



INVESTMENT STRATEGY BRIEF:

Can we achieve a “soft landing?”

STIFEL

Increased volatility

page 3

Macro Environment

page 15

Markets

page 24

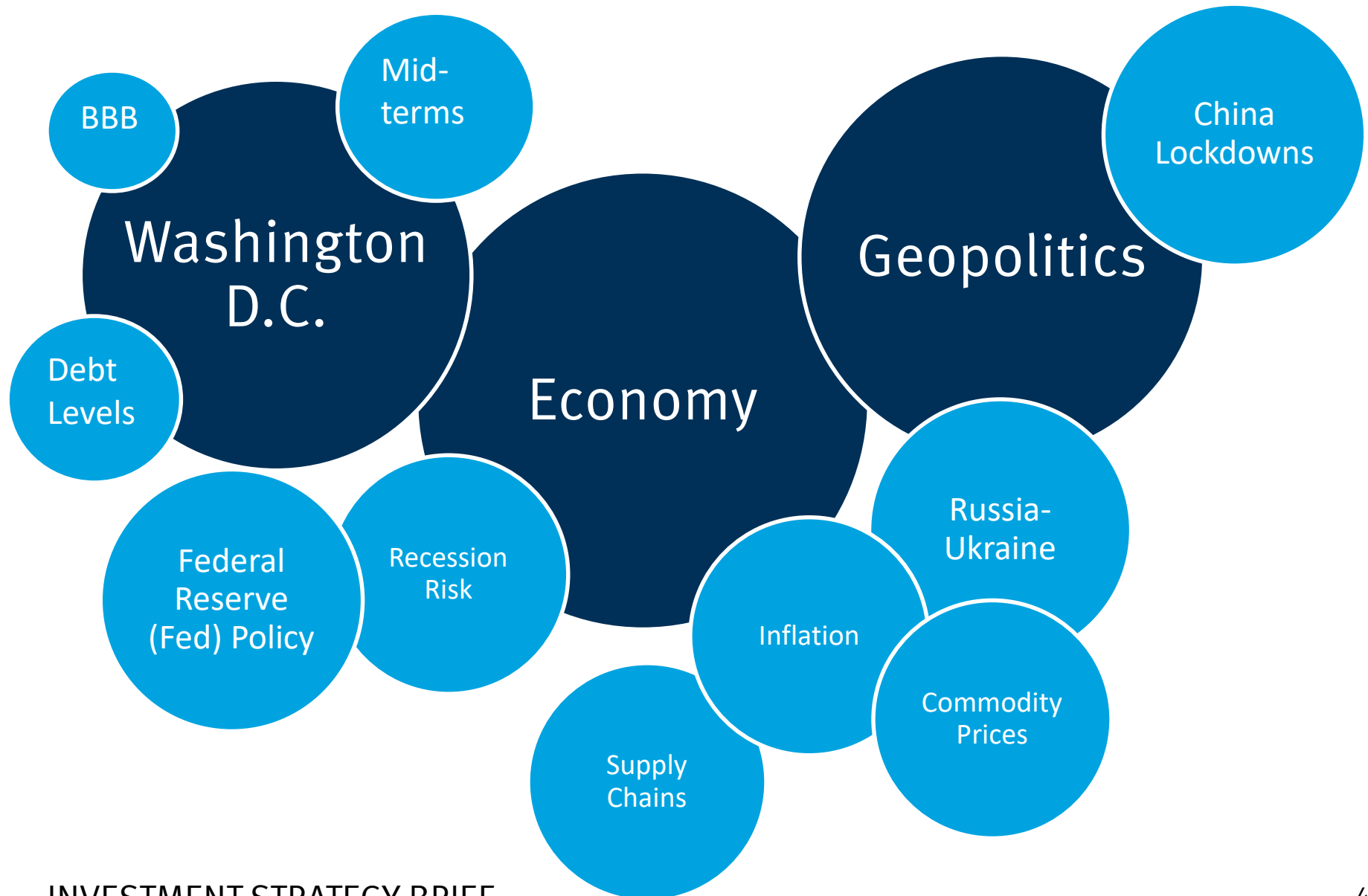
Dynamic Leanings

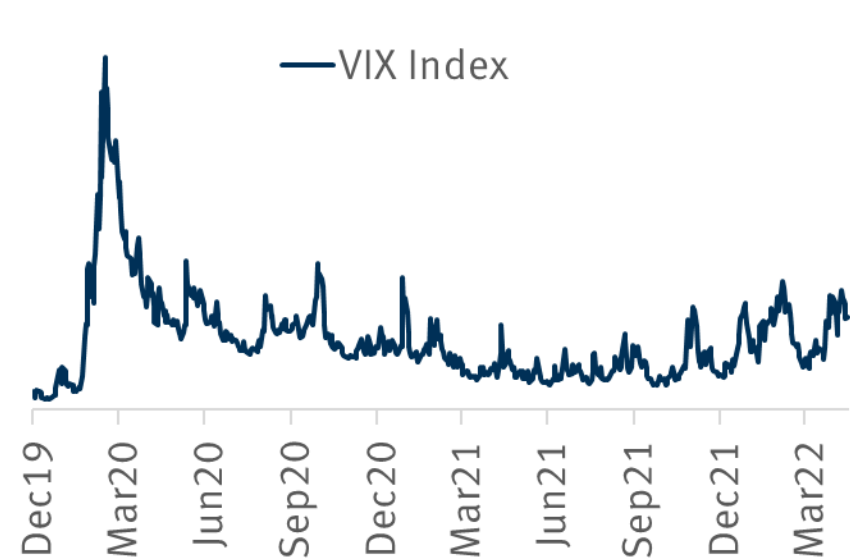
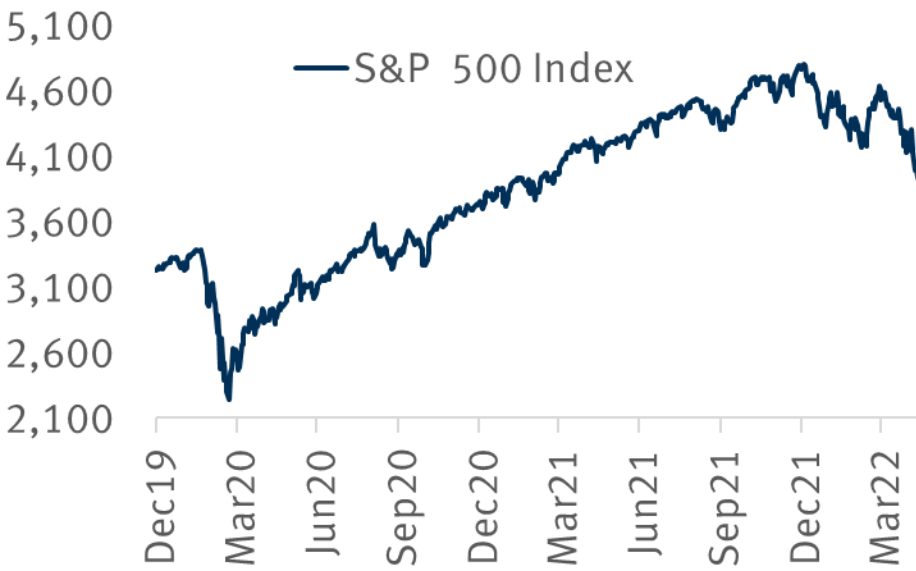
page 35

Finding Our Guidance

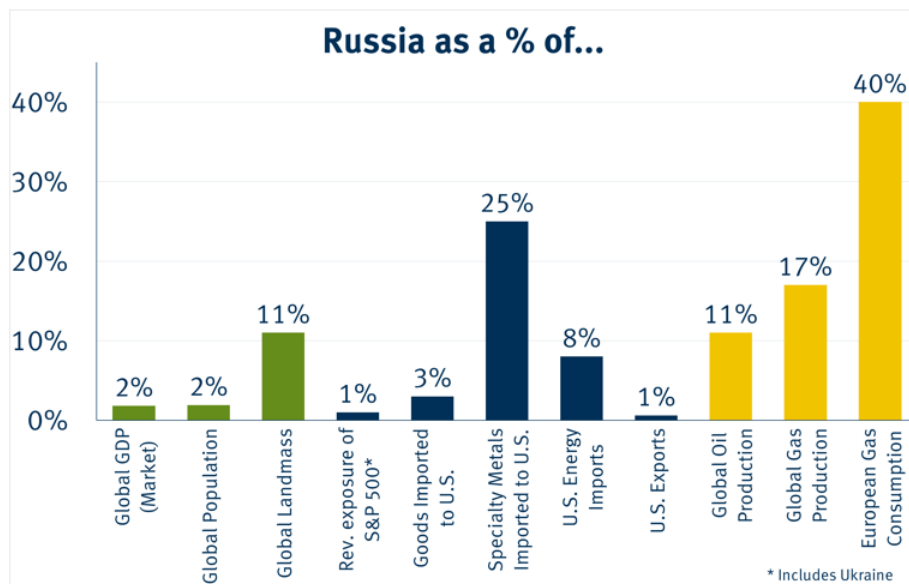
page 39

INCREASED VOLATILITY





Source: Stifel Investment Strategy data via Bloomberg, as of May 16, 2022 (intra-day)



Source: Stifel Investment Strategy, Goldman Sachs GIR, ITC Trade Map, Observatory of Economic Complexity (OEC), World Factbook

Select Western Sanctions

Instrument	Action	Countries / Companies
SWIFT	Prevents Russian banks from communicating with outside banks, making it difficult for businesses and banks to complete transactions	Member-owned cooperative that includes U.S. and EU
Export Controls	Limits exports to Russia of software, technology, and equipment	U.S., EU, UK, CA, JPN, AUS
Currency Transactions	Limits Russia's ability to transact in Dollars, Euro, Pound, and Yen	U.S., EU, UK, JPN
Energy	Restrictions or outright ban on the trade of commodities and energy	U.S., UK
Business	Companies have elected to self-sanction, stop doing business in Russia, or temporarily close store locations	AAPL, ABNB, AXP, BA, DIS, F, FB, FDX, GOOG, MA, NFLX, NKE, UPS, V

Source: Stifel Investment Strategy, Goldman Sachs GIR, Treasury Department, White House

Cease-Fire Talks

UKRAINE

- Drop bid to join NATO in exchange for security guarantees (Article 5)
- Russia will not oppose joining EU
- Will not host foreign military bases or deploy military contingents on territory
- 15-year timeline for negotiations on the status of Crimea
- Russian troops must not remain in occupied territory

RUSSIA

- "Radically reduce" military operations near Kyiv
- New focus on southern Ukraine and Donbas region

No negotiations have occurred since end of March

Possible Scenarios for a Resolution

Scenario 1: Abrupt Resolution

- Most positive scenario, limited impact to global economy

Scenario 2: Prolonged war

- Short-term impact via higher commodity prices, possible recession for Europe
- Long-term economic impact minimal

Scenario 3: Prolonged war with NATO involvement

- Higher commodity prices, Russia cuts off energy
- Risk of a global recession

Under any scenario, long-term geopolitical tensions will remain

*Still too early to evaluate long-term implications ...
but some items worth monitoring and considering*

New Cold War

- Military Spending

Energy (in)dependence

- Climate change policy

European/Western world unity

- U.S. – China competition
- China's stance on Taiwan, South China Sea, etc.

