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### **Topics of interest**

### THINKING ABOUT INFLATION IN RISK TERMS

Inflation has been subdued in the United States for the last three decades. In this piece, we analyze historic inflationary environments to understand the protection offered by different types of assets. Using a variety of risk tools, we consider the impact inflation has on an investor's overall portfolio and their obligations. No single asset class can reliably protect against inflationary environments but through constructing diversified portfolios and understanding risk exposures, we believe an investor can best position themselves for an uncertain future.

### THINKING DIFFERENTLY

Today's market environment appears to be an exceedingly challenging one to navigate, and investors are grappling with the question of how best to structure portfolios that not only meet their return targets but provide impactful diversification and risk management. In this Topic of Interest paper, we will assess a wide variety of less-conventional investment strategies in both mature and nascent marketplaces, and which may only appeal to a specific set of investors.

### ESTABLISHMENT OF RISK MITIGATION BUCKETS

An evolving market environment has arguably diminished the role of traditional fixed income as a diversifier in portfolios and led to a higher opportunity cost of holding bonds due to lower yields. This may suggest improved relative attractiveness of other equity risk mitigation approaches. In this research piece we discuss other approaches to risk mitigation and outline their merits, while tying these ideas to the Functionally-Focused Portfolios (FFP) approach to portfolio construction.

### Annual research

### **2021 PRIVATE EQUITY OUTLOOK**

In the Verus 2021 Private Equity Outlook, we focus attention on investor appetite for ESG and the growing response from private equity. The outlook also addresses the resilience of private equity in the face of COVID; SPACs rise as a streamlined path to the public markets, however not without risk; Private credit markets continue to gain investor interest; Buyout purchase multiples expand as public market valuations continue to climb; and Venture capital valuations soar alongside increased economic confidence

### Table of contents



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Economic environment	(
Fixed income rates & credit	2:
Equity	26
Other assets	36
Appendix	38

### 3<sup>rd</sup> quarter summary

### THE ECONOMIC CLIMATE

- Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. p. 10
- In the U.S. labor market, unemployment has fallen as many workers who desired jobs have been successful in gaining employment. The overall U.S. labor participation rate has not improved, as millions of workers remain neither employed nor seeking employment. p. 15
- Consumer sentiment deteriorated during the third quarter, on reports of pessimism around the COVID Delta variant, higher inflation, and unfavorable economic prospects.
   Small business optimism also fell, as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations. p. 17

### **PORTFOLIO IMPACTS**

- Credit markets traded in a relatively tight range throughout the quarter, delivering mild returns. Bank loans outperformed in Q3, returning 1.1% and outpacing high yield bonds (0.9%) and corporate investment grade (0.0%).
   p. 24
- U.S. core CPI, which excludes food & energy prices, rose
   4.0% YoY in September. U.S. headline inflation came in at
   5.4%. Price changes moderated during Q3, relative to the larger price moves that occurred in March through June.
   p. 12

### THE INVESTMENT CLIMATE

- The Biden Administration's \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending. p. 10
- It seems that investors have put the 2020 pandemic-induced recession and its associated risks behind them.
   However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments are set to pull back generous stimulus programs. p. 34

### **ASSET ALLOCATION ISSUES**

- Equity markets took a breather in Q3. U.S. equities delivered 0.6%, while international equities experienced slight losses of -0.4% and emerging market equities saw a larger selloff of -8.1%, on an unhedged currency basis. p.
   27
- Factor performance was negative during the quarter, as large capitalization stocks outperformed small cap by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%). p. 30

The economic recovery may be slowing, though the environment remains positive for risk assets

We believe a neutral risk stance is warranted in the current environment

### What drove the market in Q3?

"Covid cases are rising again in all 50 states across U.S. as delta variant tightens its grip"

### **DELTA VARIANT SHARE OF COVID CASE GROWTH IN THE UNITED STATES**

Apr	May	Jun	Jul	Aug	Sep
0.6%	3.1%	31.9%	96.0%	97.9%	99.9%

Article Source: CNBC, as of July 23rd, 2021

### "The World Economy's Supply Chain Problem Keeps Getting Worse"

### SHIPS AT ANCHOR OUTSIDE THE PORT OF LOS ANGELES (MONTHLY AVERAGE)

Apr	May	Jun	Jul	Aug	Sep
11	10	7	12	22	27

Article Source: Bloomberg, August 25th, 2021

### "Beijing's Crackdown Ruins July for Investors Everywhere"

### NASDAQ GOLDEN DRAGON CHINA INDEX TOTAL RETURN

Apr	May	Jun	Jul	Aug	Sep
-0.1%	-5.6%	+1.8%	-22.0%	-1.6%	-9.8%

Article Source: Bloomberg, July 27th, 2021

### "Commodities surge again; spot price index hits decade high"

### **BLOOMBERG COMMODITY SPOT INDEX**

Apr	May	Jun	Jul	Aug	Sep
464.0	476.9	480.2	487.4	486.3	510.3

Article Source: BNN Bloomberg, September 13th, 2021

### AVERAGE DAILY CASE GROWTH PER 100,000 (TRAILING TWO WEEKS)



Source: Bloomberg, as of 9/30/21

### SUPPLIER DELIVERY INDICES



Source: Institute for Supply Management, as of 9/30/21

### NASDAQ GOLDEN DRAGON CHINA INDEX



Source: NASDAQ, Bloomberg, as of 9/30/21



## Economic environment



### U.S. economics summary

- Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down.
- U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated during Q3, relative to the larger price moves that occurred in March through June, but remain elevated.
- Unemployment fell from 5.9% to 4.8% during the quarter, while the laborforce participation was unmoved at 61.6%. The unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but the overall U.S. laborforce participation rate has not improved

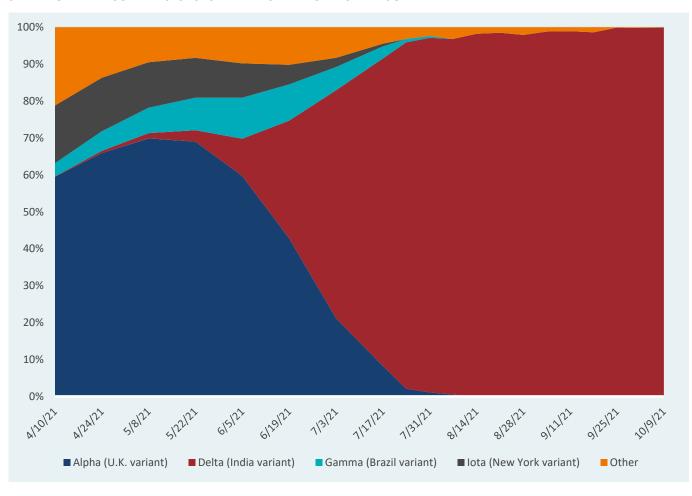
- The Biden Administration's \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending.
- U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index.
- Consumer sentiment was mixed over the quarter. The University of Michigan reported that the Delta variant and persistent inflation, as well as unfavorable prospects for the national economy, are weighing on sentiment. High prices of homes, vehicles, and durables are a concern.

