# Q2 2020
# MARKET UPDATE

# The Market Rally Masked the Reality - The GOOD

- The rate of new Covid-19 cases and deaths has continued to slow in the U.S. and Europe
- The good news is that the recession was short-lived; the economy likely bottomed in late April-May
- Optimism over the resumption of growth, as states gradually re-open, along with any positive news on a vaccine, have bolstered risk assets
- The primary driver of the recovery rally, however, has been the Fed's liquidity backstop, with markets rallying on each successive Fed announcement

- The Federal Reserve built on its "whatever it takes" approach to helping the economy through the shock and ensuring markets function correctly
- We could see another $1-1.5 trillion fiscal package that extends some federal stimulus measures through late-2020
- Europe has followed suit. More recently, European leaders agreed on a historic €750B stimulus
- Tech giants like Apple, Microsoft, Amazon, Alphabet, Facebook, and Netflix (collectively, $6.3T with 21% weight in the S&P 500 index) have shown more resilience to the economic downturn, and their outsize valuations have helped to drive market-cap-weighted indexes rally
- Nasdaq Composite has soared nearly 60% since hitting a March 23 low
- The S&P 500 Index has climbed a 47%, and the DJ Indt'l Avg has climbed 43% over the same period
- Bond markets have also improved significantly, and investment-grade bonds are now trading close to historical averages

# The Stock Market Rally Masked the Reality – The BAD

- Surging infections in U.S. Sunbelt and Midwest states have reversed reopening measures and started to affect economic activity
- The nature of activity rebound will depend on the path of the outbreak, delivery of policy response and potential changes to consumer, and corporate behaviors

- Size of country, freedom of movement, and inconsistent policies mean there is a higher potential for continued outbreaks
- Elevated government debt levels can create an inflationary environment. On the other hand, the lingering impact of Covid-19 can keep a lid on demand, and potentially cause a deflationary shock. Both scenarios could have significant investment implications
- Will we return to a pre-COVID-19 economy or a more challenging environment, where unsustainable debt burdens lead to stagnating growth and bankruptcies spread across several years?
- Phased opening of businesses continues at a slow pace. Spending is down, which is hurting the service side of the economy
- So long as the coronavirus is running amok, businesses cannot bring back all their employees and are likely to experience weaker sales, making it harder for the economy to recover
- Despite investor optimism, Fed purchases, and a massive increase in Treasury supply to finance the deficit, 10-Year Treasuries have remained around 0.6% since April vs. 2.1% in February
- Investors seem to be ignoring data suggestive of a more challenging economic environment, even as the list of uncertainties is growing
- In addition to questions relating to the economic outlook or the progression of the virus, renewed trade tensions between the U.S and China, rising geopolitical risks, and the upcoming U.S. elections are additional reasons to expect future market volatility

# The Stock Market Rally Masked the Reality – The UGLY

- The global death toll rose above 700,000 and total coronavirus cases topped 18.5million, with the U.S. accounting for about a quarter (total cases over 4.7M and death toll exceeding 157,000). These staggering and sorrowful numbers continue to grow every day and are hard to ignore
- The potential second wave in the fall season, delays in vaccine/therapeutic drugs, and politics during elections year may seriously undermine the current recovery and increase the odds of reverting to a recession
- Markets are overly optimistic, and current prices do not reflect mounting downside risks. There is a perceived disconnect between what the market has done and the current state of economic recovery.
- The longer it takes for economic activity to revive, the more challenges ahead

- Economy suffered significantly and triggered the steepest recession since World War II; second quarter GDP declined 32.9% and points to drawn-out recovery
- Private-sector wages and salaries fell at a 27.4% annual rate, and small business income fell at a 43.1% annual rate in Q2
- The pandemic is far from over, unemployment is staggeringly high with benefits expired, massive disruptions across many industries will prevent a swift recovery, and increased debt will be harder to service as companies struggle
- The overall employment picture remains resolute with roughly 1.2-1.4 million Americans per week filing for unemployment claims - this compares to a peak of 665k during the last recession. Also, nearly 16 million people are filing continuing claims for unemployment benefits, an order of magnitude higher than anything experienced since the Great Depression

# COVID-19 Monitor – Key Testing and Treatment Metrics

| Catalyst | Key Metric | Status | Timeframe |
|---|---|---|---|
| Testing<br>COVID-19 diagnostic testing | Total tests/week & percentage (%) of population tested | 4.7MM completed tests/week run-rate; 40MM tests administered to-date. | Ongoing |
| COVID-19 serology testing | % of population receiving tests (though data not disclosed yet) | 24 serology tests available with FDA Emergency Use Authorization (EUA) | Ongoing |
| Treatment<br>Anti-virals | Statistically significant improvement in addressing viral load & availability | Remdesivir received FDA EUA in May. NIAID trials showed statistically significant improvement in time to recovery vs placebo, but little reduction in mortality (but recent analysis shows significant improvement in survivability in severe patients). | Scaling supply to treat 1MM patients by YE20 (assuming 10-dose regimen) with internal manufacturing capacity. Have also signed partnerships with 5 generic manufacturers to expand supply in developing markets. |
| Anti-inflammatory | Statistically significant improvement in fever & external oxygen requirements in COVID-19 patients in trials & availability | Three drugs (baricitinib- Lilly; Actemra- Roche; Kevzara) in phase 3 trials with data expected in summer. Recent Oxford study also showed use of dexamethasone (steroid) in severe Covid patients led to significant improvement in survivability. | Drugs currently widely available for off-label usage. Dexamethasone is cheap and widely available. |
| Antibody therapy | Statistically significant increase in COVID-19 antibodies in test patients | Several companies (Regeneron, Lilly, Amgen, Vir, Abbvie) with drugs in clinical (Lilly & Regeneron in phase 1) and pre-clinical trials with read-outs this summer. | Lilly drug could see FDA EUA by Sept-Nov. Working to scale to "hundreds of thousands of doses" by YE20. Regeneron also scaling to similar capacity. |
| Vaccines<br>Vaccine | Efficacy in trials with manageable side effects & availability | 100+ vaccines in development. Top near-term candidates: Moderna, Oxford/Astrazeneca, Novavax, Pfizer/BioNTech in clinical trials. Moderna/Oxford in phase 2 trials, with enrollment of phase 3 trials imminently. PFE/Novavax in phase 1/2 trials. JNJ expects phase 1/ 2 trials to begin in July. | 4 US/European programs currently in clinical trials, total 5BB doses/year committed capacity. Oxford vaccine could be approved by September 2020 (post phase 3). PFE & Moderna vaccine could be available for certain populations (healthcare workers) in 4Q20. |

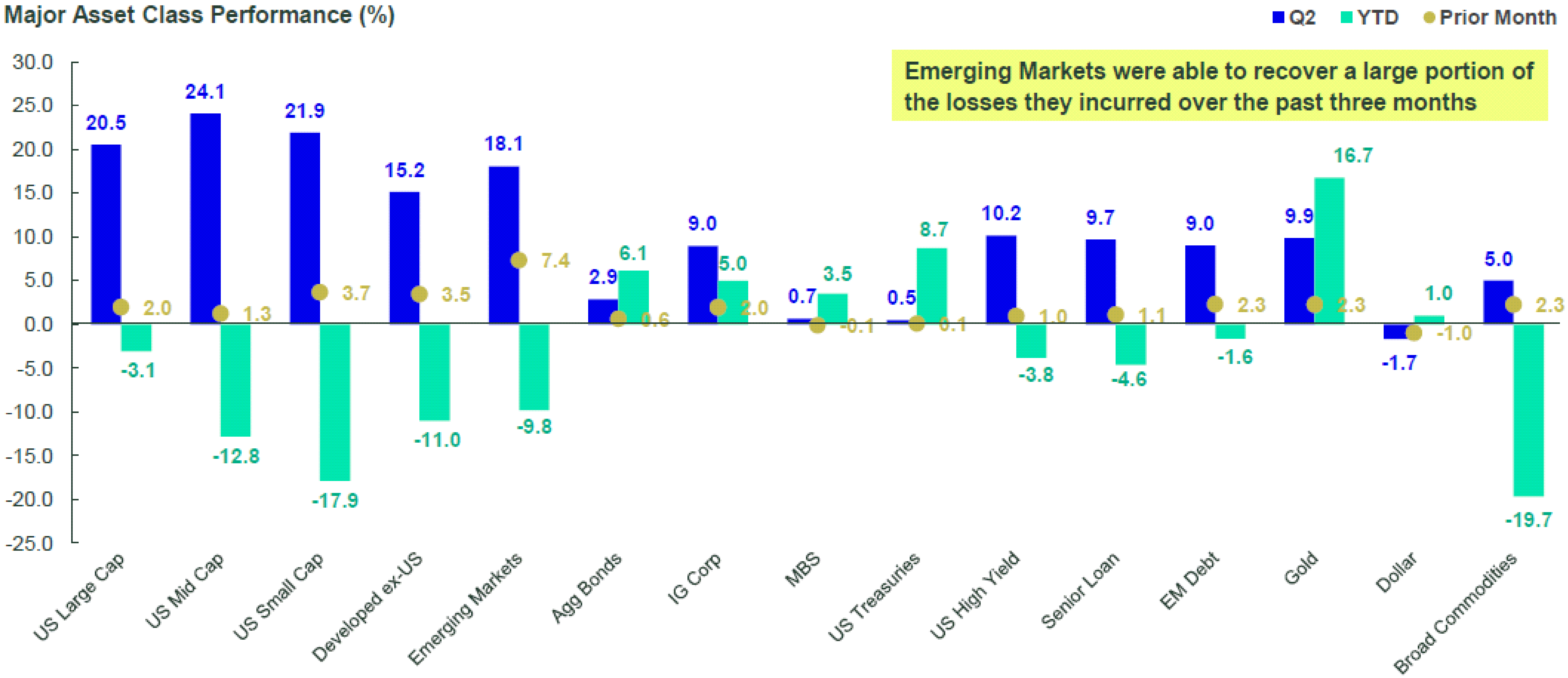
Source: Amundi Pioneer, as of July 13, 2020. The issuers listed should not be considered recommendations to buy or sell any security.

## *Commentary –*

Resumption of full economic activity depends on one or more of the following:

a. Ability to diagnose COVID-19 (and/or pre-emptively identify antibodies),
b. Effective and available treatment options and
c. Effective and available vaccines

# Markets Recovered Briskly to Post Record Returns in Second Quarter

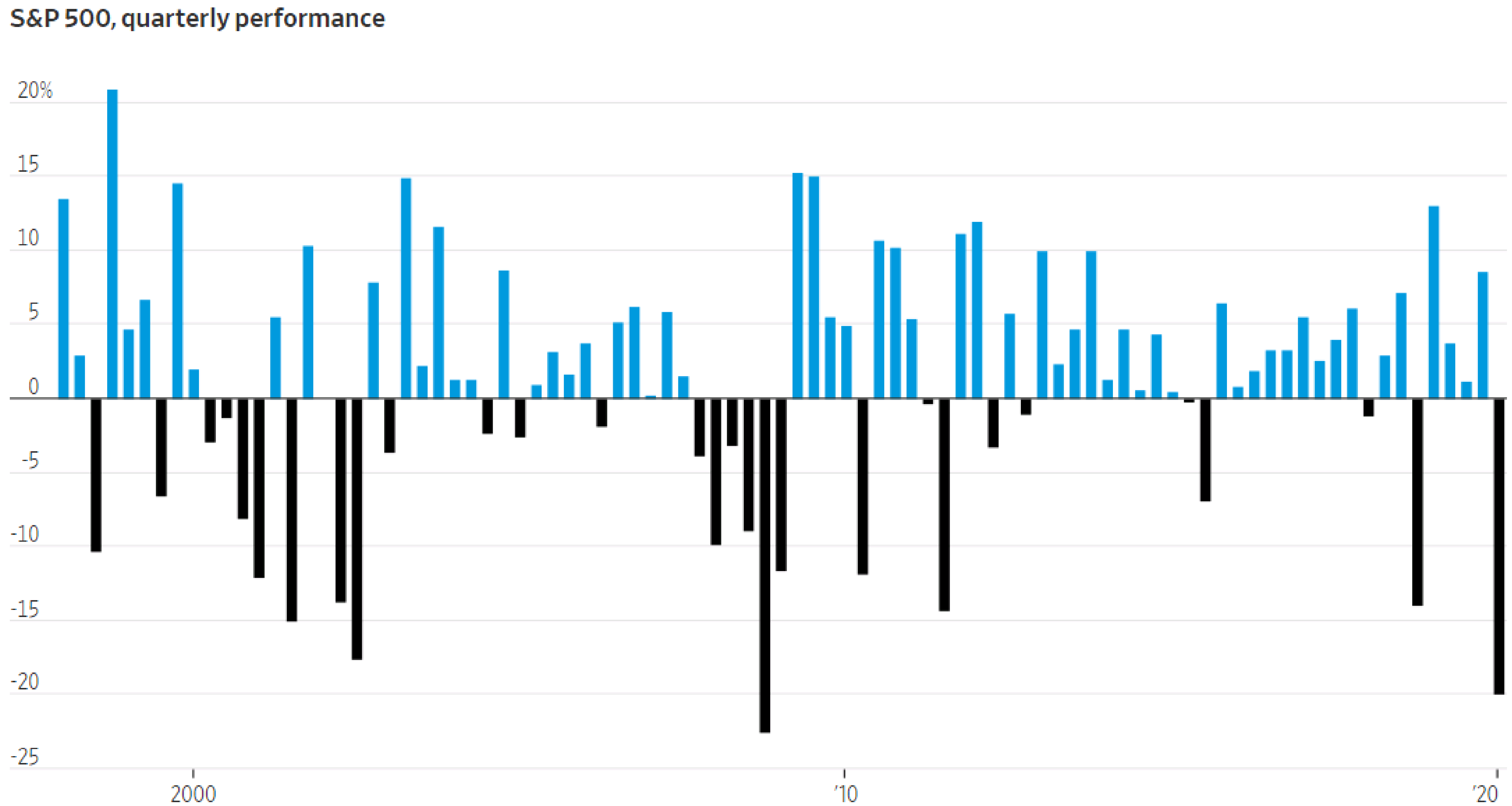


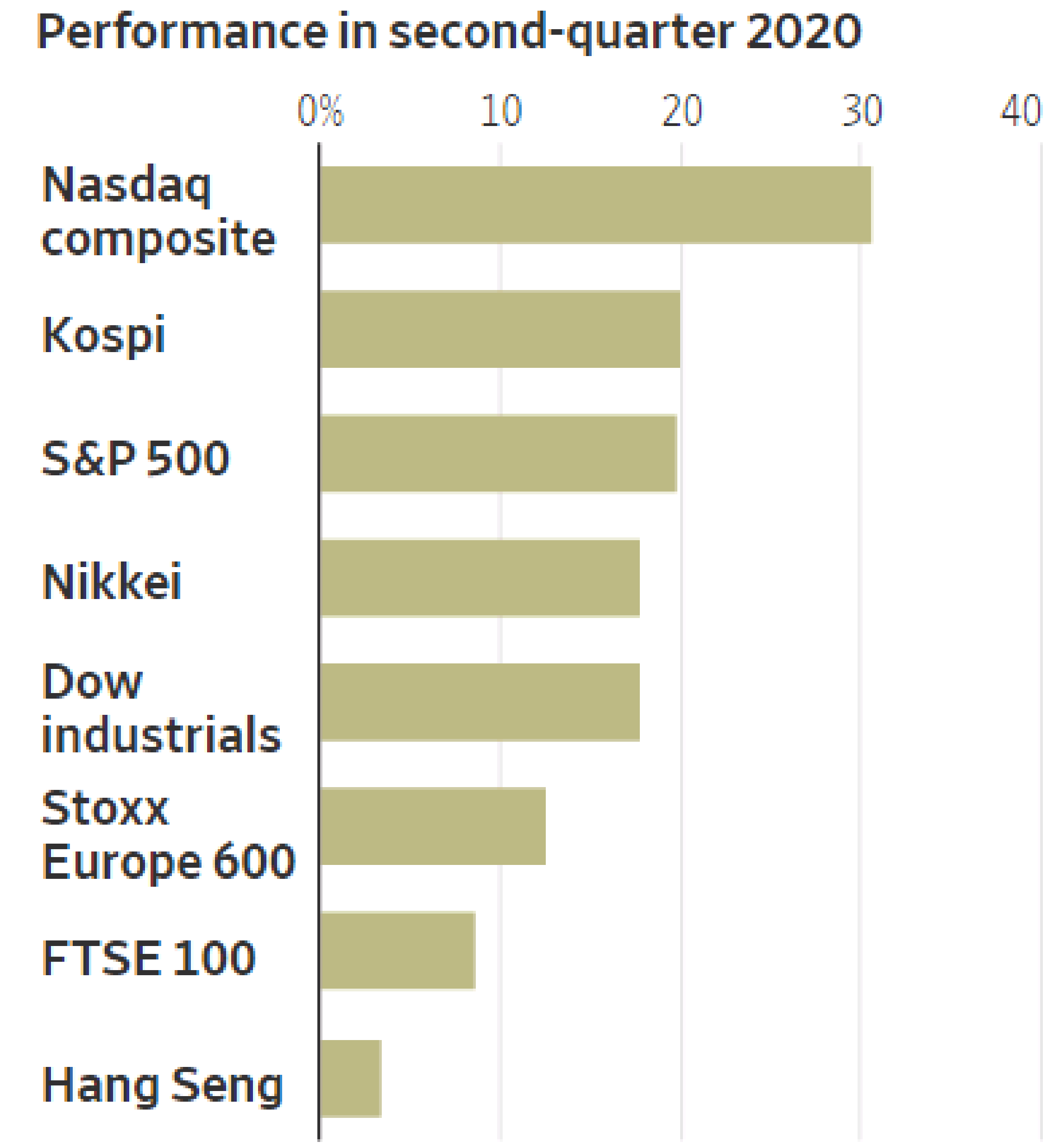

Source: Bloomberg Finance, L.P. as of June 30, 2020. **Past performance is not a guarantee of future results**. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Performance returns for periods of less than one year are not annualized. US Large Cap: S&P 500 Index; US Mid Cap: S&P 400 Index; US Small Cap: S&P 600 Index; Developed Ex-US: MSCI EAFE Index; EM: MSCI Emerging Market Index; Agg Bonds: Bloomberg Barclays US Aggregate Index; IG Corp: Bloomberg Barclays US Corporate Index, MBS: Bloomberg Barclays US MBS Index, Treasuries: Bloomberg Barclays US Treasury Index; High Yield: Bloomberg Barclays US Corporate High Yield Index; Senior Loans: S&P LSTA Leveraged Loan Index; EM Debt: Bloomberg Barclays EM Hard Currency Debt Index; Gold: LBMA Gold Price; US Dollar: DXY Dollar Index.; Broad Commodities: Bloomberg Commodity Index;

## *Commentary –*

Despite volatile markets, investors remained optimistic about global economies reopening, allowing risk assets to run up in Q2. Fiscal stimulus and massive liquidity backstop from the Fed have further fueled the recovery rally. Except for U.S. Dollar (currency), all major risk assets posted positive returns during the quarter.