China's response to the Russian invasion

- Ties with Russia vs. the U.S./Europe

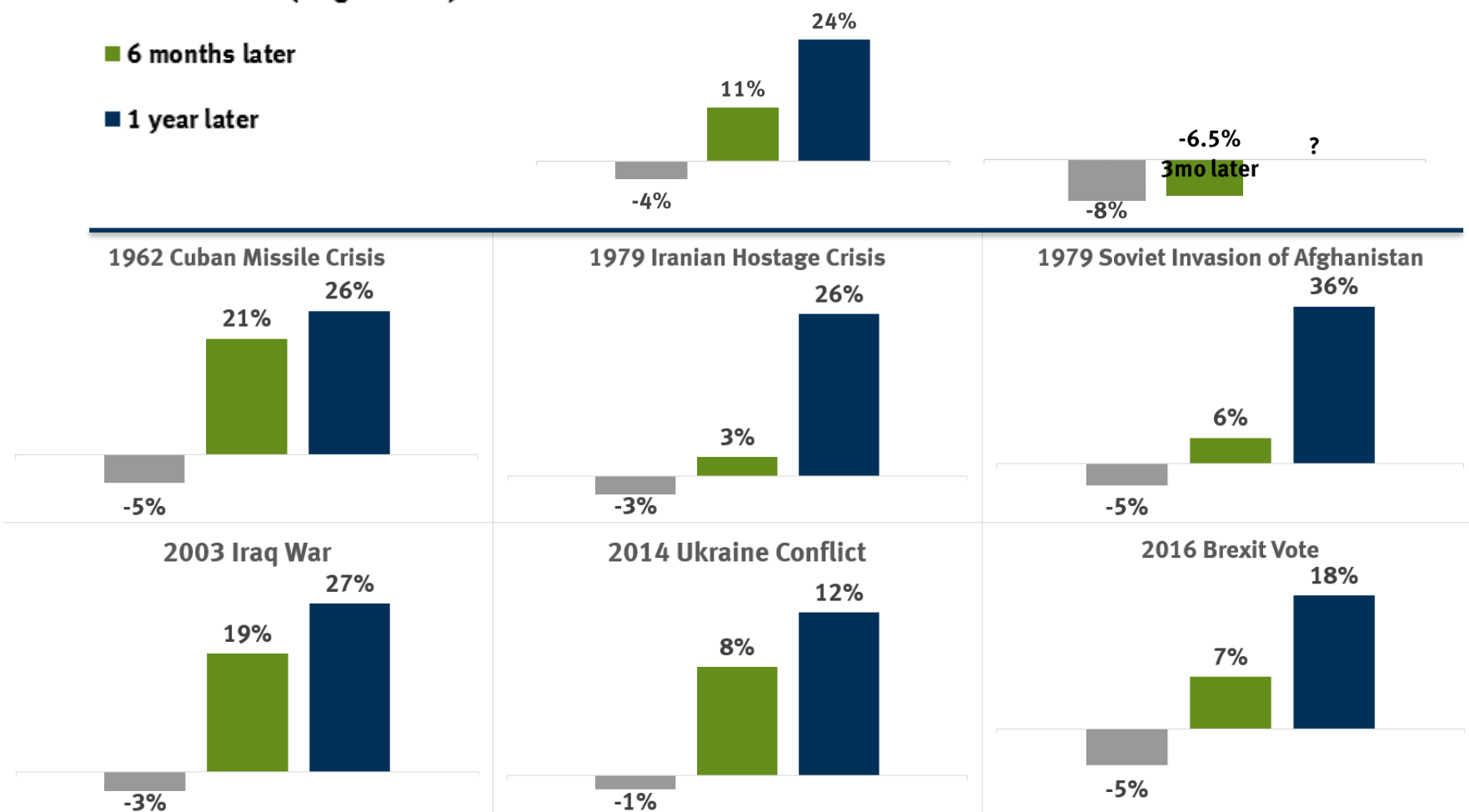
■ Initial sell-off (length varies)

■ 6 months later

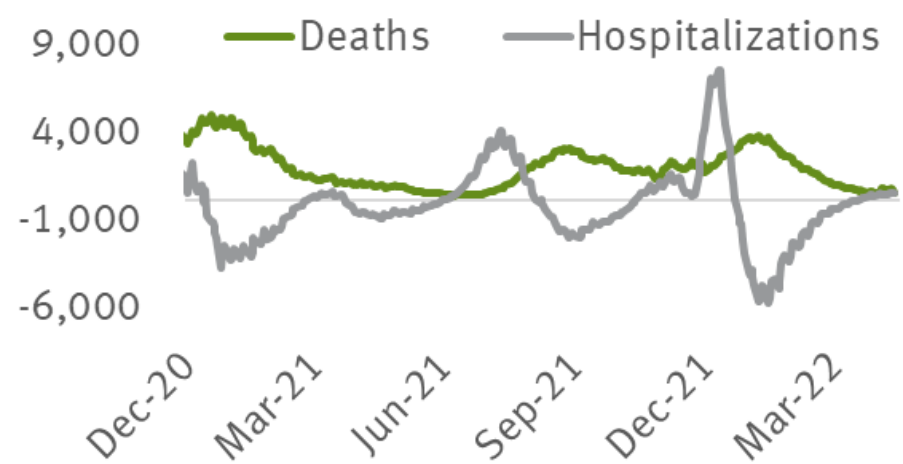
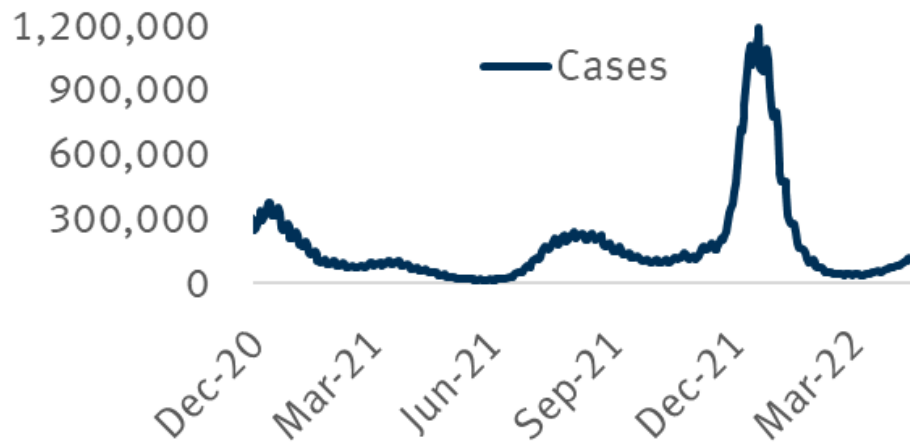
■ 1 year later

Average

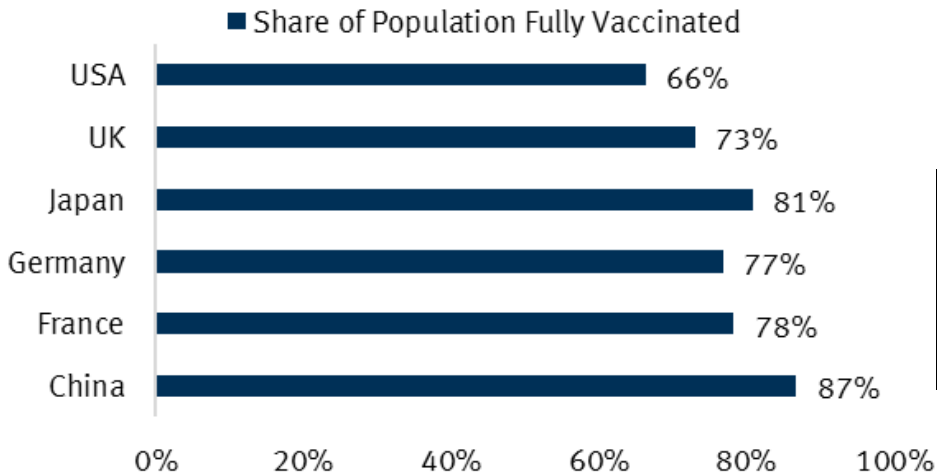
2022 Russia-Ukraine Invasion



Source: Vanguard Investments. Returns are based on the S&P 500 Index. All returns are price returns. Past performance does not guarantee future results. Not shown in the above charts, but included in the averages, are the following events: the Suez Crisis, Berlin Wall, assassination of President Kennedy, authorization of military operations in Vietnam, Israeli-Arab Six Day War, Israeli-Arab War/oil-embargo, Shah of Iran's exile, U.S. invasion of Grenada, U.S. bombing of Libya, First Gulf War, President Clinton & President Nixon impeachment proceedings, Kosovo bombings, intervention in Libya, U.S. anti-ISIS intervention in Syria, and Arab Spring (Egypt). Average excludes the latest crisis.



