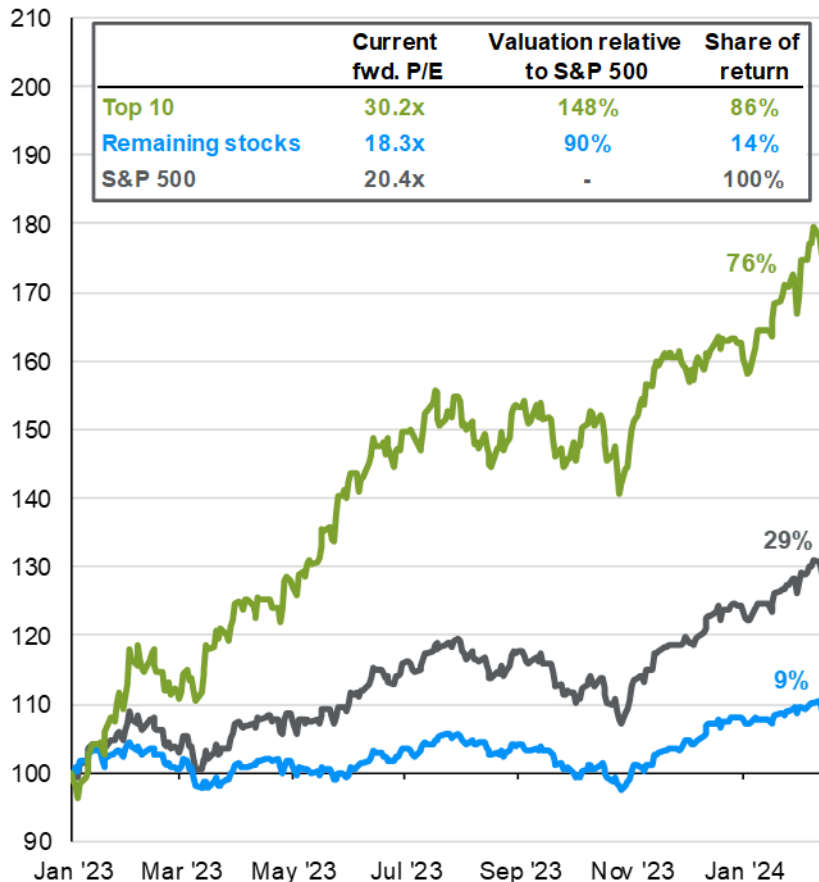
EPS	EPS Forward P/E						
	17x	18x	19x	20x	21x	22x	23x
\$255	4,335	4,590	4,845	5,047	5,355	5,605	5,865
\$250	4,250	4,500	4,750	4,948	5,250	5,495	5,750
Consensus 2024 EPS → \$241	4,097	4,338	4,579	4,770	5,030	5,297	5,543
\$240	4,080	4,320	4,560	4,750	5,040	5,275	5,520
\$230	3,910	4,140	4,370	4,552	4,830	5,056	5,290
Consensus 2023 EPS → \$217	3,689	3,906	4,123	4,295	4,557	4,770	5,030
\$210	3,570	3,780	3,990	4,156	4,410	4,616	4,830



Source: Stifel CIO Office via Bloomberg, as of February 15, 2024
EPS = Earnings Per Share

Performance of the top 10 stocks in the S&P 500

Indexed to 100 on 1/1/2023, price return, top 10 held constant



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

(Left) The top 10 companies used for this analysis are held constant and represent the S&P 500's 10 largest index constituents at the start of 2023.

The top 10 stocks are: AAPL, MSFT, AMZN, NVDA, GOOGL, BRK.B, GOOG, META, XOM, UNH, and TSLA. The remaining stocks represent the rest of the 494 companies in the S&P 500. (Right) The top 10 companies used for these two analyses are updated monthly and are based on the 10 largest index constituents at the beginning of each month. As of 12/31/2023, the top 10 companies in the index were AAPL (7.0%), MSFT (6.9%), AMZN (3.5%), NVDA (3.0%), GOOGL (2.1%), META (2.0%), GOOG (1.8%), TSLA (1.8%), BRK.B (1.6%), AVGO (1.2%) and JPM (1.2%).

Guide to the Markets – U.S. Data are as of February 13, 2024.

Weight of the top 10 stocks in the S&P 500

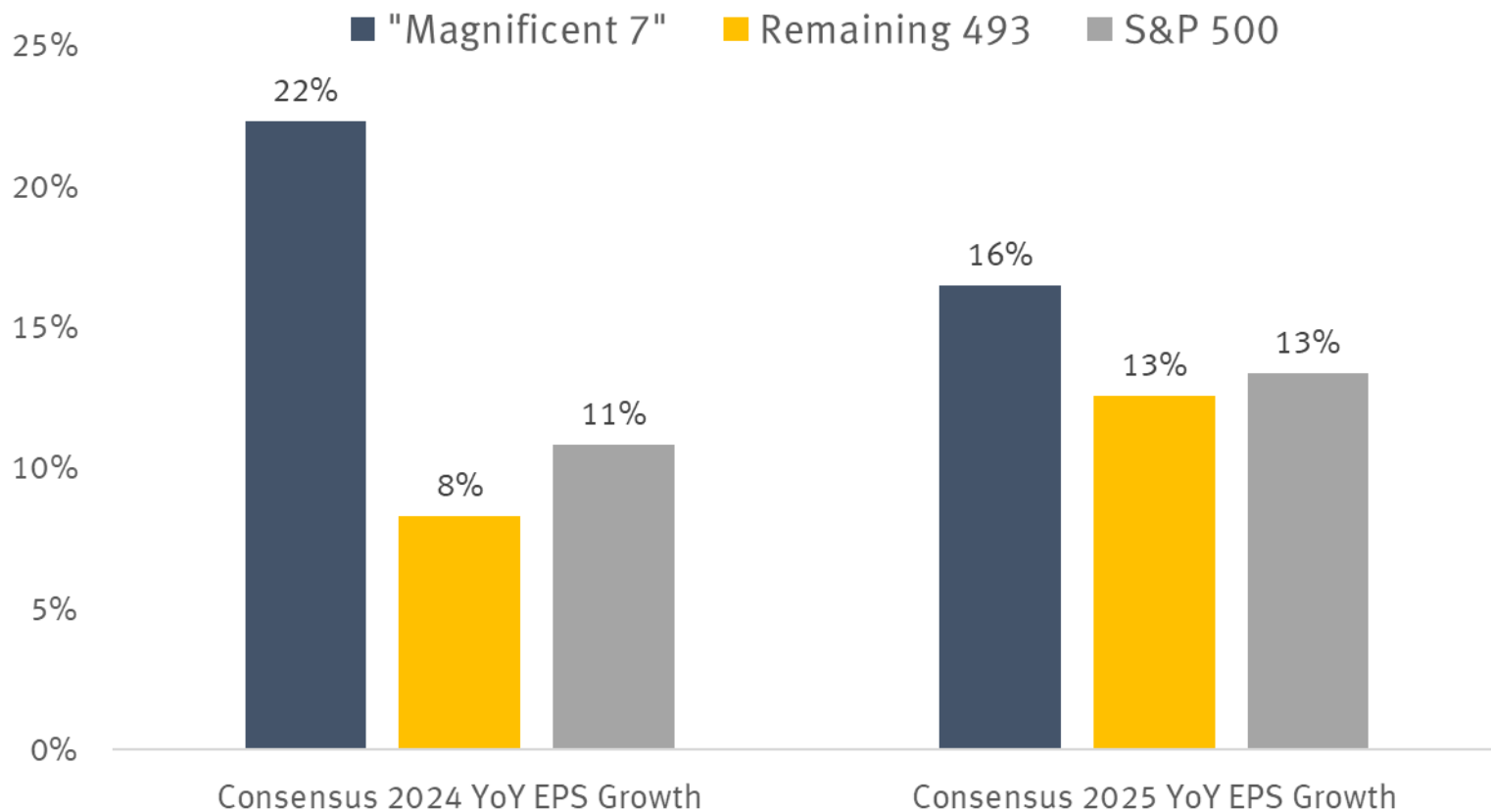
% of market capitalization of the S&P 500