# Stocks Finish Best Quarter in More Than 20 Years



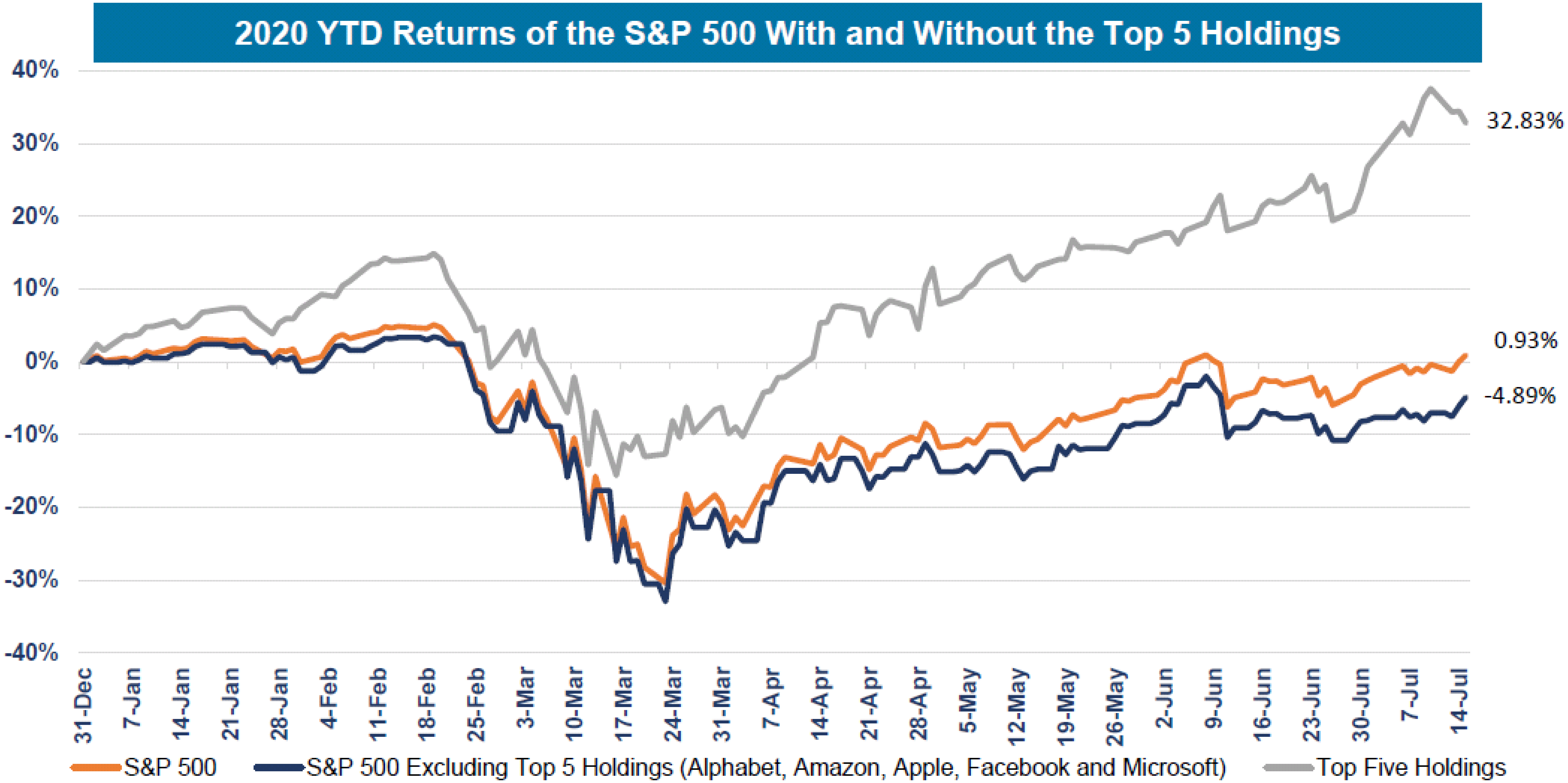




Source: FactSet, WSJ

*Commentary –*

- After stock indexes lost about 35% of their value in less than six weeks and investors lamented the end of the longest expansion on record, the rebound in Q2 has been nearly as brisk
- The S&P 500 finished the second quarter up 515.70 points, or 20%, to 3100.29, its biggest percentage gain since the last three months of 1998
- The Dow Jones Industrial Average added 3895.72 points, or 18%, to 25812.88, its best quarter since 1987

# Top Five Stocks Drove Returns of S&P 500 YTD

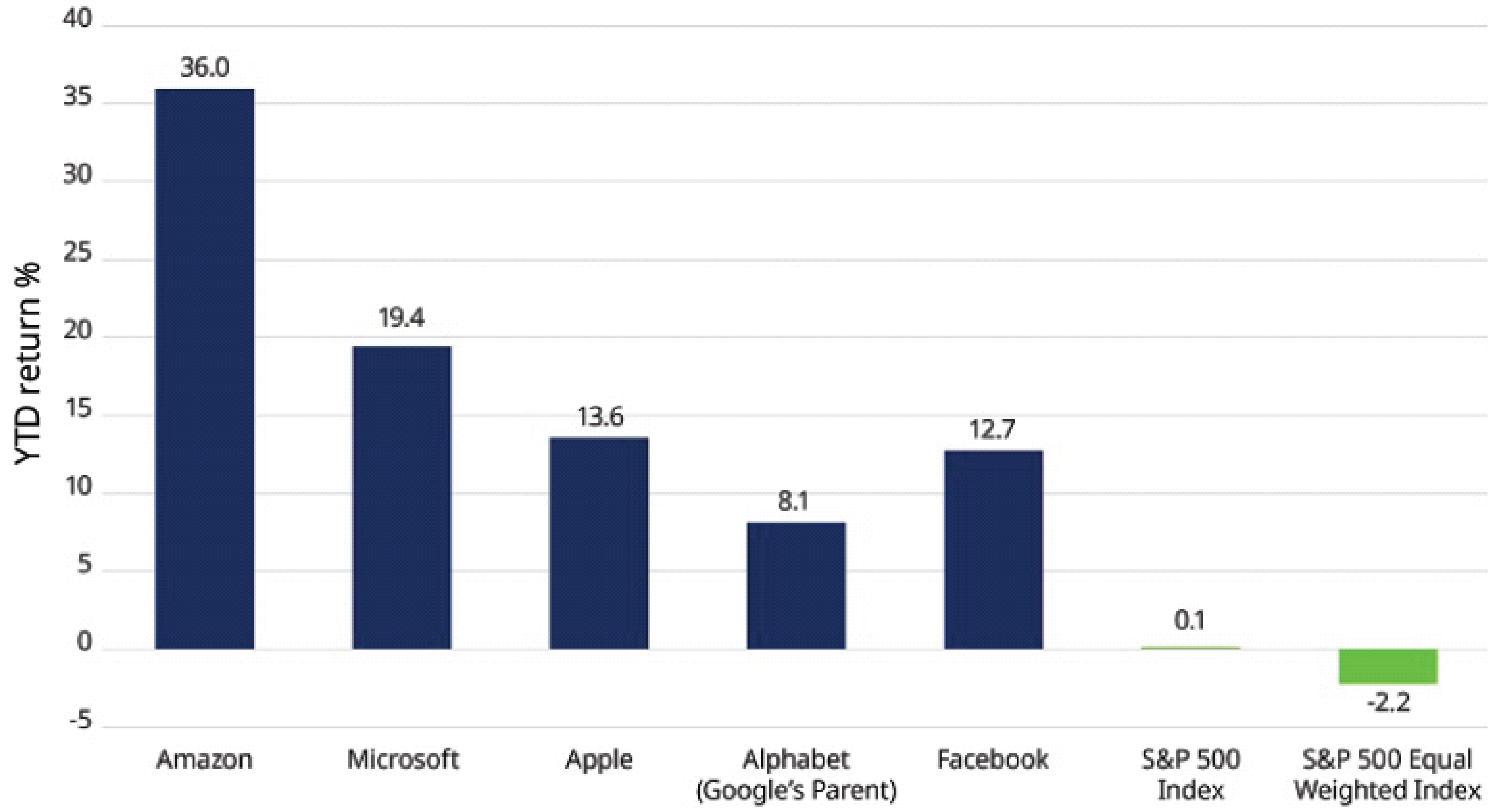



Source: Amundi Pioneer and Bloomberg. Last data point July 15, 2020. Indices are unmanaged and their returns assume reinvestment of dividends, and unlike investment product returns, do not reflect any fees or expenses. You cannot invest directly in an index. Securities listed are not meant to represent any current or future holding of an Amundi Pioneer portfolio, and should not be considered recommendations to buy or sell any security.

*Commentary –*

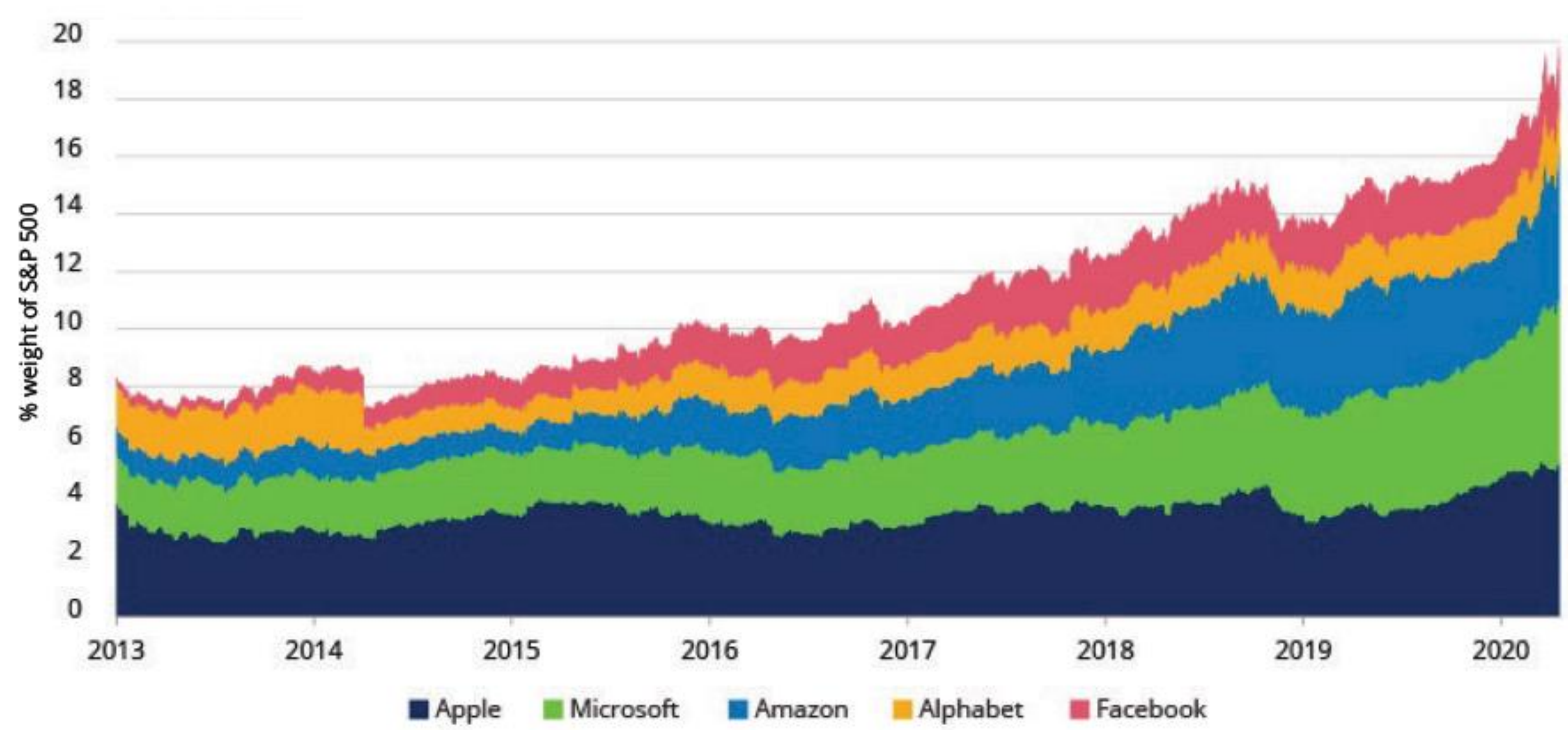
Excluding the top five tech giants, the S&P 500 Index is negative for the year-to-date

# Big Tech Held up Much Better Than Rest of Market




*Commentary –*

In early June, the S&P 500 Index recovered all its Covid-19 losses for 2020 – the top five tech companies have led the bulk of the recovery thus far

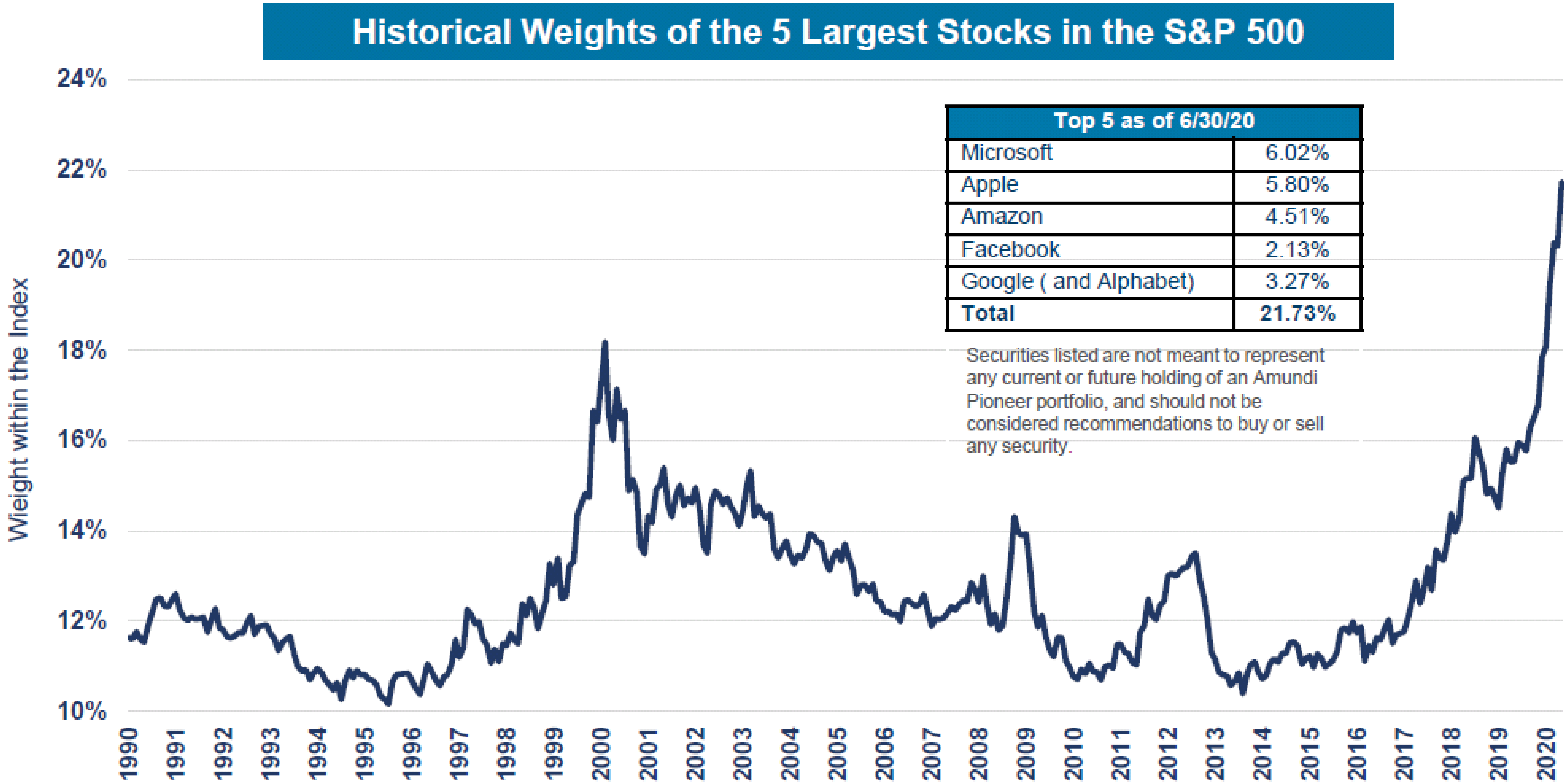



*Commentary –*

- Big Tech names have become a dominant force
- Today, big tech companies make up 21% of the S&P 500 Index in terms of market capitalization—more of the market than the five largest tech stocks at the peak of the dot-com bubble

Source: Refinitiv Datastream and Schroders (As of June 8, 2020)

# Top Five Stocks in S&P 500 Have Largest Concentration in Its History




| Top 5 as of 6/30/20 | |
|---|---|
| Microsoft | 6.02% |
| Apple | 5.80% |
| Amazon | 4.51% |
| Facebook | 2.13% |
| Google ( and Alphabet) | 3.27% |
| **Total** | **21.73%** |

Source: Bloomberg and Amundi Pioneer as of June 30, 2020.

*Commentary –*

The total weight of the top five companies as a percentage of the S&P 500 index has increased to above 21%, a historical record

# Market Leadership Shifted, Reaching Heights Last Seen in 1970s

*Too much of a good thing?*

| 1970 | 1980 | 1990 | 2000 | 2010 | Current |
|---|---|---|---|---|---|
| IBM 7.1% | IBM 3.8% | IBM 2.9% | Microsoft 4.9% | Exxon Mobil 3.3% | Microsoft 5.8% |
| AT&T 5.2% | AT&T 3.5% | Exxon Mobil 2.9% | General Electric 4.1% | Microsoft 2.4% | Apple 5.4% |
| General Motors 4.5% | Exxon Mobil 3.4% | General Electric 2.3% | Cisco Systems 2.9% | Apple 1.9% | Amazon 4.2% |
| Exxon Mobil 3.2% | Standard Oil 2.3% | Altria Group 2.2% | Walmart 2.5% | Johnson & Johnson 1.8% | Alphabet 3.4% |
| Kodak 2.4% | Schlumberger 2.2% | Royal Dutch Petroleum 1.9% | Exxon Mobil 2.3% | Procter & Gamble 1.8% | Facebook 2.2% |
| Top 5 22.4% | Top 5 15.2% | Top 5 12.2% | Top 5 16.7% | Top 5 11.2% | Top 5 21.0% |

*Source: Northern Trust Asset Management, Bloomberg. Weights shown for top five largest companies as a % of S&P 500 market cap. Weights of companies with multiple share classes summed. End-of-year values for 1970, 1980, 1990; beginning-of-year values for 2000, 2010. Current as of 5/19/2020.*

*Commentary –*

The composition of the top five largest companies as a percentage of the S&P 500 index has shifted significantly over the last 50 years. Now, Tech took all the top five spots

# Stock Market Recovery Rally Strong, but Uneven Across Size, Style & Sectors

**QTD**

| | Value | Blend | Growth |
|---|---|---|---|
| Large | 14.3% | 20.5% | 27.8% |
| Mid | 19.9% | 24.6% | 30.3% |
| Small | 18.9% | 25.4% | 30.6% |

**YTD**

| | Value | Blend | Growth |
|---|---|---|---|
| Large | -16.3% | -3.1% | 9.8% |
| Mid | -18.1% | -9.1% | 4.2% |
| Small | -23.5% | -13.0% | -3.1% |

*Commentary –*

Winners in Q2:
- Small- and mid-cap stocks
- Growth stocks
- Energy, Technology, and Consumer Discretionary Sectors
- Mid-cap Energy sector posted a whopping 78% return