	Most Recent	12 Months Prior
GDP (YoY)	12.2% 6/30/21	(9.1%) 6/30/20
Inflation (CPI YoY, Core)	4.0% 9/30/21	1.7% 9/30/20
Expected Inflation (5yr-5yr forward)	<b>2.2%</b> 9/30/21	1.7% 9/30/20
Fed Funds Target Range	0% – 0.25% 9/30/21	0% – 0.25% 9/30/20
10-Year Rate	1.49% 9/30/21	0.68% 9/30/20
U-3 Unemployment	<b>4.8%</b> 9/30/21	7.8% 9/30/20
U-6 Unemployment	8.5% 9/30/21	12.8% 9/30/20



### Delta-plus variant?

### SHARE OF NEW COVID-19 CASES ATTRIBUTED TO EACH MAJOR VARIANT



The delta variant of COVID-19 which surged through India in the second quarter took hold in the U.S., and by the end of the quarter, accounted for almost all new cases

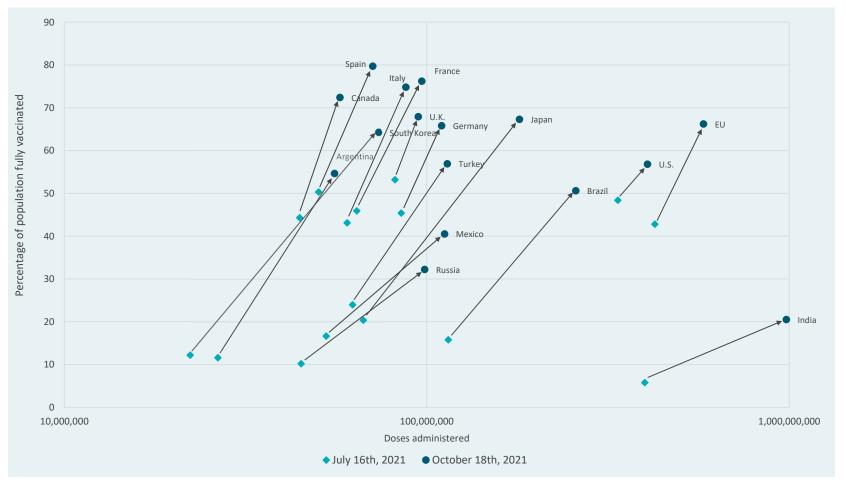
Most recently, FDA
Commissioner Scott Gottlieb
called for "urgent research"
into whether a new strain –
known as delta plus – could
be more transmissible or
have partial immune evasion

Source: Bloomberg, BBC, U.K. government, as of 10/9/21



### Global vaccination campaign

### DOSES ADMINISTERED RELATIVE TO PERCENTAGE OF POPULATION FULLY VACCINATED



Over the last quarter, vaccination rates have improved considerably in Asia, Europe, and to a lesser extent, the emerging markets

Source: Bloomberg, as of 10/18/21



### GDP growth

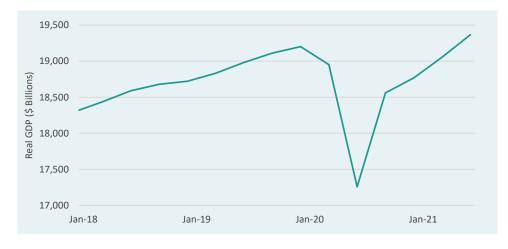
Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down. The Atlanta Fed GDPNow estimate, as of October 15<sup>th</sup>, suggests that GDP growth will slow to 1.2% in the fourth quarter (seasonally-adjusted quarterly annualized rate).

In contrast to the wild swings of 2020, quarterly GDP growth has steadied. Consumption has contributed to the lion's share of GDP, while supply chain issues have detracted from growth as some businesses have been unable to purchase inventory.

The Biden Administration's \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending. House Speaker Nancy Pelosi reportedly expressed the party's intent to include each of the original social programs (expanded government healthcare, child tax credit, tuition-free community college, etc.) but to scale back the planned length of guaranteed funding in order to reduce overall costs.

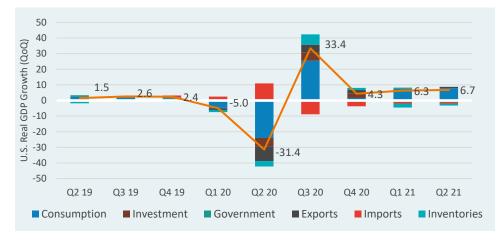
During Q2 2021 the U.S. economy fully recovered from the COVID-19 recession

### U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 6/30/21

### U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 6/30/21



### Supply chain disruptions

Throughout the course of the pandemic, idiosyncratic supply chain snags have caused largely temporary price distortions affecting all sorts of markets, from labor, to lumber, to meat-packing and semiconductors, and many others. In some cases, these distortions have had a large impact on overall inflation levels. For example, limited semiconductor chip supplies led major suppliers to ration chips for higher-margin tech clients at the expense of lower-margin automaker clients. This prioritization resulted in a lower level of new vehicle production, and a massive surge in prices for used cars.

In September, key ports in Southern California hit several new cargo ship backlog records, forcing these ships to remain at anchor outside the ports

for several weeks in some cases. Part of the problem has been the massive size of these ships, which require many workers to unload, a lot of trucks to ship their cargo, and many warehouses to store that cargo. If there are not enough truckers to move the new cargo coming in, or there is not enough warehouse capacity to offload new cargo, new ships have longer unload times and the problem compounds. It is important to remember that global supply chains are very complex, and issues in certain segments tend to cascade through the others. According to the NFIB's Small Business Optimism Survey, only 10% of small business owners have been insulated from the impacts of these disruptions. We will be watching corporate guidance to gauge the impact of these disruptions on profit margins.

### IMPACT OF SEMICONDUCTOR SHORTAGE ON EUROPEAN TRUCK PRODUCTION (THOUSANDS)

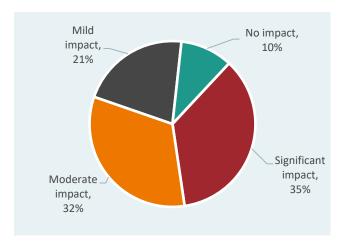


### **VESSELS AT ANCHOR – PORT OF LOS ANGELES**



### Source: The Port of Los Angeles, as of 10/15/21

### MAGNITUDE OF THE IMPACT OF SUPPLY CHAIN DISRUPTIONS ON SMALL BUSINESSES IN THE US



Source: NFIB, as of 9/30/21



Source: IHS Markit, as of 9/28/21

### Inflation

U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated somewhat during Q3, relative to the larger price moves that occurred from March through June.

Energy and used automobile prices have had outsized impacts on inflation over the past year, increasing 24.8% and 24.4%, respectively. These two components have driven most of the rise in inflation experienced since 2019. If energy and used auto prices moderate, this will push inflation back down towards "normal" level, all else equal. However, continued supply chain issues appear to be contributing to a material rise in certain goods prices such as food, up +0.9% in September. Rent prices

(+0.5% over the month) are also a concern as costs begin to catch up with real estate values. As food comprises 13.9% of the overall inflation basket, and shelter comprises 32.6%, price moves across these categories could impact the direction of future inflation.

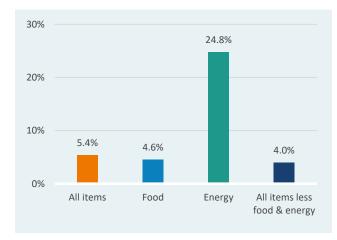
While we retain our long-term view that inflation is likely to return to lower levels, as most of the recent increases can be attributed to base effects or short-term one-time issues, the significant disruptions in the global supply chain are clearly an important component of the developing story. If this disruption continues there will likely be ongoing effects on the economy as a whole, and on inflation outcomes. We continue to research this issue and it's likely effects.

Recent moves suggest a moderation of prices, though we are watching closely for potential structural inflation

U.S. CPI (YOY)



U.S. CPI (YOY)



### MONTHLY PRICE MOVEMENT



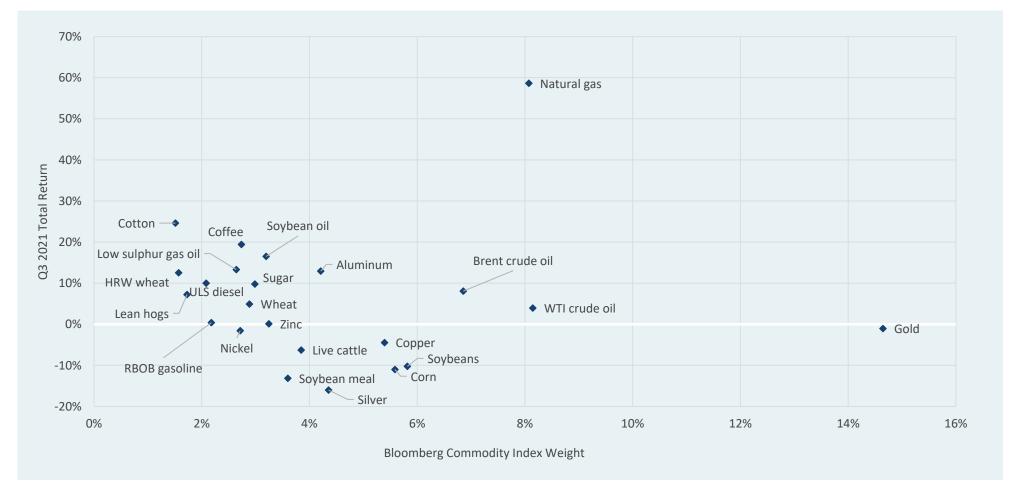
Source: BLS, as of 9/30/21 Source: BLS, as of 9/30/21



Source: BLS, as of 9/30/21

### Commodity surge

### **BLOOMBERG COMMODITY INDEX - Q3 2021 RETURNS BY INDEX WEIGHT**



Source: Bloomberg, as of 9/30/21



### Labor market

U.S. unemployment fell from 5.9% to 4.8% during the quarter, while the labor participation rate was unmoved at 61.6%.