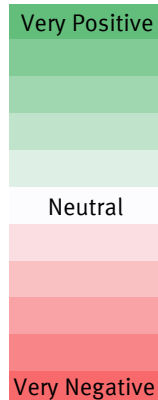
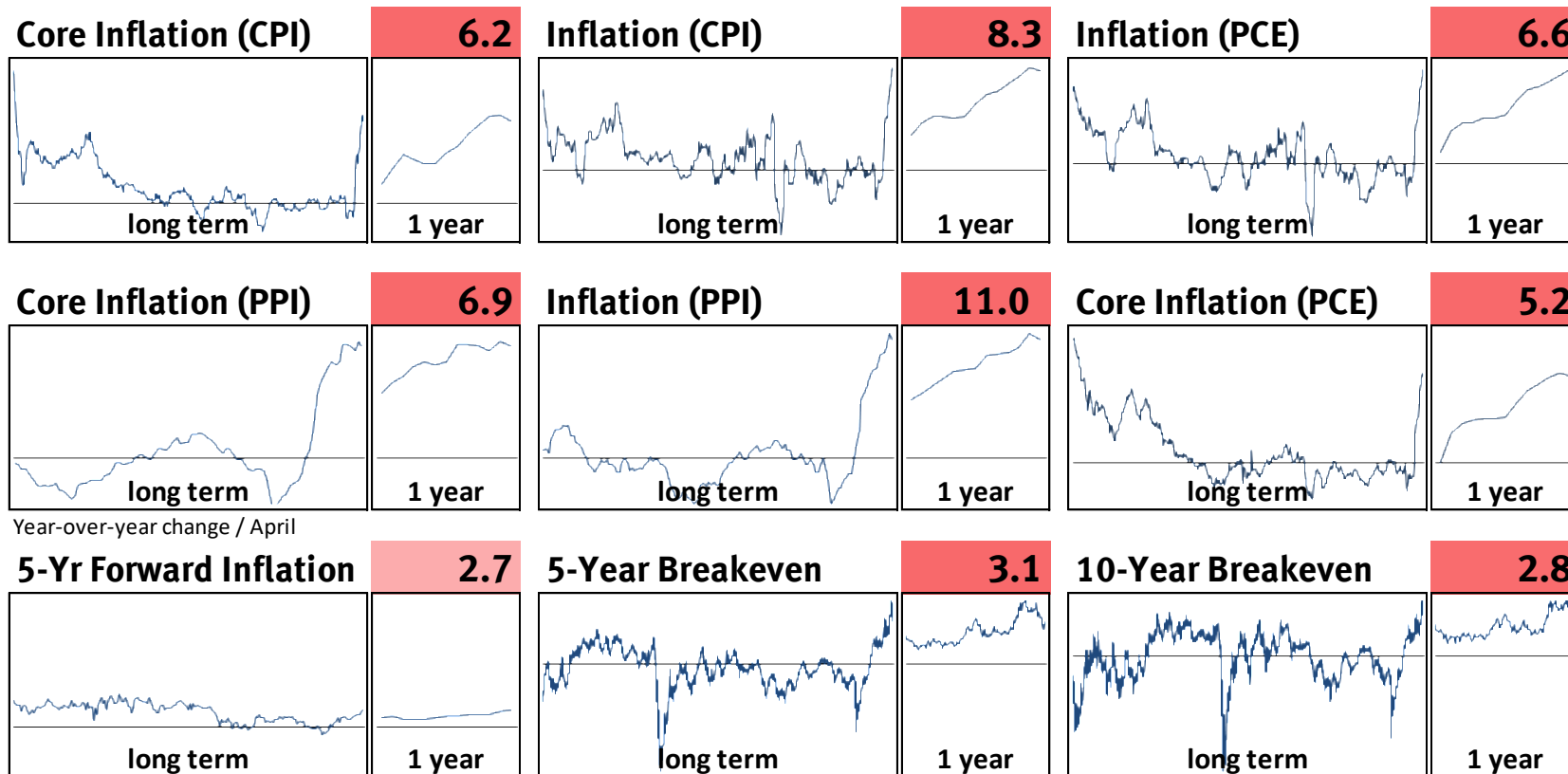
Source: Stifel Investment Strategy via Bloomberg, Our World in Data, as of May 16, 2022; based on 7-day moving average data. Change in cases, deaths, and hospitalizations shown above.



EFFECTIVENESS AT PREVENTING					
	Vaccine	<u>Original Strain</u>		<u>Omicron Variant</u>	
		Severe Disease	Infection	Severe Disease	Infection
U.S.	Johnson & Johnson	86%	72%	57%	33%
	Moderna	97%	92%	73%	48%
	Pfizer/BioNTech	95%	86%	72%	44%
China	CanSino	66%	62%	48%	32%
	CoronaVac	50%	47%	37%	24%
	Sinopharm	73%	68%	53%	35%

Source: Stifel Investment Strategy via Bloomberg, Our World in Data, as of May 16, 2022

Source: Stifel Investment Strategy via IHME healthdata.org as of February 18, 2022

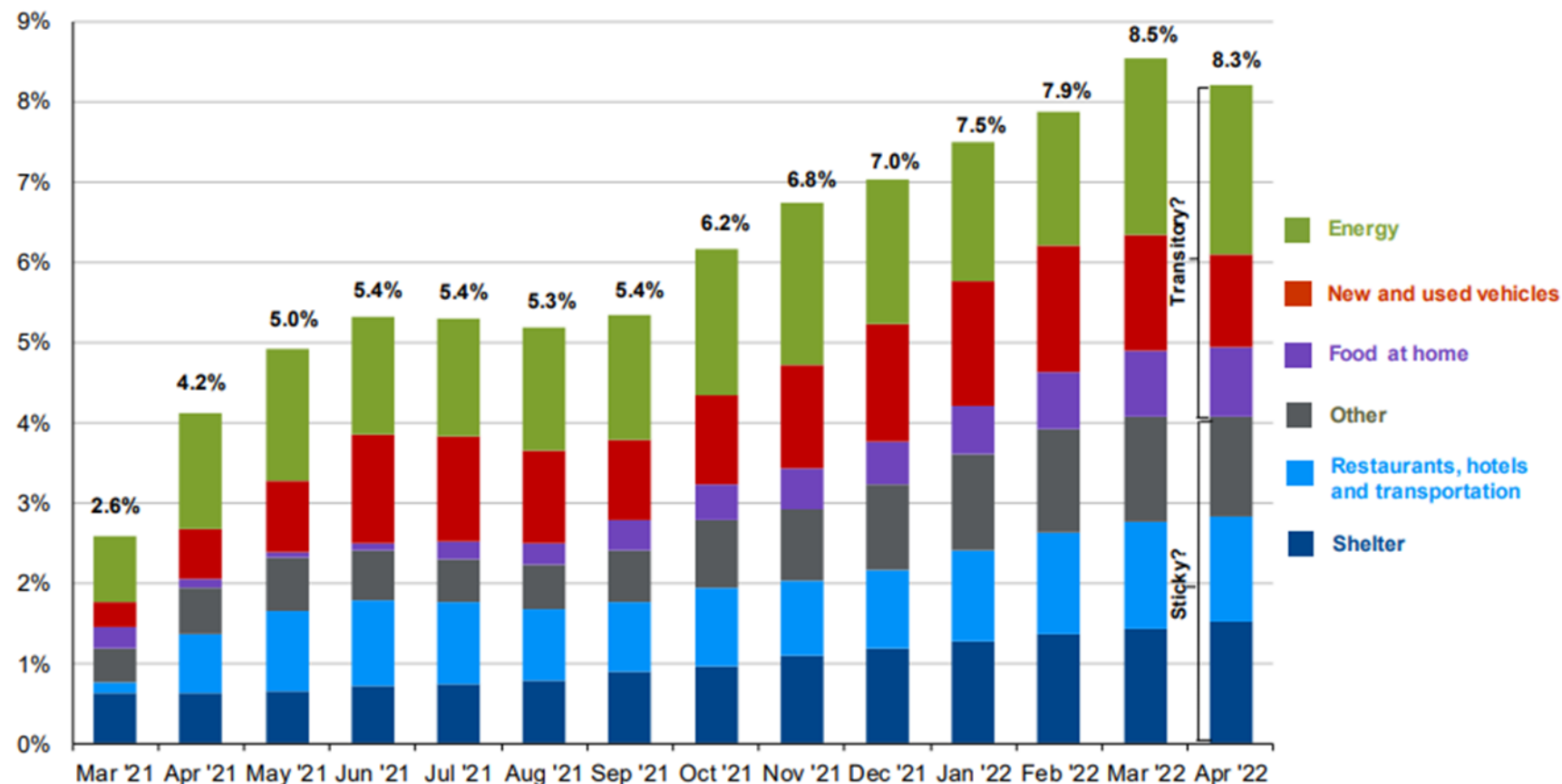
Inflation

All Inflation numbers reflect percent year-over-year changes.

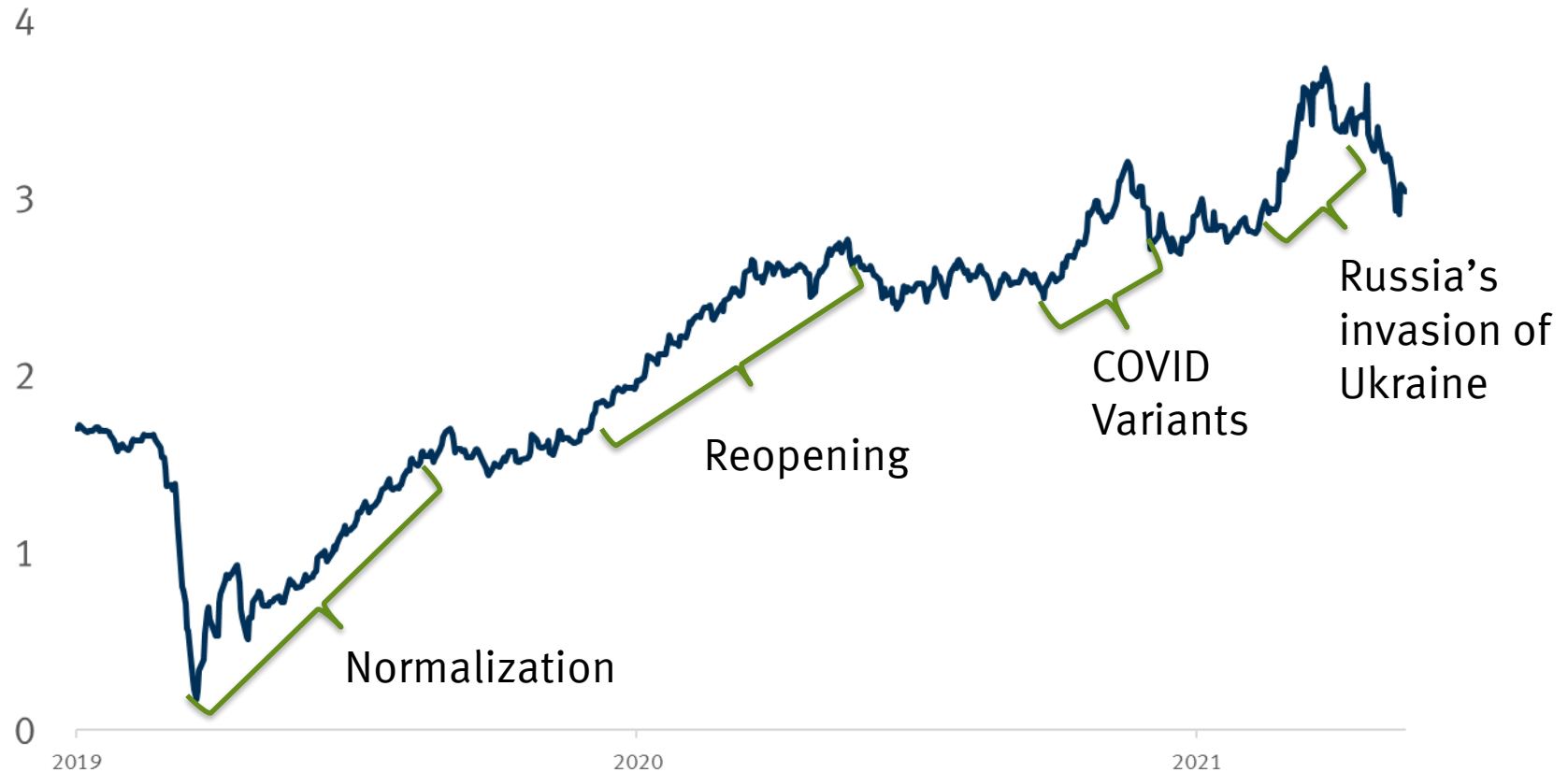
Source: Stifel Investment Strategy via Bloomberg, as of May 17, 2022