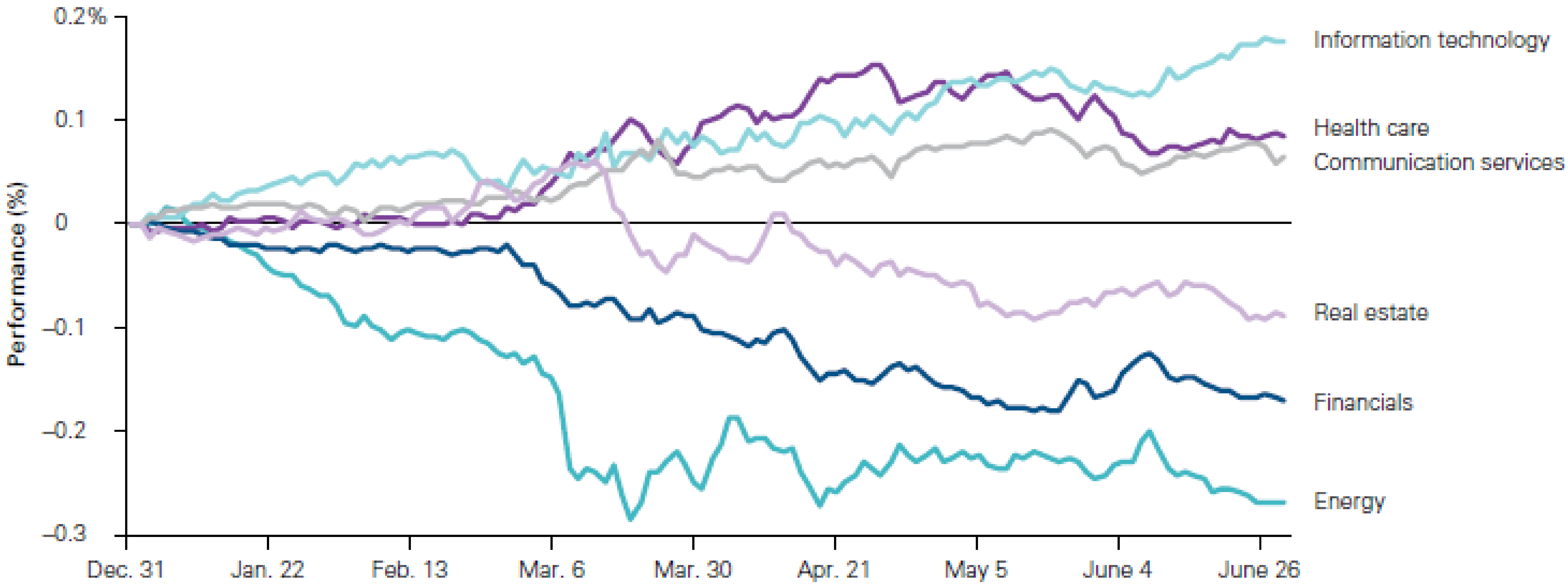
**HISTORICAL PERFORMANCE**

| SECTOR | Select Sectors | | | S&P MidCap 400 Capped Sectors | | | S&P SmallCap 600 Capped Sectors | | |
|---|---|---|---|---|---|---|---|---|---|
| | MTD | QTD | YTD | MTD | QTD | YTD | MTD | QTD | YTD |
| Consumer Discretionary | 3.01% | 30.67% | 2.62% | 4.25% | 51.83% | -5.98% | 6.95% | 53.83% | -13.13% |
| Consumer Staples | -0.22% | 8.55% | -5.54% | -1.96% | 19.24% | -2.18% | 1.17% | 16.86% | -7.77% |
| Energy | -1.09% | 32.14% | -34.92% | 3.59% | 78.65% | -49.23% | -1.09% | 54.65% | -54.65% |
| Financials*** | -0.32% | 12.20% | -23.62% | 2.00% | 13.53% | -24.06% | 4.96% | 10.38% | -27.80% |
| Real Estate | 1.47% | 13.22% | -8.53% | | | | | | |
| Health Care | -2.38% | 13.59% | -0.81% | -2.98% | 23.29% | 5.60% | 0.75% | 17.05% | -6.23% |
| Industrials | 2.00% | 17.01% | -14.64% | 2.67% | 23.15% | -13.10% | 4.47% | 22.37% | -17.66% |
| Materials | 2.14% | 25.87% | -7.21% | 1.13% | 25.42% | -14.41% | 4.07% | 27.31% | -17.79% |
| Technology | 7.14% | 30.53% | 14.95% | 2.18% | 27.93% | -4.24% | 3.84% | 22.64% | -9.29% |
| Utilities** | -4.67% | 2.73% | -11.11% | -4.37% | 3.91% | -19.73% | -1.17% | 6.11% | -7.75% |
| Communication Services**** | 0.25% | 22.59% | 1.27% | | | | | | |

*Commentary –*

- All large-, mid-, and small-cap sectors posted strong gains in Q2
- Energy made a huge comeback as the top performing sector across the cap spectrum

# On Relative Basis, Some Sectors Gained From Crisis




**Note:** Performance is measured by the MSCI All Country World Index (USD). Data are from January 1, 2020, through June 30, 2020.
**Source:** Vanguard.

*Commentary –*

Many sectors that depend on unmasked economic activity continue their struggles to recover. However, IT, Health Care, and Communication Services benefited from the pandemic ridden economy and outperformed; posted solid positive returns for the year-to-date

# Cautionary Tale of Recovery (Out of Recession): Relentless Optimism Causing Disconnect Between Price & Value

**Sector weights (%)**

| | RUSSELL 1000® VALUE | RUSSELL 1000® GROWTH |
|---|---|---|
| Tech | 6.8 | 39.6 |
| Financials | 18.1 | 2.9 |

Data: Morningstar

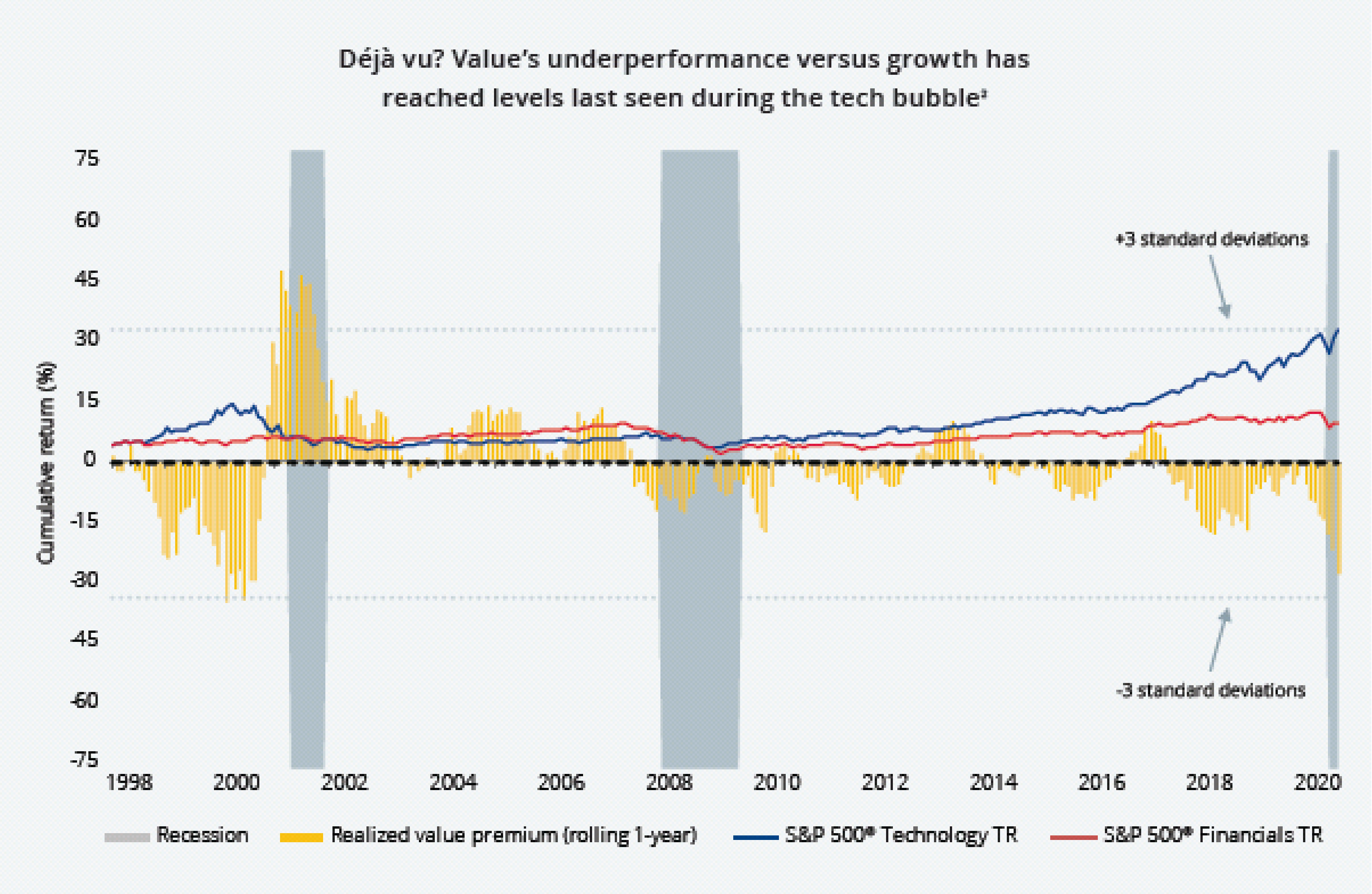
## U.S. equity style factor returns

| STYLE | 10-YEAR | 20-YEAR | SINCE INCEPTION* |
|---|---|---|---|
| Value | -2.55 | 100.97 | 109.76 |
| Growth | 8.44 | 0.02 | 2.13 |

Data: Bloomberg

*Inception date 12/31/1999

Source: Great West

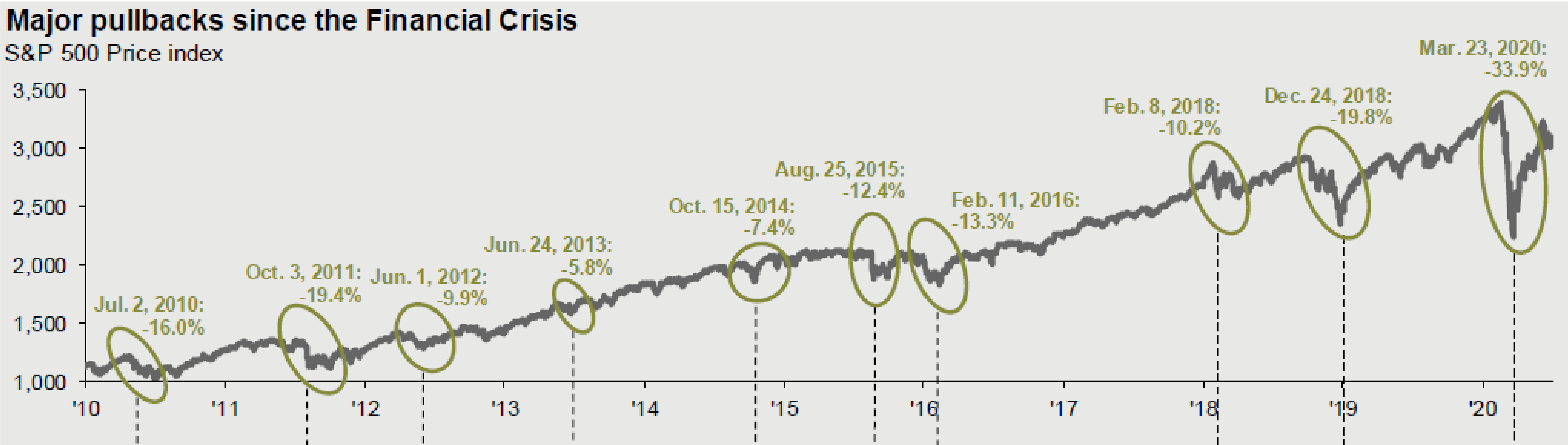


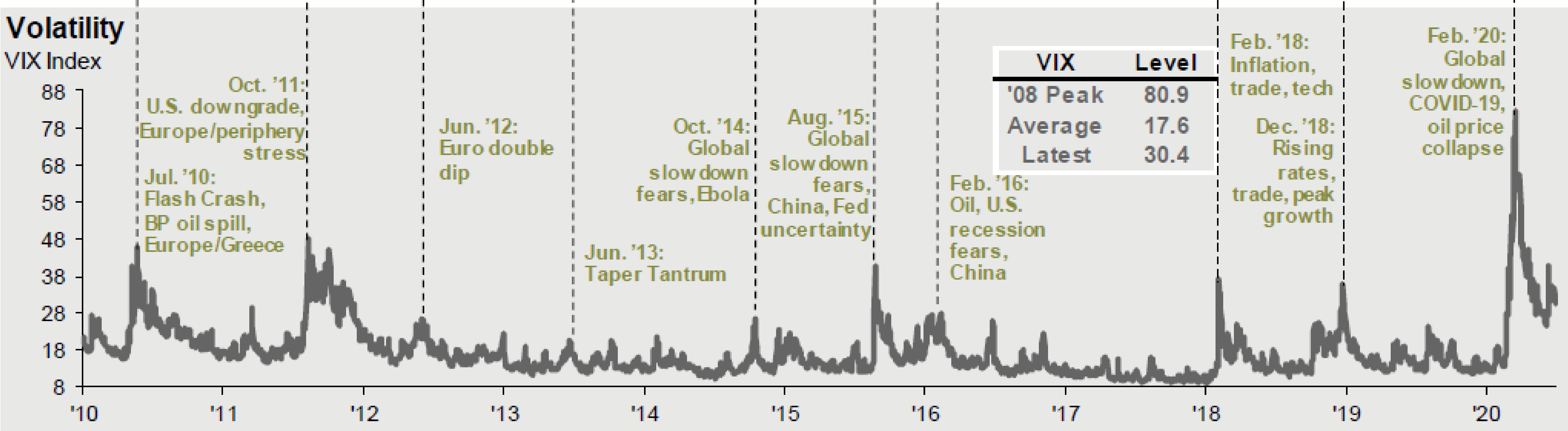

Source: Morningstar, GWI calculations. Represents the cumulative total return of the S&P 500 Technology and Financials sectors and rolling one-year spread between the Russell 1000 Value and Russell 1000 Growth. +/- 3 standard deviations are shown for the realized value premium sample. Returns shown: January 1998 through May 2020.

*Commentary –*

- Historically, value has outperformed growth coming right out of recession
- The market's preference for growth during both the COVID-19 sell-off and the subsequent rebound has lifted growth valuations to a lofty 30x
- Value multiples expanded, too, but not nearly to the same extent
- Over the last 10 years, the growth factor has outpaced value by 10%. But over the last 20 years, value wins in a landslide
- Will value once again have its day?

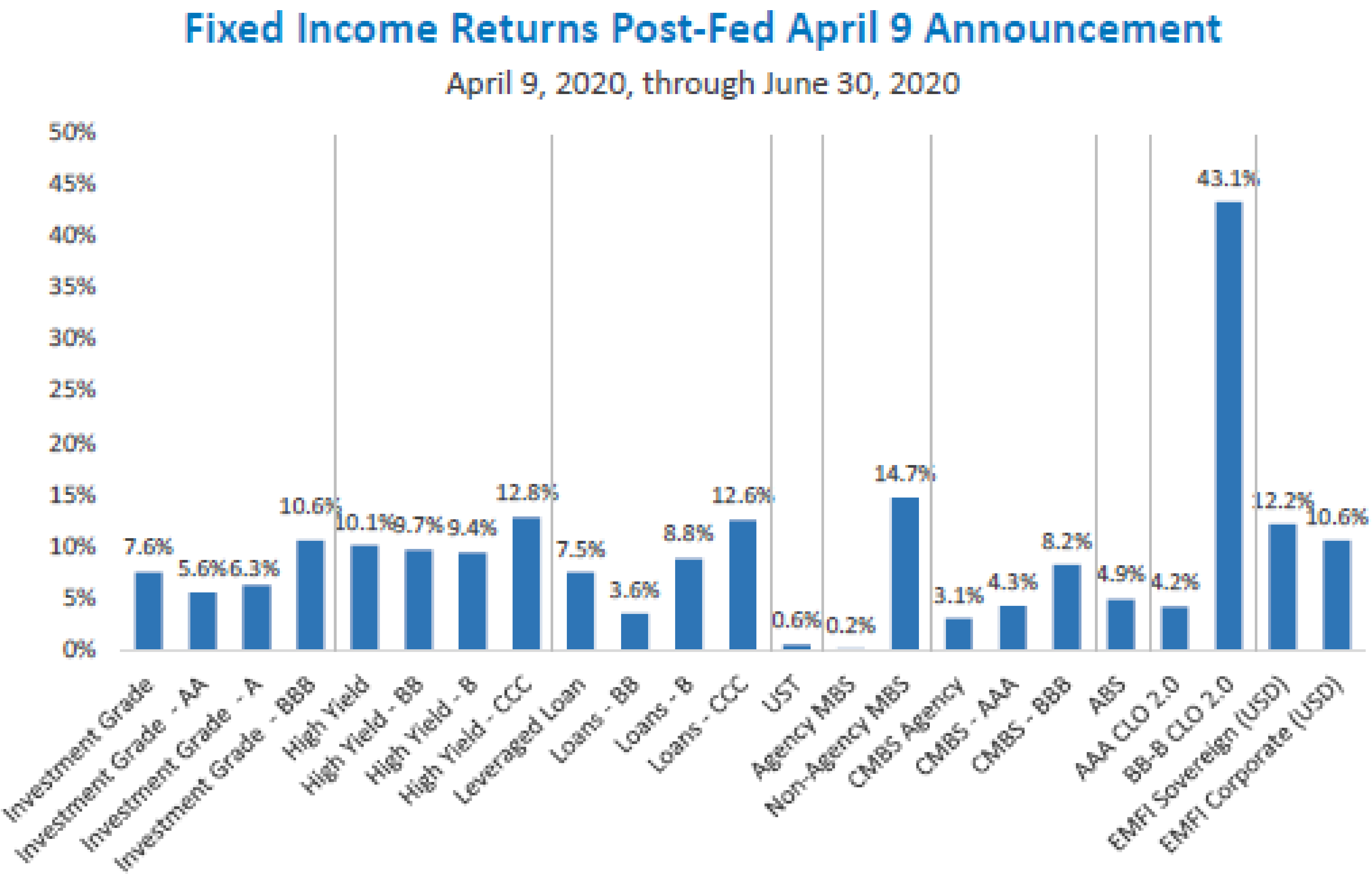
# Market Volatility Lowered From Crisis Levels, but Remain Elevated



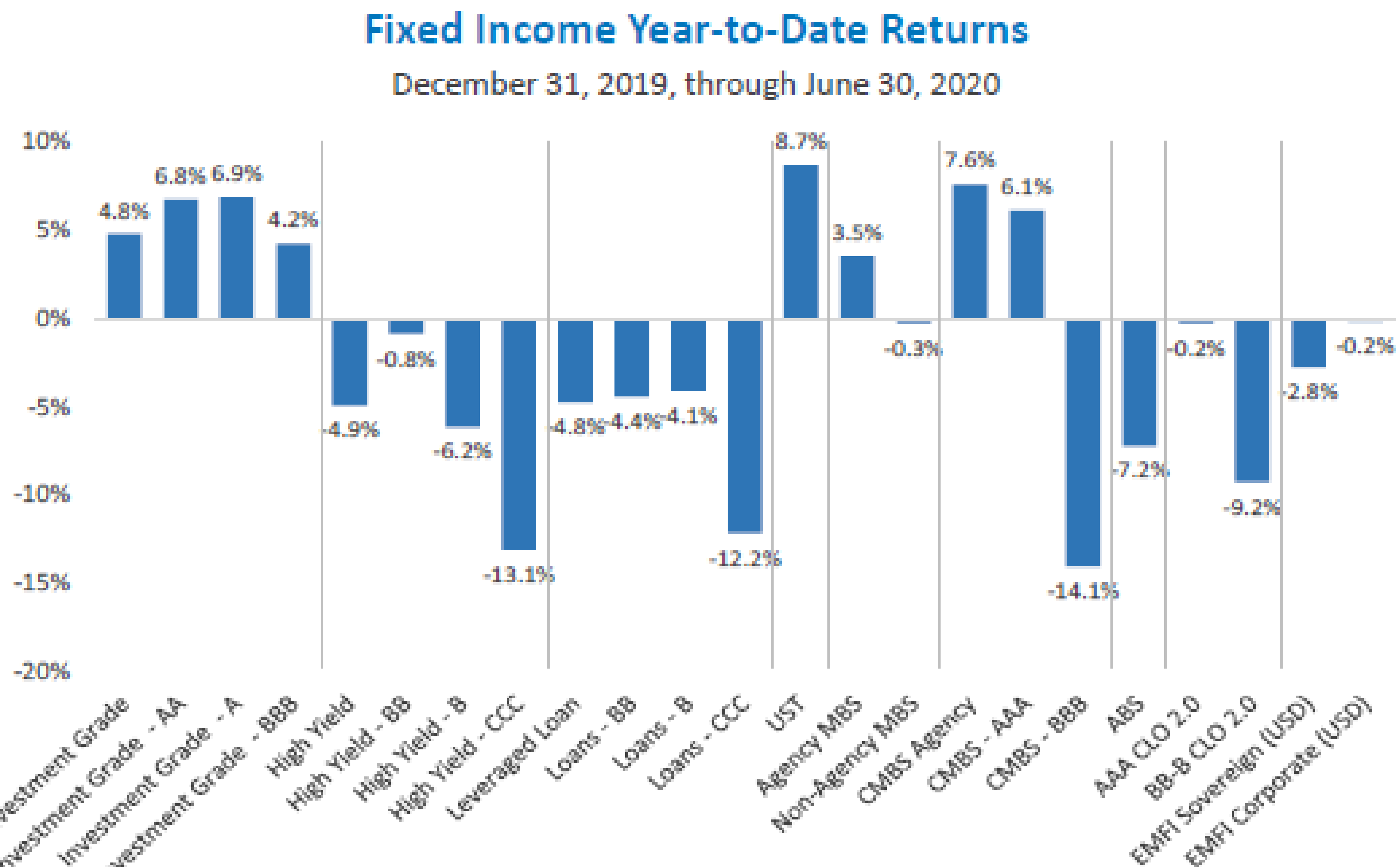

Source: CBOE, FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Drawdowns are calculated as the prior peak to the lowest point.
*Guide to the Markets – U.S.* Data are as of June 30, 2020.

