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### **Topics of interest**

### IS PAINLESS DIVERSIFICATION DEAD?

Interest rates have collapsed in developed economies in past years, and more recently at home in the United States, which has greatly dampened investors' performance outlook for diversified portfolios. These events have led many investors to question the traditional role of fixed income. In this Topic of Interest white paper, we outline some issues that investors must come to terms with, and we begin to unpick ways of thinking about diversification and preservation of capital in the new market environment.

### INTEGRATING ESG INTO ACTIVE PORTFOLIOS

In this paper, we address how environmental, social, and governance (ESG) considerations are integrated into our manager research process. We address Verus' approach to ESG issues when advising clients and link that to what ESG due diligence looks like in researching investment managers. Next, we consider the spectrum of ESG integration as defined by the primary objective of the product. Finally, we address the challenges that ESG considerations pose for hedge fund managers and private equity general partners.

### QUANTIFYING ESG IN PORTFOLIO CONSTRUCTION

Environmental, social, and governance (ESG) investing is a wide-ranging field that encompasses many different approaches. Investors are integrating ESG into the creation of their policies, investment beliefs, strategic asset allocations, manager selection decisions, and much more. ESG ratings and scores allow investors to understand and compare the ESG profile of companies and managers. ESG screens can serve as an effective tool for investors to identify exposures that may conflict with their institutional values.

### AGREEING ON ESG

This paper sheds light on the difficulty institutional investors face as they embark on their journey toward implementing a thoughtful ESG policy that fits their specific organization and is designed to help them cut through the clutter by providing a detailed, practical "soup-to-nuts" methodology to determine the best policy for their organization.

### Annual research

### 2021 CAPITAL MARKET ASSUMPTIONS

Learn about the 2020 market movements and how these shifts have affected our long-term outlook.

### Sound thinking

### FINDING COMFORT IN AN UNCOMFORTABLE WORLD

An outline of various topics that an investor might want to add to their agenda for the coming year.

### Up and coming event

### EMERGING & DIVERSE MANAGERS DILIGENCE DAYS

For the third consecutive year, Verus is inviting qualified managers to participate in one-on-one meetings with its senior staff during its 3rd Emerging and Diverse Manager Diligence Days.

- March 16-18
- March 22
- March 24
- March 26

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### 4<sup>th</sup> quarter summary

### THE ECONOMIC CLIMATE

- Real GDP grew at a -2.8% rate year-over-year in the third quarter (+33.4% quarterly annualized rate) as the U.S. economy recovered much of the economic activity lost in the second quarter. p. 11
- Joe Biden was elected President of the United States. The market seemed to interpret a Biden win as a mild positive for risk assets, on the expectation of larger economic stimulus. Democrats also took both seats in the Georgia run-off election, completing the party's "Blue Wave". p. 7
- Several new, more-infectious strains of COVID-19 emerged and spread around the world, though experts remain confident in the efficacy of the currently-approved arsenal of vaccines. p. 7

### PORTFOLIO IMPACTS

- Emerging market equities (+19.7%) outperformed U.S.
   (+12.1%) and international developed equities (+16.0%) once again in Q4. Latin American equities showed significant outperformance (+34.8%), after years of lagging behind other emerging markets. p. 32
- The U.S. 10-year TIPS breakeven inflation rate headed notably higher over the quarter, from 1.6% in September to 2.0% in December. Although U.S. inflation is lower than pre-pandemic levels, market pricing for inflation is the highest since 2018. p. 12

### THE INVESTMENT CLIMATE

- Congress passed an omnibus spending bill, including \$900 billion earmarked for COVID-19 relief. Key features of the package included a re-up of the Paycheck Protection Program, \$600 stimulus checks for most individuals, and \$300 per week in additional unemployment benefits over a 10-week period. *p. 11*
- According to FactSet, S&P 500 Q4 earnings are expected to be down -8.8%. This estimate improved from the -12.7% drop expected on September 30th. For full year 2020, analysts are expecting a -13.3% earnings decline. p. 26

### ASSET ALLOCATION ISSUES

- U.S. equities delivered +12.1% during the quarter, ending the year at an all-time-high. The S&P 500 was one of the strongest equity markets in 2020, up +18.4% despite an earnings recession and considerable uncertainty. p. 28
- Weakness in the U.S. dollar remained a theme in Q4, and the Bloomberg Dollar Spot Index fell to a two and a half year low. Analysts attributed some of the weakness in the US dollar to lower relative real yields in the U.S. p. 37
- Within the U.S. market, a sizable rotation occurred in Q4 as certain sectors that had been beaten-down during the pandemic performed strongly. Rising energy prices boosted the Energy sector, while higher interest rates improved the outlook for Financials. p. 28

A more
neutral risk
positioning
may be
warranted in
the current
environment

There seems to be a high degree of uncertainty regarding the future market path



### What drove the market in Q4?

"The Mass Distribution of Covid-19 Vaccines Is Under Way. 'Everything Has to Come Together.'"

### **COVID-19 U.S. HOSPITALIZATION RATE**

7/25	8/29	9/26	10/31	11/28	12/26
7.6%	4.4%	4.1%	8.7%	16.6%	10.4%

Article Source: Wall Street Journal, December 13<sup>th</sup>, 2020

"Congress agrees to \$900 billion Covid stimulus deal after months of failed negotiations"

### **U.S. TOTAL PUBLIC DEBT OUTSTANDING (TRILLIONS)**

Jul	Aug	Sep	Oct	Nov	Dec
\$26.5	\$26.7	\$26.9	\$27.1	\$27.4	\$27.7

Article Source: CNBC, December 20th, 2020

"Powell says stock prices are not necessarily high considering the low level of interest rates"

### TEN-YEAR U.S. REAL YIELD (NOMINAL YIELD MINUS BREAKEVEN INFLATION)

Jul	Aug	Sep	Oct	Nov	Dec
-1.03%	-1.10%	-0.95%	-0.83%	-0.95%	-1.07%

Article Source: CNBC, December 16th, 2020

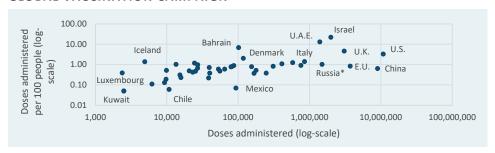
### "Dollar's Slump Propels Global Peers Toward Multi-Year Peaks"

### **BLOOMBERG DOLLAR SPOT INDEX**

Jul	Aug	Sep	Oct	Nov	Dec
1179	1161	1177	1172	1145	1120

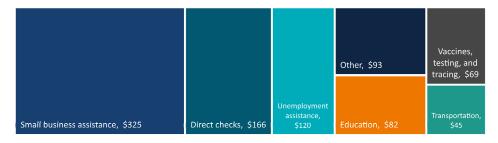
Article Source: Bloomberg, November 29th, 2020

### **GLOBAL VACCINATION CAMPAIGN**



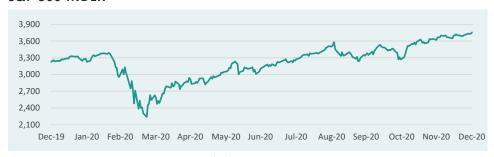
Source: Bloomberg, as of 1/13/21, or most recent release

### MOST RECENT FISCAL STIMULUS PACKAGE ALLOCATIONS (BILLIONS)



Source: U.S. House of Representatives, as of 12/21/20

### **S&P 500 INDEX**



Source: Standard & Poor's, Bloomberg, as of 12/31/20



## Economic environment



### U.S. economics summary

- Real GDP grew at a -2.8% rate yearover-year in the third quarter (+33.4% quarterly annualized rate) as the U.S. economy recovered much of the economic activity lost in the second quarter.
- The Atlanta Fed's forecast for fourth quarter growth was 7.4% quarter-over-quarter, as of January 15<sup>th</sup>, suggesting further economy expansion.
- Joe Biden was elected President of the United States in November. Jon Ossoff and Raphael Warnock both won in the Georgia Senate runoff elections in January, which ensured democratic control of both the White House and the Senate with V.P.-elect Kamala Harris as the swing vote. The wins completed the democratic "Blue Wave" many have associated with extensive fiscal support. Slim democratic majorities in both chambers of Congress, however, may constrain Biden's policy scope.