Contributors to headline inflation

Contribution to y/y % change in CPI, non seasonally adjusted



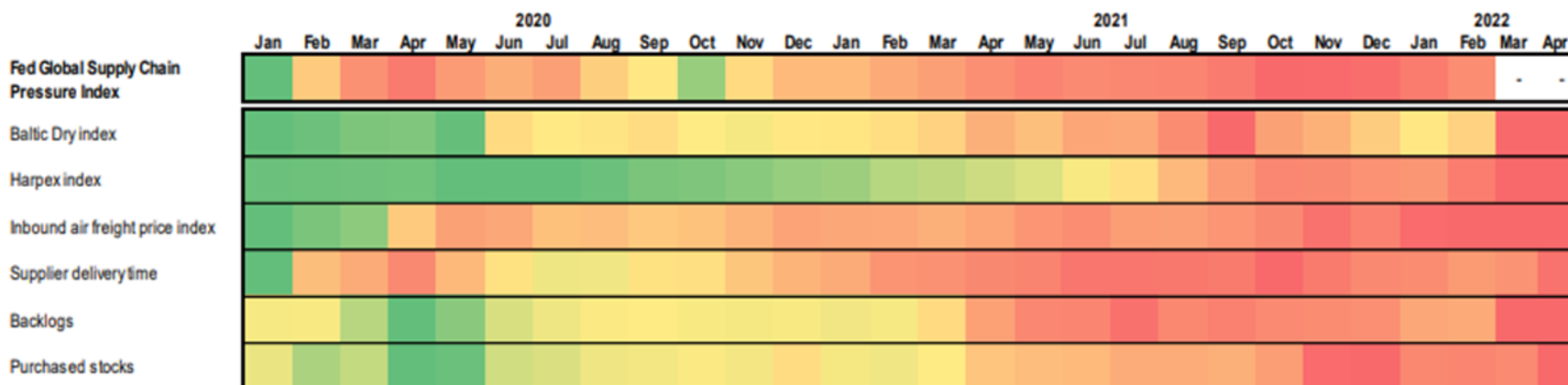
Source: BLS, J.P. Morgan Asset Management. Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners equivalent rent and rent of primary residence. "Other" primarily reflects household furnishings, apparel and medical care services. *Guideto the Markets - U.S.* Data are as of May 13, 2022.

5-year Breakeven Inflation

Source: Stifel Investment Strategy via Bloomberg, as of May 16, 2022

Fed Global Supply Chain Pressure Index*

Standard deviation from average value

**Fed Global Supply Chain Pressure Index subcomponents**

Source: Federal Reserve Bank of New York, IHS Markit, J.P. Morgan Asset Management.

*The Federal Reserve Bank of New York bases its Global Supply Chain Pressure Index on the 25-year averages of the Baltic Dry Index (benchmark for the price of moving raw materials by sea), Harpex Index (benchmark for the rate liners pay to charter ships), BLS airfreight cost indices (benchmarks for measuring change in rates for air transportation) and 3 PMI supply chain-related components: delivery times (the amount of time elapsed between the time an order is placed and the time it is shipped), backlogs (the volume of orders that a company has received, but not yet fulfilled) and purchased stocks (the level of inventory of materials purchased in the current month compared to the month prior) for manufacturing firms across seven interconnected economies: China, the euro area, Japan, South Korea, Taiwan, the United Kingdom and the United States. Heatmap colors determined by that month's level compared to 10-year average. Red = Very slow/constrained, Yellow = Average/moderate, and Green = Fast/least constrained.

Guide to the Markets – U.S. Data as of May 13, 2022.

*Read: The Fed's Path to a Soft Landing**Monetary*

- Balancing act: curb inflation without a recession
- **Latest Federal Open Market Committee meeting:**
 - **May:** raised rate by 50 basis points (bps)
 - “inflation is much too high”
 - “Good chance” for a “softish” landing
 - **June & July:** market pricing in 50-bps hikes at each meeting
- **Fed's dual mandate: price stability and maximum employment**
 - Forecasts **unemployment** at 3.5% in 2022
 - Forecasts **PCE Inflation** at 4.3% in 2022
- Market pricing in 7 more rate hikes in 2022

Fiscal

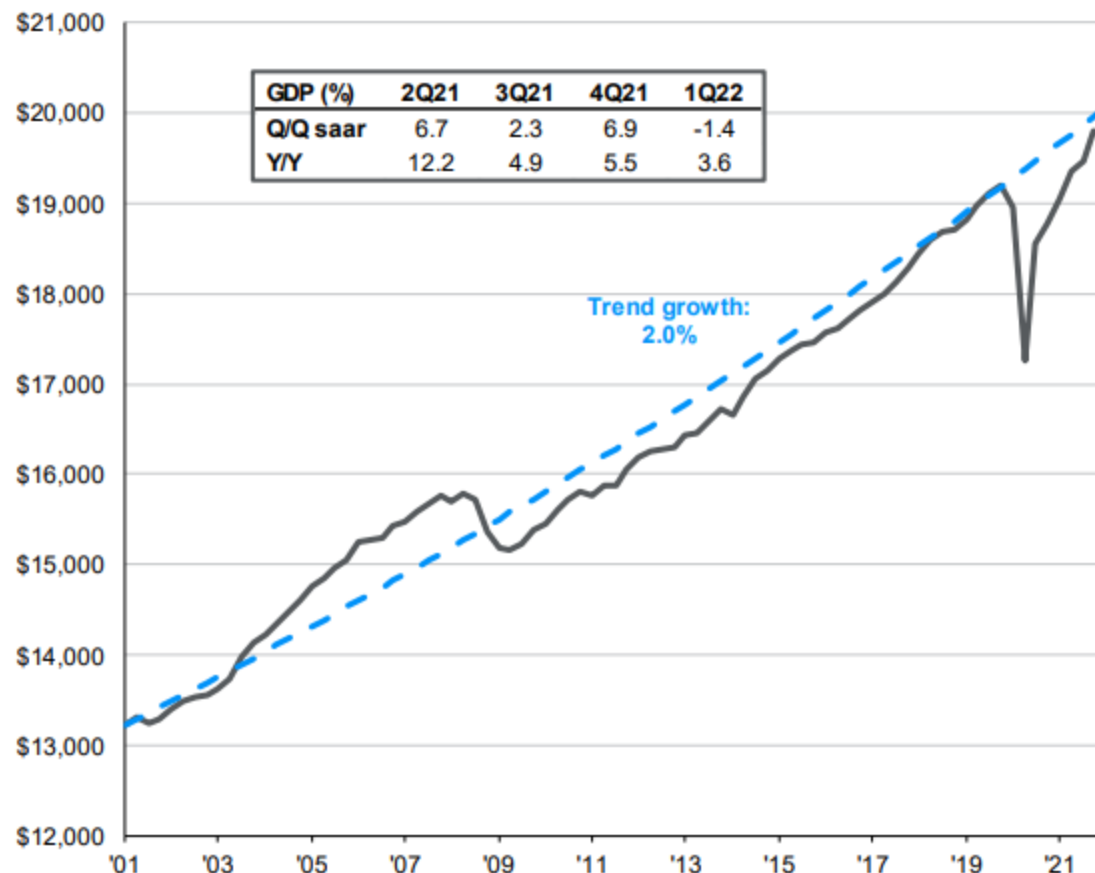
- Fiscal stimulus to decelerate in 2022, shift to regulatory focus
- Spending from bipartisan infrastructure bill will start
- **Build Back Better (BBB)**
 - BBB needs revival – no significant developments on a reconciliation bill
 - Possible that Democrats could agree to a revised BBB in the spring, **but chances of passing a revised bill remain low**
- Political necessity for Democrats to pass something remains – some form of social spending bill cannot be dismissed
- Passing of bill (or lack thereof) will have an impact on 2022 midterms



MACRO ENVIRONMENT

Real GDP

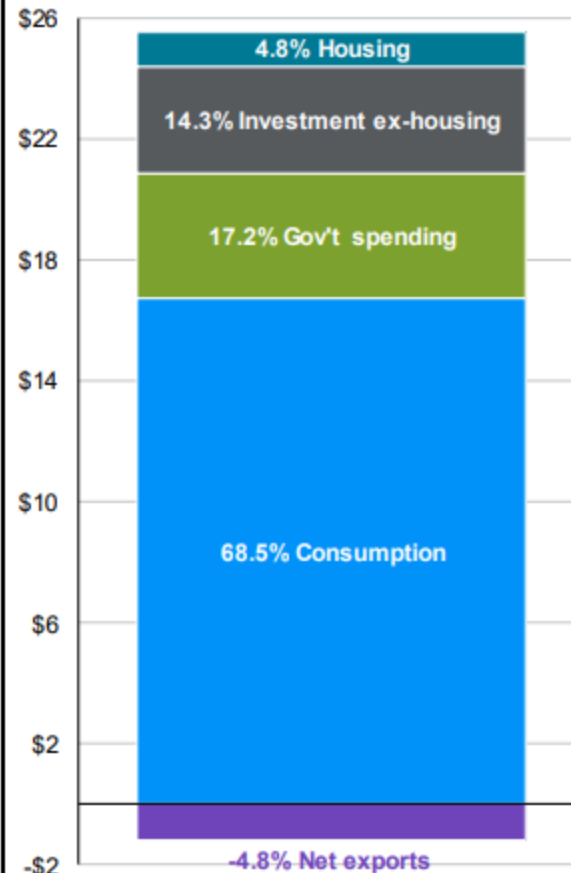
Billions of chained (2012) dollars, seasonally adjusted at annual rates



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 May 13, 2022.

Components of GDP

1Q22 nominal GDP, USD trillions



*The Consumer***107.3**

**Conference Board
Consumer Confidence**
1 year ago: 117.5

8.2%

Retail Sales

1 year ago: 54.5%

6.2%

Savings Rate

1 year ago: 26.6%

3.6%

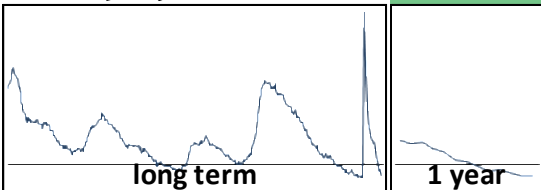
Unemployment Rate

1 year ago: 6.0%

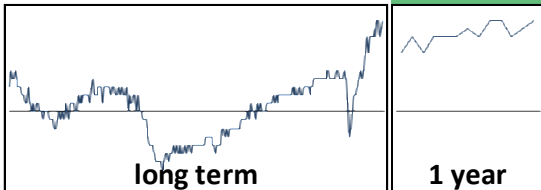
Source: Stifel Investment Strategy data via Bloomberg, as of May 17, 2022; Number of 100 and above is considered positive for Conference Board Consumer Confidence.