# The Fed (And Its Massive Liquidity Facilities) Bolstered Bond Markets




Source: Bloomberg, DoubleLine

# Investment-Grade Corporate Bonds Benefited Most From Fed's Actions
*(Their strong performance may continue for the remainder of the year.)*

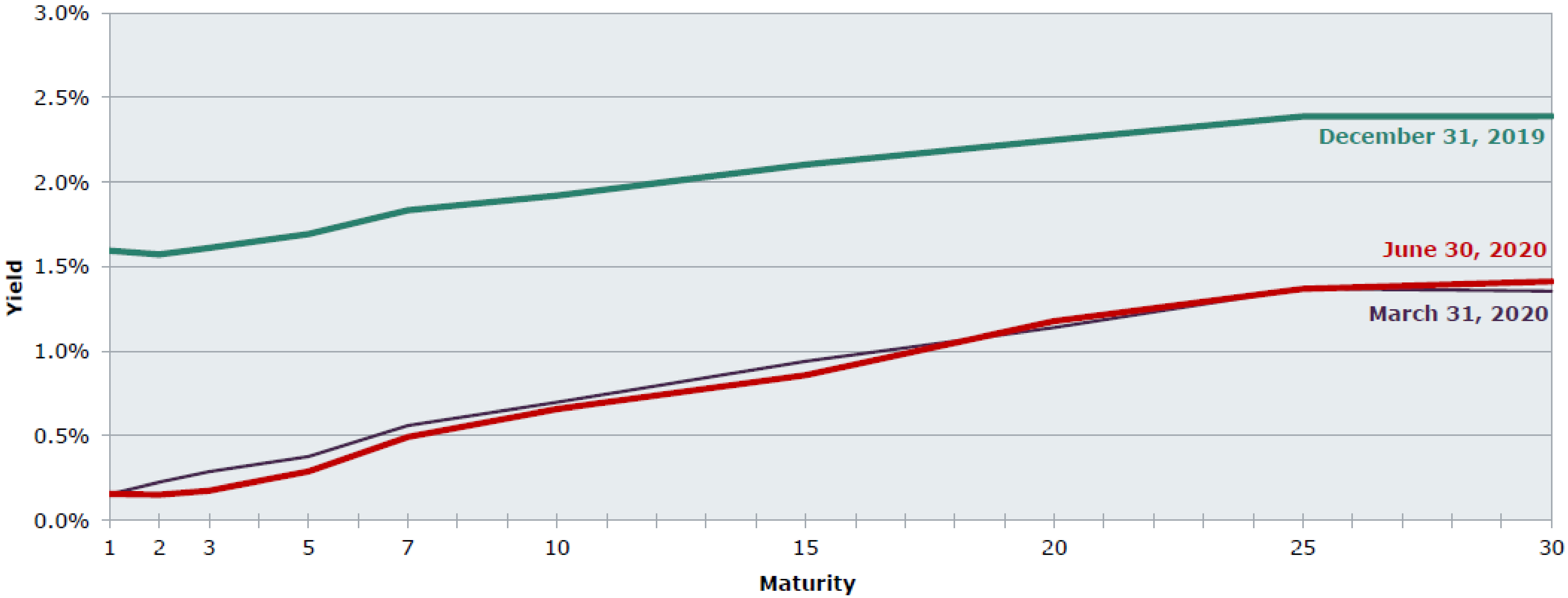



Source: Double Line

*Commentary –*

The "Powell Put" helped to post strong returns for the higher-quality corporate bonds, while lower-quality and several structured products continued to trail their counterparts

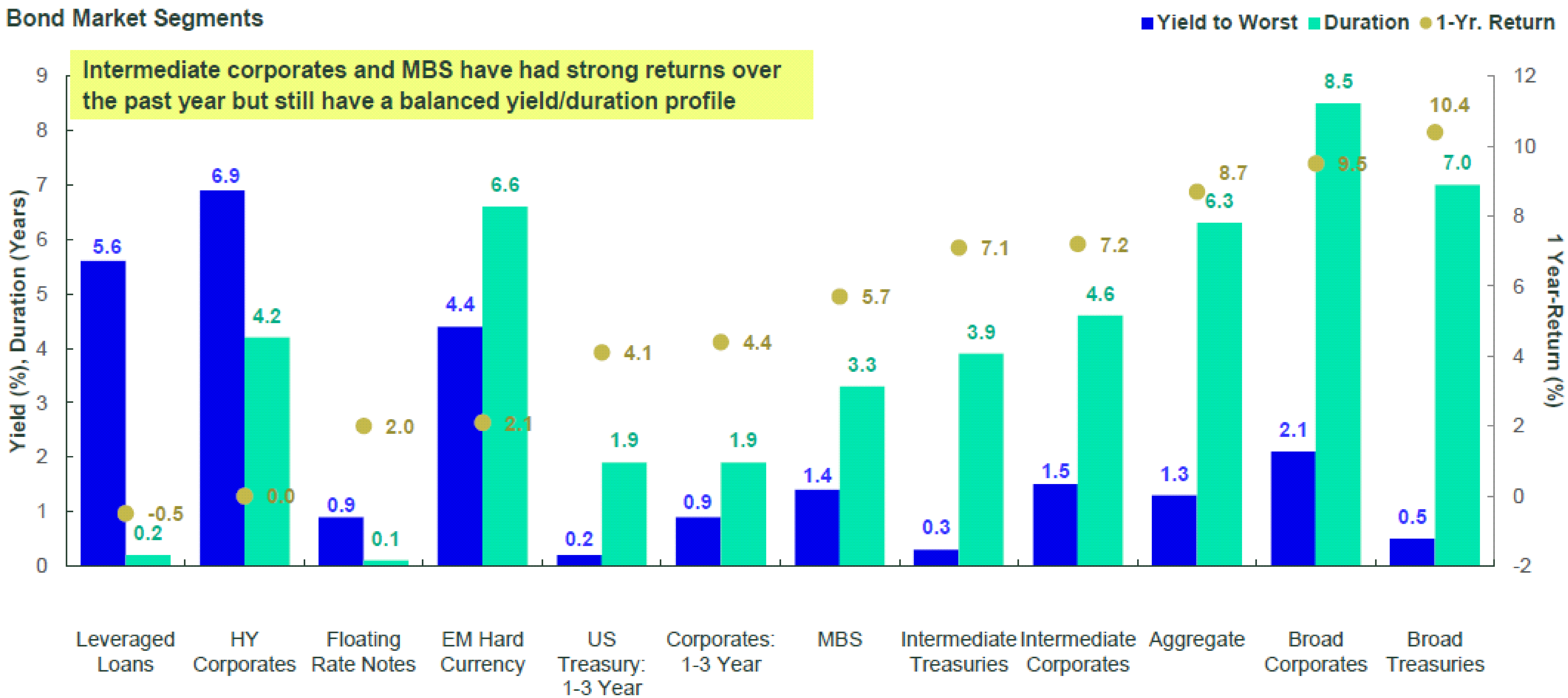
# Treasury Bond Prices (& Yields) Muted in Q2 After Big Run-up During Crisis Sell-Off




| Maturity | December 31, 2019 | March 31, 2020 | June 30, 2020 | Q1 Change | Q2 Change | YTD Change |
|---|---|---|---|---|---|---|
| 1 | 1.60% | 0.16% | 0.16% | -1.44% | 0.00% | -1.44% |
| 2 | 1.57% | 0.23% | 0.15% | -1.34% | -0.08% | -1.42% |
| 3 | 1.61% | 0.29% | 0.18% | -1.32% | -0.11% | -1.43% |
| 5 | 1.69% | 0.38% | 0.29% | -1.31% | -0.09% | -1.40% |
| 7 | 1.83% | 0.56% | 0.50% | -1.27% | -0.06% | -1.33% |
| 10 | 1.92% | 0.70% | 0.66% | -1.22% | -0.04% | -1.26% |
| 20 | 2.25% | 1.14% | 1.18% | -1.11% | 0.04% | -1.07% |
| 30 | 2.39% | 1.36% | 1.41% | -1.03% | 0.05% | -0.98% |

Source: Bloomberg, Baird
Data as of 6/30/2020

# Overall, Longer-Duration Bond Sectors Performed Well for YTD




Source: Bloomberg Finance, L.P. as of June 30, 2020. **Past performance is not a guarantee of future results.** Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Performance returns for periods of less than one year are not annualized. Intermediate Treasuries: Bloomberg Barclays Intermediate Treasury Index, US Treasury: 1-3 Year: Bloomberg Barclays U.S. Treasury 1-3 Year Index, Broad Treasuries: Bloomberg Barclays US Treasury Index, Corporates: 1-3 Year: Bloomberg Barclays US Corporate 1-3 Year Index, Aggregate: Bloomberg Barclays US Agg Index, MBS: Bloomberg Barclays US MBS Index , Intermediate Corporates: Bloomberg Barclays Intermediate Corporate Index , Floating Rate Notes: Bloomberg Barclays FRN < 5yr Index, Broad Corporates: Bloomberg Barclays US Corporate Index , HY Corporates: Bloomberg Barclays US Corporate High Yield Index

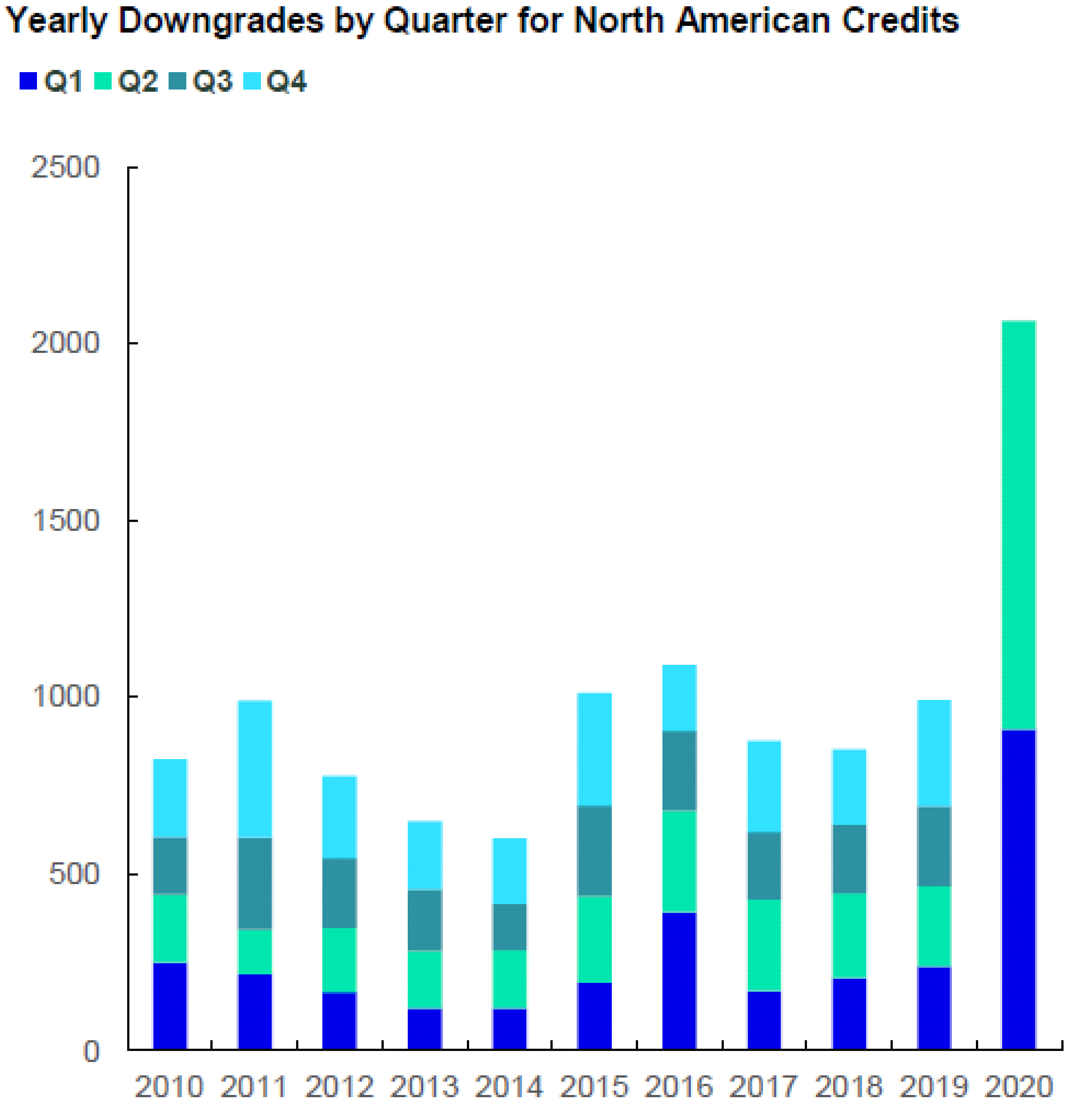
Source: State Street Global Advisors

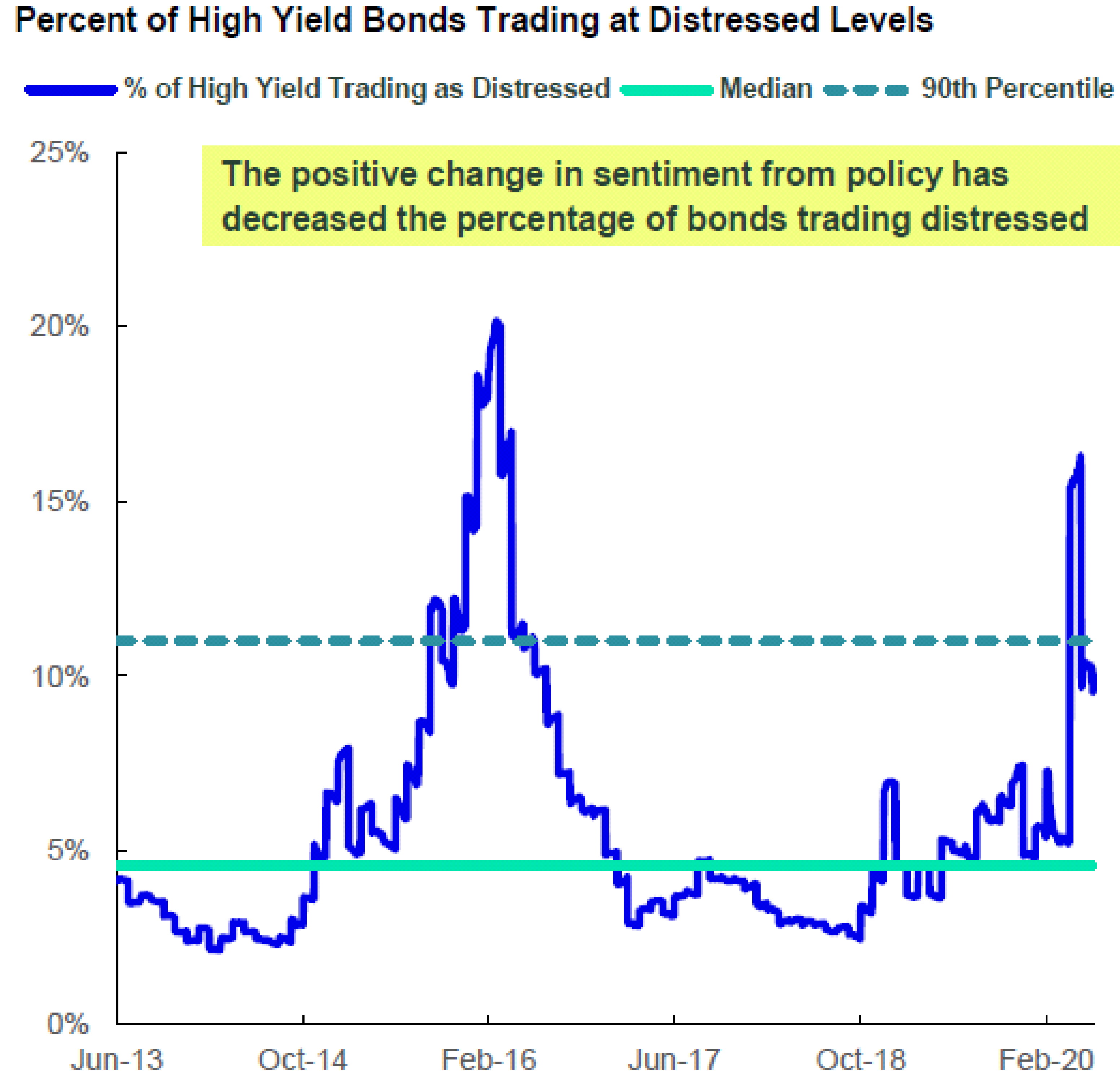
*Commentary –*

But the strong performance has eroded any potential yield in this current market. For generating retirement income, investors have fewer opportunities from bonds without taking excessive risks. They must look elsewhere and utilize multi-asset solutions to meet their income goals

# High-Yield Bonds Not Out of Woods

Downgrades have increased significantly in 2020, outpacing every year over the past ten years -- through just two quarters.