Earnings contribution of the top 10 in the S&P 500

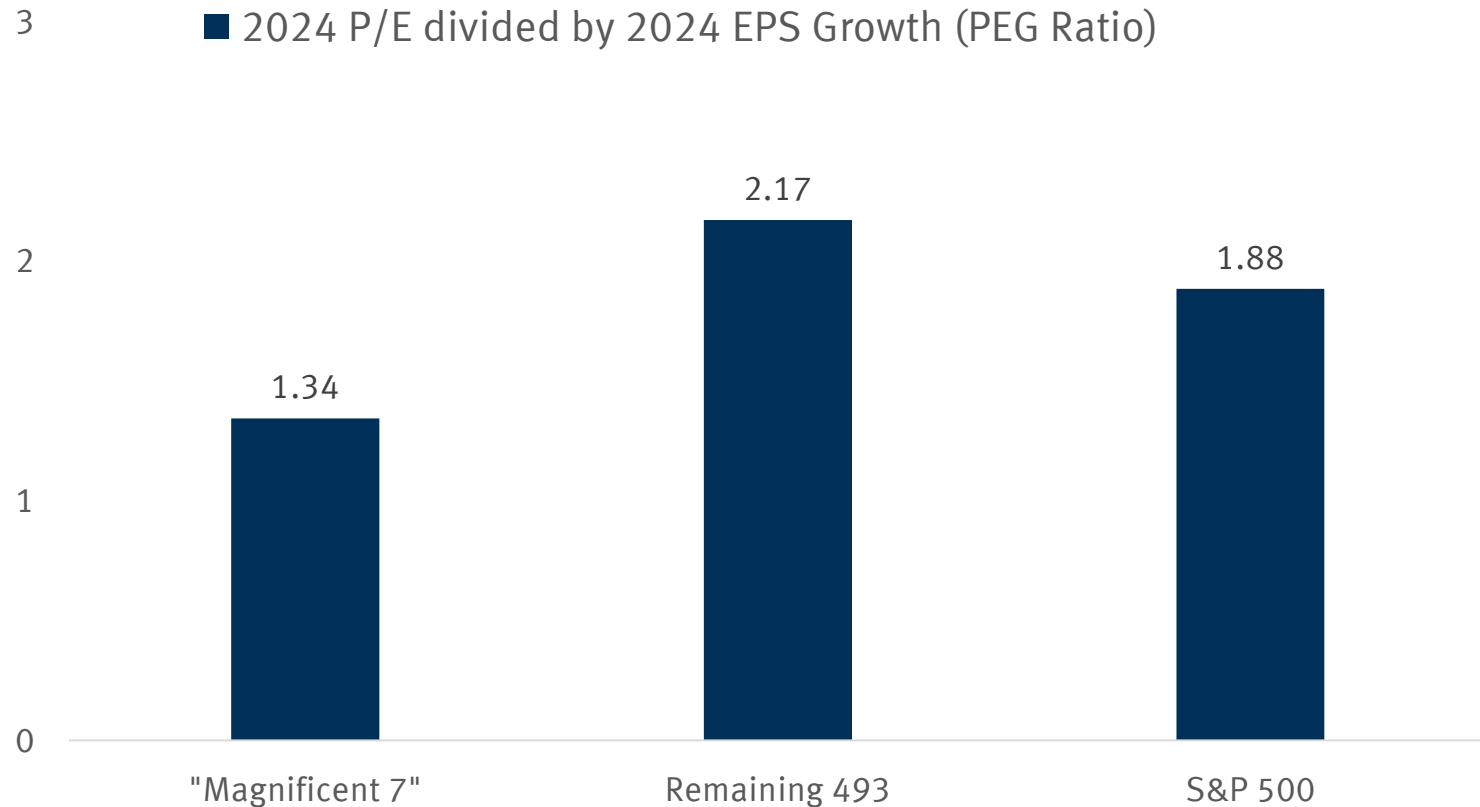
Based on last 12 months' earnings





YoY = year over year

Source: Stifel CIO Office via FactSet, as of February 15, 2024

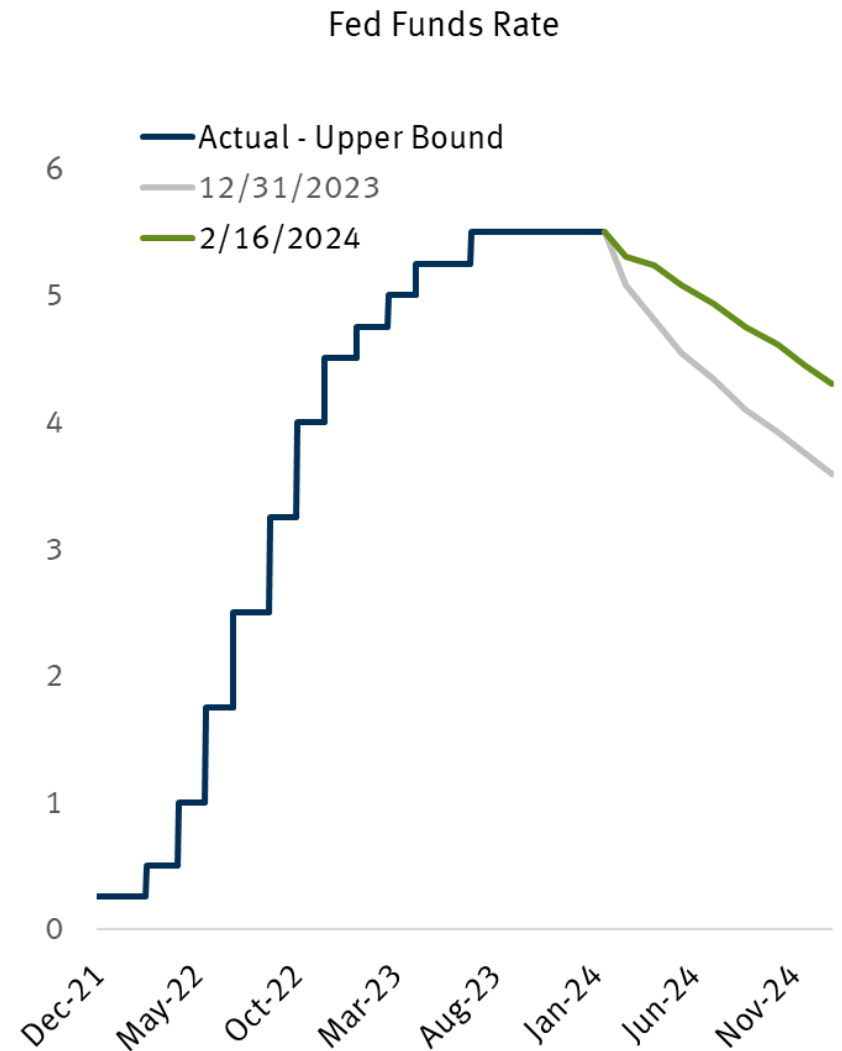
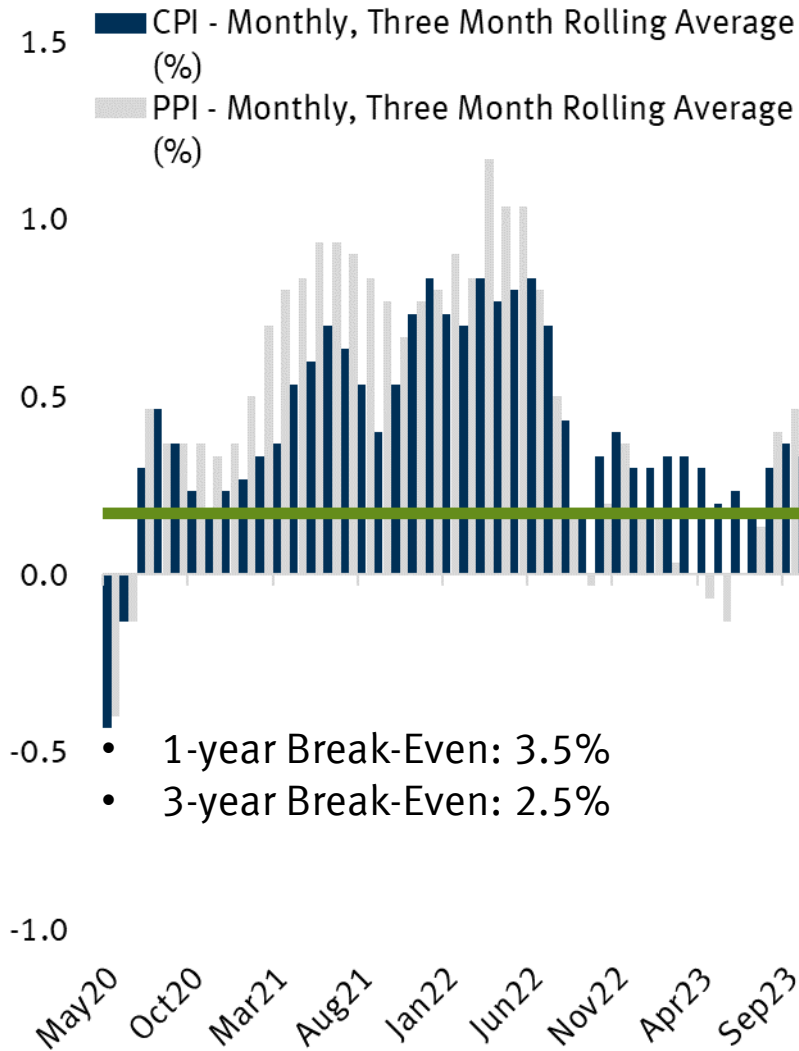