The Economy

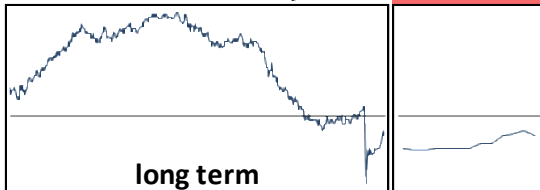
Unemploy. Rate (%) **3.6**



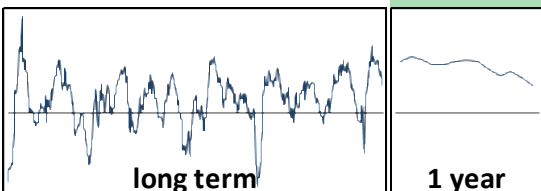
JOLTS Quits (%) **3.0**



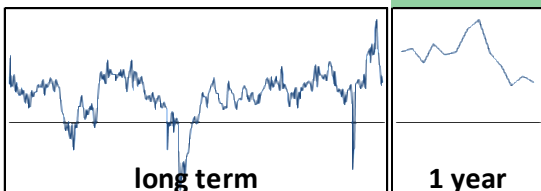
Lab. Force Participation **62.2**



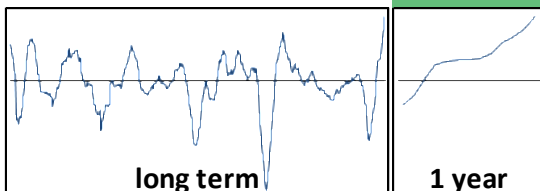
ISM Manuf. **55.4**



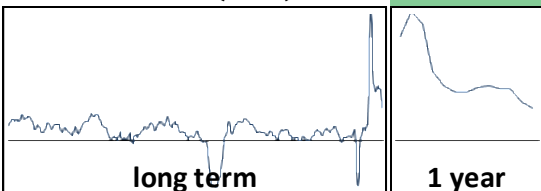
ISM Services **57.1**



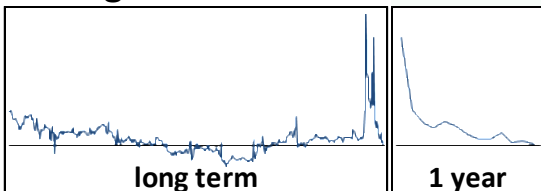
Bus. Inventories **14.7**



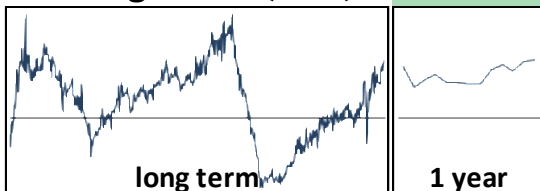
Retail Sales (YoY) **8.2**



Savings Rate **6.2**



Housing Starts ('000) **1793.0**



Very Positive

Neutral

Very Negative

Year-over-year change

Source: Stifel Investment Strategy via Bloomberg, as of May 17, 2022

STIFEL MACRO ENVIRONMENT: HAS INFLATION PEAKED?

Read: Has Inflation Peaked? It Depends on Who You Ask

Inflation <u>IS</u> Peaking	Inflation <u>NOT</u> Peaking
“Base Effect”	Tight Labor Market
Shortages/Supply Chains Easing	Shortages in Some Categories
Prices for Goods Moderating	War in Ukraine
Fed Policy	China’s “COVID-Zero” Strategy
Breakeven Inflation	Expanded Balance Sheet

*Read: First Quarter Comes to an End: Inflation is Raging***Inflation Breakevens**

Time Period	1-year forward Inflation
One year from now	3.1%
In Two Years	2.5%
In Three Years	2.3%
In Four Years	2.4%
In Five Years	2.3%
In Six Years	2.2%
In Seven Years	1.9%
In Eight Years	2.5%
In Nine Years	2.9%

Inflation Estimates (Sell Side)

Time Period	Expected Inflation
2Q22	7.9%
3Q22	7.1%
4Q22	5.9%
2022	7.0%
1Q23	4.3%
2Q23	3.1%
3Q23	2.6%
2023	3.0%
2024	2.4%

Source: Stifel Investment Strategy via Bloomberg, as of May 16, 2022 (intra-day)

Recession-Recovery Dashboard

Financial	Yield Curve
	Credit Spreads
	Money Supply
Inflation	Wage Growth
	Commodities
	Inflation (PCE)
Consumer	Housing Starts
	Jobless Claims
	Retail Sales
	Job Sentiment
Business Activity	ISM New Orders
	Profit Margins
	Truck Shipments

Expansion
Cautious
Recession

- Flatter yield curve often signals economic growth slowdown
- Credit spreads are approaching historic average levels, but remain low
- Historically high money supply growth dropping
- Wages growth picking up on pent-up demand and labor market mismatches
- Commodity prices boosted by global demand, geopolitical risk premium, and relative demand/supply deficit
- Prices remain stubbornly high both due to structural and cyclical factors
- Housing starts are elevated on historically low real estate inventory and demand despite significant movement in mortgage rates
- Jobless claims remain subdued on strong hiring
- Growth in retail sector is positive despite real disposable income falling below trend
- More people have been quitting job as leverage has shifted from employer to employees
- Key leading indicator ISM New Orders continue to grow at a decelerating pace
- Profit margins remain historically high but risks are meaningful on price pressures
- Solid truck shipments indicate cyclical recovery

Source: Stifel Investment Strategy data via Bloomberg, as of May 16, 2022

EARLY Acceleration in economic growth	MID Positive, but moderating growth	LATE Growth rate slows to trend or below-trend	RECESSION Growth contracts
Lower consumer spending	Recovering consumer spending	Strong consumer spending	Falling consumer spending
Credit creation low	Credit creation rising	Credit creation rising faster	Credit creation declining
Company profits recovering	Company profits peaking	Company profits under pressure	Company profits contracting
Fiscal/monetary policy accommodative	Fiscal/monetary policy shifting to neutral	Fiscal/monetary policy contractionary	Fiscal/monetary policy easing



U.S. GDP	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22	Q4 22	2020	2021	2022	2023
Consensus Estimates	2.3	6.9	-1.4	3.0	2.7	2.2	-3.4	5.7	2.8	2.4
Stifel*	5.0	3.2	1.2	2.4	1.8	2.1	-3.5	5.3	2.5	1.1
IHS Markit	1.5	6.2	0.7	1.6	2.3	2.4	-3.6	5.7	2.4	2.4
Goldman Sachs	3.3	7.0	1.5	2.5	2.3	1.5	-3.4	5.7	2.4	1.6
Capital Economics	2.6	4.5	1.2	2.0	2.1	1.6	-3.5	5.7	2.4	1.5
Strategas	2.0	5.7	1.0	3.0	2.7	1.0	-3.2	5.6	2.6	1.5
UBS	3.4	6.1	1.5	3.9	3.1	2.5	-3.5	5.6	2.9	2.4
Wells Fargo	3.0	5.9	0.6	2.3	2.0	2.1	-3.5	5.6	2.4	2.0
Bloomberg Economics	3.5	5.0	1.2	3.5	3.2	2.5	-3.5	5.6	2.8	2.4
Barclays	3.0	5.5	1.5	5.0	4.0	2.5	-3.5	5.6	3.2	2.3
JPMorgan Chase	3.0	7.0	1.1	3.3	3.5	2.5	-3.5	5.7	2.8	2.3
Bank of America ML	4.5	6.0	1.0	3.5	2.5	1.8	-3.5	5.6	2.7	1.8
Federal Reserve**							-2.4	5.5	2.8	2.2

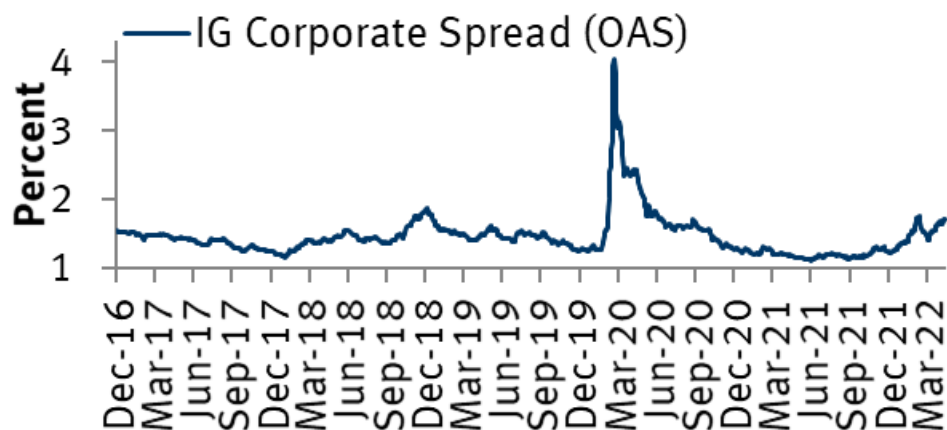
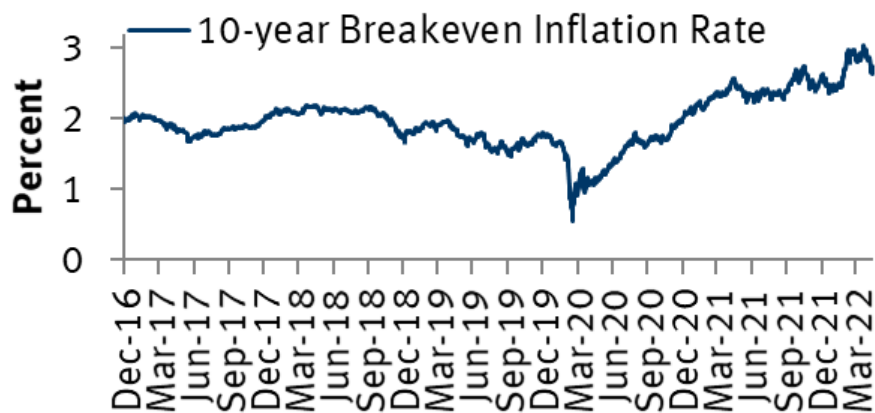
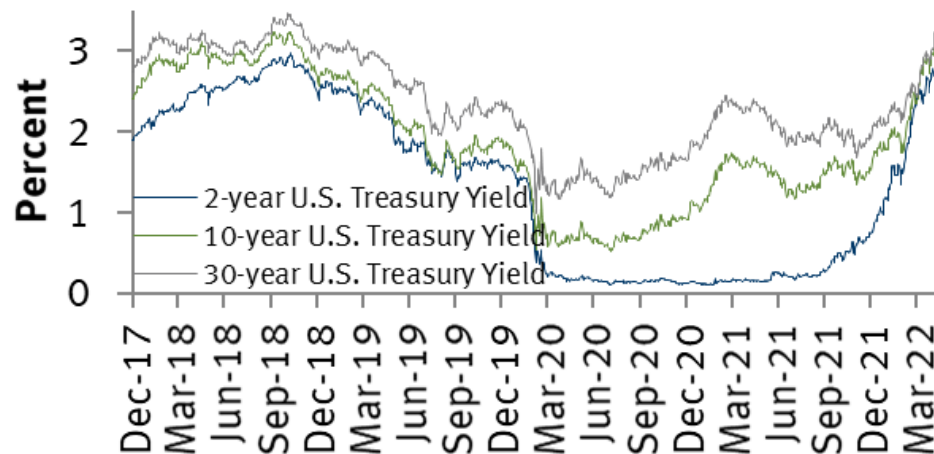
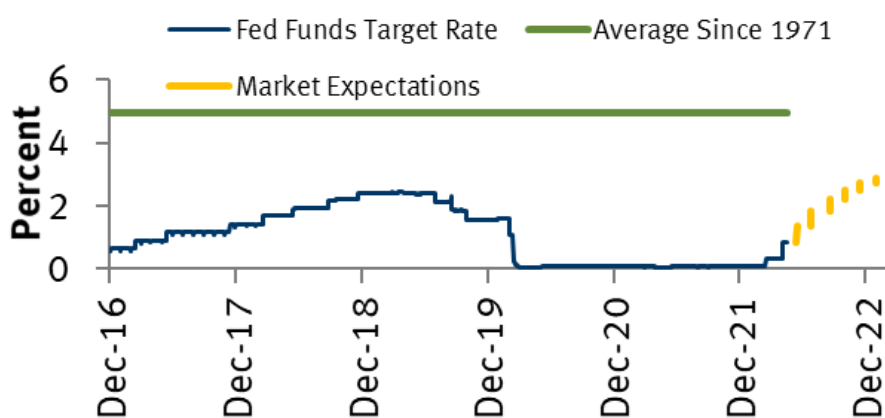
Annualized percent change from prior quarter and year-over-year change are shown for quarterly and yearly periods, respectively.