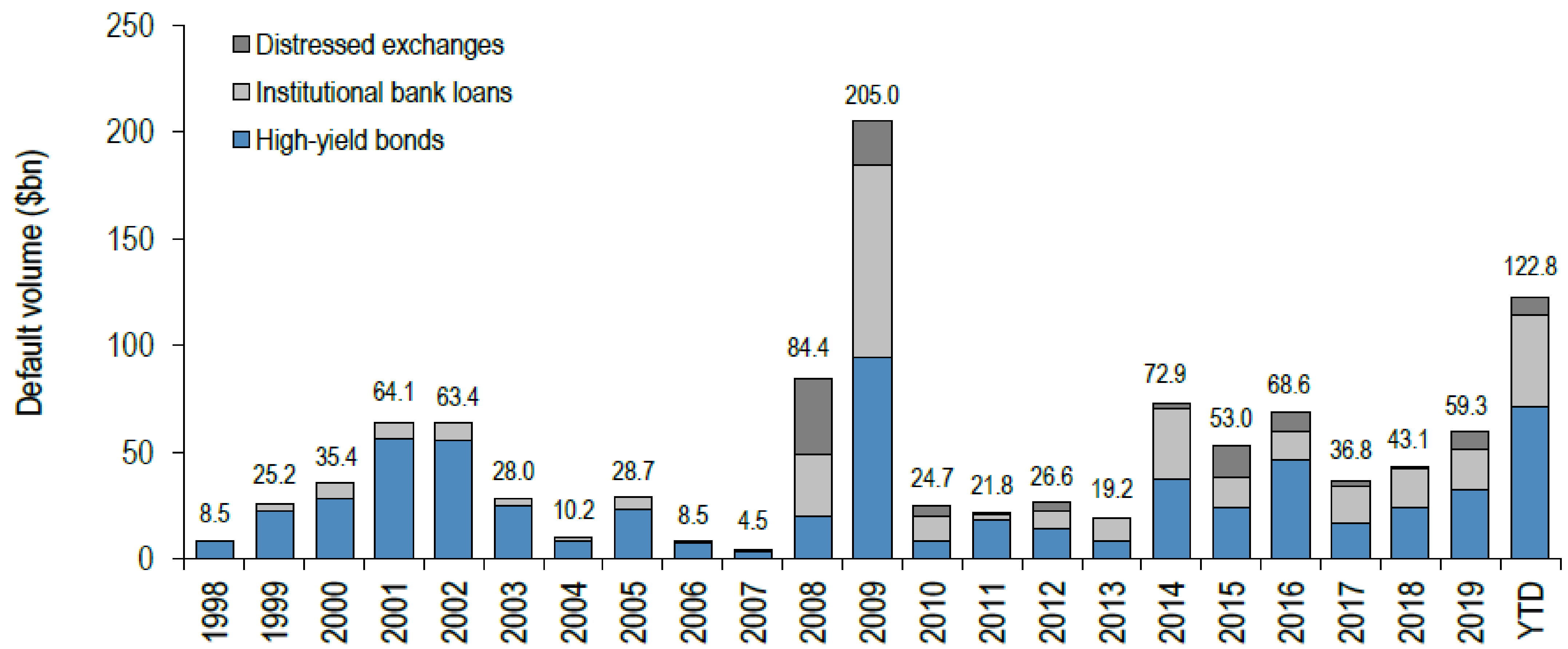



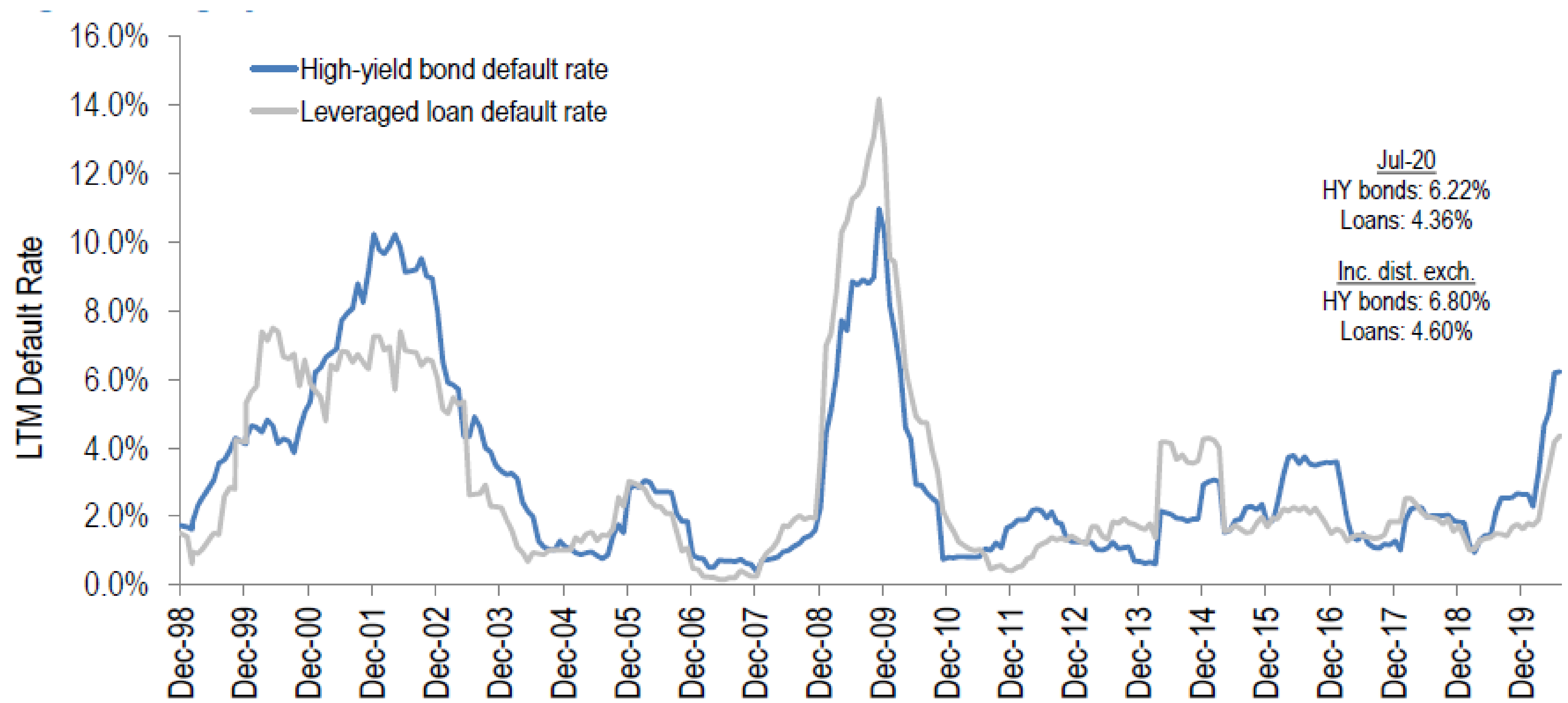

Source: Bloomberg Finance, L.P. BofA Merrill Lynch, as of June 30, 2020. Past performance is not a guarantee of future results. Performance of an index is not illustrative of any particular investment. It is not possible to invest directly in an index.

*Commentary –*

High yield bonds have been recovering well, but more defaults loom if the recovery is uneven and drawn-out

# High-Yield & Leveraged Loan Default Rates & Default Volumes on Rise




Source: J.P. Morgan.

*Commentary –*

- Through July, 73 companies have defaulted totaling $114.2bn in bonds and loans
- YTD default/distressed exchange volume already ranks as the second highest annual total on record
- The YTD default total of $122.8bn inclusive of distressed exchanges ranks as the second highest annual default total on record and only trails the $205bn that occurred in 2009
- In July, the high-yield default rate reached a 10-year high 6.22%, up from 2.63% at the start of the year

# Market Snapshot (As of 7/31/20)

**WEEK ENDING 7/31/2020 (CUMULATIVE TOTAL RETURNS)**

| Equities[1] | Week | YTD | 1-Year | Close |
|---|---|---|---|---|
| S&P 500 | ▲ 1.75% | ▲ 2.4% | ▲ 12.0% | 3,271 |
| DJIA | ▼ -0.15% | ▼ -6.1% | ▲ 0.8% | 26,428 |
| NASDAQ | ▲ 3.70% | ▲ 20.4% | ▲ 32.8% | 10,745 |
| Foreign Stocks | ▼ -2.12% | ▼ -9.0% | ▼ -1.2% | |
| Emerging Markets | ▲ 1.77% | ▼ -1.5% | ▲ 6.9% | |

| Top Three S&P 500 Equity Sectors[1] | YTD |
|---|---|
| Information Technology | ▲ 21.4% |
| Consumer Discretionary | ▲ 16.9% |
| Communication Services | ▲ 6.5% |

| Bottom Three S&P 500 Equity Sectors[1] | YTD |
|---|---|
| Energy | ▼ -38.7% |
| Financials | ▼ -20.7% |
| Industrials | ▼ -10.9% |

| Bonds[2] | Week | YTD | 1-Year | Yield |
|---|---|---|---|---|
| 10-Yr. Treasury[3] | ▲ 0.32% | ▲ 11.6% | ▲ 13.2% | 0.55% |
| US Bonds | ▲ 0.30% | ▲ 7.7% | ▲ 10.1% | 1.05% |
| Global Bonds | ▲ 0.93% | ▲ 6.3% | ▲ 7.8% | 0.82% |
| Munis[4] | ▲ 0.36% | ▲ 3.8% | ▲ 5.4% | 1.20% |

| Market Indicators[5] | | As of |
|---|---|---|
| Fed Funds Target | 0.25% | 7/31/2020 |
| Inflation (Core CPI) | 1.20% | 6/30/2020 |
| Unemployment | 11.10% | 6/30/2020 |
| GDP | -32.90% | 6/30/2020 |

Source: Franklin Templeton

# Summary of Economic Indicators

**Weekly Indicators**

| **Employment**[1] | 7/24/2020 | 7/17/2020 | 7/10/2020 | 7/3/2020 |
|---|---|---|---|---|
| Initial Unemployment Claims (thousands) | 1,434 | 1,422 | 1,308 | 1,310 |

**Monthly Indicators**

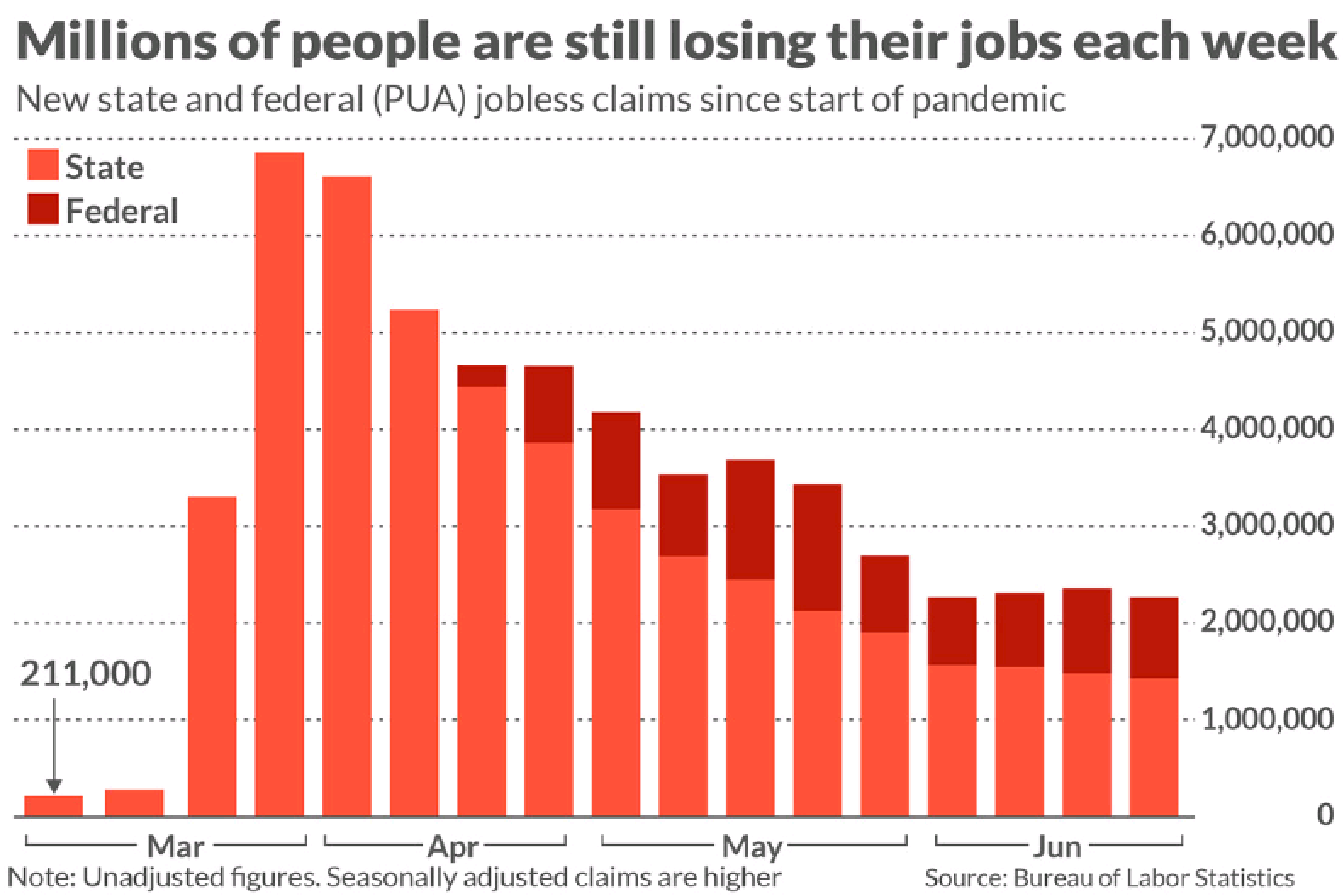
| **Employment**[1] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
|---|---|---|---|---|
| Civilian Unemployment Rate | 11.1% | 13.3% | 14.7% | 4.4% |
| Nonfarm Employment (change, thousands) | 4,800 | 2,699 | -20,787 | -1,373 |
| Average Hourly Earnings (Y/Y) | 5.0% | 6.6% | 8.0% | 3.4% |
| Average Hourly Earnings, Real (Y/Y) | 4.3% | 6.4% | 7.5% | 1.7% |
| Misery Index (CPI + Unemployment) | 13.4 | 15 | 5.9 | 5.8 |
| **Housing & Construction**[2] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
| Building Permits (Mil. of Units, SAAR) | 1.3 | 1.2 | 1.1 | 1.4 |
| Housing Starts (Mil. of Units, SAAR) | 1.2 | 1.0 | 0.9 | 1.3 |
| New Home Sales (Mil. of Units, SAAR) | 0.8 | 0.7 | 0.6 | 0.6 |
| New Home Sales (M/M, SA) | 13.8% | 19.4% | -6.7% | -14.5% |
| Total Construction Put in Place (Y/Y) | - | 0.3% | 2.2% | 7.4% |
| Residential Construction Put in Place (Y/Y) | - | 1.1% | 5.4% | 12.1% |
| S&P/Case-Shiller Home Price Index, 10-city ( | - | 3.1% | 3.3% | 3.3% |
| S&P/Case-Shiller Home Price Index, 20-city ( | - | 3.7% | 3.9% | 3.9% |
| **Inflation**[1] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
| Consumer Price Index (CPI) (%Y/Y, SA) | 0.6% | 0.1% | 0.3% | 1.5% |
| CPI excl. Food and Fuel ("Core") (Y/Y, SA) | 1.2% | 1.2% | 1.4% | 2.1% |
| Producer Price Index (PPI) (Y/Y, SA) | -2.2% | -2.8% | -5.1% | -0.9% |
| PPI excl. Food & Energy (Y/Y, SA) | 1.1% | 1.1% | 1.1% | 1.2% |
| Personal Consumption (PCE) (Y/Y, SA) | 0.8% | 0.5% | 0.5% | 1.3% |
| Core PCE (Y/Y, SA) | 0.9% | 1.0% | 0.9% | 1.7% |
| **Money Flow & Supply**[3] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
| M2 (Y/Y) | 22.9% | 21.9% | 16.9% | 10.2% |
| Treasury International Capital (TIC) Net Flow: | - | ($5) | $122 | $352 |

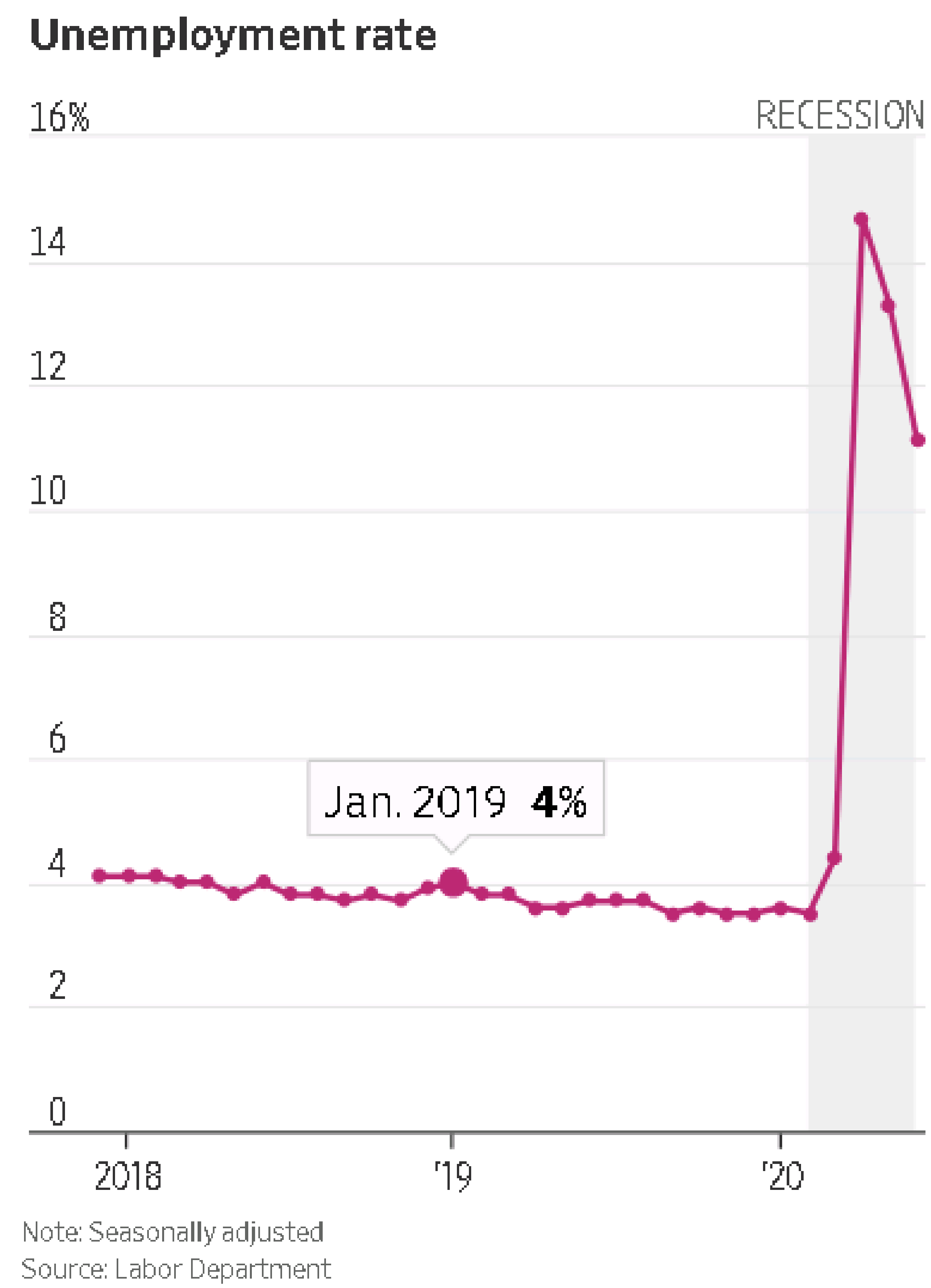
**Monthly Indicators**

| **Personal Income & Spending**[4] | 5/2020 | 4/2020 | 3/2020 | 2/2020 |
|---|---|---|---|---|
| Personal Consumption Spending (Y/Y, SA) | -9.5% | -16.3% | -3.4% | 4.5% |
| Personal Income (Y/Y, SA) | 8.8% | 14.0% | 1.8% | 4.1% |
| Personal Savings Rate | 24.2% | 33.5% | 12.8% | 8.3% |
| **Retail Sales**[2] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
| Retail Sales (Y/Y, SA) | 1.1% | -5.6% | -19.9% | -5.6% |
| Retail Sales ex. Motor Vehicles (Y/Y, SA) | -0.5% | -6.9% | -16.6% | -1.0% |
| Total Unit Vehicle Sales (Mil. Units) | 13.0 | 12.3 | 8.7 | 11.4 |
| Consumer Credit (Bil., 1m change) | - | -$18 | -$70 | -$16 |
| **Production**[3] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
| Industrial Production (Y/Y, SA) | -10.8% | -15.4% | -16.3% | -4.8% |
| Capacity Utilization | 68.6% | 65.1% | 64.2% | 73.5% |
| Manufacturing New Orders (Y/Y, SA) | - | -15.8% | -22.7% | -12.4% |
| New Orders: Core Capital Goods (Y/Y, NSA) | -0.7% | -7.2% | -8.2% | -1.1% |
| Durables: Inventory to Shipments Ratio | - | 2.15 | 2.24 | 1.82 |
| **Survey Data**[5] | 6/2020 | 5/2020 | 4/2020 | 3/2020 |
| Consumer Confidence (CB, 1985=100) | 98.3 | 85.9 | 85.7 | 118.8 |
| Institute for Supply Management (ISM) Mfg | 52.6 | 43.1 | 41.5 | 49.1 |
| ISM Non-Manufacturing Report | 57.1 | 45.4 | 41.8 | 52.5 |
| Leading Economic Index (Y/Y) | -8.6% | -10.4% | -13.2% | -7.3% |
| Coincident to Lagging Ratio (1996=100) | 87.3 | 83.0 | 80.7 | 94.3 |