Two major themes can be observed in the U.S. labor market: 1) the unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but 2) the overall U.S. laborforce participation rate has not improved, as millions of workers remain out of the laborforce and are not seeking employment. We continue to believe that the second effect has been fueled by approximately two million abnormally early retirements since 2020, which implies that the available U.S. workforce is now permanently smaller. As

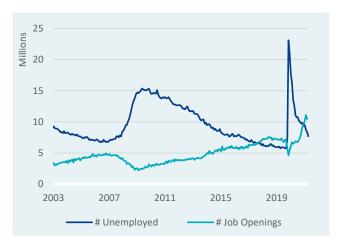
demonstrated below and on the next slide, the proportion of retired Americans per age group has increased markedly since 2019. It is difficult to know the main drivers behind the trend towards early retirement, but greater wealth (strong returns from markets and real estate), the need to take care of family, and an unwillingness to return to full-time work after extended periods of time off, may all be playing a part.

The number of U.S. job openings has far surpassed the supply of workers. As of August, 10.4 million job openings were posted across the country, while only 8.3 million Americans were seeking employment.

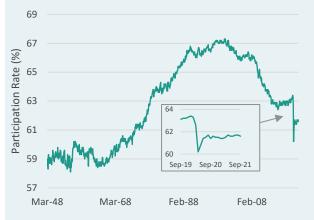
A portion of the U.S. labor force remains neither employed nor seeking work

Much of this loss appears to be due to early retirements

### **UNEMPLOYMENT VS. JOB OPENINGS**



### LABOR PARTICIPATION RATE



% OF AMERICANS RETIRED

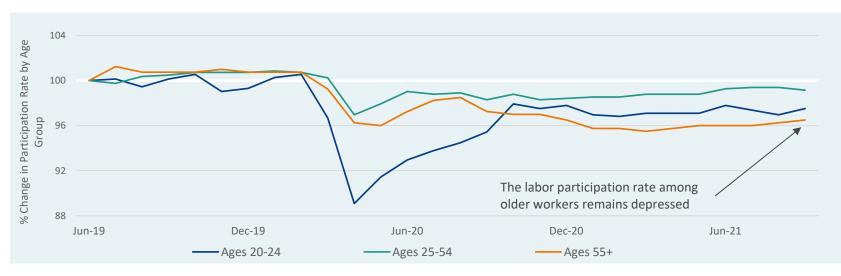
	Woı	<u>men</u>	<u>Men</u>						
Age cohort	2019	2021	2019	2021					
55+	52%	54%	44%	45%					
55-59	11%	11%	7%	7%					
60-64	28%	29%	21%	21%					
65-69	59%	62%	52%	53%					
70-74	78%	80%	71%	73%					
75+	87%	88%	83%	85%					

Source: FRED, as of 9/30/21 Source: St. Louis Federal Reserve

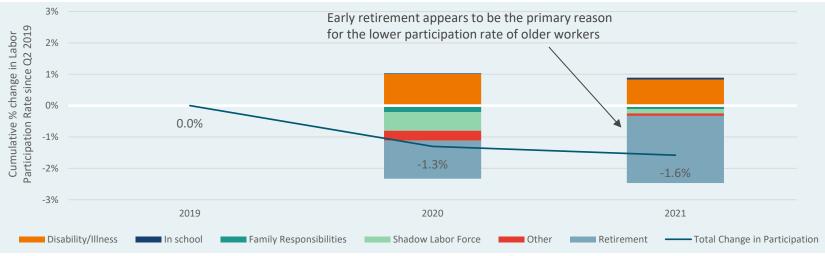


Source: FRED, as of 9/30/21

### Labor participation rate



The U.S. labor participation rate remains considerably depressed, due to millions of workers being out of work and also not seeking work



Economic data suggests that this effect may be largely due to millions of unusually early retirements since 2019

Source: Federal Reserve Bank of St. Louis, Verus, as of Q2 2021



### The consumer

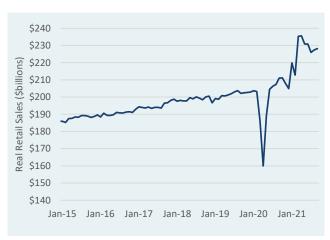
U.S. retail sales remain strong but have now slowed for two consecutive quarters, lower by -1.1% in Q3. The *reopening* spending surge appears to be slowing down, as retail sales, auto sales, and home sales have all declined in recent months. Fears around the COVID-19 Delta variant are also likely weighing on consumer spending activity. We examine quarterly rate of change here, because year-over-year rate of change (the traditional measure) is skewed due to the events of 2020.

Retail sales were expected to fall in September, but exceeded those expectations despite global supply chain issues and the rolling off of some enhanced government benefits. U.S. auto sales continued to fall sharply,

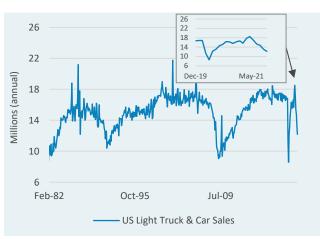
likely fueled by the dual effects of low supply and also the fact that many potential buyers, flush with stimulus cash, had already made a recent purchase.

According to anonymized cellular phone data collected by Google for COVID-19 public health research, most economic activity seems to be back to normal for the most part. Public transportation and workplace travel remains the exception, though a recent uptick in workplace mobility might imply that some businesses are bringing staff back to the office.

### **REAL RETAIL SALES**

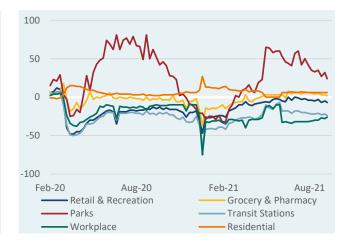


### **AUTO SALES**



### Source: Federal Reserve, as of 9/30/21

### **GOOGLE U.S. ACTIVITY TRACKER**



Source: Google anonymized U.S. citizen mobility, as of 9/30/21



Source: FRED, as of 9/30/21

### Sentiment

Consumer sentiment deteriorated during the third quarter, on reports of pessimism around COVID-19, inflation, and the economy. Small business optimism also fell as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations.

The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The survey reading fell from 85.5 to 72.8 on reports that the Delta variant and persistent inflation, as well as unfavorable prospects for the national economy, are weighing on sentiment. High prices of homes, vehicles, and durables are a concern, and only 18% of households anticipate that wage gains will be greater than inflation. The

Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index fell from 55.1 to 53.4.

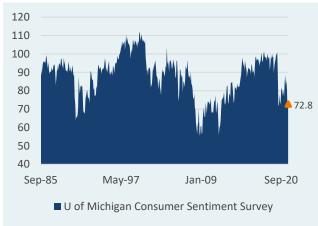
The NFIB Small Business Optimism index fell from 102.5 to 99.1 during the quarter. As reported, "Small business owners are doing their best to meet the needs of customers, but are unable to hire workers or receive the needed supplies and inventories," said NFIB Chief Economist Bill Dunkelberg. "The outlook for economic policy is not encouraging to owners, as lawmakers shift to talks about tax increases and additional regulations."