*Based on Stifel sell-side Economics department estimates. **Percent change from fourth quarter to fourth quarter one year ago.

Source: Stifel Investment Strategy data via Bloomberg, as of May 17, 2022. Federal Reserve estimates are as of March 15, 2022. Figures in grey areas under "Consensus Estimates" represent reported results.



MARKETS

Rates and Spreads

OAS Spread is the measurement of the spread of a fixed-income security rate and the risk-free rate of return, which is adjusted to take into account an embedded option

Source: Stifel Investment Strategy data via Bloomberg, as of May 16, 2022

10-year Yield

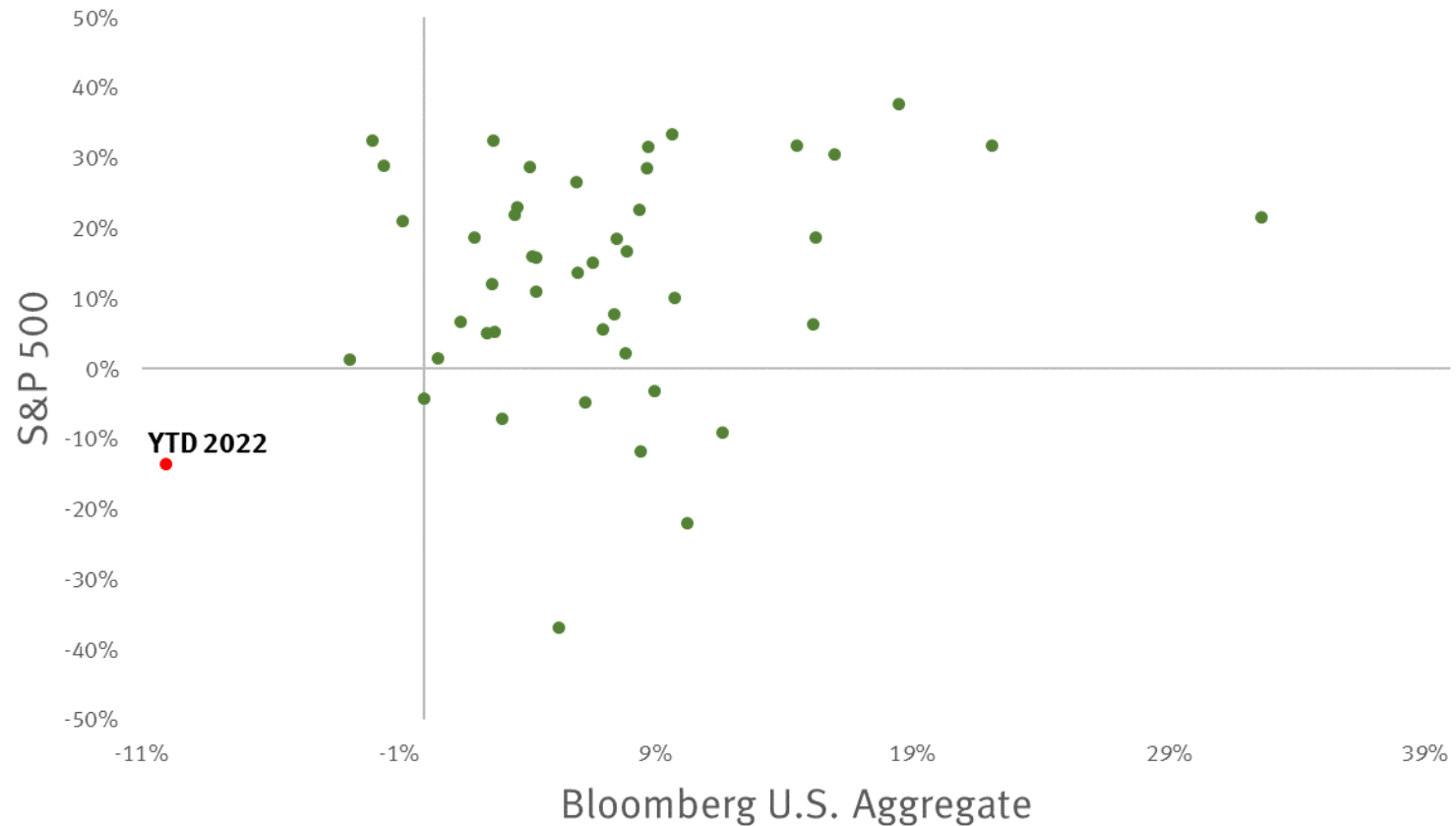
Source: Stifel Investment Strategy data via Bloomberg, as of May 16, 2022 (intra-day)

First Fed Rate Hike	Last Fed Rate Hike	S&P 500 Return	Months to Recession
Feb-72	May-74	-7.4%	20
Nov-76	Mar-80	30.3%	37
Aug-80	Dec-80	12.1%	11
Apr-83	Aug-84	8.0%	86
Dec-86	Sep-87	30.5%	43
Mar-88	Feb-89	15.1%	27
Feb-94	Feb-95	0.7%	85
Jun-99	May-00	9.7%	21
Jun-04	Jun-06	16.2%	42
Dec-15	Dec-18	30.5%	50
Median		13.6%	40
Average		14.6%	42
Mar-22	?	-4.4%	?

Source: Stifel Investment Strategy data via Bloomberg, as of May 16, 2022 (intra-day)

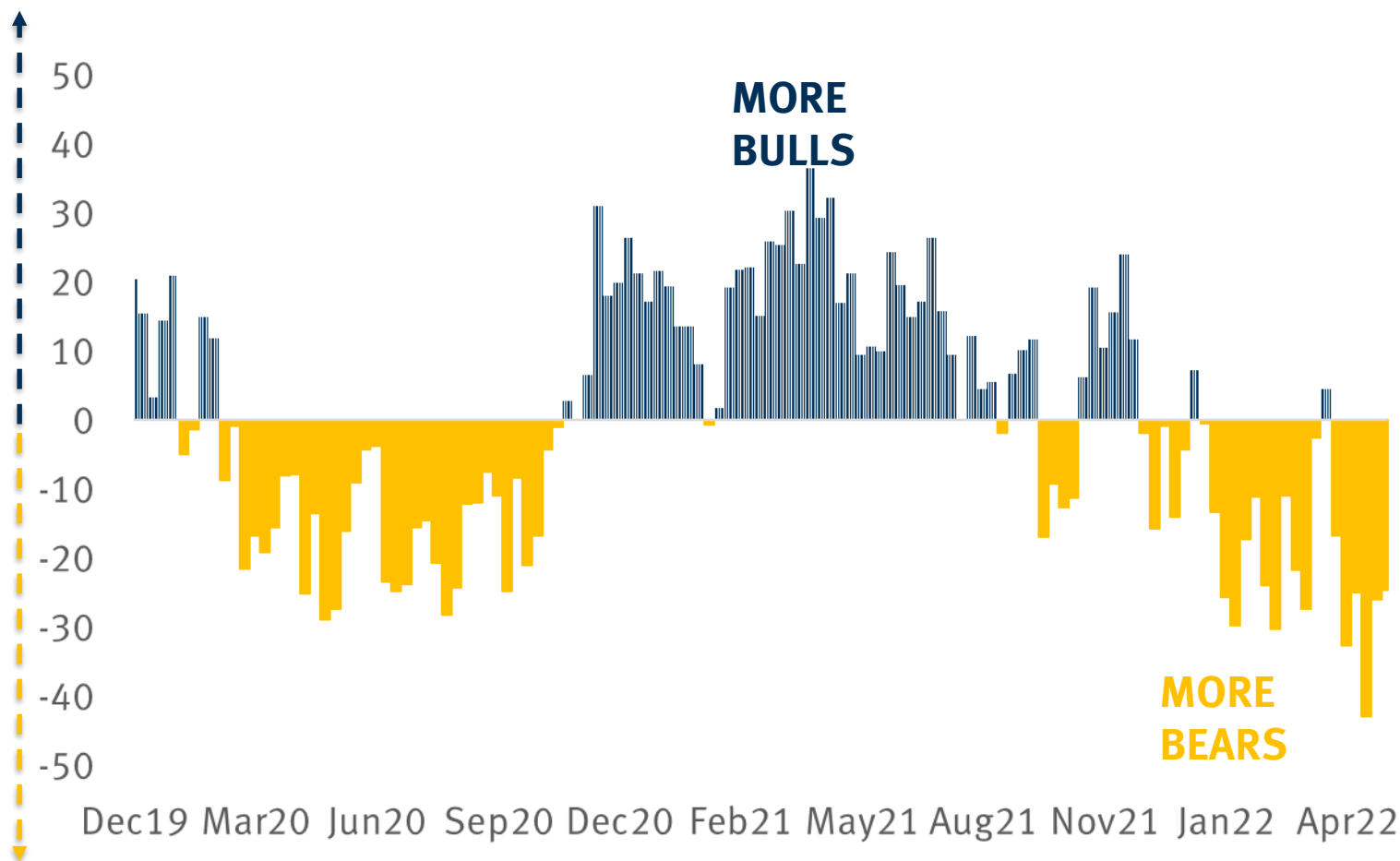
Index	2021 1 st Half	2021 2 nd Half	2021 Full Year	2022 YTD
S&P 500 Index	15.2%	11.7%	28.7%	-13.7%
<i>Software & Services</i>	14.8%	11.0%	27.4%	-21.8%
<i>Retail</i>	12.1%	6.4%	19.3%	-25.9%
<i>Semicond's & Semi Eq.</i>	21.9%	23.5%	50.5%	-23.4%
<i>Consumer Dur. & Apparel</i>	15.8%	5.7%	22.4%	-28.1%
<i>Media & Entertainment</i>	22.9%	3.3%	26.9%	-27.6%
S&P 500 Equal Weighted Index	19.2%	8.7%	29.6%	-9.2%
NYSE FANG+ Index	15.2%	2.2%	17.7%	-30.5%
Russell 2000 Index	17.5%	-2.3%	14.8%	-17.7%
MSCI EAFE Index	8.8%	2.2%	11.3%	-14.0%
MSCI EM Index	7.5%	-9.3%	-2.5%	-15.8%
Bloomberg U.S. Aggregate	-1.6%	0.1%	-1.5%	-10.0%

Read more: The “60/40” Portfolio Breaks Down: What Should Investors Do?