1. Source: Bureau of Labor Statistics
2. Source: Census Bureau and S&P
3. Source: Federal Reserve and Treasury
4. Source: Bureau of Economic Analysis
5. Source: Institute for Supply Management (ISM) and The Conference Board (CB)

# Labor Market's Recovery Faces Uphill Battle With Resurgence of Infections

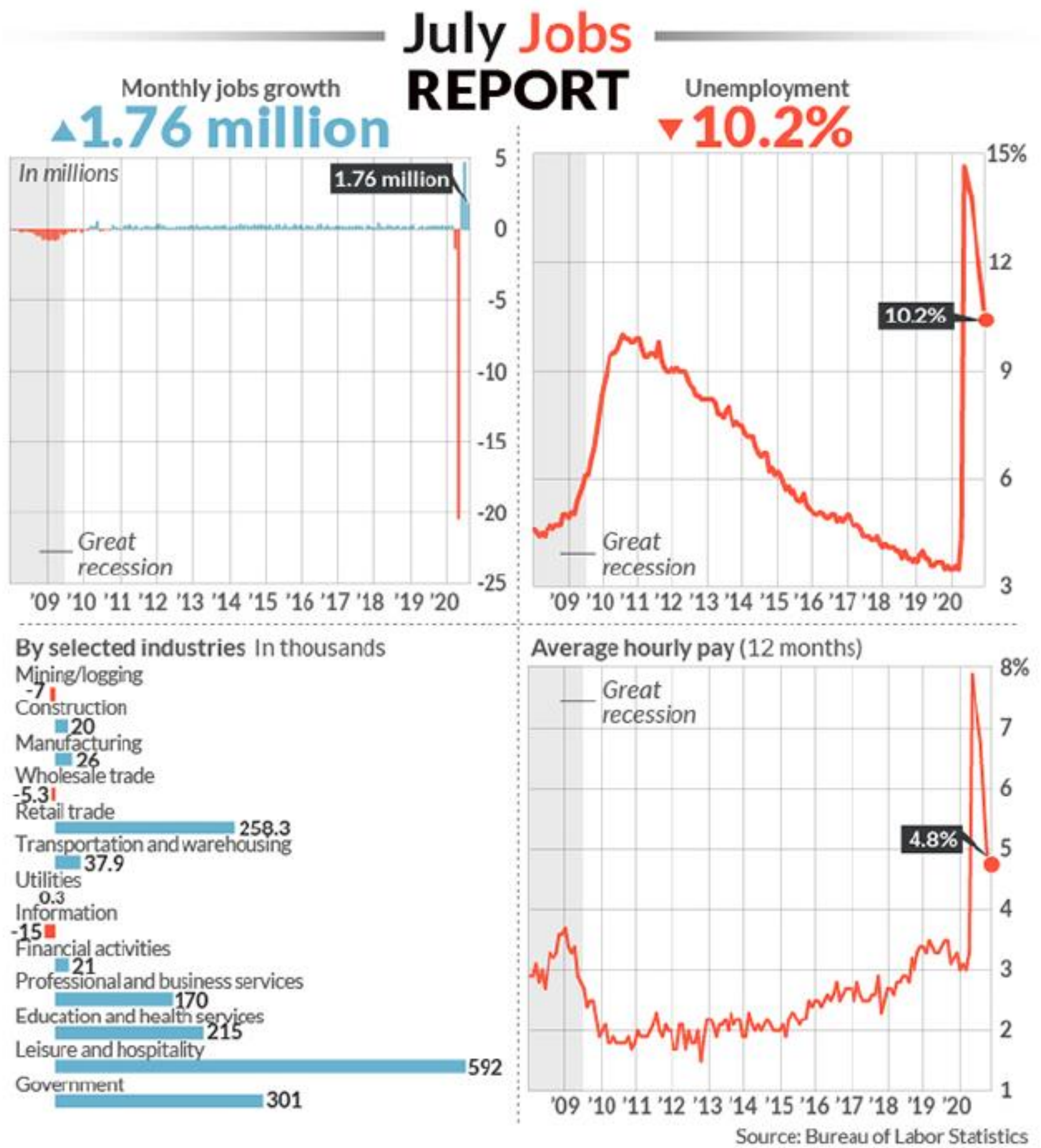


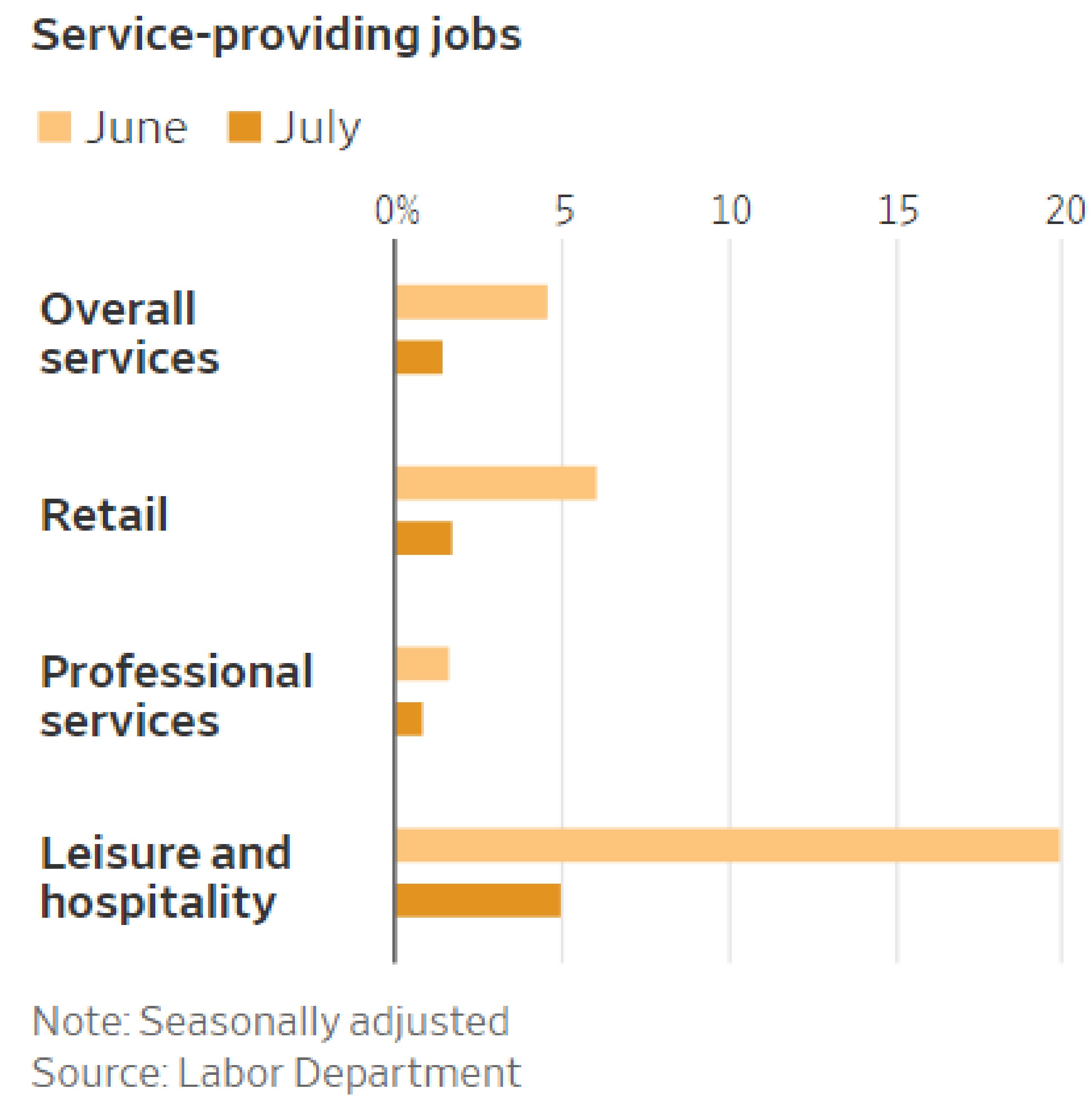




*Commentary –*

- Total nonfarm payroll rose by 4.8 million in June, and the unemployment rate fell to 11.1%
- Employers added a combined 7.5 million jobs in May and June after shedding 21 million jobs in March and April
- Initial unemployment claims are still hovering around 1.4 million per week, but down from a peak of 6.9 million in late March
- The continuing claims, people receiving unemployment benefits through regular state programs, are declining, but still above the 16 million marks

# Jobs Continued to Recover in July, Though Pace Slowed Significantly



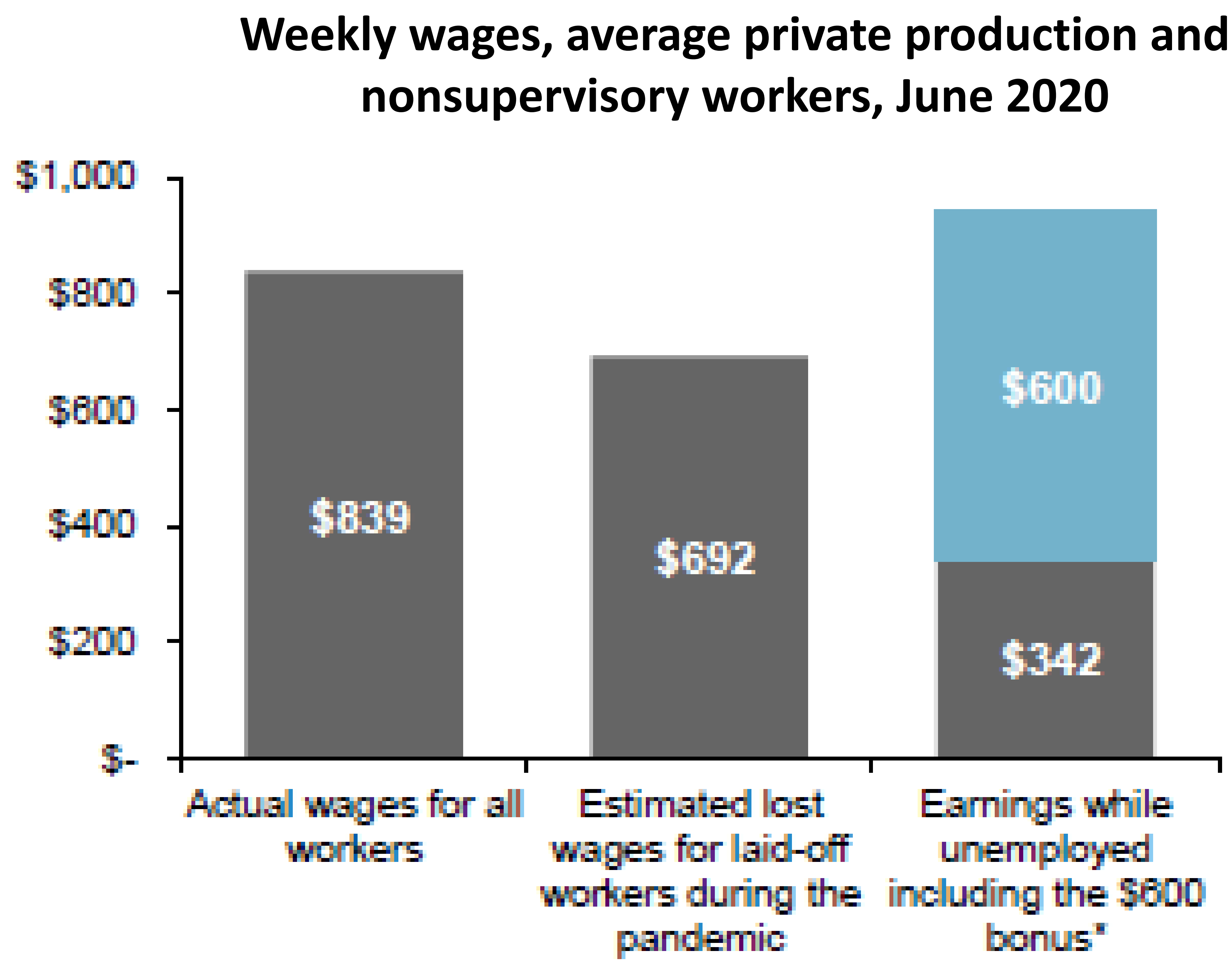




Source: WSJ

## *Commentary –*

- Hiring slowed after fresh coronavirus outbreak; employers added only 1.76 million jobs in July, just one-third of 4.8 million jobs gained in June
- Employers added nearly 7.5 million jobs from May to July, but there are about 13 million fewer jobs than in February
- July data shows another setback to service-related jobs after a resurgence of the virus
- Unemployment falls for the third straight month to 10.2% but remains historically high

# CARES Act Stimulus Checks Might Have Discouraged Some From Returning to Work



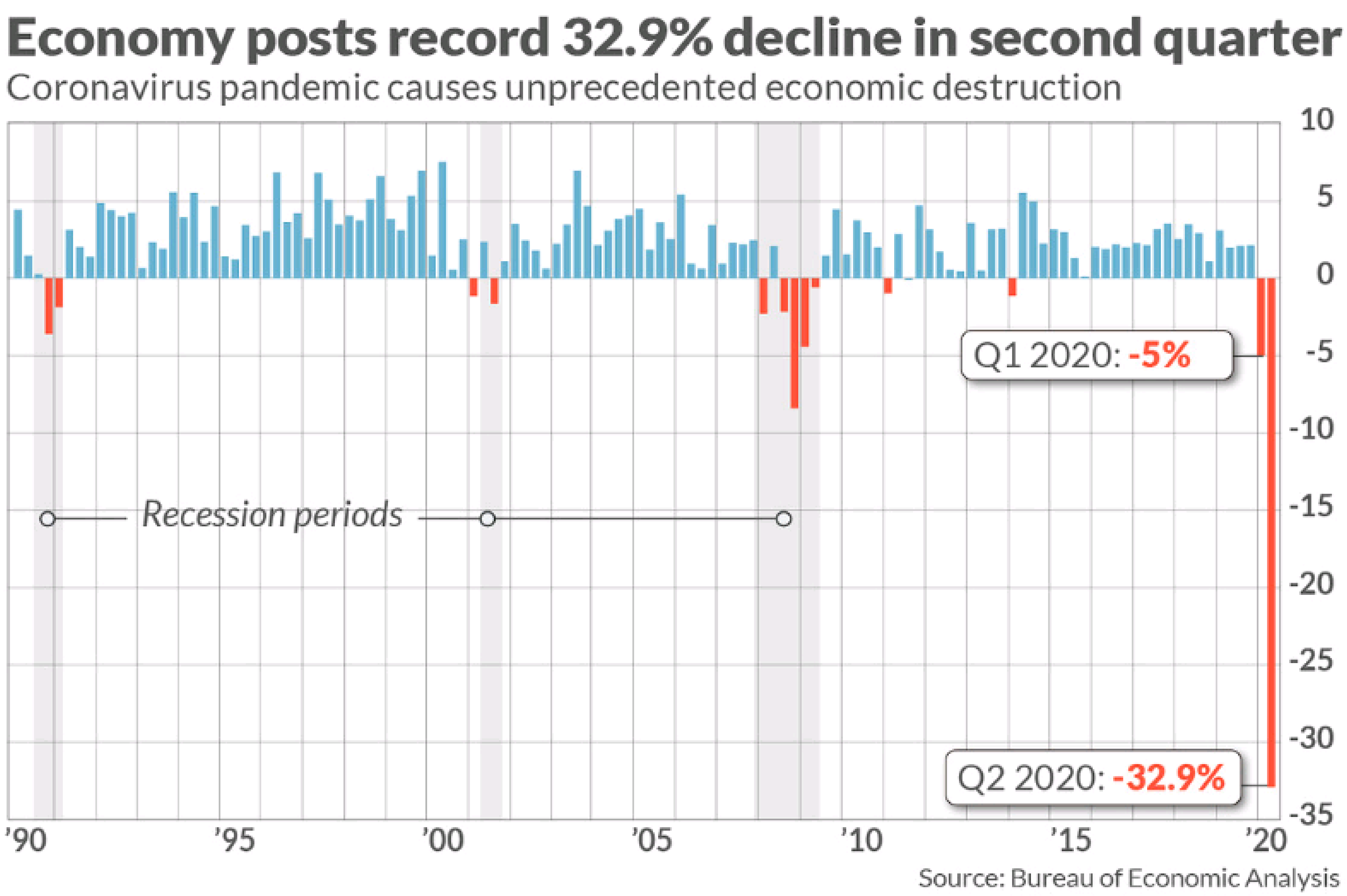

Source: J.P. Morgan

*Commentary –*

- CARES Act provided weekly $600 extra unemployment payment
- The weekly earnings of all production and nonsupervisory workers averaged $839 in June, while those who lost their jobs were mostly lower-wage earners, with an average of $692 in weekly wages
- The regular pre-pandemic unemployment insurance pays $342 weekly, about half of their salaries. But with the Stimulus check, many have made more than they would have done if they were still employed – it might have discouraged some from returning to their jobs
- New Stimulus program will need to strike a delicate balance between support for households and incentives to return to work