### CONSUMER COMFORT



### Source: Bloomberg, as of 9/30/21

### **CONSUMER SENTIMENT**



Source: University of Michigan, as of 9/30/21

### **SMALL BUSINESS OPTIMISM**



Source: NFIB, as of 9/30/21



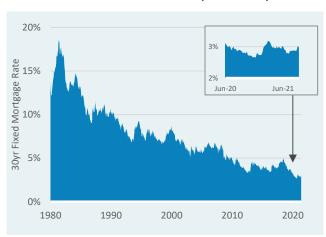
### Housing

U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index. This surprising boom appears to have been the product of a perfect storm for home demand, impacted by ultra-low interest rates, Americans' need for more space in the work-from-home environment, and likely pent-up demand from younger families who have been slower to purchase homes than past generations.

Mortgage interest rates have remained steady at around 3.0%, as attractive borrowing conditions support potential buyers who face elevated home prices.

The cost of renting has seen a considerable rise throughout the pandemic, with rents up 9.2% year-over-year in September, according to Zillow. The rise in rent prices has differed quite a bit across the country, and it may be reasonable to assume that states with more outgoing net migration (ex: New York, California) may be experiencing less upward rent pressure than states with more incoming net migration (ex: Arizona, Florida), as demonstrated by recent rental price trends. Dramatic increases in rent prices, without a commensurate improvement in wages, creates obvious issues for many Americans.

### **30YR FIXED MORTGAGE RATE (AVERAGE)**



Source: U.S. Census Bureau, as of 9/30/21

U.S. HOME PRICES



Source: S&P/Case-Shiller U.S. National Home Price Index, as of 7/31/21

ZILLOW OBSERVED RENT INDEXES - ZORI\* (YOY)



\*Measures changes in asking rents across 100 markets over time.

Source: Zillow ZORI, as of 9/30/21



### International economics summary

- The emergence of the delta variant of COVID-19 in Europe and the United States over the summer led to the reimplementation of social distancing controls and a subsequent moderation of economic activity in the services sector.
- European and Japanese vaccination rates improved vastly over the quarter, which helped to contain the spread of COVID-19.
- Inflation surprised to the upside around the globe, but particularly in the Eurozone, which has spurred some tough conversations amongst central bank policymakers.
- Global consumer confidence has trended lower over most of the last two quarters on concerns over labor market prospects, as well as the impact of rising prices on purchasing power stability.
- Natural gas prices surged more

- than 60% in Q3, primarily as a result of low supply levels and substitution effects due to price surges in other energy sources including coal. On a more thematic basis, Europe's clean energy initiatives also played a role, as renewable sources are not yet equipped to replace carbon-based power supplies, and adequate investment in nuclear plants has not been made. We are keeping a watchful eye on the potential impact of energy prices on inflation.
- Many factories in China were forced to shut down late in the quarter as a result of surging coal and electricity prices. Those shutdowns, alongside weaker than expected investment activity, tighter financing conditions, and stricter social distancing controls, all contributed to a larger-than expected moderation in Chinese GDP growth, which fell to 4.9% year-over-year in Q3.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	12.2% 6/30/21	5.4% 9/30/21	<b>4.8%</b> 9/30/21
Eurozone	14.3% 6/30/21	3.4% 9/30/21	<b>7.5</b> % 8/31/21
Japan	7.6% 6/30/21	<b>0.3%</b> 9/30/21	2.8% 8/31/21
BRICS	10.1%	2.4%	5.3%
Nations	6/30/21	9/30/21	6/30/21
Brazil	12.4%	10.3%	13.7%
	6/30/21	9/30/21	7/31/21
Russia	10.5%	<b>7.4%</b>	<b>4.4%</b>
	6/30/21	9/30/21	8/31/21
India	20.1%	5.3%	6.9%
	6/30/21	8/31/21	9/30/21
China	<b>4.9</b> %	0.7%	5.1%
	9/30/21	9/30/21	8/31/21

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.



### International economics

The IMF expects the global economy will grow by 5.9% in 2021, and 4.9% in 2022. More recently, concerns over the impact of supply chain disruptions have crimped near-term growth expectations for advanced economies, but the expectation remains that those economies will regain their pre-pandemic trend path in 2022 and exceed it by 0.9% by 2024. However, sizable disparities in vaccine access and policy support have resulted in a larger expected setback to living standard improvements in the developing world, where growth is expected to remain 5.5% beneath the pre-pandemic trend by 2024.

Inflation remained high in most global economies, and the United States has seen one of the largest increases among other major developed economies. Inflation trends and the reaction of central banks to these trends will have important implications for markets.

Unemployment around the world has improved as economies recover, government restrictions are loosened, and life moves back towards normalcy.

### REAL GDP GROWTH (YOY)



### **INFLATION (CPI YOY)**



### Source: Bloomberg, as of 9/30/21 – or most recent release

### UNEMPLOYMENT



Source: Bloomberg, as of 9/30/21 – or most recent release



Source: Bloomberg, as of 6/30/21

# Fixed income rates & credit



### Fixed income environment

- The 10-year U.S. Treasury yield increased slightly during the quarter, from 1.45% to 1.52%. Longer-term Treasury bond yields drifted lower in July and August before picking up considerably in September, as speculation mounted that the Federal Reserve would begin tapering the current asset purchase program (\$80 billion in monthly Treasury purchases and \$40 billion in monthly agency mortgage-backed-securities) in November or December of this year.
- Credit spreads traded in a relatively tight range during the quarter and remained at a very low level relative to the historical average. Historically low credit default rates have supported tight spread levels.
   Above-average credit quality has also been supportive, specifically in the high-yield universe. Although credit spreads are tight, spreads arguably remain healthy relative to current bond default levels.
- Reports that Evergrande, one of the

- largest property developers in China, was on track to miss debt service payments led to a sell-off in Chinese high-yield debt as investors braced for potential contagion. Dollar-denominated high-yield Chinese bonds in aggregate fell by around 20% in value.
- Realized and expected inflation metrics reached high levels relative to history, sparking a number of different policy responses from central bankers. The base case at the Fed and at the ECB remains that inflation will be transitory, and that rates can remain at current levels at least until late next year. In contrast, officials at the Bank of England are now expected to begin hiking rates in November, and many central banks in the emerging markets have already begun tightening policy.
- The four-year discount margin, our preferred spread metric for bank loans, compressed slightly over the quarter from 4.32% to 4.28%.

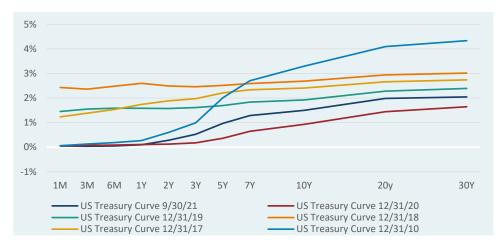
	QTD Total Return	1 Year Total Return
Core Fixed Income (BBgBarc U.S. Aggregate)	0.1%	(0.9%)
Core Plus Fixed Income (BBgBarc U.S. Universal)	0.1%	0.2%
U.S. Treasuries (BBgBarc U.S. Treasury)	0.1%	(3.3%)
U.S. High Yield (BBgBarc U.S. Corporate HY)	0.9%	11.3%
Bank Loans (S&P/LSTA Leveraged Loan)	1.1%	8.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(3.1%)	2.6%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	(0.7%)	4.4%
Mortgage-Backed Securities (BBgBarc MBS)	0.1%	(0.4%)

Source: Bloomberg, as of 9/30/21



### Yield environment

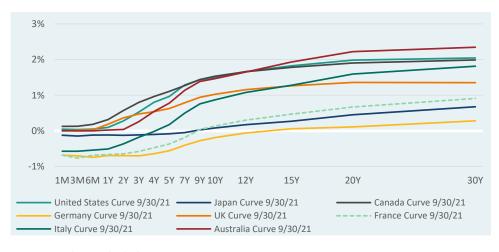
### **U.S. YIELD CURVE**



### YIELD CURVE CHANGES OVER LAST FIVE YEARS



### **GLOBAL GOVERNMENT YIELD CURVES**



### **IMPLIED CHANGES OVER NEXT YEAR**



Source: Bloomberg, as of 9/30/21



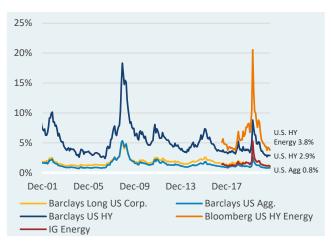
### Credit environment

Credit markets traded in a relatively tight range throughout the quarter, delivering mild returns. Bank loans outperformed, returning 1.1% and outpacing high yield bonds (0.9%) and corporate investment grade (0.0%). Credit spreads widened as strong demand did not fully offset lingering concerns around inflation, persistent supply chain delays, default the by Chinese property developer Evergrande, and risk of a government shutdown. High yield spreads widened 21 basis points to 289 basis points while investment grade spreads widened 4 basis points to end the quarter at 84 basis points.