Source: Stifel CIO Office via FactSet, as of February 15, 2024

Inflation/Federal Reserve Policy/Economy

2024 Forecasts

	2024 FORECAST
U.S. Real GDP	0% – 1.0%
Core PCE Inflation (4Q/4Q)	2.00% – 2.25%
Federal Funds Rate (Upper Bound)	4.75% – 5.00%



Source: Stifel CIO Office via Bloomberg, as of February 16, 2024

PPI = Producer Price Index
 CPI = Consumer Price Index
 Fed = Federal Reserve

Some Dovish Signals

December Fed Meeting

- Inflation eased but “**elevated.**”
- “Added the word ‘any’ as an acknowledgement that we believe that we are **likely at or near the peak rate for this cycle.**”
- Remains data-dependent and will balance risks.

January Fed Meeting

- The economy is “expanding at a solid pace.”
- Path for easier policy: Added “**In considering any adjustments to the target range...**” and took out “additional policy firming.”
- “We will continue to make our decisions meeting by meeting.”
- Rate cut unlikely in March.
- While inflation has eased, officials need “**greater confidence** that inflation is moving sustainably toward 2 percent.”

Source: Stifel CIO Office

SEP: Year-End 2024

	PCE Inflation	Fed Funds Rate	Real GDP	
			2023	2024
September	2.5%	5.1%	2.1%	1.5%
December	2.4%	4.6%	2.6%	1.4%
Change	-0.1%	-0.5%	0.5%	-0.1%

All 19 members see the current rate as peak

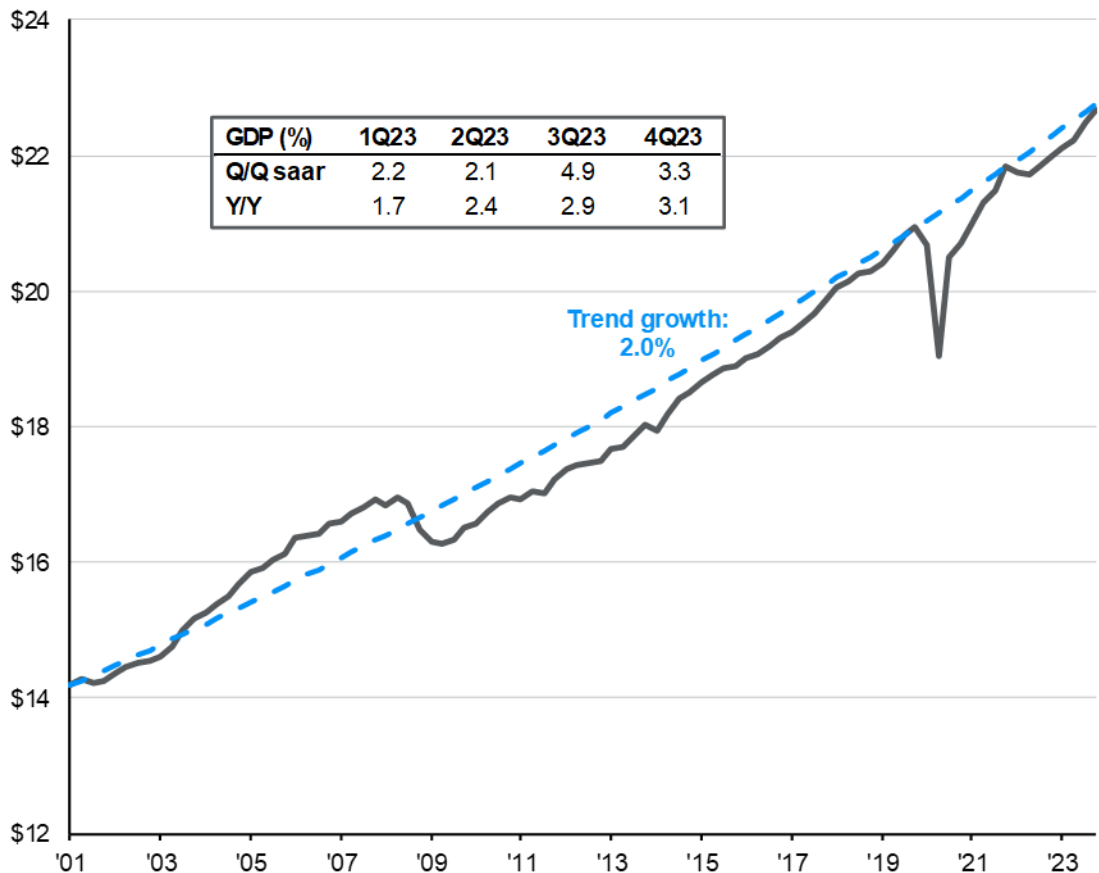
Market Expectations

- Markets have now repriced:
 - 2024 futures:
 - four rate cuts, down from seven
 - First cut now in June instead of March
 - 10-year yield higher and meaningfully above 4%
 - Equity market volatility coming back