# GDP Plunges Record 32.9% in Second Quarter

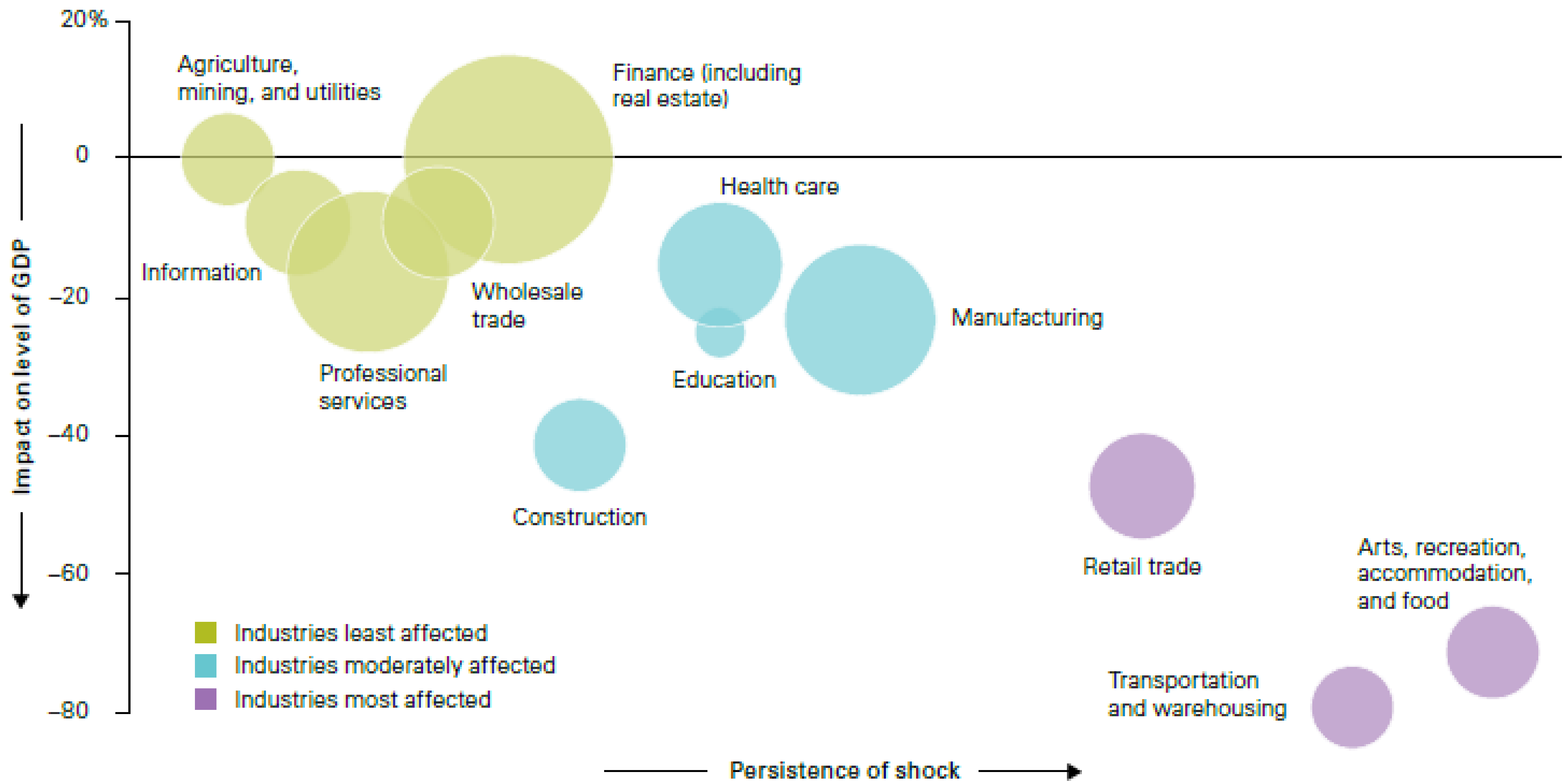
*(A 9.5% drop compared with the same quarter a year ago)*




*Commentary –*

- The significant drop underscores how big a hole the U.S. finds itself in as it labors to recover from the deepest recession in American history
- Previously, GDP has never shrunk by more than 10% on an annualized basis in any quarter since World War Two
- Consumer spending fell nearly 35% annual rate, amid sharp decreases in services. The decline was precisely sharp in services – travel, tourism, medical care, restaurants, and the like
- Spending on services nosedived at a 43.5% annual pace. Household purchases dropped 11%

# Impact of Covid-19 to Economic Activity Varies by Sector




**Notes:** The figure shows the estimated maximum impact on U.S. GDP in April 2020. Size of bubbles indicates the relative weight of each sector in U.S. GDP. Initial impact on the level of GDP and the persistence of shock estimated are based on a range of high-frequency indicators (such as mobility indexes, fuel consumption, retail foot traffic, and restaurant and hotel occupancy) and traditional economic indicators.

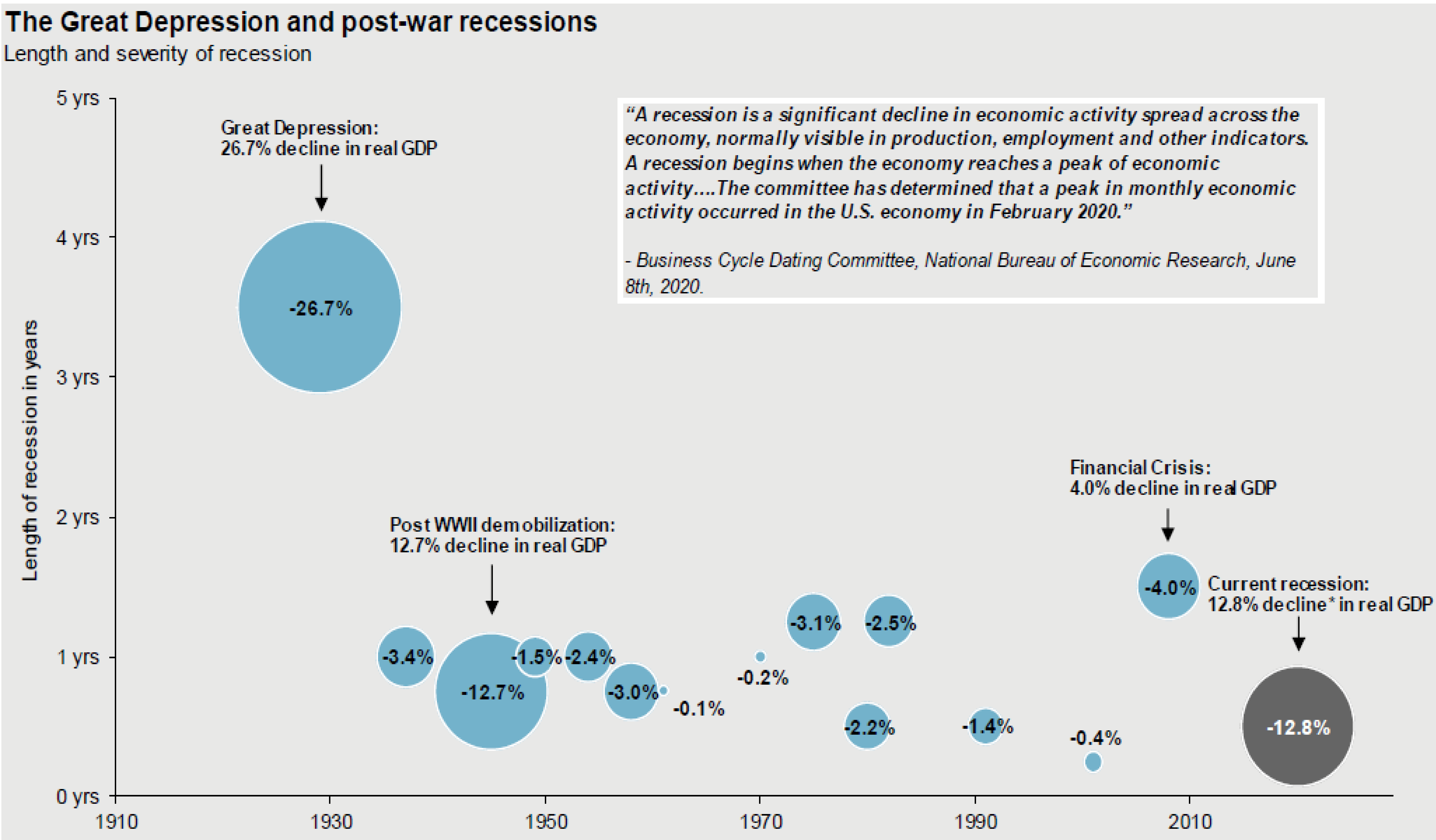
**Sources:** Google, Apple, Johnson Redbook Index, American Iron and Steel Institute, U.S. Department of Energy, Association of American Railroads, U.S. Bureau of Labor Statistics, Prodco Analytics, Smith Travel Research, OpenTable, Transportation Security Administration, and SimilarWeb.

Source: Vanguard, 2020 Midyear Update

*Commentary –*

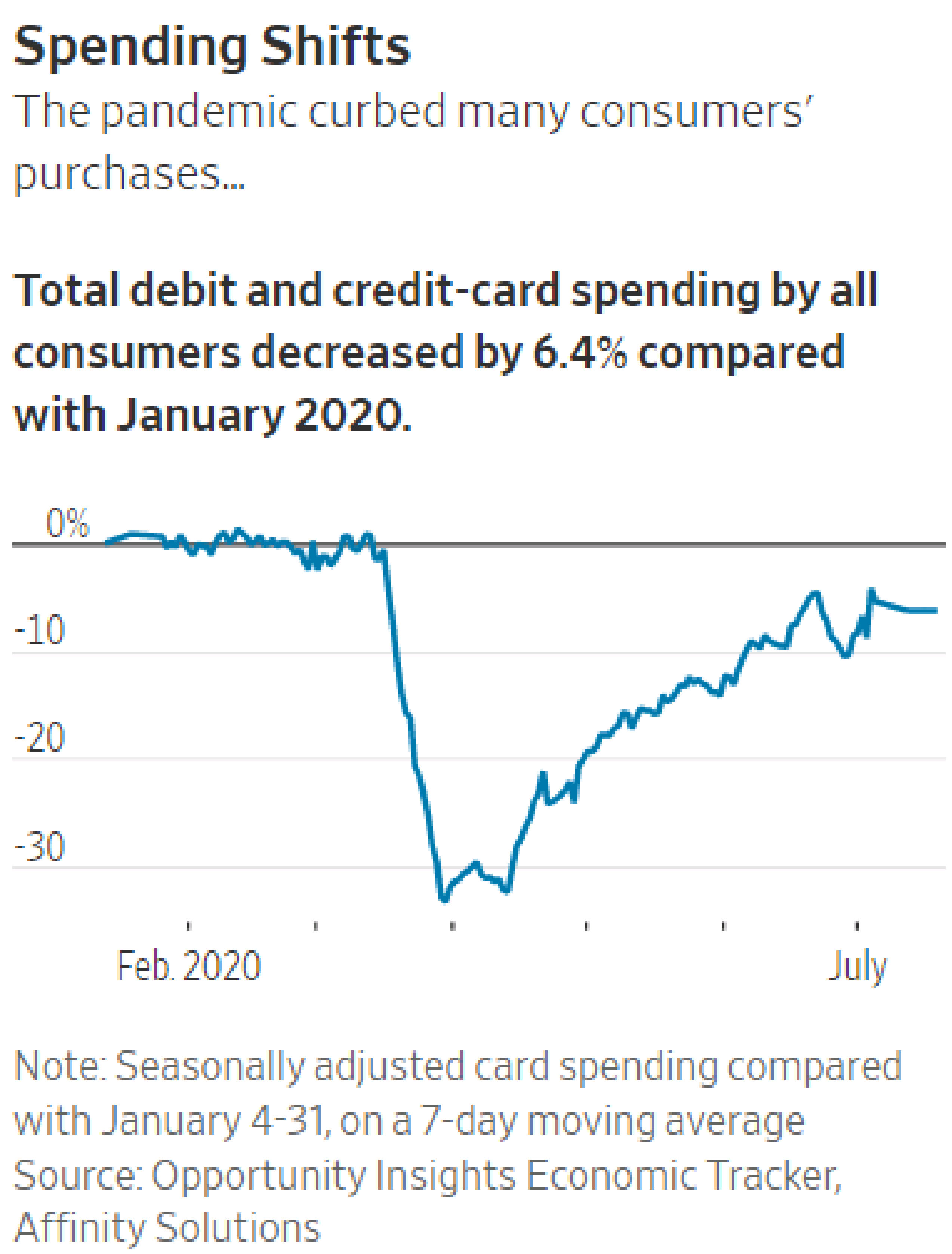
Sectors that rely heavily on face-to-face interaction—such as retail trade, hospitality, and transportation—experience a large shock to activity. Sectors that can operate relatively well with social distancing in place, such as construction and manufacturing, are less affected

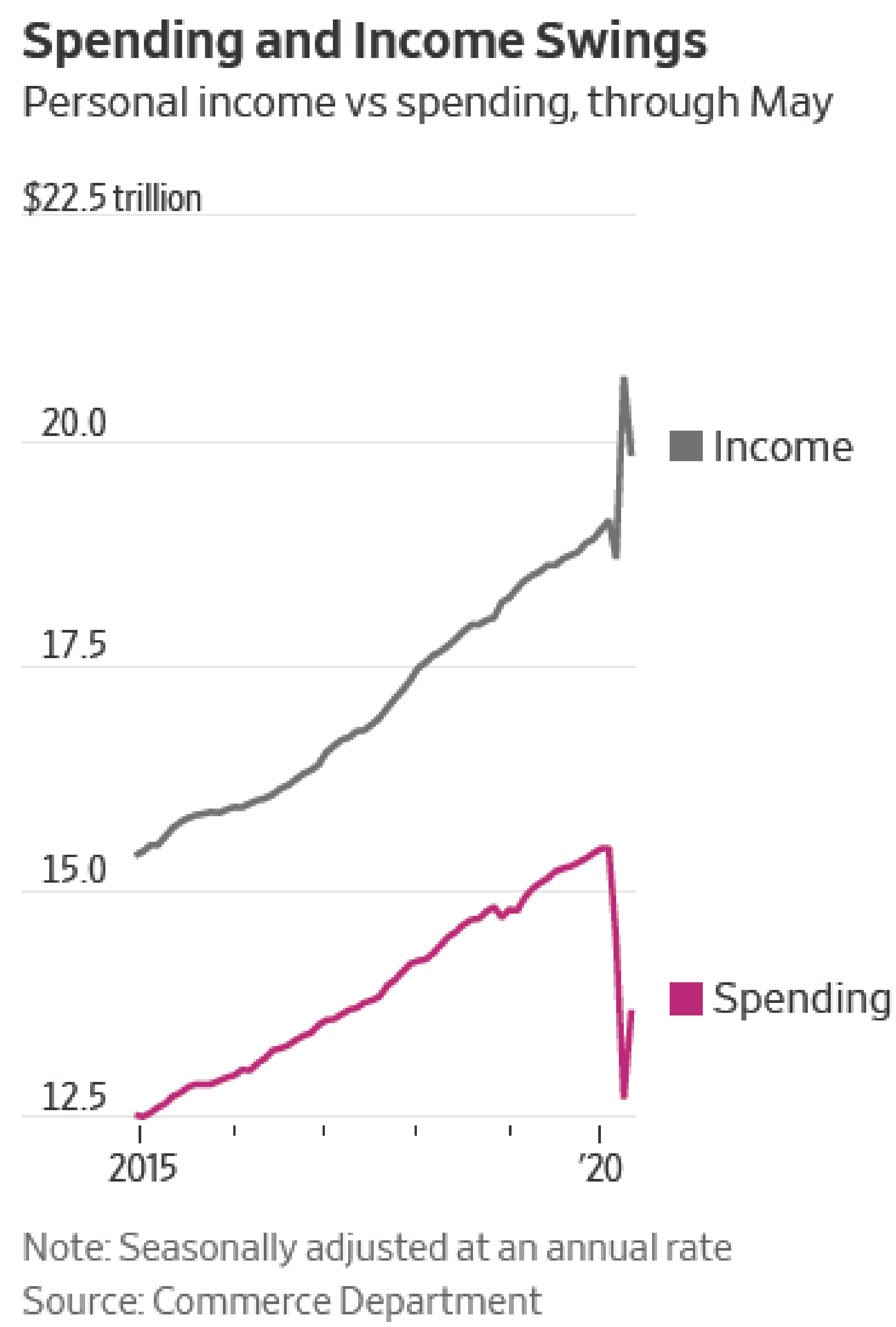
# U.S. Economic Recessions – Historical Perspective




Source: BEA, NBER, J.P. Morgan Asset Management.
Bubble size reflects the severity of the recession, which is calculated as the decline in real GDP from the peak quarter to the trough quarter except in the case of the Great Depression, where it is calculated from the peak year (1929) to the trough year (1933), due to a lack of available quarterly data.
*Current recession reflects JPMAM estimate of peak to trough decline for the recession beginning after February 2020 according to the NBER.
*Guide to the Markets – U.S.* Data are as of June 30, 2020.