Demand for high quality credit has been strong this year with an estimated \$80 billion flowing into corporate investment grade funds. At the same

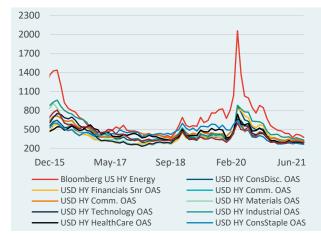
time, the sector has seen improvement in credit fundamentals as businesses repay some of last year's precautionary borrowing, reducing total debt levels. Strong demand and declining leverage, in conjunction with a potentially higher rate environment, are all supportive factors for credit (for example: global investors have stepped in to buy high yield bonds as rates rise, despite tight credit spreads, because the U.S. is a higher interest rate market). Investment grade spreads have only been this tight roughly 5% of the time since 2000. Tight valuations, which product low spread carry and longer relative duration, likely present challenges to credit performance going forward.

### **SPREADS**



Source: Barclays, Bloomberg, as of 9/30/21

### HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 9/30/21

	Credit Spre	ead (OAS)
Market	9/30/21	9/30/20
Long U.S. Corp	1.2%	1.9%
U.S. Inv Grade Corp	0.8%	1.4%
U.S. High Yield	2.9%	5.2%
U.S. Bank Loans*	4.3%	5.3%

Source: Barclays, Credit Suisse, Bloomberg, as of 9/30/21

\*Discount margin (4-year life)



### Default & issuance

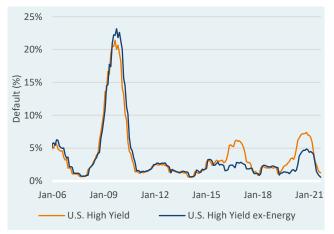
Default activity continued at a moderate pace in the third quarter with three defaults totaling \$1.3 billion across high yield bonds and bank loans. Over the first three quarters of the year, a total of nine companies defaulted on \$6.1 billion. As default activity continues to be light, the par-weighted U.S. high yield default rate declined in half to end the quarter at 1.3% year-over-year. Similarly, the loan par-weighted default rate ended the quarter at 0.9%, falling 3.4% year-to-date.

High yield bond issuance remains strong with Q3 gross issuance of \$129.4 billion, bringing the year-to date total to \$469.8 billion. Leveraged loan issuance continued at a historic pace with \$133.7 billion of new loan issued over the guarter. The \$418.3 billion of loans issued year-to-date has already

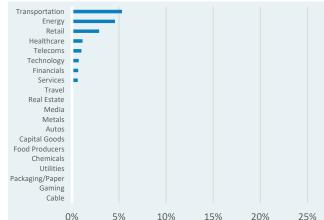
surpassed all previous *annual periods* with the exception of 2017 (\$419.2 billion).

Investment grade issuance for the quarter totaled \$321 billion, below first (\$423 billion) and second quarter (\$350 billion) issuance but in-line with the 4-year average of \$323 billion. Of note, year-to-date Financial sector issuance has seen an uptick, accounting for 42% of issuance versus its four-year average share of roughly one-third of total investment grade issuance.

### **HY DEFAULT RATE (ROLLING 1-YEAR)**

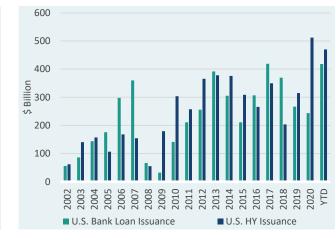


### U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 9/30/21 – par weighted

U.S. ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, as of 9/30/21



Source: BofA Merrill Lynch, as of 9/30/21

# Equity



### Equity environment

- Equity markets took a pause in Q3, a notable change from the seemingly non-stop rally year-to-date. U.S. equities delivered 0.6%, while international equities experienced slight losses of -0.4% and emerging market equities saw a larger selloff of -8.1%, on an unhedged currency basis.
- Size and value factor performance was negative during the quarter, as large capitalization stocks outperformed small capitalization stocks by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).
- As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Deltavariant continues to spread, high

- inflation could indeed persist, and most governments are set to pull back generous stimulus programs.
- The U.S. is facing acute supply chain issues, and 71% of S&P 500 companies reported negative impacts to their business during quarterly earnings calls, as reported by FactSet.
- Weakness in Chinese equities
   (MSCI China -18.2%) was the major
   driver of emerging market equity
   underperformance, as a wave of
   new regulations were
   implemented by the Communist
   Party of China which cascaded
   across a number of sectors
   including Technology, Property
   Management, and Financials.
- Within MSCI's long-short U.S. factor portfolios, momentum (+1.3%) led the way while volatility (-1.7%) posted a negative total return.

	QTD TOTA	L RETURN	1 YEAR TOT	AL RETURN			
	(unhedged)	(hedged)	(unhedged)	(hedged)			
US Large Cap (S&P 500)	0.6	5%	30.	.0%			
US Small Cap (Russell 2000)	(4.4	1%)	47.	.7%			
US Large Value (Russell 1000 Value)	3.0)	3%)	35.0%				
US Large Growth (Russell 1000 Growth)	1.2	2%	27.3%				
International Large (MSCI EAFE)	(0.4%)	1.5%	25.7%	28.2%			
Eurozone (Euro Stoxx 50)	(2.4%)	0.1%	27.6%	30.6%			
U.K. (FTSE 100)	(0.5%)	2.0%	30.7%	26.1%			
Japan (NIKKEI 225)	2.5%	2.9%	21.9%	29.3%			
Emerging Markets (MSCI Emerging Markets)	(8.1%)	(6.9%)	18.2%	15.9%			

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 9/30/21



### Domestic equity

U.S. equities performed relatively well in Q2, delivering a slightly positive return of 0.6% (S&P 500). The index is expected to report Q3 earnings growth of 27.6% year-over-year, as indicated by FactSet. The U.S. is facing acute supply chain issues, and 71% of S&P 500 companies reported negative impacts to their business during quarterly earnings calls.

Mildly higher interest rates during the quarter likely supported Financials (+2.7%) while acting as a headwind to growth-oriented sectors such as Information Technology (+1.3%).

Performance over the near-term may be constrained by a degree of economic slowdown induced by the COVID-19 Delta variant, as well as moderating earnings growth expectations, although the analyst consensus price target for the S&P 500 over the next year is 5051, as of October 6<sup>th</sup>.

Recent price increases have raised questions around the defensibility of net profit margins, which are expected to moderate in Q3 but remain elevated well above recent averages. Some investors have begun to discuss positioning within sectors that have exhibited more pricing power.

### S&P 500 INDEX

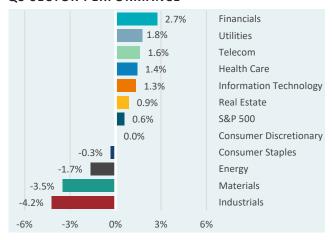


**S&P 500 NET PROFIT MARGINS** 



Source: FactSet, as of 10/18/21

### Q3 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 9/30/21



Source: Standard & Poor's, as of 9/30/21

### U.S. equity Price / Earnings

A very expensive "P" but record-growth of "E"



Corporate earnings growth has been the main driver of U.S. equity returns in 2021

Strong earnings growth expectations have led to slightly cheaper equities, as demonstrated by the *P/E multiple* 

Source: Standard & Poor's, Bloomberg, Factset - Forward P/E , as of 9/30/21



### Domestic equity size & style

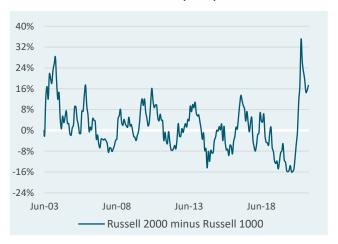
Large capitalization stocks outperformed small cap during the quarter by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).