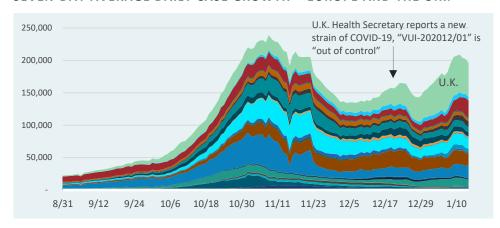
- After impressive employment gains in Q3, the recovery appeared to be stalling in recent months.
   Unemployment fell from 7.8% in September to 6.7% in December.
- Consumer sentiment remained stubbornly low, despite broad recoveries in consumer spending, auto sales, and the housing market.
- Home sales activity continued to grow at an extremely fast pace in the fourth quarter, as record-low interest rates and the work-fromhome environment fueled demand. Existing home sales were 25.8% higher than one-year prior.
- Several new, more-infectious strains of COVID-19 emerged and spread around the world, though experts remain confident in the efficacy of the currently-approved arsenal of vaccines. The global vaccination campaign began in December, and 44 million doses have been distributed so far.

	Most Recent	12 Months Prior
GDP (YoY)	(2.8%) 9/30/20	2.1% 9/30/19
Inflation (CPI YoY, Core)	1.6% 12/31/20	2.3% 12/31/19
Expected Inflation (5yr-5yr forward)	2.0% 12/31/20	1.8% 12/31/19
Fed Funds Target Range	0% – 0.25% 12/31/20	1.50% – 1.75% 12/31/19
10-Year Rate	0.9% 12/31/20	1.9% 12/31/19
U-3 Unemployment	6.7% 12/31/20	3.5% 12/31/19
U-6 Unemployment	11.7% 12/31/20	6.7% 12/31/19



### COVID-19 update

### SEVEN-DAY AVERAGE DAILY CASE GROWTH - EUROPE AND THE U.K.



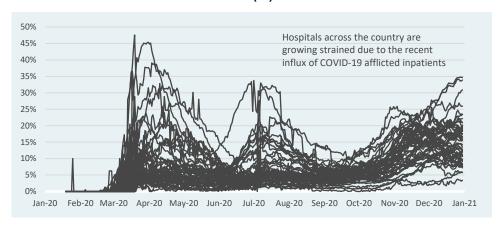
Source: Bloomberg, as of 1/14/21

### SEVEN-DAY AVERAGE DAILY DEATHS PER 100,000 IN POPULATION



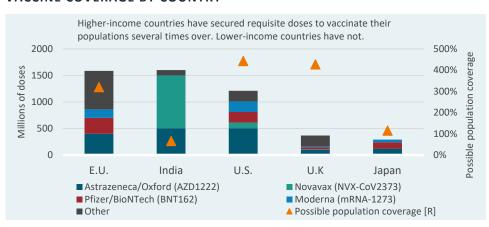
Source: Bloomberg, as of 1/14/21

### COVID-19 INPATIENTS BY U.S. STATE (%)



Source: Bloomberg, as of 1/9/21

### **VACCINE COVERAGE BY COUNTRY**

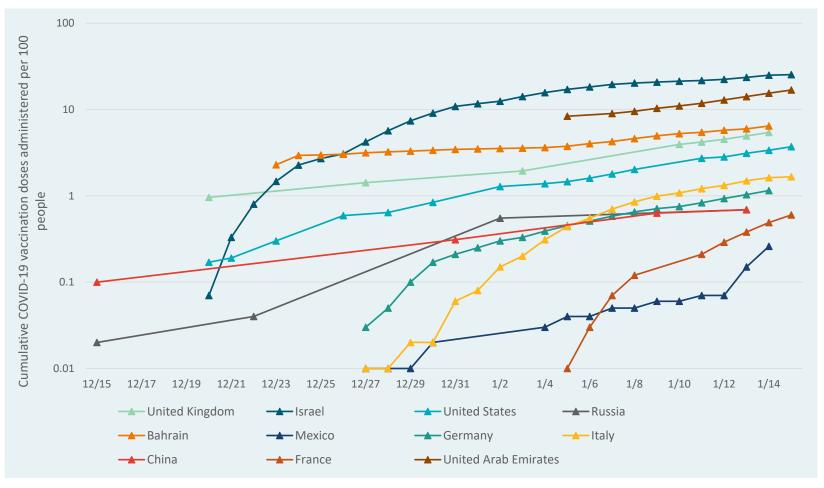


Source: Duke Global Health Innovation Center, as of 1/8/21; possible population coverage includes confirmed and potential doses committed to – it is possible not all vaccines will be approved.



### Global vaccination campaign

### **CUMULATIVE COVID-19 VACCINE DOSES ADMINISTERED PER 100 PEOPLE**



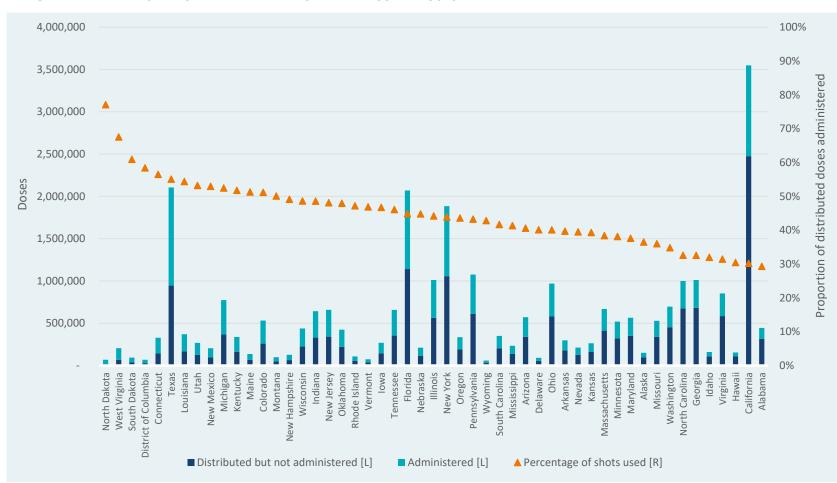
Israel has led the way so far, but it is a country with a size and population comparable to New Jersey

Source: Our World in Data, as of 1/15/21



### Administration issues in the U.S.

### THE GAP BETWEEN DISTRIBUTED AND ADMINISTERED VACCINE DOSES



As of January 15<sup>th</sup>, roughly 13 million doses had been administered nationwide, accounting for roughly 42% of all doses distributed

President Biden is aiming to achieve 100 million vaccine dose administrations in his first 100 days in office

Source: Bloomberg, as of 1/15/21



### GDP growth

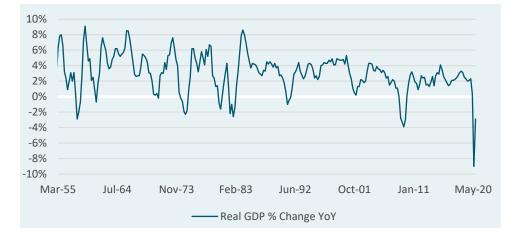
Real GDP grew at a -2.8% rate year-over-year in the third quarter (+33.4% quarterly annualized rate) as the U.S. economy recovered much of the economic activity lost during the depths of the pandemic. Personal consumption expenditures expanded at a quarterly annualized pace of -25.4%. Growth was broad-based, and included strong private investment, exports, and inventory builds.

Not only was this bounce-back a product of pent-up demand released by the economic reopening, it was also the result of a coordinated and historic stimulus effort by the U.S.

government. After the Federal Reserve took interest rates to zero and flooded the markets with liquidity, Congress passed an omnibus spending bill, including \$900 billion earmarked for COVID-19 relief. Key features of the package included a re-up of the Paycheck Protection Program, \$600 stimulus checks for most individuals, and \$300 per week in additional unemployment benefits over a 10-week period.

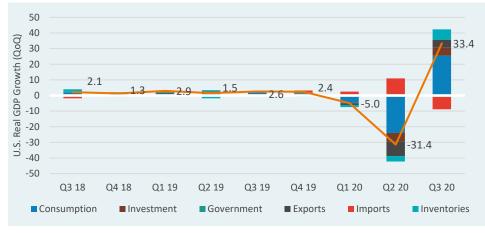
The Atlanta Fed's forecast for Q4 growth was 7.4% on a quarter-over-quarter annualized basis (-1.7% year-over-year) as of January 15<sup>th</sup>, suggesting further economic recovery.

### U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 9/30/20

### U.S. GDP GROWTH ATTRIBUTION



Source: BEA, annualized quarterly rate, as of 9/30/20



### Inflation

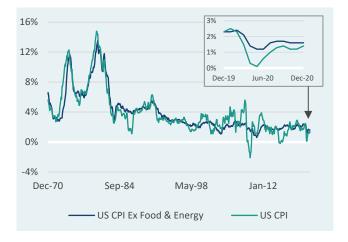
Headline inflation stayed relatively stable during Q4, at 1.4% year-over-year in December. Energy prices have acted as a drag on inflation, with gasoline (-15.2%) and fuel oil (-20.0%) showing the largest moves. Food (+3.9%), as well as used cars & trucks (+10.0%), had a lifting effect on inflation during the year. Inflation excluding volatile food and energy prices increased 1.6%.