SEP = Summary of Economic Projections
PCE = Personal Consumption Expenditures

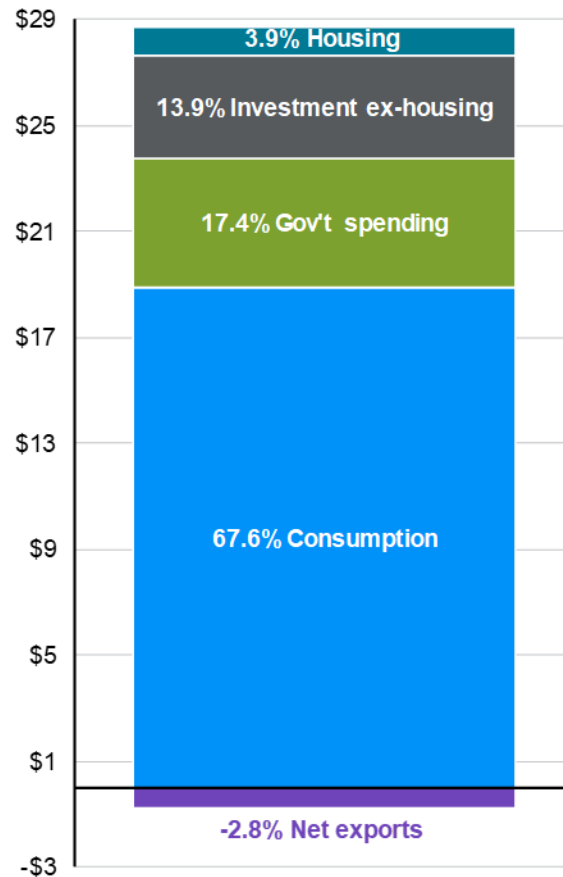
Real GDP

Trillions of chained (2017) dollars, seasonally adjusted at annual rates



Components of GDP

4Q23 nominal GDP, USD trillions



Source: BEA, FactSet, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. Trend growth is measured as the average annual growth rate from business cycle peak 1Q01 to business cycle peak 4Q19. Guide to the Markets – U.S. Data are as of February 13, 2024.

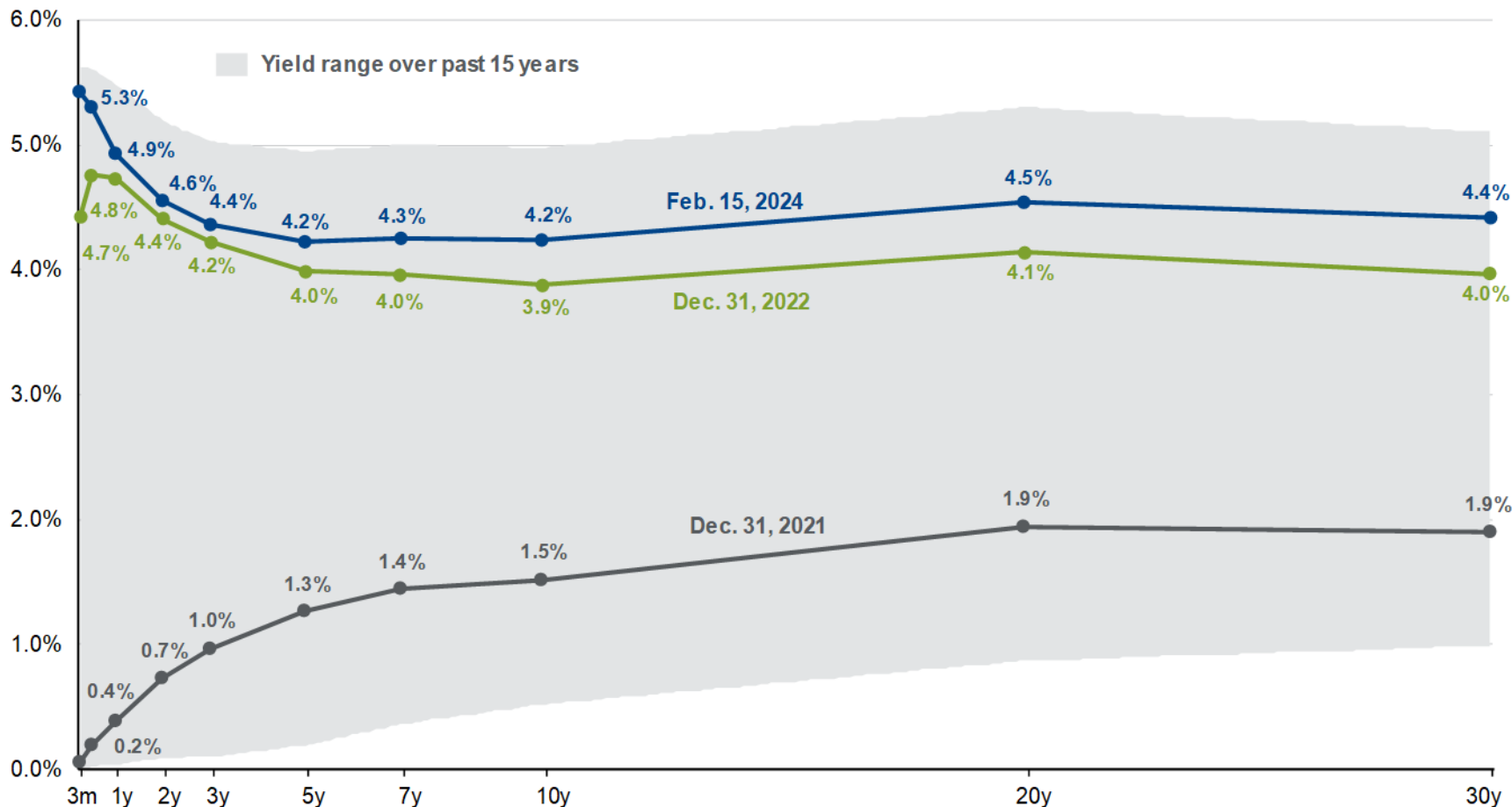
U.S. GDP	Date of Estimate	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	2024	2025
Consensus Estimates	2/16/2024	2.2	2.1	4.9	3.3	2.5	1.1	0.5	1.0	1.5	1.6	1.7
Consensus Estimates	January	0.1	-0.6	0.0	0.9	0.3	1.5	1.8	1.0	1.6	1.3	1.7
Stifel	1/29/2024	1.2	1.8	2.6	1.9	2.8	1.9	2.4	2.2	1.8	2.7	2.2
Goldman Sachs	2/16/2024	1.5	2.5	4.6	2.1	2.8	2.3	2.6	2.3	2.0	2.8	2.1
Capital Economics	2/9/2024	1.2	1.4	3.5	1.9	2.4	2.2	1.5	1.5	1.8	2.5	2.0
Strategas	2/12/2024	1.0	1.6	3.0	2.0	2.4	2.0	1.8	2.0	2.0	2.5	1.9
UBS	2/16/2024	1.5	1.6	4.7	1.4	2.4	1.8	-0.8	-1.1	1.7	1.6	1.6
Wells Fargo	2/8/2024	0.6	0.9	4.7	1.7	2.4	2.4	1.3	1.0	1.1	1.7	1.7
Bloomberg Economics	2/5/2024	1.2	1.5	4.9	1.1	2.4	1.0	0.5	1.7	1.9	2.0	1.9
Barclays	2/2/2024	1.5	1.5	5.0	2.0	2.5	3.0	2.0	1.5	1.5	2.8	1.5
JPMorgan Chase	2/9/2024	1.1	1.7	4.3	2.0	2.5	1.8	0.5	0.5	0.8	2.0	1.5
Federal Reserve**	12/13/2023					2.6					1.4	1.8

Annualized percent change from prior quarter and year-over-year change are shown for quarterly and yearly periods, respectively. Stifel estimates based on Stifel sell-side Economics department estimates. **Percent change from fourth quarter to fourth quarter one year ago. "Consensus Estimates" for time periods that have passed represent actual results and consensus estimates in grey shaded boxes represent first estimate of year.