Following the notable turnaround in value stock performance during Q1, growth stocks took the lead in Q2, dampening excitement for a value comeback. Growth further outperformed in Q3. As we expressed earlier in the year, style performance is often impacted heavily by sector

randomness, which suggests that investors should be cautious in assuming that performance is *signal* rather than *noise*. Value stocks continue to be cheap relative to growth stocks, historically speaking. However, there does not appear to be a clear catalyst on the horizon that would imply a value timing opportunity. Factor performance tends to be noisy and difficult to predict, which suggests that style investing should in most cases involve a longer-term focus.

Large cap and growth stocks outperformed during Q3

### SMALL CAP VS LARGE CAP (YOY)



### VALUE VS GROWTH (YOY)



### Source: FTSE, as of 9/30/21

### **VALUE VS. GROWTH RELATIVE VALUATIONS**



Source: Standard & Poor's, as of 9/30/21



Source: FTSE, as of 9/30/21

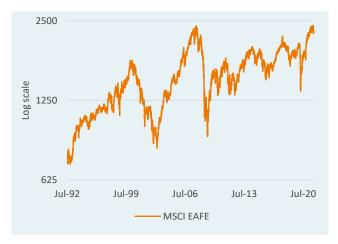
### International developed equity

International equities experienced slight losses of -0.4% (MSCI EAFE Index) during the quarter on an unhedged currency basis, lagging U.S. equities but outperforming emerging markets. Currency movement during the quarter resulted in a loss of -1.9% relative to those investors with a currency hedging program.

Japanese equities (MSCI Japan +4.6%) rallied on strong earnings, and on the news that Prime Minister Suga's successor, Fumio Kishida, would be less likely to pursue tax hikes on investment income. Japan's vaccination rate also improved considerably, and ended the quarter in line with major European countries, laying the groundwork for a broader reopening of the economy.

The strong performance of Japanese equities helped to offset for international developed equity investors the negative returns delivered by European equities (MSCI Europe -1.6%), which faced headwinds from a significant weakening in the pound sterling (-2.4%) and euro (-2.3%) relative to the U.S. dollar. According to futures market positioning data from the CFTC, more people are betting that the euro will depreciate in value than those betting that it will appreciate in value, for the first time since March 2020.

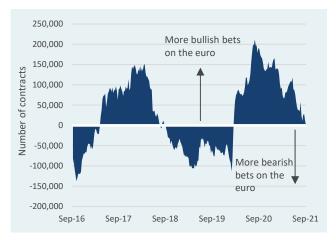
### INTERNATIONAL DEVELOPED EQUITIES



### **EFFECT OF CURRENCY (1-YEAR ROLLING)**



### **EURO NET FUTURES POSITIONING**



Source: MSCI, as of 9/30/21

Source: CFTC, non-commercial positioning, as of 9/28/21



Source: MSCI, as of 9/30/21

### Emerging market equity

Emerging market equities saw large losses (MSCI EM -8.1%) on an unhedged currency basis, underperforming other markets during the third quarter. China has dragged down emerging markets performance considerably, producing losses of -18.2% in Q3 relative to ex-China emerging market performance of -2.0%, and producing losses of -7.2% over the past year relative to ex-China emerging market performance of 36.9% (MSCI China vs. MSCI Emerging Markets ex-China). China comprises 34% of the MSCI Emerging Markets Index.

Latin American emerging markets have taken the lead over Asian emerging markets over the past year, a notable change from strong Asian

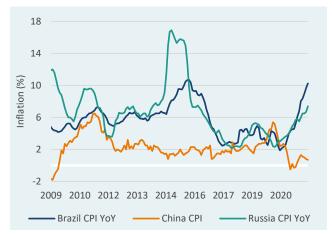
leadership in recent years (MSCI EM Latin America +27.3%, MSCI EM Asia +13.9%)

Inflation in Brazil has risen to 10.3%, and in Russia to 7.4%, which has generated responses from central banks. Brazil has hiked their central bank rate from 2.00% to 6.25% to battle rising prices, while Russia has hiked its rate from 4.25% to 6.75% year-to-date. While inflation rate in the U.S. is one of the highest in the developed world, emerging markets are also facing tough decisions regarding the balance between economic recovery and the risks of uncomfortably high inflation.

### **EMERGING MARKET EQUITY**



### **INFLATION (YOY)**



### Source: Bloomberg, as of 9/30/21 or most recent data

### Q3 PERFORMANCE - TOP 10 EM CONSTITUENTS



Source: Bloomberg, MSCI, as of 9/30/21, performance in USD terms



Source: MSCI, as of 9/30/21

### Equity valuations

Forward price/earnings equity multiples have been falling around the world, as earnings expectations rise faster than equity prices, though valuations remain very high. U.S. stock valuations are, and have been, incredibly elevated. A larger share of technology stocks in U.S. indices partly explains these historically high prices, as technology stocks tend to demand a higher P/E than most other industry sectors. Investors appear to agree that high prices of domestic stocks will likely translate to below-average future performance over the long-term, as reflected in industry capital market assumptions.

Global equity earnings yields improved considerably, as trailing 12-month earnings have rebounded from low levels. Price growth has moderated in the U.S. and has moved into negative territory across international developed and emerging market equities. The question moving ahead will be whether valuations (which remain rich) are sustainable absent further above-average earnings growth. Rising prices of major input costs, including labor and energy, have dampened the outlook for margins, which may lead companies to raise prices where possible. This pricing power varies by sector and by region.

### **FORWARD P/E RATIOS**



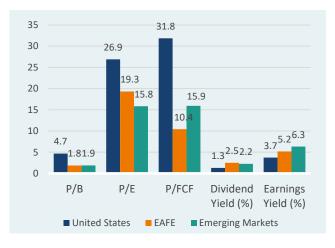
### Source: MSCI, 12m forward P/E, as of 9/30/21

### **CURRENT EARNINGS YIELD (3-MONTH AVERAGE)**



Source: Bloomberg, MSCI, as of 9/30/21

### **VALUATION METRICS (3-MONTH AVERAGE)**



Source: Bloomberg, MSCI as of 9/30/21 - trailing P/E



### Equity volatility

The Cboe VIX Index remained below the longer-term average of 19 through July and August, then increased throughout September, ending the quarter at an elevated 23.1. This compares to only 13.9% realized volatility over the past year. As is typical, international developed equity realized volatility has been slightly greater than that of the U.S. market. The realized volatility of emerging market equities, on the other hand, has been on par with the U.S. for a few years—a rare occurrence, historically speaking.

As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments are set to pull back generous stimulus programs. While U.S. equities have marched higher with very few road bumps over the year-to-date, the S&P 500 Index closed the quarter 5.1% below its previous record high level, snapping a streak of 231 consecutive trading days where it had not fallen more than 5% beneath the record high.