The U.S. 10-year TIPS breakeven inflation rate headed notably higher over the quarter, from 1.6% in September to

2.0% in December. Although U.S. inflation is lower than prepandemic levels, market pricing for inflation is the highest since 2018.

Consumer inflation expectations, as indicated by the University of Michigan survey, proved volatile throughout the year. After starting 2020 at an expected 2.3% rate of inflation, expectations fell to 2.1% in April before spiking to 3.2% in May. Expectations fell in the fourth quarter and settled at 2.5% in December.

### U.S. CPI (YOY)



Source: Bloomberg, as of 12/31/20

### **CONSUMER INFLATION EXPECTATIONS**



Source: University of Michigan, as of 12/31/20

### **BREAKEVEN INFLATION RATES**



Source: Bloomberg, as of 12/31/20



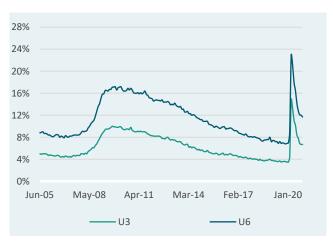
### Labor market

After impressive employment gains in Q3, the recovery appeared to be stalling in recent months. Unemployment fell from 7.8% in September to 6.7% in December—a small improvement compared to previous months. Additionally, while the current unemployment rate does not seem exceptionally weak from a historical perspective, this metric masks the fact that the U.S. labor force participation rate also fell during COVID-19. In simpler terms, since the pandemic, roughly 3% of workers are now unemployed and seeking work, and an additional 2% of workers are now unemployed and *not* seeking work.

During an economic recession, it is important to understand the portion of newly unemployed workers who seek to quickly rejoin the workforce (cyclical unemployment), relative to the portion of workers who lose their jobs and end up more permanently out of work due to lack of opportunities or discouragement (structural unemployment). As shown in the chart below, a growing share of unemployed workers have remained out of work since the onset of the economic recession.

The U.S. employment recovery appears to be stalling

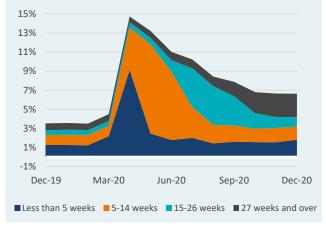
### U.S. UNEMPLOYMENT



### LABOR PARTICIPATION RATE



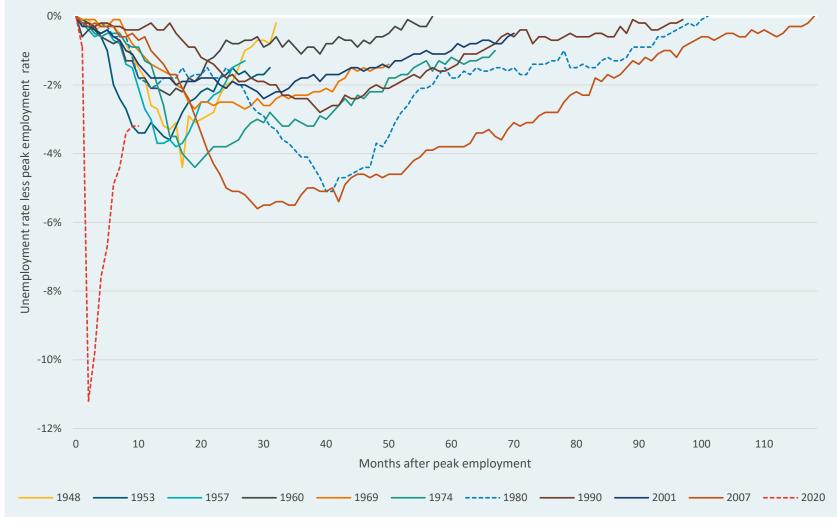
### UNEMPLOYMENT DECOMPOSITION BY DURATION



Source: FRED, as of 12/31/20 Source: FRED, as of 12/31/20 Source: BLS, as of 12/31/20



### U-3 unemployment rates relative to peaks



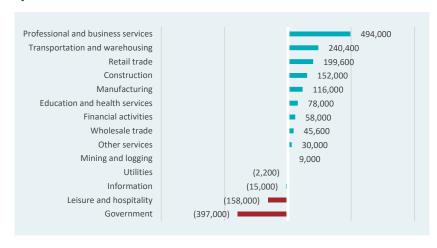
The Covid-19 recession features a historically-abrupt loss and subsequent rebound in broad unemployment

Source: Bloomberg, BLS, as of 12/31/20

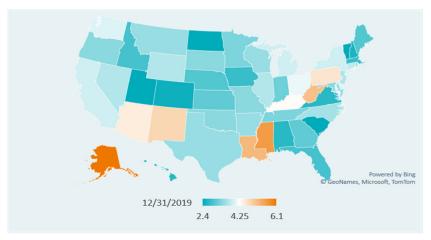


### Employment conditions

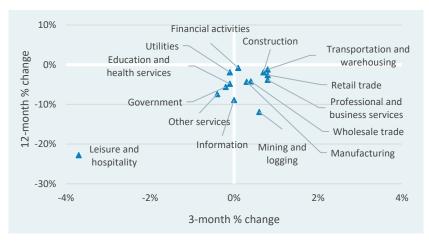
### **Q4 2020 NONFARM PAYROLLS CHANGES**



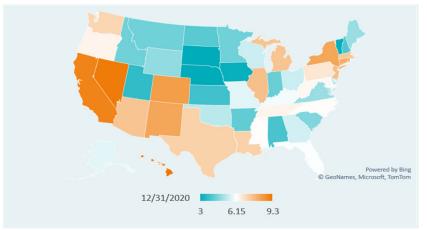
### U-3 UNEMPLOYMENT (12/31/2019)



### NONFARM PAYROLL GROWTH BY SECTOR



### U-3 UNEMPLOYMENT (12/31/2020)



While employment in many sectors bounced back in Q4, jobs in the leisure and hospitality sector dipped as the impact of state lockdowns began to show up in the payrolls data

Despite the broad gains in the 4<sup>th</sup> quarter, nonfarm payrolls shrunk in every sector over the full calendar year

Source: BLS, as of 12/31/20 – or most recent release



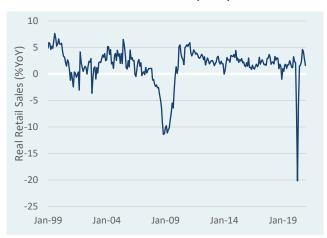
### The consumer

U.S. retail sales have shown a surprising recovery after falling -20% year-over-year in April. Retail sales, after adjusting for inflation, increased 1.6% in December. Spending patterns have shown resiliency despite the economic slowdown. Automobile and home sale activity, for example, has recovered to previous levels.

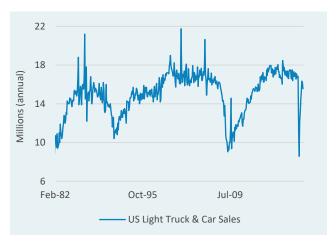
However, recent spending patterns have been vastly affected by unprecedented government stimulus. Because this expansion was far from a "natural" recovery, it will be worth watching how consumption trends change as the various economic stimulus programs end. This effect may already be apparent as retail sales growth slowed from 4.6% in September to 1.6% in December.

According to anonymized cellular phone data collected by Google for COVID-19 public health research, Americans began returning to their daily routines through late spring and summer, as activity began moving back to normalcy. However, these improvements plateaued across certain types of activities such as workplace travel, retail & recreation, and transit station usage, and this activity has slowed down once again. Continued weak activity, or even a further slowdown due to renewed government restrictions, could cast doubt on the U.S. economic recovery.

### REAL RETAIL SALES GROWTH (YOY)



### **AUTO SALES**



Source: Federal Reserve, as of 11/30/20

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



Source: Google anonymized U.S. citizen mobility, as of 12/31/20



Source: FRED, as of 12/31/20

### Sentiment

Consumer sentiment remained stubbornly low during the fourth quarter, despite broad recoveries in consumer spending, auto sales, and the housing market.

The Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index fell from 49.3 to 44.6 during the quarter. The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The index was flat at 80.7 in Q4—down from a

cycle high of 101.0 in February.