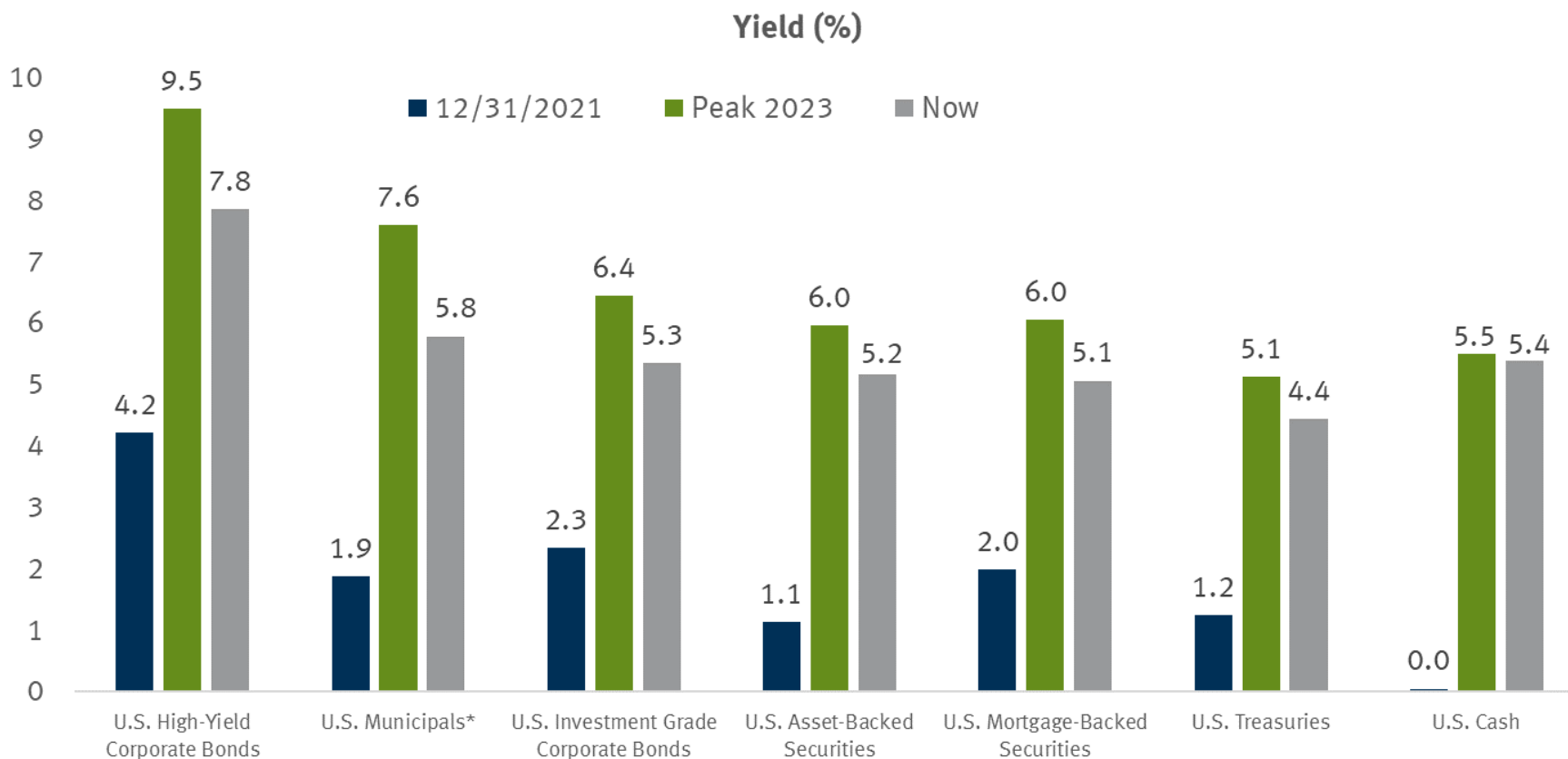
Source: Stifel CIO Office via Bloomberg, as of February 16, 2024. Federal Reserve (Fed) estimates are as of December 13, 2023.

Markets

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.
 Guide to the Markets – U.S. Data are as of February 15, 2024.



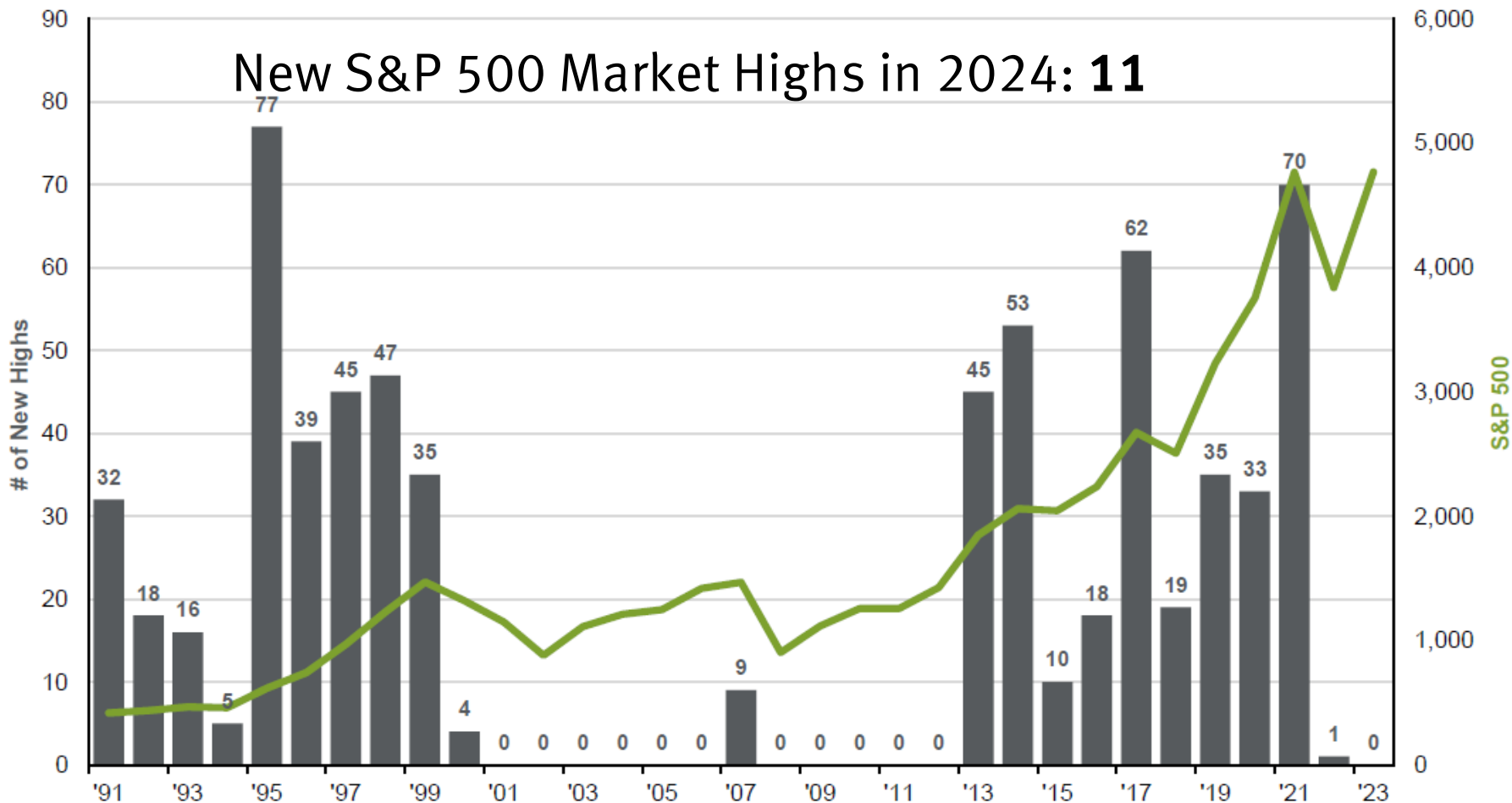
*Based on taxable equivalent yield. Taxable equivalent yield assumes a 37% federal tax and 3.8% net investment income tax.