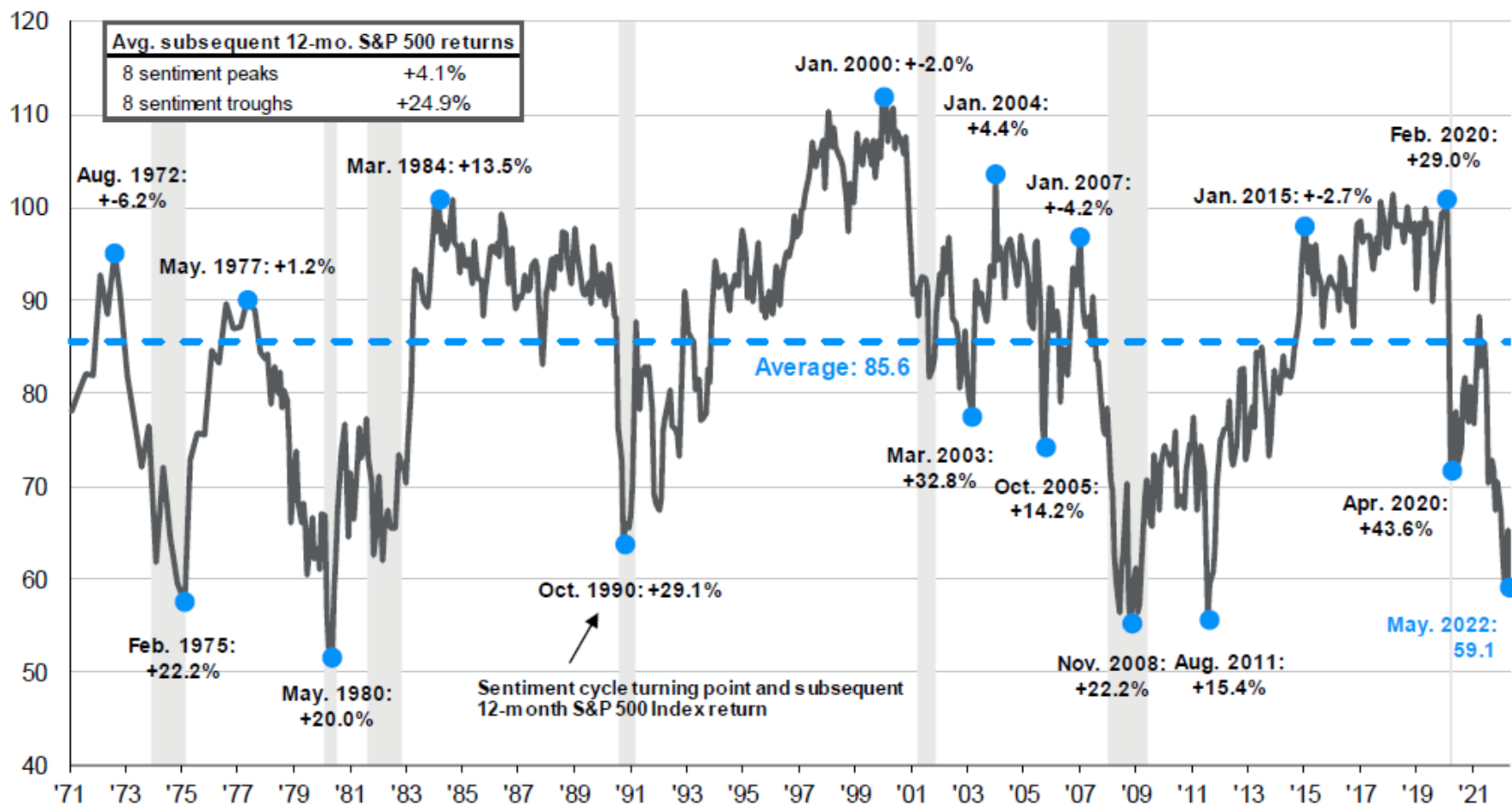
Source: Stifel Investment Strategy data via Bloomberg, as of May 17, 2022

Weekly, AAll % bulls less % bears



Source: Stifel Investment Strategy data via Bloomberg, as of May 16, 2022

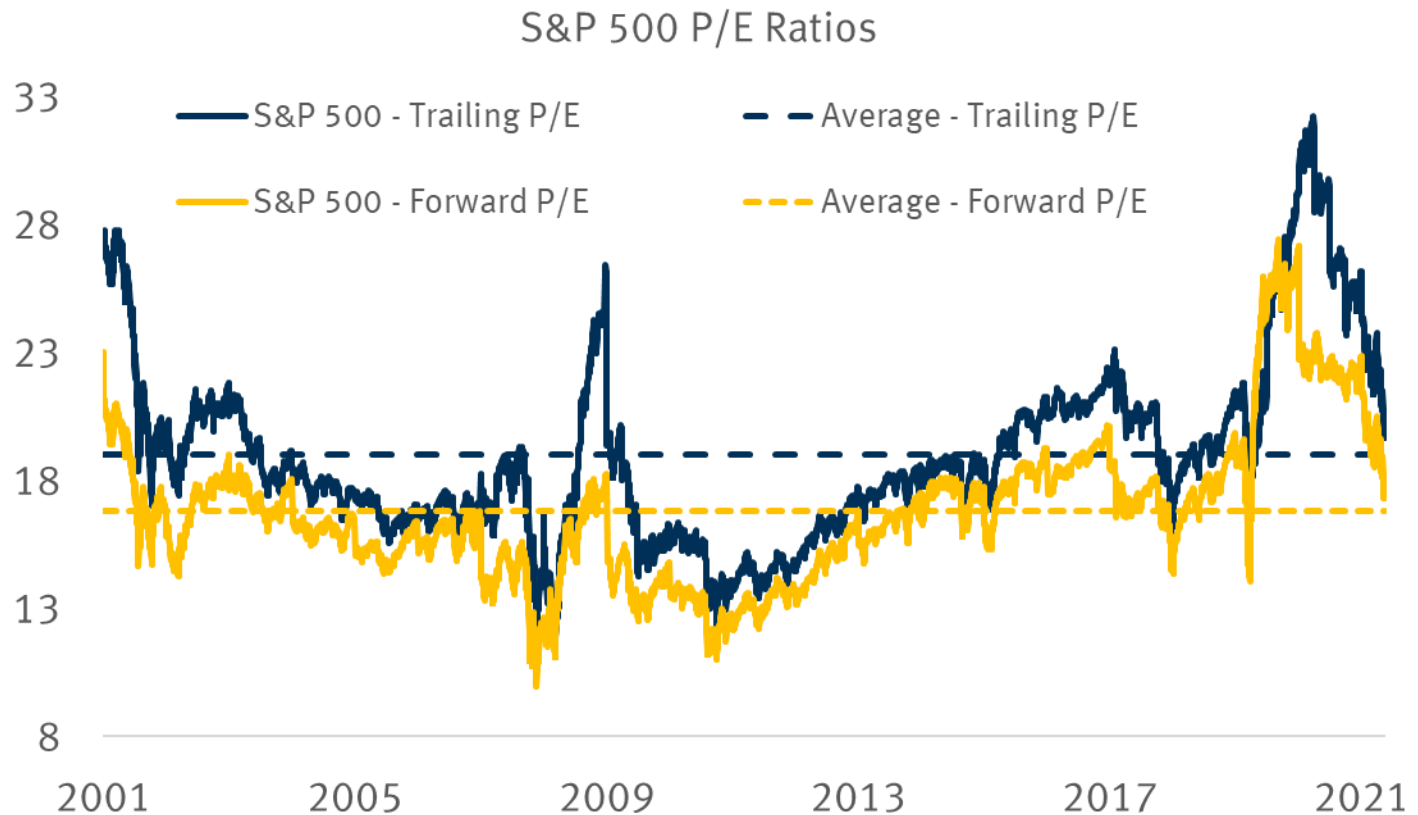
Consumer Sentiment Index and subsequent 12-month S&P 500 returns



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

Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs. Subsequent 12-month S&P 500 returns are price returns only, which excludes dividends. Past performance is not a reliable indicator of current and future results.

Guide to the Markets – U.S. Data are as of May 13, 2022.