The NFIB Small Business Optimism Index exhibited a sharp decline to 95.9 in Q4, bringing the index back towards pandemic lows. The survey suggested that most business owners expect deteriorating conditions over the next six months. The survey also showed that concerns exist regarding government-mandated business closures due to COVID-19, and that the new U.S. administration may be less friendly toward the business community.

### CONSUMER COMFORT



Source: Bloomberg, as of 12/31/20

### **CONSUMER SENTIMENT**



Source: University of Michigan, as of 12/31/20

### **SMALL BUSINESS OPTIMISM**



Source: NFIB, as of 12/31/20



### Housing

Home sales activity continued to grow at an extremely fast pace in the fourth quarter, as record-low interest rates and the work-from-home environment fueled demand. It remains to be seen the degree to which business work-from-home policies become permanent, post-pandemic. The direction of these trends may have a far-reaching impact on home sales as workers seek more space for home offices, and perhaps also feel greater freedom to move outside of major urban areas. Existing home sales were 25.8% higher than one-year prior, an overall rate of growth not experienced in over a decade.

Despite a gradual bounce-back of U.S. Treasury interest rates,

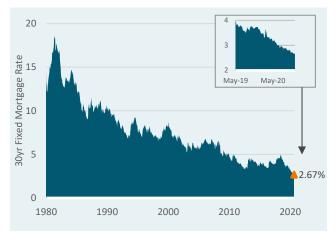
the 30-year U.S. Fixed Mortgage Rate has continued to move lower. The direction of mortgage rates from here will likely have a material impact on home prices.

It is important to note that the overall cost of owning a home is a combination of home prices and borrowing rates (among many other variables, of course). While the price of a new home in the U.S. is, on average, higher than ever before, record-low interest rates have compensated for higher prices. As suggested by the Housing Affordability Index, the overall cost of owning a home today is below-average, historically speaking.

### U.S. HOME SALES (YOY)



### **30-YEAR FIXED MORTGAGE RATE (AVERAGE)**



### Source: FRED, as of 12/31/20

### HOUSING AFFORDABILITY INDEX



Source: National Association of Realtors, as of 9/30/20



Source: FRED, as of 11/30/20

### International economics summary

- Economic growth in Q3, although negative on a year-over-year basis, painted an optimistic picture of the recovery. Consumers and businesses around the world have attempted to continue on, despite recent lockdowns, restrictions, and safety concerns. GDP growth figures have improved markedly from the depths of Q2. Most economies have recovered more than half of lost activity experienced during the prior quarter.
- European Union leaders agreed on a historic €1.8 trillion budget-andrecovery plan for 2021-2027, paving the way for a €750-billion pandemic relief package which will be financed by joint debt issuance.
- U.K. and E.U. officials reached an official trade deal at the 11<sup>th</sup> hour before the December 31<sup>st</sup>, 2020 conclusion of the transition period following Britain's official cutting of ties with the E.U. last January. The

- agreement marked the beginning of a new chapter in the history of British relations with Europe.
- Governments have taken different approaches to supporting workers, and while many approaches have had similar economic effects, they have often had drastically different impacts on official unemployment figures. We believe official unemployment figures are of limited value in this environment more in-depth analysis is likely required.
- The pandemic placed downward pressure on inflation. Since then, inflation levels have generally remained muted in developed markets while recovering moderately in emerging economies. China appears to be an outlier, as inflation has recently dipped below zero. This move was fueled by falling pork prices, which had been moving higher in recent years and pushing up inflation.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	(2.8%)	1.4%	6.7%
	9/30/20	12/31/20	12/31/20
Eurozone	(4.3%)	(0.3%)	8.3%
	9/30/20	12/31/20	11/30/20
Japan	(5.7%)	(1.3%)	2.8%
	9/30/20	12/31/20	11/30/20
BRICS	1.9%	1.5%	5.1%
Nations	9/30/20	12/31/20	12/31/20
Brazil	(3.9%)	4.5%	14.3%
	9/30/20	12/31/20	10/31/20
Russia	(3.4%)	4.9%	6.1%
	9/30/20	12/31/20	11/30/20
India	(7.5%)	4.6%	9.1%
	9/30/20	12/31/20	12/31/20
China	2.3%	0.2%	<b>4.2</b> %
	12/31/20	12/31/20	12/31/20

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy



### International economics

Economic growth in Q3, although negative on a year-over-year basis, painted an optimistic picture of the recovery. Consumers and businesses around the world have attempted to continue on, despite recent lockdowns, restrictions, and safety concerns. GDP growth figures have improved markedly from the depths of Q2. Most economies have recovered more than half of lost activity seen during the prior quarter. The direction of recovery was similar across the emerging markets, and these economies have maintained their growth "premium" over developed markets throughout the crisis.

Unemployment in the Eurozone has fallen slightly to 8.3%

from a high of 8.7% in July. Governments around the world have taken different approaches to supporting workers. One approach, as taken by the U.S., was to provide greater financial support to workers who had lost their jobs. Another approach, such as that taken by the UK, was for government to effectively pay workers' wages to keep them on payroll. These approaches, which may be very similar in overall economic effect, can appear drastically different in the official rate of unemployment statistics (shown below). In short, official unemployment figures may be of limited value in this environment—more in-depth analysis is required.

### **REAL GDP GROWTH (YOY)**

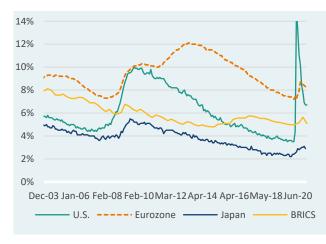


### INFLATION (CPI YOY)



### Source: Bloomberg, as of 12/31/20 – or most recent release

### UNEMPLOYMENT



Source: Bloomberg, as of 12/31/20 – or most recent release



Source: Bloomberg, as of 9/30/20

# Fixed income rates & credit



### Interest rate environment

- Longer-dated U.S. Treasury yields moved upward in the fourth quarter, with the U.S. 10-year rising above 1.0% to begin 2021. Higher interest rates may place pressure on equity valuations if this trend continues. The yield of shorter-dated bonds and cash has not moved and is expected to stay near zero.
- Ten-year breakeven inflation rates rallied from 1.6% to 2.0% in Q4, likely propelled higher by expectations that Biden's fiscal approach paired with vaccine rollouts will result in higher longer-term growth and inflation. The rise in priced inflation outpaced the rise in nominal Treasury yields, leading the 10-year U.S. real yield to decline from -0.95% to -1.07%, near record lows.
- Officials at the Federal Reserve remained committed to a \$120 billion monthly pace of bond purchases until there is "substantial progress" toward employment and

- inflation objectives. Fed Chair
  Powell left the door open to
  adjusting the pace of those
  purchases as necessary, and stated
  that the Fed would "let the world
  know...well in advance of active
  consideration of beginning a gradual
  taper of asset purchases."
- The European Central Bank expanded the size of its Pandemic Emergency Purchase Program (PEPP) by €500 billion, bringing the new total to €1.85 trillion. The ECB also extended the horizon for purchases under PEPP to March 2022, and the timeline for reinvestment of maturing PEPP assets to the end of 2023.
- Joe Biden nominated Janet Yellen,
  Jerome Powell's predecessor, as U.S.
  Treasury Secretary. Throughout the
  pandemic, central bankers have
  been calling for further coordination
  of fiscal and monetary action, and
  Yellen's nomination could represent
  the next step down that path.

Area	Short Term (3M)	10-Year
United States	0.06%	0.91%
Germany	(0.83%)	(0.57%)
France	(0.77%)	(0.34%)
Spain	(0.83%)	0.04%
Italy	(0.65%)	0.54%
Greece	(0.38%)	0.62%
U.K.	(0.06%)	0.20%
Japan	(0.12%)	0.02%
Australia	0.02%	0.97%
China	2.28%	3.14%
Brazil	2.00%	6.91%
Russia	3.54%	6.01%

Source: Bloomberg, as of 12/31/20

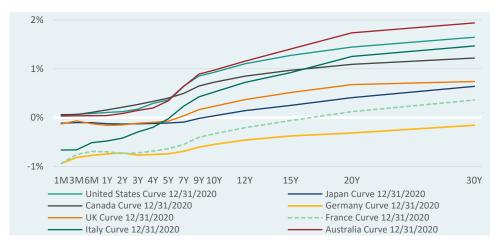


### Yield environment

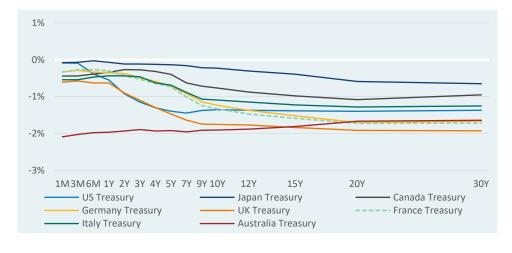
### **U.S. YIELD CURVE**



### **GLOBAL GOVERNMENT YIELD CURVES**



### YIELD CURVE CHANGES OVER LAST FIVE YEARS



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



Source: Bloomberg, as of 12/31/20

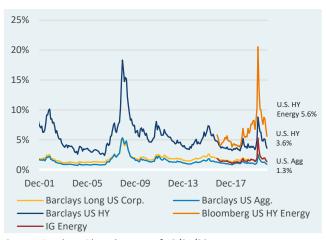


### Credit environment

After four quarters of exceptional volatility, credit market spreads ended 2020 roughly in line with where they started. Both investment grade and below investment grade assets experienced positive performance, driven in part by increased investor demand for yield but mainly by the unprecedented Fed action in March which led rates to alltime lows. For the calendar year, investment grade credit returned 9.4%, outperforming high yield (+7.1%), and banks loans (+2.8%). The effects of COVID market disruptions created wide dispersion among sectors as metals/mining, freight, and food/drug retail outperformed while energy and domestic telecom underperformed.