Source: Stifel CIO Office via Bloomberg, as of February 15, 2023

Index	2021	2022	2023	2024
S&P 500 Index	28.7%	-18.1%	26.3%	5.6%
S&P 500 Eq. Weight.	29.6%	-11.5%	13.8%	1.9%
S&P 500 Financials	34.9%	-10.6%	12.1%	5.7%
KBW Reg. Banking	36.7%	-6.9%	-0.4%	-7.4%
Russell 1000 Value	25.1%	-7.6%	11.4%	2.3%
Russell 1000 Growth	27.6%	-29.1%	42.7%	8.1%
NYSE FANG+ Index	17.7%	-40.0%	96.4%	13.5%
Russell 2000 Index	14.8%	-20.5%	16.9%	1.8%
MSCI EAFE Index	11.3%	-14.5%	18.2%	0.2%
MSCI EM Index	-2.5%	-20.1%	9.8%	-1.5%
Bloomberg U.S. Agg	-1.5%	-13.0%	5.5%	-1.7%

New highs in an equity bull market tend to cluster together

S&P 500 price index and the number of new all-time highs ticked each year since 1991



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
 Guide to the Markets – U.S. Data are as of December 31, 2023.

Looking Forward

STIFEL POST-GREAT FINANCIAL CRISIS ENVIRONMENT

Household, corporate, and government debt increased significantly post-Great Financial Crisis (GFC) In a higher rate regime, the cost of debt will increase going forward

\$5.1 trillion

Increase in
U.S. household debt
2023 vs. 2007

\$25.0 trillion

Increase in
U.S. federal debt
2024 vs. 2007

~\$39
trillion
increase
in debt

\$7.0 trillion

Increase in
U.S. non-financial
corporate debt
2023 vs. 2007

\$1.5 trillion

Increase in
U.S. private debt
2023 vs. 2007

Source: Stifel CIO Office, as of February 15, 2024; data via St. Louis Federal Reserve (FRED), New York Federal Reserve, Strategas

Sight | Lines: [Troubling Forces Converge: We're Headed to a Fiscal Transition](#)

Decade *prior*
to the GFC

5%



Decade *after*
the GFC

2%

During
Pandemic

1.2%

2020



2021

Now

4.3%

2024

10 Years
Forward

4.9%

2034

20 Years
Forward

3.9%

2044

Sight | Lines: [A New Market Rate Regime? Data and Sentiment Say Yes.](#)

In a higher rate regime, the cost of debt will increase going forward

Consumers must manage debt more carefully, in a possibly slowing economy, and defaults and bankruptcies could increase

Businesses will adjust how they manage debt, with some companies unable to handle increased debt costs and failing

Government spending, deficits, and debt will come more into focus as the cost of our debt rises and attention turns to fiscal discipline

We remain optimistic that, as a country, we'll get through this fiscal transition stronger. But how much pain will we experience through the process, and when?

Sight | Lines: [Troubling Forces Converge: We're Headed to a Fiscal Transition](#)

FEBRUARY

2	Employment
2	Consumer Sentiment
13/29	Inflation
15	Retail Sales
16	Housing
21	Federal Open Market Committee (FOMC) Minutes

MARCH

1/15/28	Consumer Sentiment
8	Employment
12/28	Inflation
14	Retail Sales
19	Housing
20	Fed Policy Decision

APRIL

5	Employment
10	Inflation
10	Federal Open Market Committee (FOMC) Minutes
12/26	Consumer Sentiment
15	Retail Sales
23	Housing

MAY

1	Fed Policy Decision
3	Employment
10	Consumer Sentiment
15/31	Inflation
15	Retail Sales
22	Federal Open Market Committee (FOMC) Minutes
23	Housing

Sources of Potential Volatility

- Macroeconomic Conditions
 - Economy
 - Inflation
 - Monetary Policy
 - Market Valuations
- Geopolitical Tensions
 - Russia – Ukraine
 - Israel – Hamas
 - Red Sea
 - South China Sea
- Global Election Supercycle
 - 40 major elections worldwide
 - U.S. Presidential Election
- Fiscal Transition
 - Regional Bank Stress
 - Commercial Real Estate Loans
 - Corporate Refinancing
 - Government Debt
 - Consumer Spending

Bear and Bull Scenarios

THE CONSUMER

Consumption makes up about two-thirds of U.S. GDP, so how the consumer behaves during the year will greatly influence outcomes.

Bear case | Deep Recession

The pain of higher rates, more layoffs and fewer jobs, and worries about geopolitical hotspots and the election causes the consumer to slow spending much more than expected.

Bull case | Irrational Exuberance 2.0

Higher rates and a slightly softer job market don't discourage consumers, who continue "spending beyond their means." Companies are reluctant to lay off workers as one of the lasting effects of the pandemic.

EARNINGS

Actual earnings and views about future earnings will continue to drive market performance.

Bear case | Deep Recession

Higher rates illustrate the fiscal challenges facing companies in 2024, and this, combined with a much less engaged consumer, triggers an unexpected earnings recession.

Bull case | Irrational Exuberance 2.0

Businesses manage well through the start of the *Fiscal Transition* started by higher rates and increased debt, and this, combined with increased consumer demand, results in double-digit earnings growth.

ANIMAL SPIRITS

Investors, the consumer, and business leaders are all affected by animal spirits, or how emotions drive behavior, including consumer confidence.

Bear case | Deep Recession

A slowdown in economic growth and global contagion greatly erode animal spirits, which would be magnified even more with a geopolitical shock, like the Israel-Hamas war expanding or conflict in Taiwan.

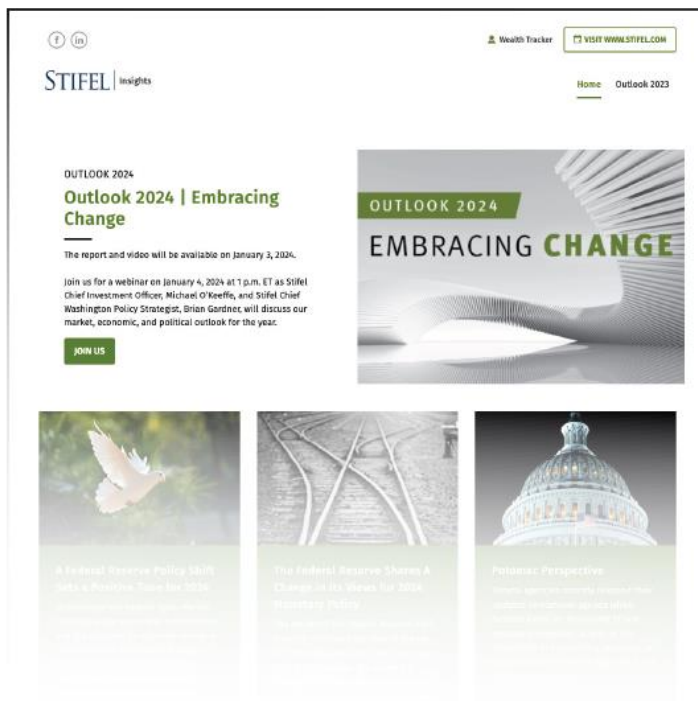
Bull case | Irrational Exuberance 2.0

2024 becomes a period of Irrational Exuberance 2.0, with businesses and consumers more confident than they probably should be, driving animal spirits higher.