### U.S. IMPLIED VOLATILITY (VIX)

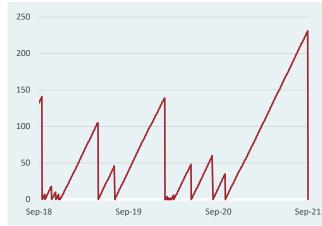


### REALIZED VOLATILITY



### Source: Standard & Poor's, MSCI, as of 9/30/21

### DAYS SINCE LAST 5% DRAWDOWN - S&P 500

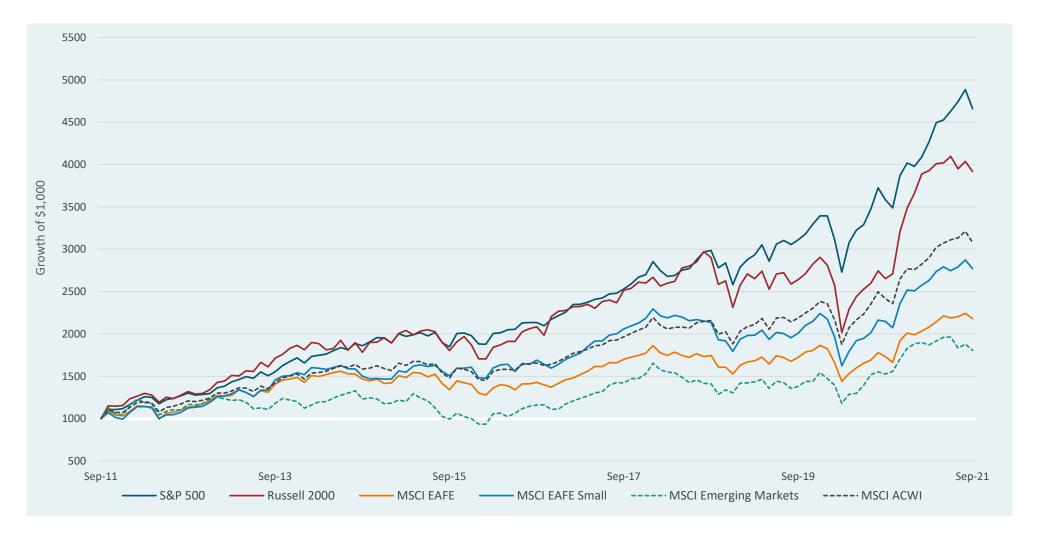


Source: Standard & Poor's, Verus, as of 9/30/21



Source: Choe, as of 9/30/21

### Long-term equity performance



Source: Morningstar, as of 9/30/21



# Other assets



### Currency

The U.S. dollar appreciated 2% during the quarter, continuing its modest rise year-to-date. This move coincided with a slight increase in U.S. Treasury yields and European government bond yields, resulting in little change to interest rate differentials.

U.S. dollar sentiment reached its most optimistic level since late 2019, while sentiment surrounding the euro and pound turned from optimistic to pessimistic. Differences in monetary policy from country-to-country appear to be driving this shift in sentiment. While the U.S. Federal Reserve is expected to begin tapering asset purchases by year-end, the ECB is planning on simply shifting the complexion of its asset purchase program, and the

BOE is planning on adjusting short-term interest rates higher while retaining the majority of its asset purchase program which targets longer-duration bonds.

The MSCI Currency Factor Mix Index, Verus' preferred currency beta benchmark, outperformed the currency portfolio of the MSCI ACWI ex-US Index over the twelve months ending September 30<sup>th</sup>, while exhibiting 1.1% less volatility.

### **BLOOMBERG DOLLAR SPOT INDEX**



### U.S. DOLLAR MAJOR CURRENCY INDEX



### Source: Federal Reserve, as of 9/30/21

### TRAILING ONE-YEAR ANNUALIZED VOLATILITY



Source: Bloomberg, MSCI, as of 9/30/21



Source: Bloomberg, as of 9/30/21

# Appendix



### Periodic table of returns

	19	99	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	5-Year	10-Year
Commodities	66	5.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	29.1	22.8	19.7
Small Cap Value	43	3.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	22.9	17.1	16.8
Large Cap Value	33	.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	16.1	15.3	15.7
Large Cap Equity	27	'.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	15.2	13.5	14.6
Large Cap Growt	h 26	5.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	14.3	11.0	13.5
Small Cap Equity	21	3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.4	14.0	12.4	10.9	13.2
International Equi	ty 24	1.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.0	10.3	8.3	9.2	8.8
Hedge Funds of Fu	nds 20	).9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	6.4	8.9	8.1
Real Estate	13	3.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	5.4	8.8	8.0
60/40 Global Portf	olio 11	4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	5.0	6.1	6.1
Small Cap Growt	n 7.	.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	5.9	4.5
Cash	4.	.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	4.5	3.0
Emerging Markets Eq	uity -0	.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.2	2.9	0.6
US Bonds	-1	.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-1.6	1.1	-2.7

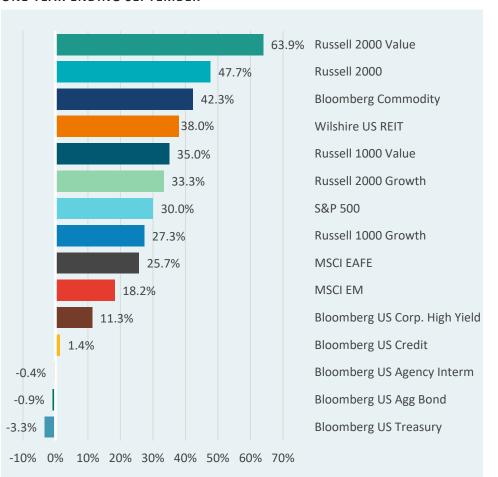


Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 6/30/21.

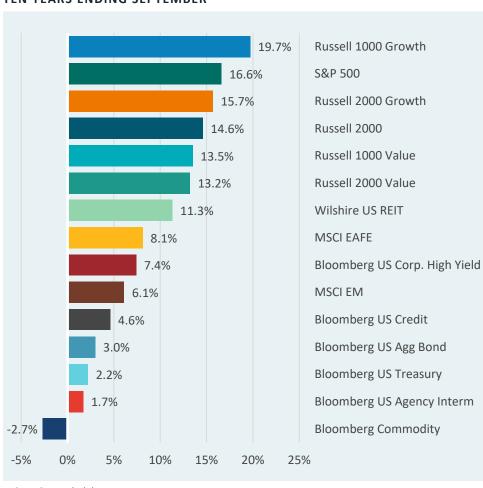


### Major asset class returns

### ONE YEAR ENDING SEPTEMBER



### TEN YEARS ENDING SEPTEMBER



\*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

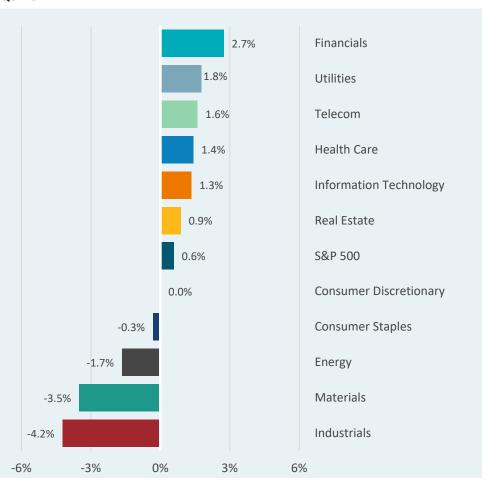
Source: Morningstar, as of 9/30/21

Source: Morningstar, as of 9/30/21



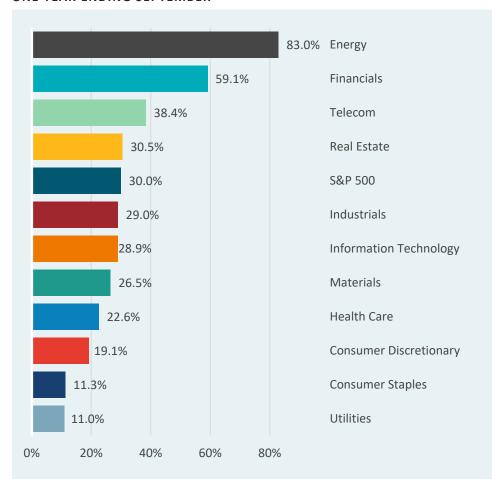
### S&P 500 sector returns

### Q3 2021



### ONE YEAR ENDING SEPTEMBER

Source: Morningstar, as of 9/30/21

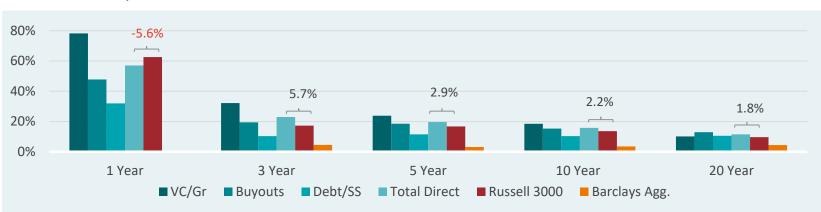


Source: Morningstar, as of 9/30/21



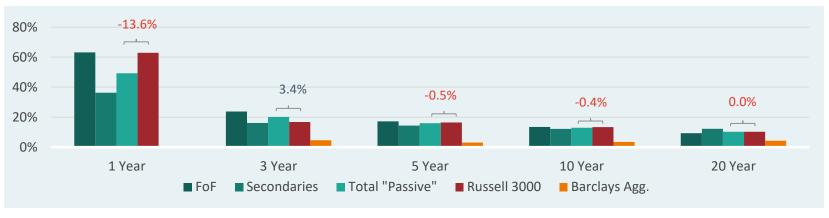
# Private equity vs. traditional assets performance

### **DIRECT PRIVATE EQUITY FUND INVESTMENTS**



Direct P.E Fund Investments outperformed comparable public equites across all time periods, aside from the 1-year basis.