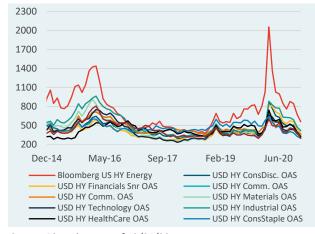
In the fourth quarter, high yield bonds returned 6.5%, outperforming bank loans (+3.6%) and investment grade credit (+2.8%). Positive vaccine news and conclusion of the presidential election led to strong risk-on sentiment during the quarter, driving longer duration and lower quality bonds to outperform within U.S. credit. In addition, credit spreads continued to tighten, with high yield spreads tightening 157 bps to 360 bps and investment grade spreads falling 40 bps to finish the year at 92 bps.

### **SPREADS**



Source: Barclays, Bloomberg, as of 12/31/20

### HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 12/31/20

	Credit Spro	ead (OAS)
Market	12/31/20	12/31/19
Long U.S. Corp	1.4%	1.4%
U.S. Inv Grade Corp	1.0%	0.9%
U.S. High Yield	3.6%	3.7%
U.S. Bank Loans*	4.6%	4.4%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/20

\*Discount margin (4-year life)



### Default & issuance

A total of 88 companies defaulted in 2020, representing \$130 billion. This activity was led by the energy, telecom, and retail sectors. The \$130 billion in defaults in 2020 ranked second only to the \$185 billion experienced in 2009.

The par weighted U.S. high yield default rate increased 0.4% during the quarter to 6.2%—well above the long-term average of 3.0-3.5%. If the energy sector is excluded (which showed an annual default rate of 20.5%), the high yield default rate came in at a more modest 4.5%. During the fourth quarter, the leveraged loan default rate came in at 4.0%—moderately above the long-term average of 3.0%.

High yield bond issuance fell from the record levels posted in Q2 and Q3 but remained elevated in Q4. Total issuance for 2020 was the highest on record at \$511 billion, outpacing 2013's historical peak of \$378 billion.

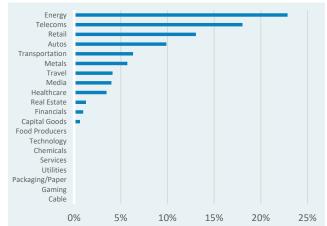
Investment grade issuance for 2020 totaled \$1.8 trillion, which was 40% higher than the prior record achieved in 2017. The fourth quarter was the slowest of the year with \$215 billion in new issues—a level that was in line with the four-year average

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



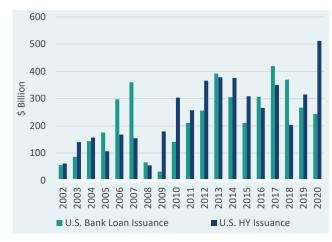
Source: BofA Merrill Lynch, as of 12/31/20

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



Source: BofA Merrill Lynch, as of 12/31/20 – par weighted

### U.S. ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, as of 12/31/20



# Equity



### Equity environment

- U.S. equities delivered +12.1% during the quarter, ending the year at an all-time-high. The S&P 500 was one of the strongest equity markets in 2020, up +18.4% despite an earnings recession and considerable economic uncertainty.
- Emerging market equities (MSCI EM +19.7%) once again outperformed U.S. (S&P 500 +12.1%) and international developed equities (MSCI EAFE +16.0%) in Q4. Latin American equities showed significant outperformance during the quarter (MSCI Latin America +34.8%), after years of lagging behind other emerging markets.
- According to FactSet, S&P 500 Q4 earnings are expected to be down -8.8%. This estimate improved materially from the -12.7% drop expected on September 30<sup>th</sup>.
   Analysts are expecting a -13.3% earnings decline for full-year 2020.

- The Cboe VIX Index remained rangebound in the fourth quarter, ending the year at 22.8. Priced volatility is moderately elevated relative to the longer-term average of 19.
- Weakness in the U.S. dollar relative to both emerging market and developed market currencies remained a theme during the fourth quarter, as the Bloomberg Dollar Spot Index fell to a two and a half year low. Analysts attributed some of the weakness in the greenback to lower relative real yields in the United States, as nominal Treasury yields picked up.
- Within the index, a sizable rotation occurred in Q4 as certain sectors that had been beaten-down during the pandemic performed strongly. Rising energy prices boosted the Energy sector, while higher interest rates on the longer end of the yield curve improved the outlook for Financials.

	QTD TOTA	L RETURN (hedged)	1 YEAR TOTAL RETURN (unhedged) (hedged)						
US Large Cap (S&P 500)	12.		18.4%						
US Small Cap (Russell 2000)	31.	4%	20.	0%					
US Large Value (Russell 1000 Value)	16.	3%	2.8%						
US Large Growth (Russell 1000 Growth)	11.	4%	38.5%						
International Large (MSCI EAFE)	16.0%	11.9%	7.8%	2.5%					
Eurozone (Euro Stoxx 50)	16.2%	12.2%	5.5%	(1.2%)					
U.K. (FTSE 100)	17.2%	11.4%	(8.9%)	(10.2%)					
Japan (NIKKEI 225)	21.1%	18.8%	24.2%	19.4%					
Emerging Markets (MSCI Emerging Markets)	19.7%	16.0%	18.3%	19.6%					

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 12/31/20

### Domestic equity

U.S. equities delivered +12.1% during the quarter, ending the year at an all-time-high. The S&P 500 was one of the strongest equity markets in 2020, up +18.4% despite an earnings recession and considerable economic uncertainty.

Within the index, a sizable rotation occurred in Q4 as certain sectors that had been beaten-down during the pandemic performed strongly. Rising energy prices boosted the Energy sector, while higher interest rates improved the outlook for Financials. It remains to be seen whether certain consumer habits displayed during the pandemic (online shopping and heightened social media usage, for example) begin reverting to previous levels as the world moves back to normalcy or if

instead, these new habits become more permanent in nature. The answer to this question has important implications for future intra-sector performance.

As equities move higher, it is difficult not to notice a disconnect between the US. market and the economy. We believe this rally is the result of a confluence of forces. Ultra-low interest rates, extremely accommodative monetary and fiscal policy, plus the implicit guarantee that further economic weakness will be met with more support and stimulus, seems to be creating a new type of "Goldilocks market" that harkens back to the post-Global Financial Crisis market expansion.

### S&P 500 INDEX

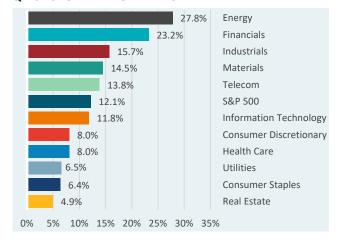


### **DIVIDEND YIELD VS BOND YIELD**



### Source: Standard & Poor's, as of 12/31/20

### **Q4 SECTOR PERFORMANCE**



Source: Standard & Poor's, as of 12/31/20



Source: Standard & Poor's, as of 12/31/20

### Domestic equity size & style

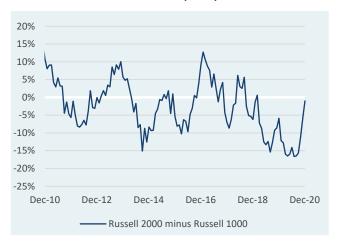
U.S. value stocks beat growth stocks during the fourth quarter (Russell 1000 Value +16.3%, Russell 1000 Growth +11.4%), reversing an extended run of value underperformance. The moderate bounce in value stock performance appeared to be partly driven by sector movements. Energy, Financials, and Materials sectors tend to contain an outsized number of value stocks. These sectors were among the top performers in Q4. Small cap stocks delivered sizable outperformance over large cap stocks (Russell 2000 +31.4%, Russell 1000 +13.7%).