WHERE TO FIND STIFEL GUIDANCE

The Stifel CIO Office develops economic and market analysis, and corresponding investment guidance, for the benefit of Stifel clients. You can find all of our Stifel Guidance at:

stifelinsights.com



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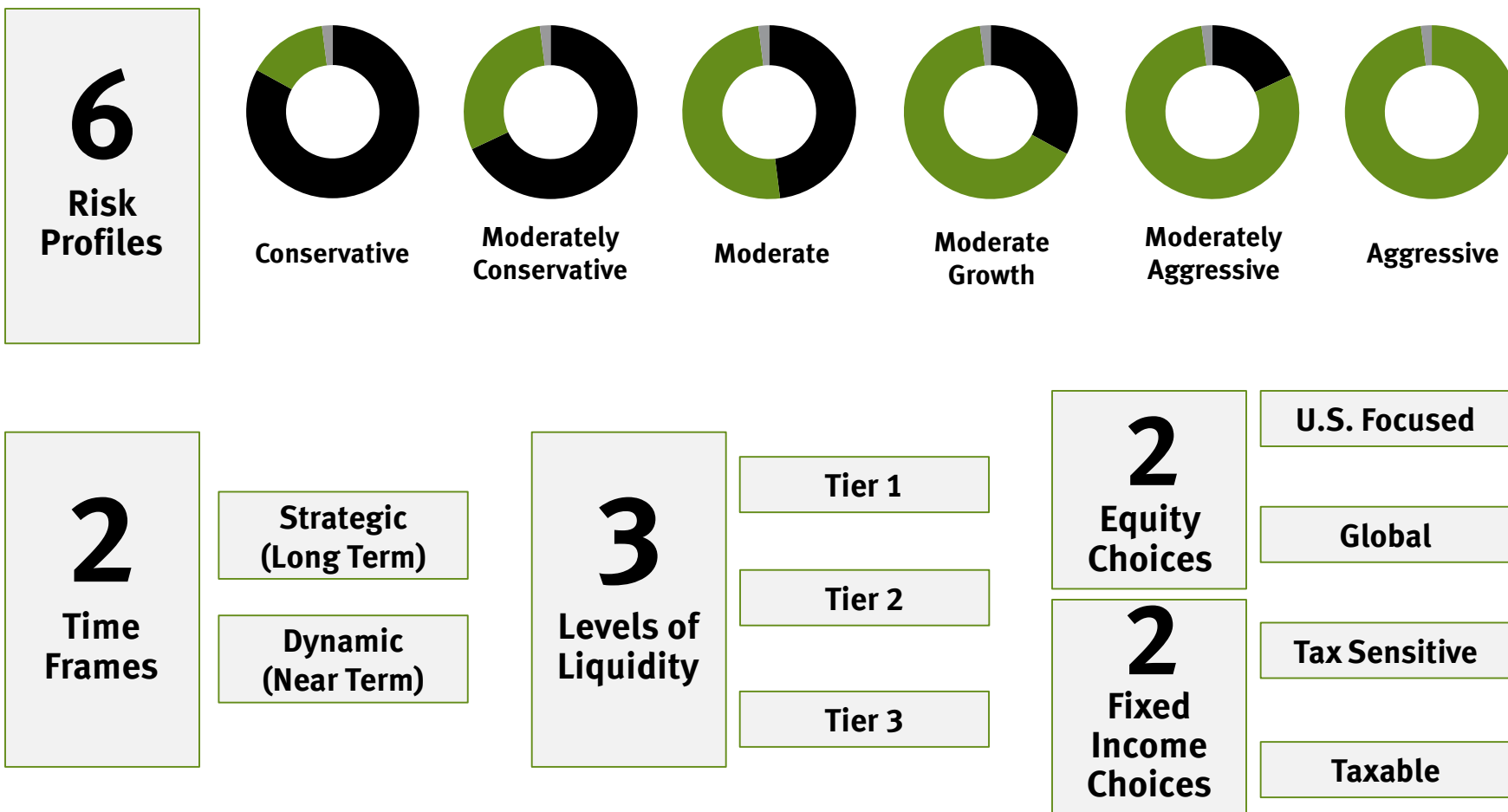
VIDEO | PODCAST | NEWSLETTER

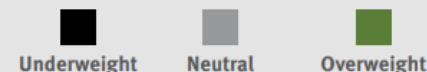




Dynamic leanings












144 ASSET ALLOCATION MODELS FOR YOUR SELECTION





EQUITY

DYNAMIC LEANINGS			
ASSET CLASS	CURRENT		COMMENTS
U.S. Equity vs. Non-U.S. Equity			We remain neutral between U.S. and non-U.S. equity. Our base case calls for a soft landing in the U.S., but we believe valuations have priced in this scenario and the consensus earnings outlook is too optimistic. We recognize, however, that momentum is strong and the eventual Fed easing should be supportive of U.S. stocks. Non-U.S. equity valuations are attractive; however, growth trends are diverging and Europe and China face headwinds. We guide investors to consider active management.
U.S. Large Cap vs. U.S. Small Cap			Small cap equity valuations remain attractive and reflect worries about an economic downturn and the greater vulnerabilities from higher financing costs. We have a preference for quality companies with strong balance sheets regardless of market capitalization. We believe there is opportunity within small cap for skilled active investors.
U.S. Large Value vs. U.S. Large Growth			We believe in this new regime investors should be diversified across both value and growth styles. Within U.S. large cap, we expect returns to broaden out and have a preference for quality companies and those that are expected to benefit from our long-term investment themes such as AI and the Fourth Industrial Revolution.
Non-U.S. Developed Markets vs. Emerging Markets			Both developed and emerging markets remain vulnerable to idiosyncratic risks and headwinds stemming from geopolitical tensions and a slowing global economy. China is facing structural headwinds, and investors are worried about policy uncertainty and possible stresses in its property sector.
Europe vs. Japan			Japan was a solid performer in 2023, but we believe there is still the potential for relative outperformance. Japan's economic growth remains positive, and corporate governance reform is likely to enhance shareholder value in the medium to long term. In Europe, weaker Chinese growth and the Russia-Ukraine war remain headwinds for the growth outlook.

DYNAMIC LEANINGS		 Underweight	 Neutral	 Overweight	
ASSET CLASS	CURRENT	COMMENTS			
FIXED INCOME	U.S. Investment Grade vs. U.S. High Yield				We favor a quality tilt and prefer investment grade for passive investors. Spreads for high yield remain tight and do not appropriately reflect the increased risk of recession and credit deterioration, in our view.
	Corporates vs. Government vs. Agency MBS				We have a modest preference for government and mortgage-backed securities relative to investment-grade corporate bonds, which can be expressed with passive investments or may be implemented by active managers. Agency MBS spreads remain well above their 2021 lows, and both fundamental and technical factors are supportive of this sector. Treasury yields remain attractive and should provide an added diversification benefit if the economy deteriorates.
	Duration				We view duration as a diversifier in a multi-asset class portfolio given the macroeconomic uncertainty and volatility in yields, and so we remain neutral on duration as compared to the overall market.
ALTERNATIVES	Private Assets				For investors interested in alternative investments and able to handle illiquidity, exposure to some combination of private equity, private debt, and/or private real estate can be considered as part of a diversified portfolio.
	Hedge Funds				For investors interested in alternative investments and able to handle less liquidity who have conviction about manager skill, exposure to hedge funds can be a helpful part of a diversified portfolio. This is especially true in volatile, low-return environments.

Past performance is no guarantee of future results.

Index returns include the reinvestment of dividends but do not include adjustments for brokerage, custodian, and advisory fees.

Indices are unmanaged, do not reflect fees and expenses, and are not available for direct investment.