### "PASSIVE" STRATEGIES



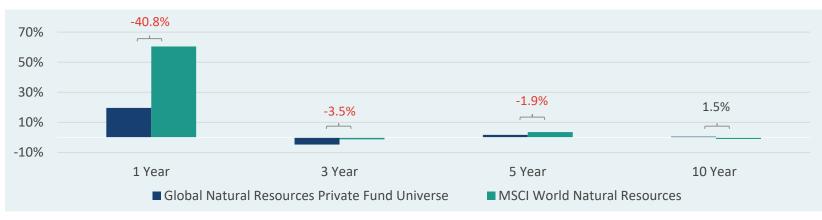
"Passive" strategies underperformed comparable public equities across all time periods, aside from the 3-year basis.

Sources: Refinitiv Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of March 31, 2021. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.



### Private vs. liquid real assets performance

### **GLOBAL NATURAL RESOURCES FUNDS**

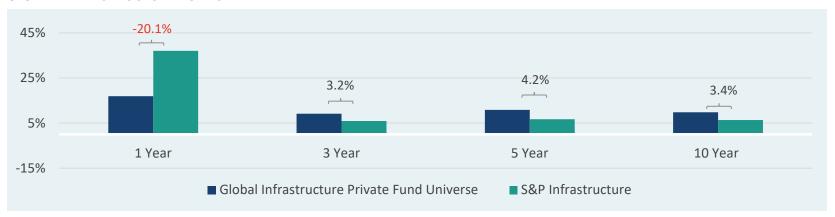


lagged against the MSCI World Natural Resources benchmark across all time periods, aside from the 10year.

N.R. funds has

### Infra. funds outperformed the S&P Infra. across all periods, aside from the 1-year.

### **GLOBAL INFRASTRUCTURE FUNDS**



Sources: Refinitiv C/A PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of March 31, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.



## Private vs. liquid and core real estate performance

### U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private
R.E. funds
lagged against
the Wilshire
U.S. REIT Index
across all time
periods, aside on
the 5 and 10
year-basis.

### U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv C/A PME: Global and U.S. Real Estate universes as of March 31, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.



### Detailed index returns

DOMESTIC EQUITY								FIXED INCOME							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year		Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index								Broad Index							
S&P 500	(4.7)	0.6	15.9	30.0	16.0	16.9	16.6	Bloomberg US TIPS	(0.7)	1.8	3.5	5.2	7.4	4.3	3.1
S&P 500 Equal Weighted	(3.8)	(0.2)	18.9	40.9	14.3	14.6	16.0	Bloomberg US Treasury Bills	0.0	0.0	0.0	0.1	1.2	1.2	0.7
DJ Industrial Average	(4.2)	(1.5)	12.1	24.2	11.0	15.7	14.7	Bloomberg US Agg Bond	(0.9)	0.1	(1.6)	(0.9)	5.4	2.9	3.0
Russell Top 200	(4.8)	0.6	15.2	28.6	17.3	18.2	17.2	Bloomberg US Universal	(0.9)	0.1	(1.1)	0.2	5.6	3.3	3.5
Russell 1000	(4.6)	0.2	15.2	31.0	16.4	17.1	16.8	Duration							
Russell 2000	(2.9)	(4.4)	12.4	47.7	10.5	13.5	14.6	Bloomberg US Treasury 1-3 Yr	(0.1)	0.1	(0.0)	0.0	2.7	1.6	1.2
Russell 3000	(4.5)	(0.1)	15.0	31.9	16.0	16.9	16.6	Bloomberg US Treasury Long	(2.9)	0.5	(7.5)	(10.3)	9.2	3.3	4.4
Russell Mid Cap	(4.1)	(0.9)	15.2	38.1	14.2	14.4	15.5	Bloomberg US Treasury	(1.1)	0.1	(2.5)	(3.3)	4.9	2.2	2.2
Style Index								Issuer							
Russell 1000 Growth	(5.6)	1.2	14.3	27.3	22.0	22.8	19.7	Bloomberg US MBS	(0.4)	0.1	(0.7)	(0.4)	3.9	2.2	2.4
Russell 1000 Value	(3.5)	(0.8)	16.1	35.0	10.1	10.9	13.5	Bloomberg US Corp. High Yield	(0.0)	0.9	4.5	11.3	6.9	6.5	7.4
Russell 2000 Growth	(3.8)	(5.7)	2.8	33.3	11.7	15.3	15.7	Bloomberg US Agency Interm	(0.4)	0.1	(0.5)	(0.4)	3.2	1.9	1.7
Russell 2000 Value	(2.0)	(3.0)	22.9	63.9	8.6	11.0	13.2	Bloomberg US Credit	(1.1)	(0.0)	(1.3)	1.4	7.1	4.4	4.6
INTERNATIONAL EQUITY								OTHER							
Broad Index								Index							
MSCI ACWI	(4.1)	(1.1)	11.1	27.4	12.6	13.2	11.9	Bloomberg Commodity	5.0	6.6	29.1	42.3	6.9	4.5	(2.7)
MSCI ACWI ex US	(3.2)	(3.0)	5.9	23.9	8.0	8.9	7.5	Wilshire US REIT	(5.1)	1.6	24.8	38.0	10.4	7.0	11.3
MSCI EAFE	(2.9)	(0.4)	8.3	25.7	7.6	8.8	8.1	CS Leveraged Loans	0.5	0.9	4.0	8.5	4.1	4.7	5.0
MSCI EM	(4.0)	(8.1)	(1.2)	18.2	8.6	9.2	6.1	Alerian MLP	3.0	(5.7)	39.4	84.6	(5.2)	(3.5)	1.2
MSCI EAFE Small Cap	(3.6)	0.9	10.0	29.0	9.0	10.4	10.7	Regional Index							
Style Index								JPM EMBI Global Div	(2.1)	(0.7)	(1.4)	4.4	5.7	3.9	5.8
MSCI EAFE Growth	(3.9)	0.1	6.9	20.9	11.9	11.4	10.1	JPM GBI-EM Global Div	(3.4)	(3.1)	(6.4)	2.6	3.7	2.1	1.1
MSCI EAFE Value	(1.8)	(1.0)	9.6	30.7	3.0	6.0	6.0	Hedge Funds							
Regional Index								HFRI Composite	0.1	(0.0)	10.1	22.1	8.5	7.3	5.9
MSCI UK	(2.0)	(0.3)	12.2	31.2	2.4	4.8	5.4	HFRI FOF Composite	0.8	1.4	6.4	15.0	6.7	5.9	4.5
MSCI Japan	2.8	4.6	5.9	22.1	7.5	9.4	8.4	Currency (Spot)							
MSCI Euro	(5.0)	(2.0)	10.5	29.5	7.9	9.3	8.3	Euro	(1.8)	(2.3)	(5.3)	(1.2)	(0.1)	0.6	(1.5)
MSCI EM Asia	(4.1)	(9.6)	(4.1)	13.9	10.0	10.7	8.5	Pound Sterling	(2.0)	(2.4)	(1.4)	4.3	1.1	0.7	(1.4)
IVISCI EIVI ASIA	(/	(3.0)	(/	20.0				. ouria oterining							

Source: Morningstar, HFRI, as of 9/30/21



### **Definitions**

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending.

(www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<a href="https://www.nfib-sbet.org/about/">https://www.nfib-sbet.org/about/</a>)

NAHB Housing Market Index – the housing market index is a weighted average of separate diffusion induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

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