A variety of risks seem to be boiling up around large U.S. technology companies. Given the significant market role that

these businesses play, along with their *growth* rather than *value* characteristics, this regulatory risk could have implications for 2021. First, it is easy to argue that firms such as Google, Amazon, and Facebook have exercised some degree of monopoly power (the FTC recently sued Facebook for alleged illegal monopolistic conduct, and numerous other investigations abound). Further anti-trust actions are likely to come. Second, in recent years there has been a degree of bipartisan consensus that social media companies are doing a poor job of moderating content (though each political party has very different ideas as to the appropriate solution). These risks, which rest perhaps solely on the shoulders of "growth stocks", will be worth watching in 2021.

Sector
performance has
fueled dramatic
negative
performance of
the value
premium

### SMALL CAP VS LARGE CAP (YOY)

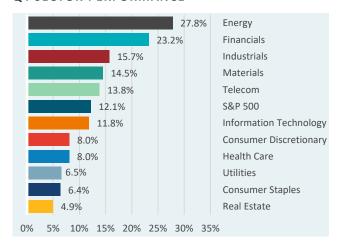


### VALUE VS GROWTH (YOY)



### Source: FTSE, as of 12/31/20

### **Q4 SECTOR PERFORMANCE**



Source: Standard & Poor's, as of 12/31/20

Source: FTSE, as of 12/31/20

### Factor portfolios in 2020

After a quiet October, factor results significantly diverged in November as investors strongly reacted to positive COVID-19 vaccine news. Anticipating a path toward post-pandemic normalcy, investors rotated into stocks with higher betas and higher volatility (long/short, sector-neutral, S&P 500 Index quintiles). Small-cap stocks also performed well while the value factor modestly gained ground, mostly due to strong results from stocks with attractive price-to-book ratios. Investors funded this rotation by selling large-cap and high-quality positions. Poor price momentum results were further evidence of the strength of the move.

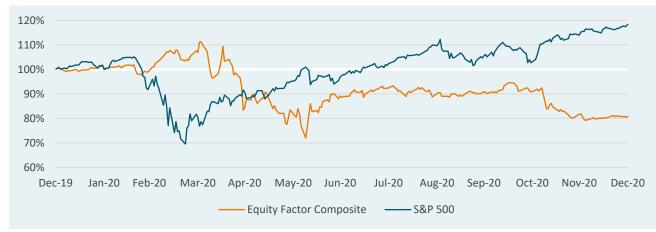
Equity factors had a very difficult year in 2020 and subsequently trailed the equity market by a very wide margin. Quality factors provided some protection during the periods of market turmoil. However other market neutral risk premia strategies did not enjoy consistent recoveries, particularly as market preferences quickly reversed back and forth during the pandemic.

### **Q4 2020 PERFORMANCE**



Source: J.P. Morgan, as of 12/31/20

### CUMULATIVE RETURN (INDEXED 12/31/19=100%)



Source: J.P. Morgan, as of 12/31/20; Equity Factor Composite represents the performance of a 10-factor model designed as a simple proxy for quant performance. The factors are combined so that the long and short portfolios contain the most- and least-attractive quant stocks.



### International developed equity

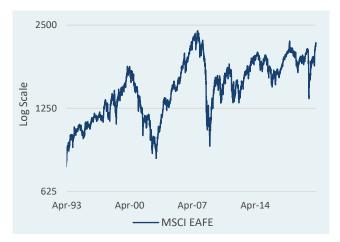
International equities delivered exceptional performance in the fourth quarter, as most global markets have now fully recovered from the March drawdown. The MSCI EAFE Index (+16.0%) outperformed the S&P 500 Index (+12.1%) while lagging the MSCI Emerging Markets Index (+19.7). Continuing U.S. dollar weakness was a notable theme, boosting international equity performance by 5% over the past year.

The recent depreciation of the U.S. dollar has acted as a tailwind to many unhedged international investments. The MSCI EAFE Index unhedged returned 16.0% in Q4, compared

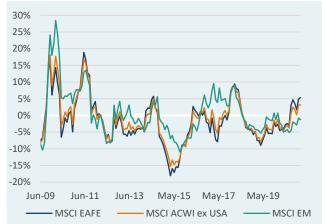
to 11.9% if currency had been hedged. The three largest currency exposures embedded in the MSCI EAFE Index—the euro (32%), the yen (26%), and the pound sterling (13%)—appreciated +4.3%, +2.2%, and +5.7% relative to the U.S. dollar during the quarter, respectively.

European equities (+17.2%) outperformed Hong Kong (+15.5%) and Japanese (+15.3%) equities in Q4, supported by strong performance in Austria (+47.3%) and Spain (+27.7%). In Oceania, Australia posted solid returns (+22.9%), which were bolstered by a firmer Australian dollar.

### INTERNATIONAL DEVELOPED EQUITIES

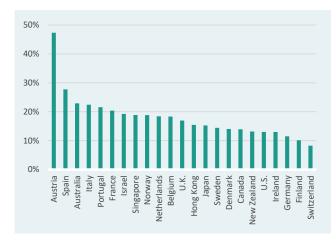


### EFFECT OF CURRENCY (1-YEAR ROLLING)



### Source: MSCI, as of 12/31/20

### Q4 2020 PERFORMANCE (ALL IN USD)



Source: MSCI, Bloomberg, as of 12/31/20



Source: MSCI, as of 12/31/20

### Emerging market equity

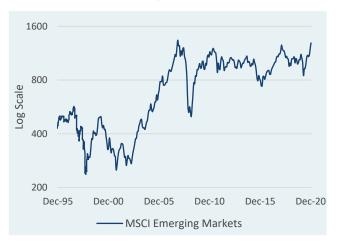
Emerging market equities (MSCI EM +19.7%) outperformed U.S. (S&P 500 +12.1%) and international developed equities (MSCI EAFE +16.0%) once again in Q4. Latin American equities showed significant outperformance during the quarter (MSCI Latin America +34.8%), after years of lagging behind other emerging markets.

The pandemic placed downward pressure on inflation earlier in 2020. Since then, the rate of price movement has recovered in many markets. China appears to be an outlier, as inflation recently dipped below zero. This move was fueled by falling pork prices, which had been moving higher

in recent years and causing above-average levels of inflation.

Emerging market currencies sold off significantly during the beginning of the year as investors bid up safe-haven currencies, including the U.S. dollar, amid unprecedented economic and market uncertainty. Since March, however, the embedded currency portfolio of the MSCI Emerging Markets Index began to recover significantly and ended the year nearly on par with where it had started. Continued appreciation of emerging market currencies could provide tailwinds for unhedged U.S. investors in the asset class.

### **EMERGING MARKET EQUITY**

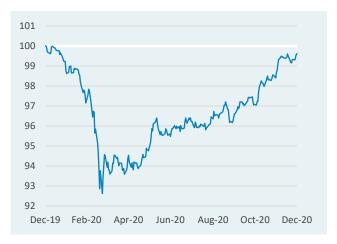


### **INFLATION (YOY)**



### Source: Bloomberg, as of 12/31/20 or most recent data

### MSCI EM INDEX EMBEDDED CURRENCY



Source: Bloomberg, as of 12/31/20



Source: MSCI, as of 12/31/20

### Equity valuations

Particularly during the last two months of the year, valuations shot higher alongside equity prices as markets digested news that several COVID-19 vaccine candidates proved more effective than anticipated. Today, price-to-earnings multiples appear stretched relative to long-term averages.

Markets have shown a remarkable ability to look past the pandemic-related disruptions and focus on the light at the end of the tunnel. Some in the industry have viewed the exceptional performance of U.S. equities in 2020 as the "check" that fundamentals will need to "cash" next year, and that if sales and earnings do not recover at the strong pace

they are expected (+8.2%/+22.6%), there could be room for a correction.

On a trailing-earnings basis, international developed equities appear most expensive as the second series of lockdowns which swept over the continent toward the end of the year have severely impacted earnings. The question in Europe, however, is largely the same one we are grappling with in the U.S.: are earnings temporarily depressed and ripe for a quick rebound next year, or are the earnings streams impaired and equity prices less justified?