Past performance does not guarantee future results. Investing involves risk, including the possible loss of principal. Asset allocation and diversification do not ensure a profit or protection against loss.

Alternative Investments or Non-Traditional Assets – Alternative investments may include, but are not limited to: Real Estate Investment Trusts (REITs), Commodities, Futures, Hedge Funds, Venture Capital, Limited Partnerships, etc.

Real Estate – When investing in real estate companies, property values can fall due to environmental, economic, or other reasons, and changes in interest rates can negatively impact the performance.

Commodities and Futures – The risk of loss in trading commodities and futures can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. The high degree of leverage that is often obtainable in commodity trading can work against you as well as for you. The use of leverage can lead to large losses as well as gains.

Hedge Funds – *Investors should be aware that hedge funds often engage in leverage, short-selling, arbitrage, hedging, derivatives, and other speculative investment practices that may increase investment loss. Hedge funds can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, and often charge high fees that can erode performance. Additionally, they may involve complex tax structures and delays in distributing tax information. While hedge funds may appear similar to mutual funds, they are not necessarily subject to the same regulatory requirements as mutual funds.*

Venture Capital – Venture capital investments involve substantial risks. The risks associated with investing in companies in the start-up or expansion stages of development are greater than those of companies in later stages, because the companies' business concepts generally are unproven and the companies have little or no track record.

Limited Partnerships – Generally, limited partnership investments are suitable only for a narrow class of relatively sophisticated investors. Limited partnership investments may be speculative in nature and be subject to resale restrictions or illiquidity. An investment is appropriate only for investors who have the capacity to absorb a loss of some or all of their investment.

Bonds – When investing in bonds, it is important to note that as interest rates rise, bond prices will fall. High-yield bonds have greater credit risk than higher quality bonds.

Duration – Duration is a measure of the sensitivity of the price -- the value of principal -- of a fixed-income investment to a change in interest rates. Duration is expressed as a number of years.

Standard Deviation – Standard deviation is a measure of the dispersion of a set of data from its mean. It is calculated as the square root of variance by determining the variation between each data point relative to the mean. If the data points are further from the mean, there is higher deviation within the data set.

International and Emerging Markets – There are special considerations associated with international investing, including the risk of currency fluctuations and political and economic events. Investing in emerging markets may involve greater risk and volatility than investing in more developed countries.

Private Equity – *Private equity funds are not appropriate for all investors. Investors should be aware that private equity funds may contain speculative investment practices that can lead to a loss of the entire investment. Private equity funds may invest in entities in which no secondary market exists and, as such, may be highly illiquid. The funds are not required to provide periodic pricing or valuation information to investors and often charge high fees that can erode performance. Additionally, they may involve complex tax structures and delays in distributing tax information.*

Short Positions – The investor should note that when a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker will demand more collateral and the manager might have to close out that short position at an inopportune time to limit any further losses.

Small Company Securities – Small company securities are typically more volatile and carry additional risks, since smaller companies generally are not as well established as larger companies.

Bloomberg U.S. Treasury Bills 1-3 Months Index includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than three months and more than one month, are rated investment grade, and have \$250 million or more of outstanding face value.

Bloomberg U.S. Corporate IG Index is an unmanaged index considered representative of fixed-rate investment-grade taxable bond debt.

Bloomberg U.S. Aggregate Corporate Index is an unmanaged index considered representative of fixed-rate investment-grade taxable bond debt.

Bloomberg U.S. Corporate High Yield is an unmanaged index considered representative of fixed-rate, noninvestment-grade debt.

Bloomberg U.S. Government Bond Index is an unmanaged index considered representative of fixed-rate, investment-grade US Government debt.

Bloomberg Global Aggregate This index provides a broad-based measure of the global investment-grade, fixed-rate debt market.

DXY Index is a measure of the value of the U.S. dollar relative to the value of a basket of currencies of the majority of the U.S.'s most significant trading partners.

S&P 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

S&P 500 Equal Weight Index is the equal-weight version of the widely regarded Standard & Poor's 500 Index, which is generally considered representative of the U.S. large capitalization market. The index has the same constituents as the capitalization-weighted S&P 500, but each company in the index is allocated a fixed weight of 0.20% at each quarterly rebalancing.

S&P 500 Financials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® financials sector.

Russell 1000 Value Index measures the performance of those Russell 1000 index companies with lower price-to-book ratios and lower forecasted growth values.

Russell 1000 Growth Index measures the performance of those Russell 1000 index companies with lower price-to-book ratios and lower forecasted growth values.

Russell 1000 Index represents approximately 1,000 of the largest companies in the U.S. equity markets, the Russell 1000 is a subset of the Russell 3000 Index. The Russell 1000 (maintained by the Russell Investment Group) comprises over 90% of the total market capitalization of all listed U.S. stocks and is considered a bellwether index for large cap investing.

Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 index.

MSCI EAFE Index captures large and mid cap representation across Developed Markets countries around the world, excluding the U.S. and Canada. With 914 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets (EM) Index captures large and mid cap representation across 23 Emerging Markets (EM) countries. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Morgan Stanley Market implied pace of hikes index (MSPOKE) is the number of Fed rate hikes in the 12 months following the first rate hike implied by the Eurodollar interest rate futures market.

The **MSCI World Index** is a free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of developed markets.

Wilshire 5000 Index is a market-capitalization-weighted index of the market value of all stocks actively traded in the United States.

VIX Index shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options.

EURO STOXX 50 is a stock index of Eurozone stocks designed by STOXX, an index provider owned by Deutsche Börse Group. According to STOXX, its goal is "to provide a blue-chip representation of Supersector leaders in the Eurozone

Cash & Cash Equivalent is represented by the Bloomberg U.S. Treasury 3-6 months Bill Index, comprised of treasury bills issued by the U.S. government with less than one year to maturity.

U.S. Government Bonds is represented by the Bloomberg U.S. Government Bond Index, comprised of the U.S. Treasury and U.S. Agency indexes.

U.S. Corp IG Bonds is represented by the Bloomberg U.S. Corporate Bond Index, comprised of the investment grade, fixed-rate, taxable corporate bond market.

High-Yield Bonds is represented by the Bloomberg U.S. Corporate High Yield Bond Index, comprised of U.S. Dollar denominated, high-yield, fixed-rate corporate bond market securities.

U.S. LC (Large Cap) equities is represented by Russell 1000 Index, comprised of 1,000 of the largest U.S. securities based on a combination of their market cap and current index membership.

U.S. SC (Small Cap) equities is represented by the Russell 2000 Index, comprised of 2,000 of the smallest U.S. securities based on a combination of their market cap and current index membership.

Developed International Equities is represented by the MSCI EAFE Index, comprised of equity securities that belong to markets outside of the U.S. and Canada.

Emerging Markets Equities is represented by the MSCI EM Index, comprised of equity securities that belong to emerging markets.

Moderate Bench stands for moderate benchmark portfolio return which is a blended portfolio of stocks (60% weight, represented by MSCI AC World Index) and bonds (40% weight, represented by Bloomberg U.S. Agg Gov/Credit).

MSCI AC World Index is comprised of equity securities belonging to 23 developed markets and 24 emerging markets countries.

Bloomberg U.S. Government/Credit Bond Index is comprised investment grade, dollar-denominated, fixed-rate Treasuries, government-related and corporate securities.

KBW Nasdaq Regional Banking Index seeks to reflect the performance of U.S. companies that do business as regional banks of thrifts.

NYSE FANG+ Index is an equal-dollar weighted index designed to track the performance of highly-traded growth stocks of technology and tech-enabled companies in the technology, media & communications and consumer discretionary sectors such as Facebook, Apple, Amazon, Netflix, and Alphabet's Google.