Read: Risks to the Stock Market

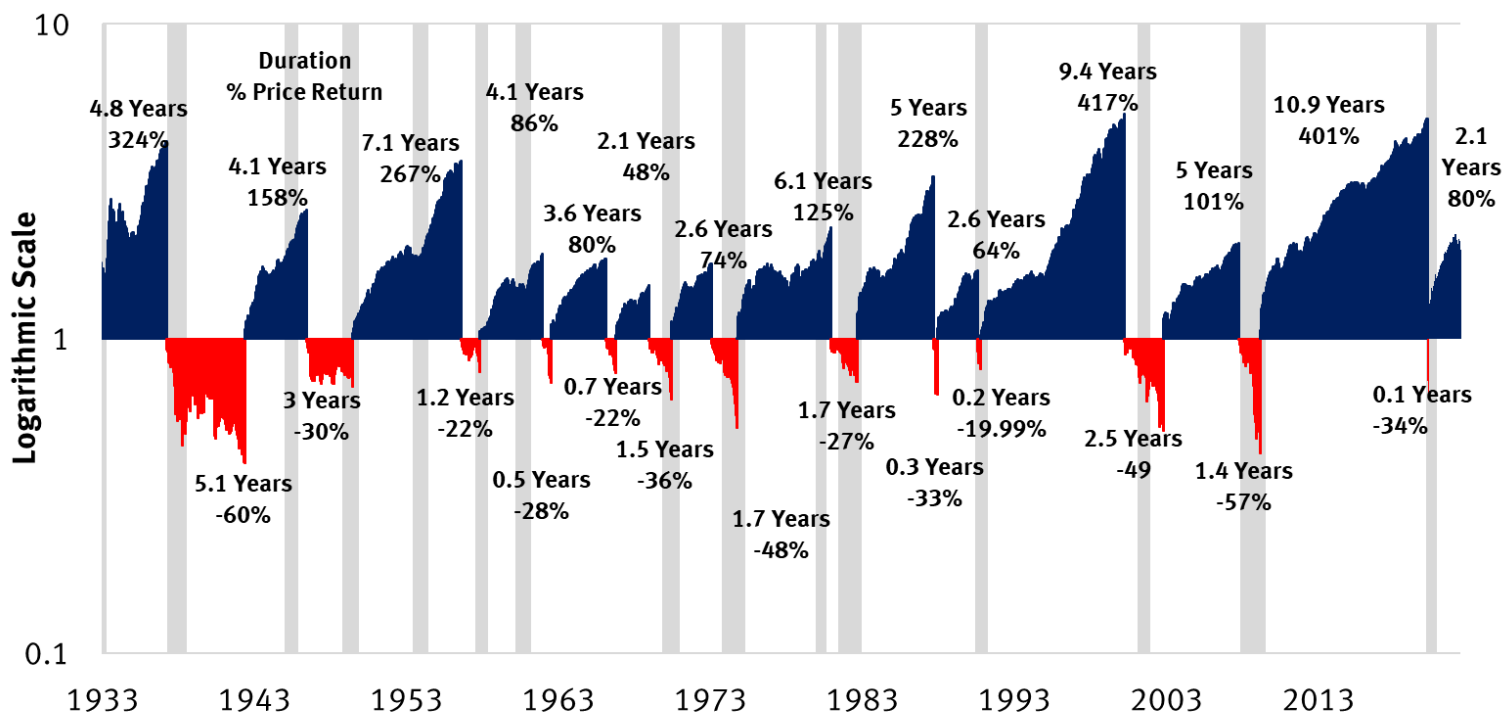
Source: Stifel Investment Strategy via Bloomberg, as of May 17, 2022 (intra-day)

Read: A positive “season” so far: Where are earnings headed?



Source: Stifel Investment Strategy via FactSet, as of May 16, 2022

The cycle of markets is inevitable, however, bull markets have historically lasted longer than bear markets and recessions.

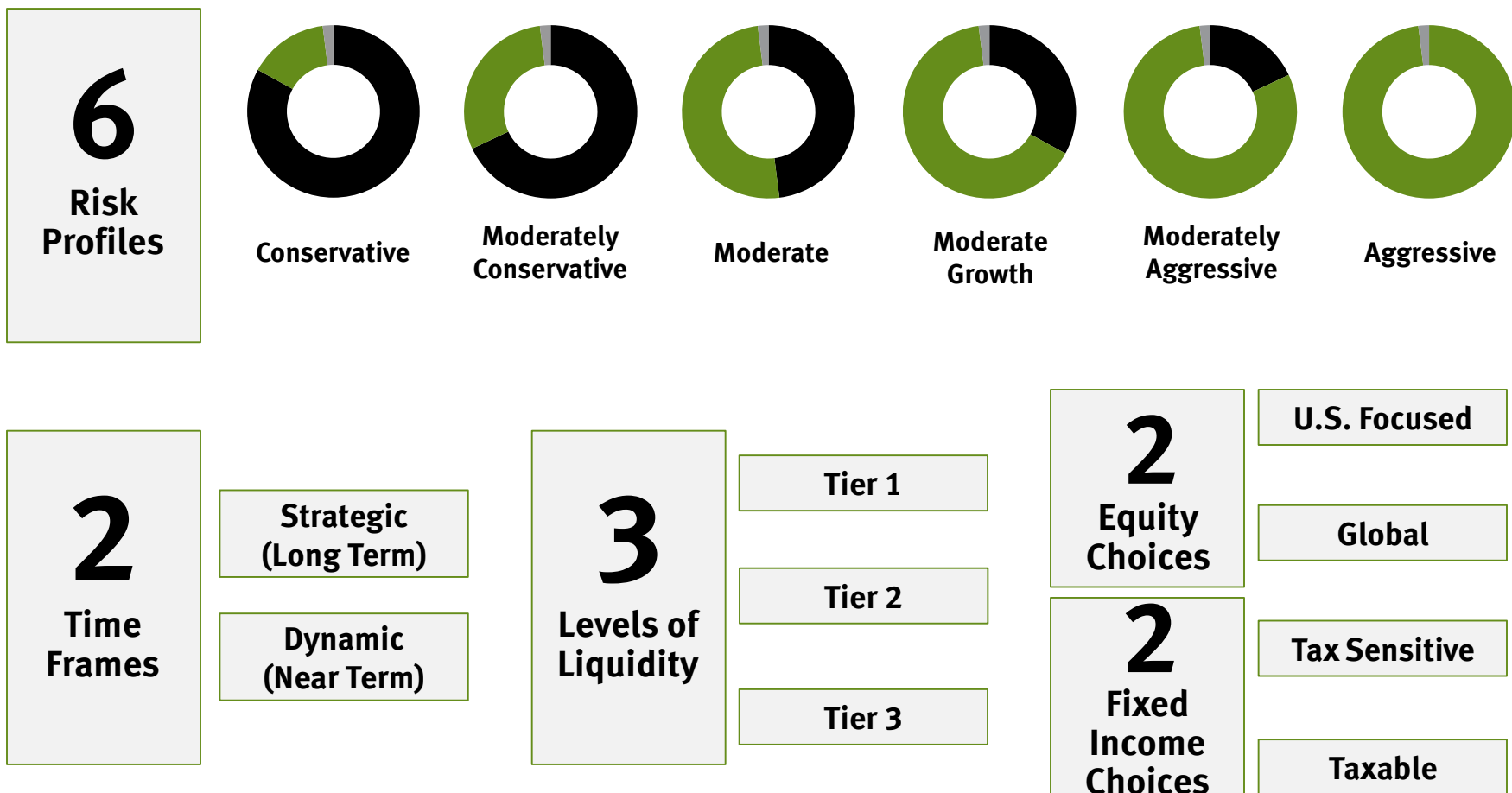


Source: Stifel Investment Strategy data via Bloomberg, Strategas Research Partners, as of May 16, 2022 (intra-day)



DYNAMIC LEANINGS

144 ASSET ALLOCATION MODELS FOR YOUR SELECTION



EQUITY	ASSET CLASS	PREVIOUS	CURRENT	COMMENTS
	U.S. Equity vs. Non-U.S. Equity	▼	▼	We continue to favor non-U.S. equity markets relative to the U.S. despite their recent underperformance. Non-U.S. equity valuations are attractive, and we expect the economic risks and geopolitical risks related to COVID-19 and the war in Ukraine to recede, allowing the global economy to continue expanding, which should be supportive of non-U.S. equity earnings.
	U.S. Large Cap vs. U.S. Small Cap	▼	▼	A strong U.S. economy and relative revenue insulation from geopolitical risks is supportive of small cap stocks. Rising rates, a shortage of labor, and higher cost pressures pose a challenge for smaller companies. Given our preference for strong fundamentals, we prefer to implement this overweight through active management as we progress through this economic cycle. For passive implementation, we suggest a neutral small cap position.
	U.S. Large Value vs. U. S. Large Growth	▲	▲	We believe value, which has a higher relative weighting to the materials, energy, and financials sectors, should perform well. A strong economy, rising rates, and higher inflation are conditions that benefit this style. Within value, we have a preference for profitable companies with solid financials.
	Non-U.S. Developed Markets vs. Emerging Markets	■	■	We are neutral within non-U.S. equity between developed and emerging markets as we find the risks to be balanced between both. However, we maintain an overweight to non-U.S. equities, both developed and emerging, relative to U.S. stocks.
	Europe vs. Japan	■	■	The European economy is more exposed to global trade, with public companies generating 50% of revenue outside of Europe. Fiscal stimulus in Europe is expected to continue, and permanent changes seem likely. Japan's ongoing structural and corporate reform is a tailwind for company earnings. However, both Europe and Japan face some challenges that keep us at neutral within developed markets, for now.
		▲ Overweight	▼ Underweight	■ Neutral

	ASSET CLASS	PREVIOUS	CURRENT	COMMENTS
FIXED INCOME	U.S. Investment Grade vs. U.S. High Yield	▼	▼	Within fixed income, we remain overweight U.S. high yield relative to U.S. investment grade with the use of active management. Strong commodity companies have helped many companies shore up their balance sheets and default rates have declined. While the impacts of COVID-19 will persist, we believe there is opportunity in certain cyclical sectors and the potential for yield enhancement in a low-yield environment.
	<i>Corporates</i> <i>Government/Agency</i> <i>MBS</i>	■	■	We recommend a diversified approach to the full spectrum of investment-grade fixed income.
	Duration	■	■	Rates have surged in 2022, and further upside is likely limited. We view duration as a diversifier in a multi-asset class portfolio and remain neutral 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.

▲ Overweight ▼ Underweight ■ Neutral



FINDING OUR GUIDANCE

The following summarizes how we deliver our economic and market analysis and corresponding investment guidance, along with some helpful links.

- *Market volatility [page](#) hosting a selection of our material.*
- *Sight/Lines* is a weekly note for clients, along with a [video summary](#) and a podcast on [Spotify](#), [Apple](#), [Omny](#), and [Google](#).
- [Stifel Bits](#) is designed for clients and prospects who might appreciate a breezy, lighthearted approach to our insights.
- [Market Pulse](#) is shared when the S&P 500 Index moves up or down 2%.
- The monthly *Investment Strategy Brief* [video series](#) shares our update on the current economic and market environment. The podcast: [Spotify](#), [Apple](#), [Omny](#), and [Google](#).
- The [weekly](#), [monthly](#), and [quarterly](#) *Market Perspectives* provide a recap of the most recent period's global market results.
- The monthly [Favorite 15](#) shares our favorite 15 slides for the month.
- *Stifel's [Allocation Insights](#)* provides our dynamic asset allocation leanings quarterly.
- The [Stifel 2022 Outlook Report](#) and [Video](#): provide our annual outlook and related articles.
- [Stifel's Approach to Asset Allocation](#) summarizes our asset allocation approach and provides a catalogue of various recommended asset mix models.
- The *Stifel Financial ID* [video series](#) provides an overview of our work in behavioral finance and the related *Stifel Financial ID* model.
- In [Conversations Podcast](#), Stifel's Chief Investment Officer, Michael O'Keeffe, sits down with leaders at Stifel and in the finance industry to have thought-provoking conversations related to the finance industry. Episodes are released monthly.

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.

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

High-Yield Bonds is represented by the Bloomberg Barclays 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.

Dev 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 Restoration Index is composed of 13 high-frequency economic indicators. These indicators include those with longer histories (initial jobless claims, MBA mortgage applications, and steel production) along with newly developed gauges tracking mobility, dining reservations, and airport traffic, among others. KBW set each of the 13 indicators to 100 as of the end of February 2020, the official end of the longest economic cycle in U.S. history, and update the Index each week.