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



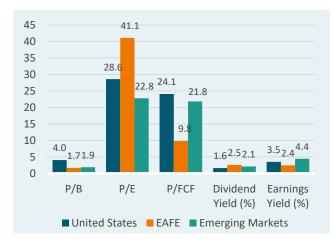
### Source: MSCI, 12m forward P/E, as of 12/31/20

### **BLENDED 12-MONTH EARNINGS EXPECTATIONS**



Source: Bloomberg, as of 12/31/20

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



Source: Bloomberg, MSCI as of 12/31/20 - trailing P/E



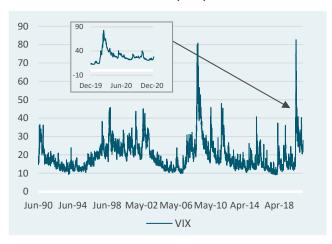
### Equity volatility

The Cboe VIX Index remained rangebound in the fourth quarter, ending the year at 22.8. Priced volatility is moderately elevated relative to the longer-term average of 19.

The U.S. equity market exhibited surprisingly high volatility in 2020 relative to other global markets. The domestic market has typically been a lowest risk market. In recent years, this relationship has flipped, with U.S. stocks showing higher volatility than developed market stocks, and nearly on par with emerging market equities.

Since implied and realized volatility spiked in the first quarter, options-implied volatility has receded significantly, back toward more normal levels. As equity markets climbed to new highs in the final few months of the year, the U.S. implied volatility curve began to steepen. During the fourth quarter, the implied volatility of deeply out-of-the-money puts was little changed, while the implied volatility of deeply out-of-the-money call options declined to more-average levels. The steepening of the implied volatility curve likely demonstrates the market's marginal preference for downside protection over upside participation at current price levels.

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



### REALIZED VOLATILITY



### Source: Standard & Poor's, MSCI, as of 12/31/20

### 1-MONTH U.S. IMPLIED VOLATILITY CURVE

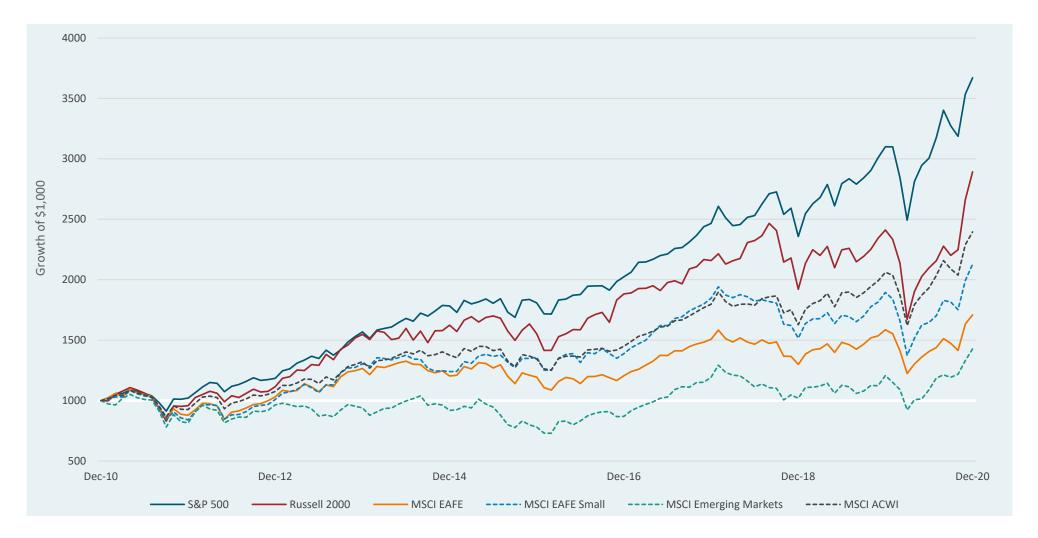


Source: Bloomberg, as of 12/31/20



Source: Choe, as of 12/31/20

### Long-term equity performance



Source: Morningstar, as of 12/31/20



# Other assets

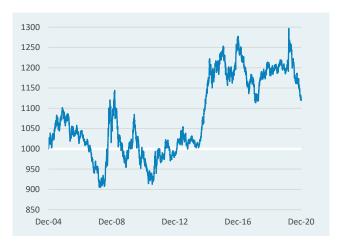


### Currency

Weakness in the U.S. dollar relative to both emerging market and developed market currencies remained a theme in the fourth quarter, as the Bloomberg Dollar Spot Index fell to a two and a half year low. Analysts attributed some of the weakness of the greenback to lower relative real yields in the United States, as nominal Treasury yields rose less than inflation expectations. Many in the industry have made calls for a continuation of dollar weakness into 2021. If that weakness were to materialize, it would supply significant tailwinds for unhedged U.S. investors in non-U.S. equities. We continue to believe that unhedged currency exposure results in uncompensated risk, which is a suboptimal approach for many investors.

The onshore Chinese renminbi rallied significantly over the fourth quarter. The strength has been primarily credited to the apparently-blistering pace of China's recovery from pandemic-related disruptions, which has fueled capital inflows from offshore investors. Looking ahead, the election of Joe Biden has been viewed largely as constructive for the yuan, as the expectation remains that Biden's stance on China will be less confrontational than his predecessor's, reducing trade tensions. On the other hand, the rising value of the yuan may make China's exports less-affordable for Europeans still recovering from the pandemic. This dynamic has stoked speculation that the People's Bank of China might soon step in to cool the rally.

### **BLOOMBERG DOLLAR SPOT INDEX**



### **USD CURRENCY LEVEL & SUBSEQUENT RETURN**



### Source: Federal Reserve, as of 12/31/20

### **USD/CNY CROSS RATE**



Source: Bloomberg, as of 12/31/20



Source: Bloomberg, as of 12/31/20

# Appendix



### Periodic table of returns

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	5-Year	10-Year
Large Cap Growth	38.7	66.4	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	21.0	17.2
Small Cap Growth	27.0	43.1	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	16.4	14.0
Large Cap Equity	20.3	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	15.6	13.5
Small Cap Equity	19.3	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	13.3	11.2
Emerging Markets Equity	16.2	26.5	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	12.8	10.5
60/40 Global Portfolio	8.7	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	9.7	8.9
Hedge Funds of Funds	15.6	24.3	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	9.7	8.7
International Equity	4.9	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	9.5	6.8
US Bonds	1.2	13.2	-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	7.4	5.5
Small Cap Value	-2.5	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	5.7	3.8
Large Cap Value	-5.1	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	4.4	3.6
Real Estate	-6.5	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	4.4	3.3
Cash	-25.3	-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	1.1	0.6
Commodities	-27.0	-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	1.0	-6.5

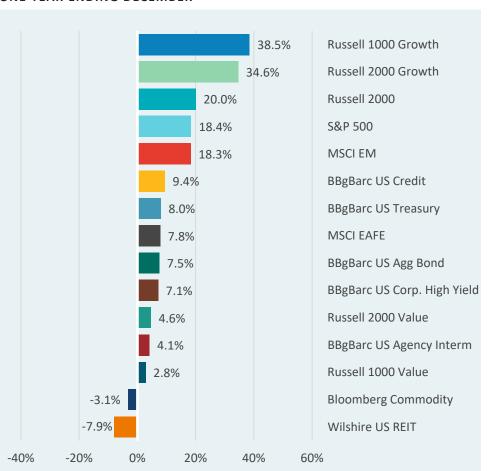


Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 9/30/20.

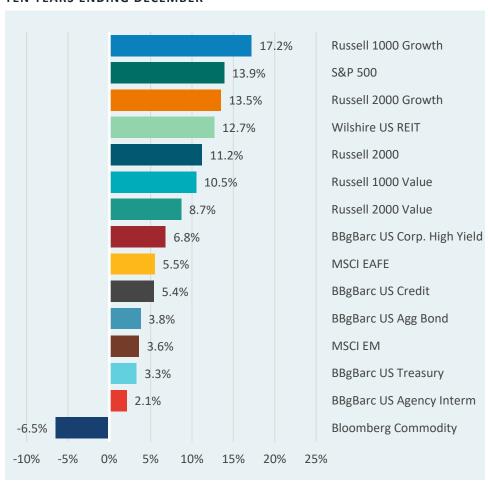


### Major asset class returns

### ONE YEAR ENDING DECEMBER



### TEN YEARS ENDING DECEMBER



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

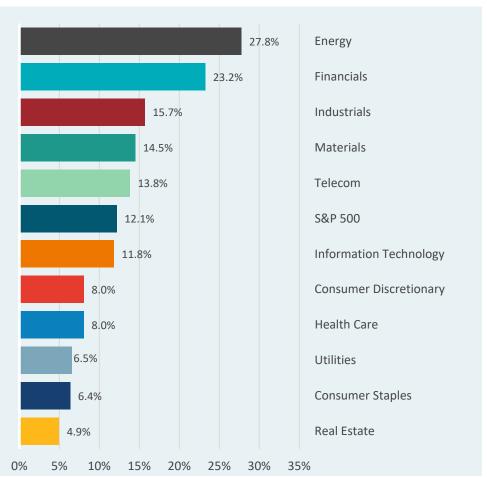
Source: Morningstar, as of 12/31/20

Source: Morningstar, as of 12/31/20

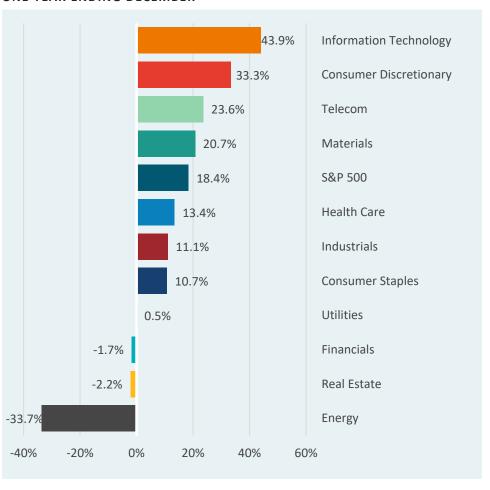


### S&P 500 sector returns

### Q4 2020



### ONE YEAR ENDING DECEMBER



Source: Morningstar, as of 12/31/20

Source: Morningstar, as of 12/31/20



### Private equity vs. public performance

### As of 9/30/2020

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



Direct private
equity fund
investments
outperformed
comparable
public equites
across most time
periods

Sources: Thomson Reuters Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of September 30, 2020. Public Market Equivalent returns resulted from "Total Direct's" identical cash flows invested into and distributed from respective traditional asset comparable.



# Private equity vs. liquid real assets performance

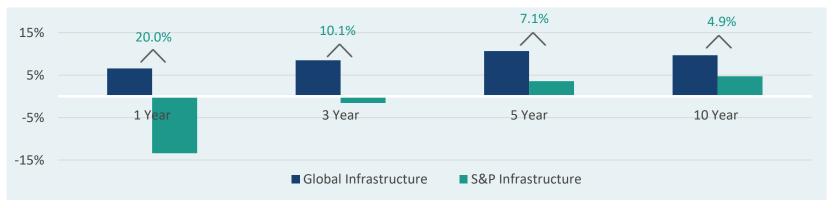
As of 9/30/2020

### **GLOBAL NATURAL RESOURCES FUNDS**



Natural
resource funds
outperformed
the MSCI World
Natural
Resources
benchmark
across all time
periods

### **GLOBAL INFRASTRUCTURE FUNDS**



Infrastructure funds outperformed the S&P Infra. Index across all periods

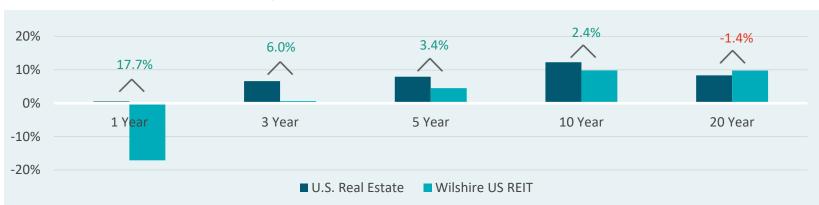
Sources: Thomson Reuters C|A PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of September 30, 2020. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.



# Private vs. liquid & core real estate performance

### As of 9/30/2020

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



U.S. private real estate funds outperformed the Wilshire U.S. REIT Index across most time periods

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



U.S. private real estate funds outperformed the NCREIF Property Index over all time periods, aside from the past year

Sources: Thomson Reuters C|A PME: U.S. Real Estate universes as of September 30, 2020. 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	3.8	12.1	18.4	18.4	14.2	15.2	13.9	BBgBarc US TIPS	1.1	1.6	11.0	11.0	5.9	5.1	3.8
S&P 500 Equal Weighted	4.3	18.5	12.8	12.8	10.4	13.0	12.7	BBgBarc US Treasury Bills	0.0	0.0	0.7	0.7	1.6	1.2	0.7
DJ Industrial Average	3.4	10.7	9.7	9.7	9.9	14.7	13.0	BBgBarc US Agg Bond	0.1	0.7	7.5	7.5	5.3	4.4	3.8
Russell Top 200	4.1	11.6	22.4	22.4	16.0	16.4	14.6	Duration							
Russell 1000	4.2	13.7	21.0	21.0	14.8	15.6	14.0	BBgBarc US Treasury 1-3 Yr	0.1	0.0	3.2	3.2	2.8	1.9	1.3
Russell 2000	8.7	31.4	20.0	20.0	10.2	13.3	11.2	BBgBarc US Treasury Long	(1.2)	(3.0)	17.7	17.7	9.9	7.8	7.8
Russell 3000	4.5	14.7	20.9	20.9	14.5	15.4	13.8	BBgBarc US Treasury	(0.2)	(0.8)	8.0	8.0	5.2	3.8	3.3
Russell Mid Cap	4.7	19.9	17.1	17.1	11.6	13.4	12.4	Issuer							
Style Index								BBgBarc US MBS	0.2	0.2	3.9	3.9	3.7	3.1	3.0
Russell 1000 Growth	4.6	11.4	38.5	38.5	23.0	21.0	17.2	BBgBarc US Corp. High Yield	1.9	6.5	7.1	7.1	6.2	8.6	6.8
Russell 1000 Value	3.8	16.3	2.8	2.8	6.1	9.7	10.5	BBgBarc US Agency Interm	0.1	0.1	4.1	4.1	3.4	2.5	2.1
Russell 2000 Growth	9.3	29.6	34.6	34.6	16.2	16.4	13.5	BBgBarc US Credit	0.5	2.8	9.4	9.4	6.8	6.4	5.4
Russell 2000 Value	7.9	33.4	4.6	4.6	3.7	9.7	8.7								
INTERNATIONAL EQUITY								OTHER							
Broad Index								Index							
MSCI ACWI	4.6	14.7	16.3	16.3	10.1	12.3	9.1	Bloomberg Commodity	5.0	10.2	(3.1)	(3.1)	(2.5)	1.0	(6.5)
MSCI ACWI ex US	5.4	17.0	10.7	10.7	4.9	8.9	4.9	Wilshire US REIT	2.8	10.6	(7.9)	(7.9)	3.3	4.3	8.3
MSCI EAFE	4.6	16.0	7.8	7.8	4.3	7.4	5.5	CS Leveraged Loans	1.3	3.6	2.8	2.8	4.0	5.2	4.5
MSCI EM	7.4	19.7	18.3	18.3	6.2	12.8	3.6	Alerian MLP	2.5	32.4	(31.6)	(31.6)	(13.7)	(7.0)	(2.1)
MSCI EAFE Small Cap	6.8	17.3	12.3	12.3	4.9	9.4	7.8	Regional Index							
Style Index								JPM EMBI Global Div	1.9	5.8	5.3	5.3	5.0	7.1	6.2
MSCI EAFE Growth	4.9	13.1	18.3	18.3	9.7	10.5	7.5	JPM GBI-EM Global Div	3.5	9.6	2.7	2.7	3.0	6.7	1.5
MSCI EAFE Value	4.4	19.2	(2.6)	(2.6)	(1.2)	4.2	3.4	Hedge Funds							
Regional Index								HFRI Composite	4.5	10.7	11.6	11.6	5.5	6.1	4.2
MSCIUK	5.5	16.9	(10.5)	(10.5)	(2.4)	2.6	3.0	HFRI FOF Composite	3.1	7.5	10.3	10.3	4.7	4.4	3.3
MSCI Japan	4.1	15.3	14.5	14.5	6.1	8.7	6.5	Currency (Spot)							
MSCI Euro	4.0	17.2	6.6	6.6	3.1	7.0	5.0	Euro	2.3	4.3	9.0	9.0	0.6	2.4	(0.9)
MSCI EM Asia	7.1	18.9	28.4	28.4	9.0	14.4	6.6	Pound Sterling	2.4	5.7	3.2	3.2	0.3	(1.5)	(1.3)
MSCI EM Latin American	11.9	34.8	(13.8)	(13.8)	(1.8)	8.9	(3.4)	Yen	1.0	2.2	5.3	5.3	2.9	3.1	(2.4)

Source: Morningstar, HFRI, as of 12/31/20



### **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 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="http://www.nfib-sbet.org/about/">http://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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