# Personal Income (High) & Spending (Low) Slowly Shifting Back to Normal

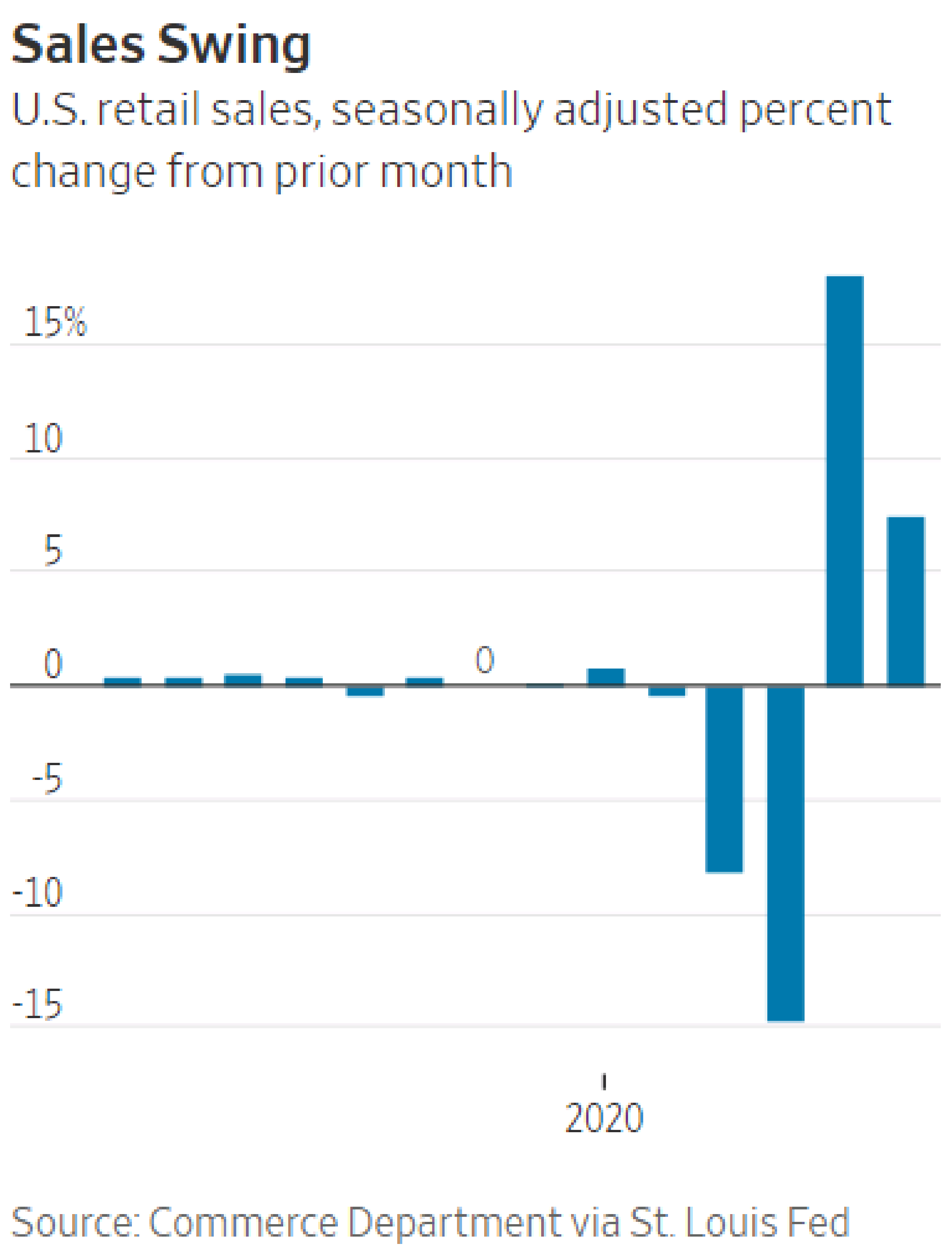


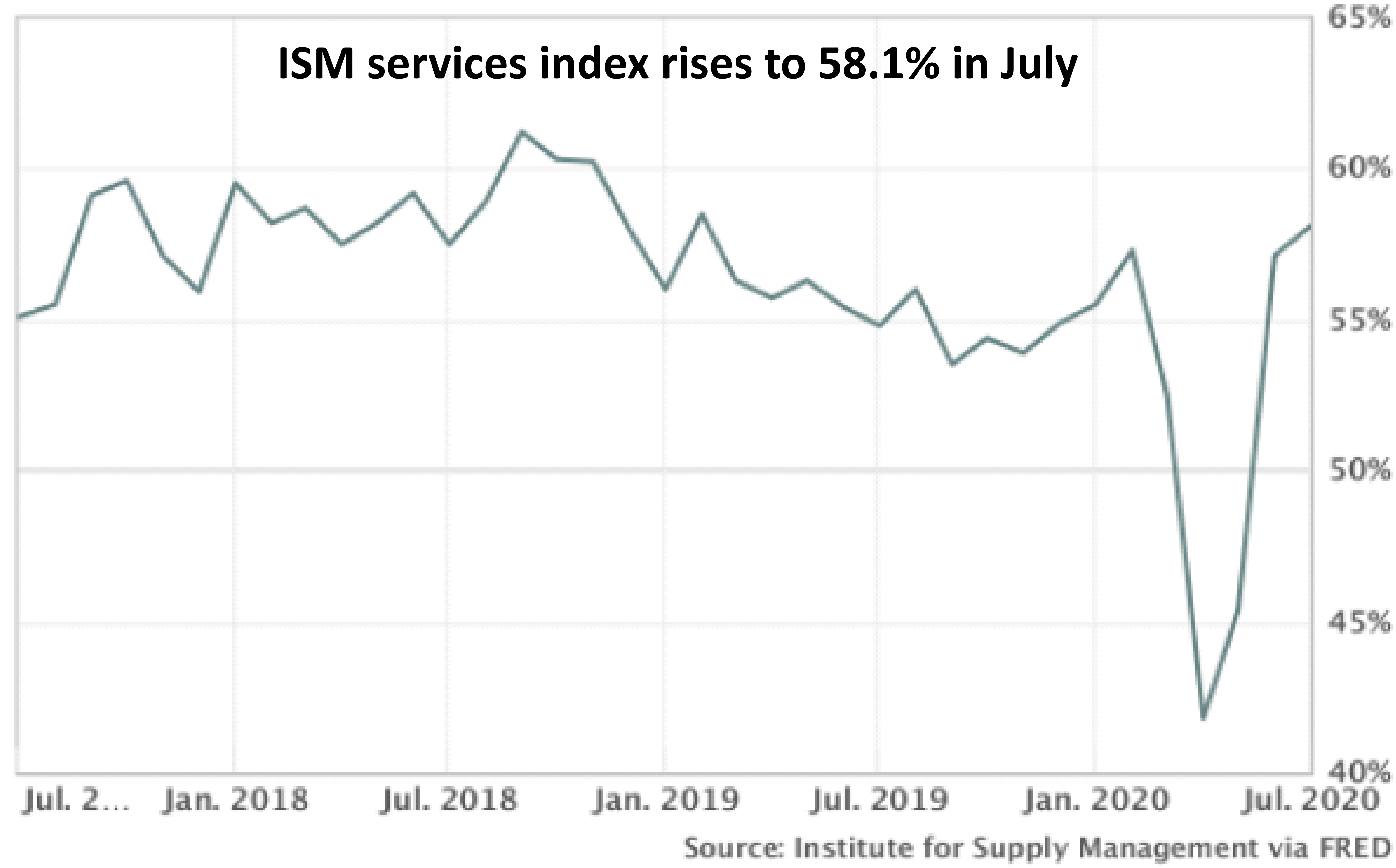

*Commentary –*

- U.S. consumers increased by spending a solid 5.6% in June but appeared to have pulled back since then, restraining the economy's recovery from the coronavirus outbreak
- Meanwhile, household income fell 1.1% in June, as layoffs remained high, and the effects of federal stimulus payments eased

# Retail Sales Rose in June as Stores Reopened
## *(But a recent rise in virus cases could dampen spending)*




Source: WSJ




**Any number above 50% indicates more companies are expanding. Fifteen of the 18 service industries tracked by ISM grew in July**

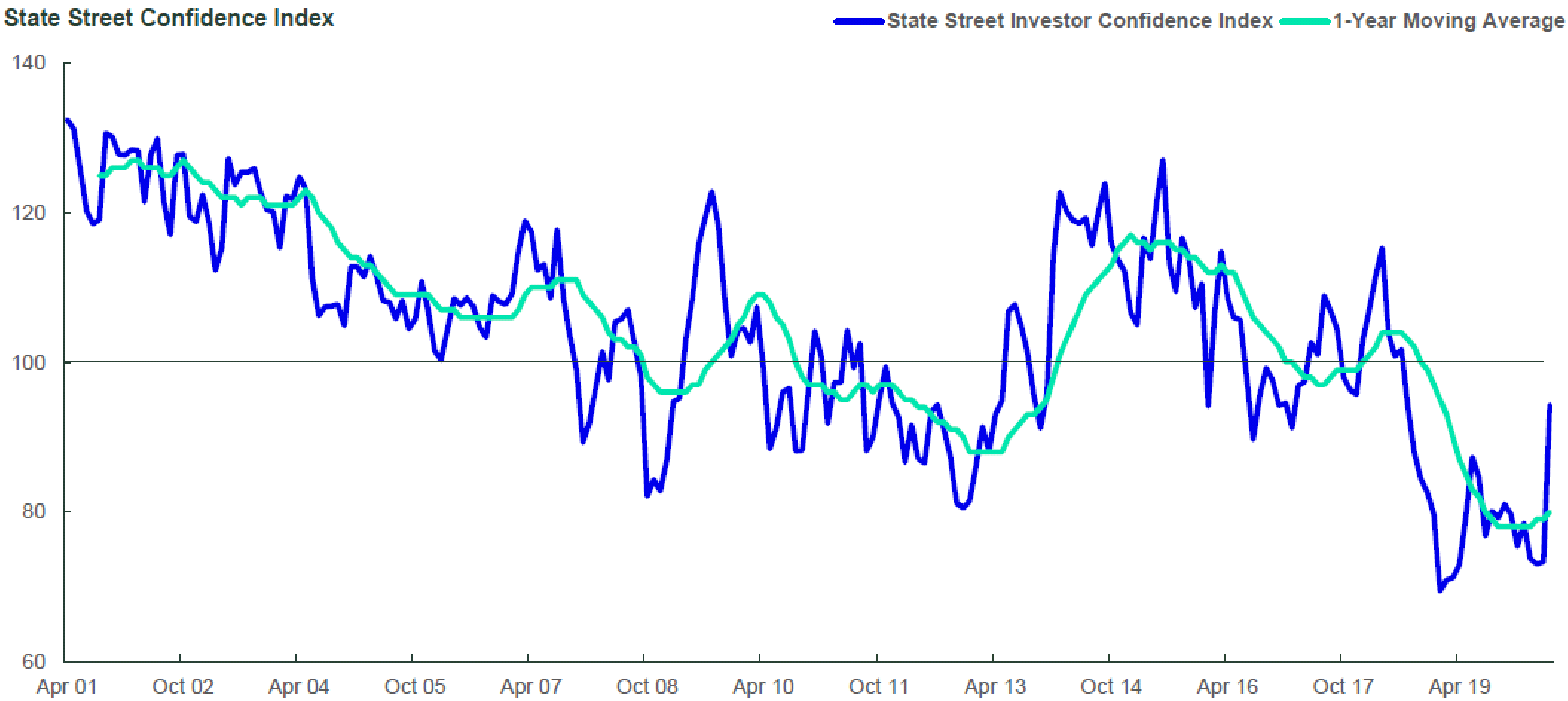
*Commentary –*

- U.S. retail sales increased 7.5% in June as stores and restaurants reopened and consumers revived their spending
- Retail sales in June totaled $524.3bn, up from $487.7bn in May and nearly back to pre-pandemic levels

*Commentary –*

- Service side of the U.S. economy show surprising growth in July
- Although July reading is the highest since November 2018, businesses aren’t doing as well as they were a few years ago

# Investor Confidence Increasing Ahead of Pent-up Demand



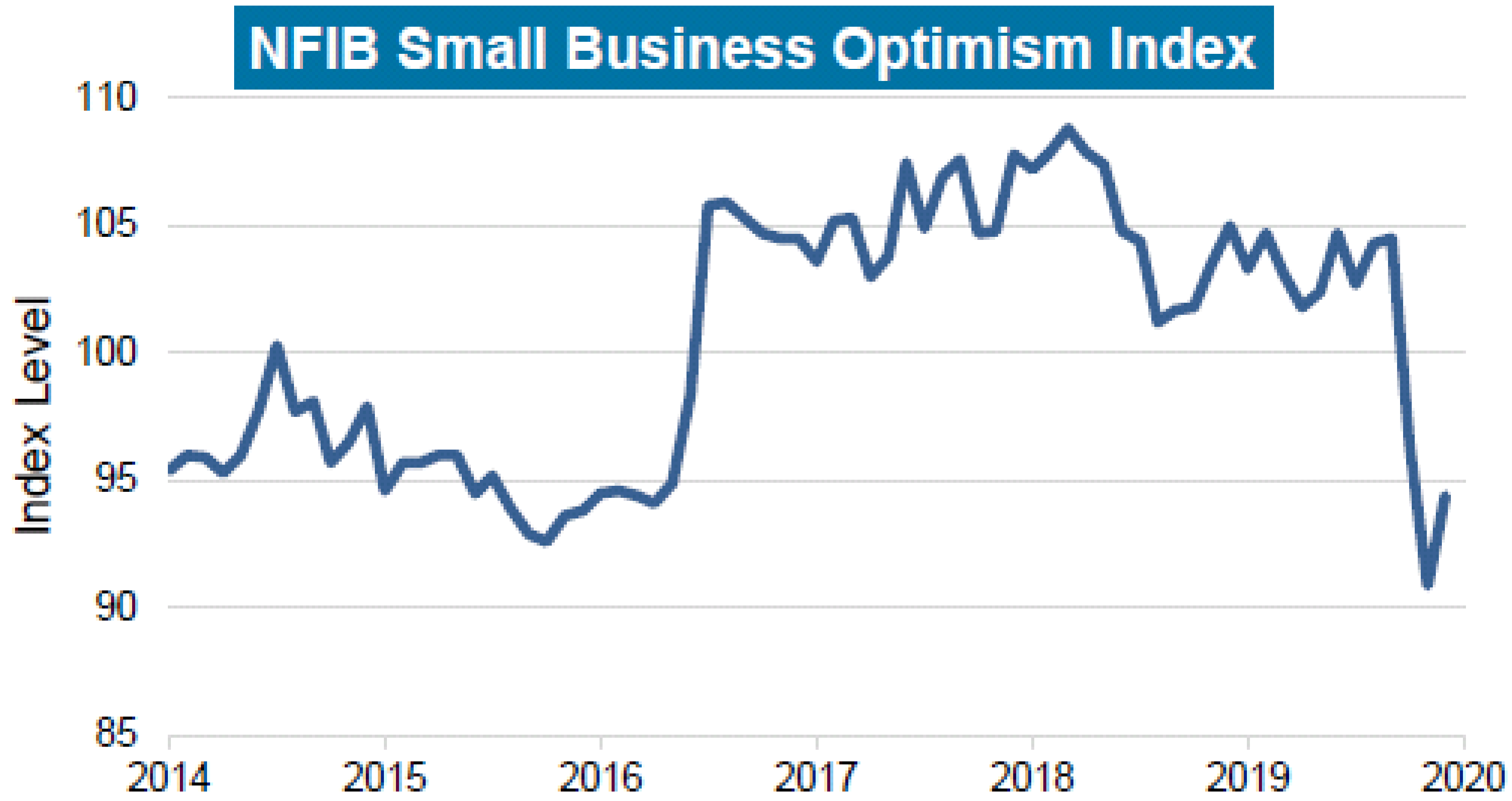

Source: Bloomberg Finance, L.P. as of June 30, 2020. State Street Confidence Indexes Measures investor confidence or risk appetite quantitatively by analyzing the actual buying and selling patterns of institutional investors. The index assigns a precise meaning to changes in investor risk appetite: the greater the percentage allocation to equities, the higher risk appetite or confidence. A reading of 100 is neutral; it is the level at which investors are neither increasing nor decreasing their long-term allocations to risky assets. The results shown represent current results generated by State Street Investor Confidence Index. The results shown were achieved by means of a mathematical formula in addition to transactional market data, and are not indicative of actual future results which could differ substantially.

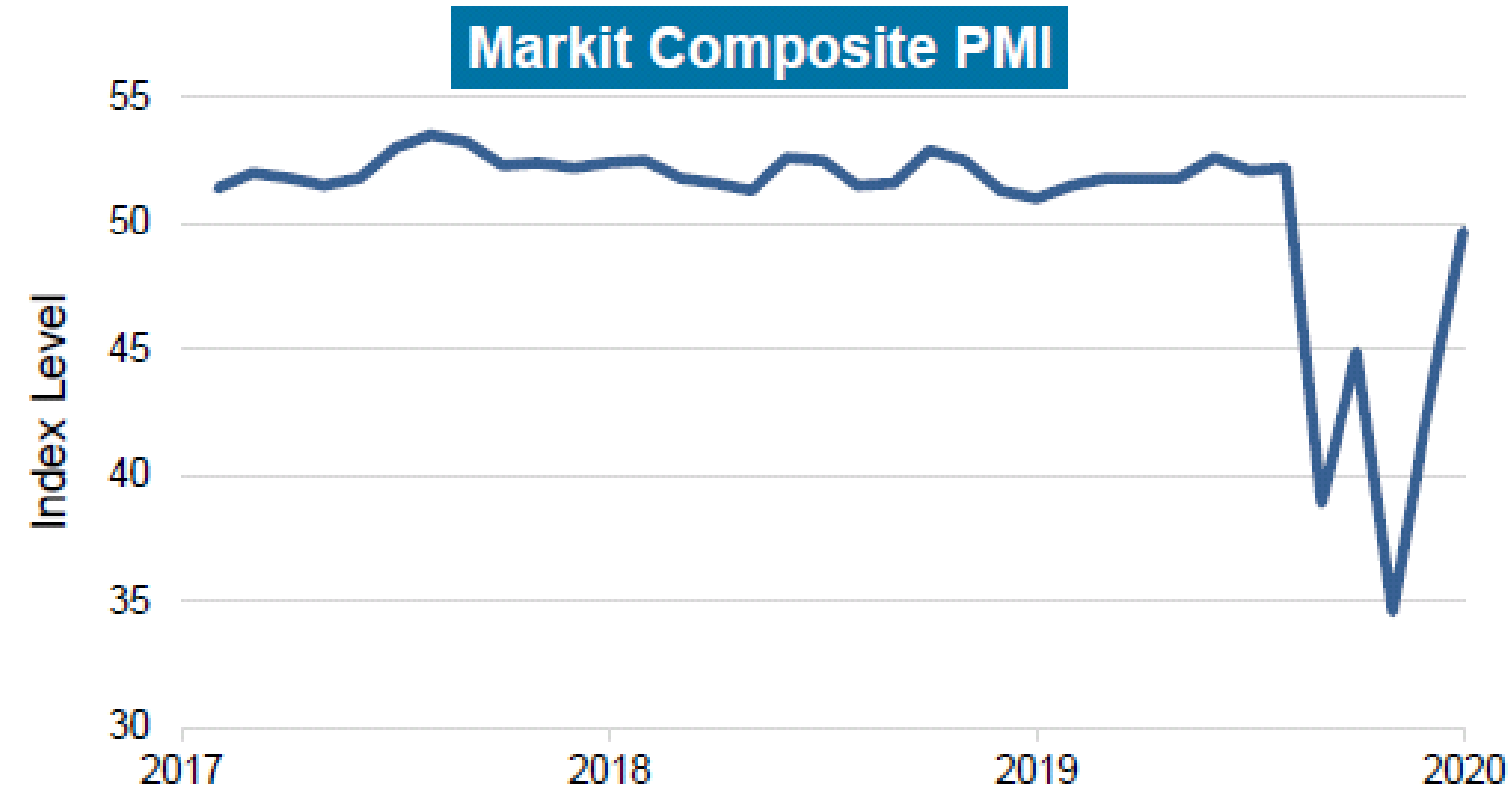
Source: State Street Global Advisors

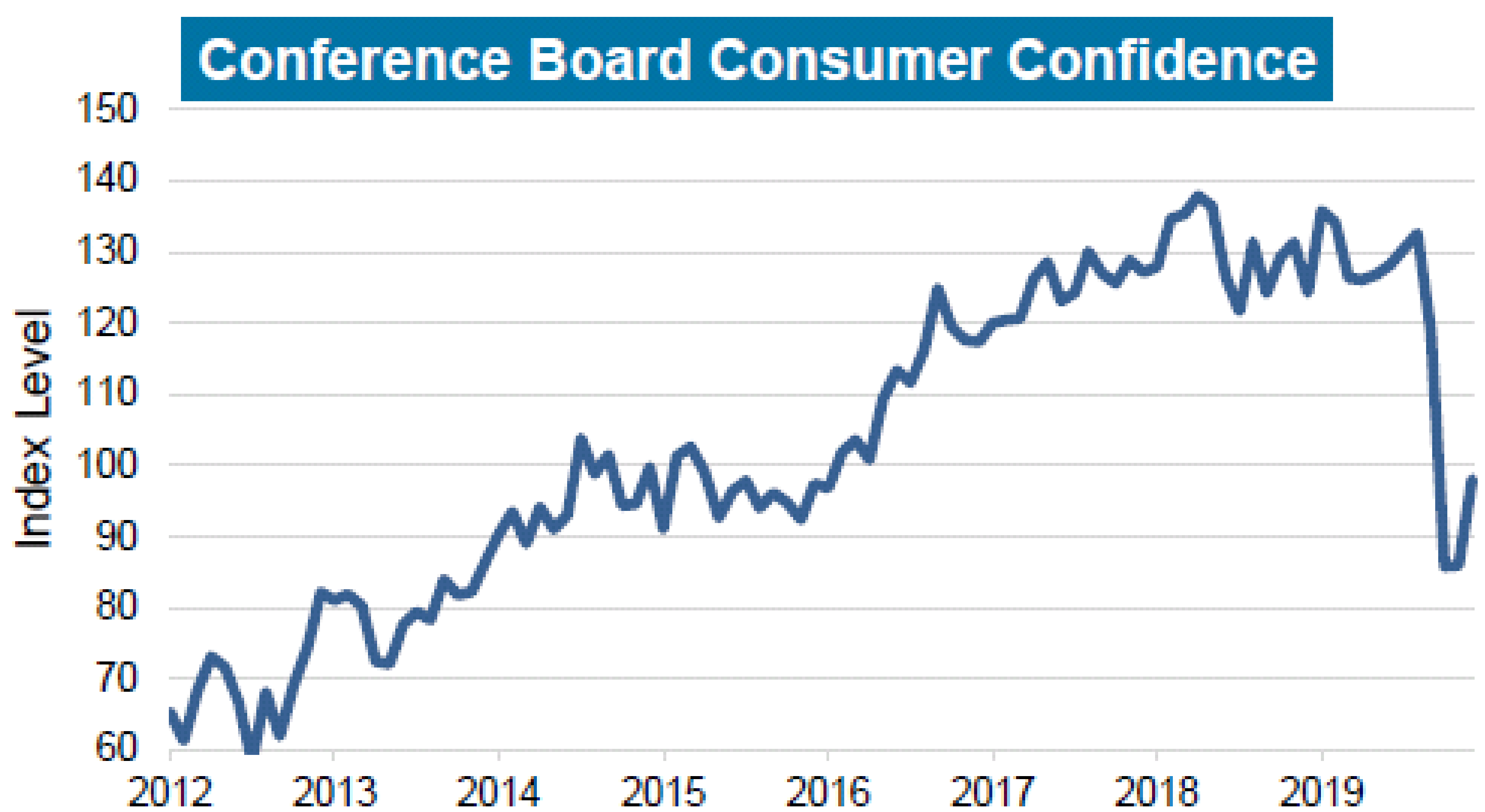
*Commentary –*

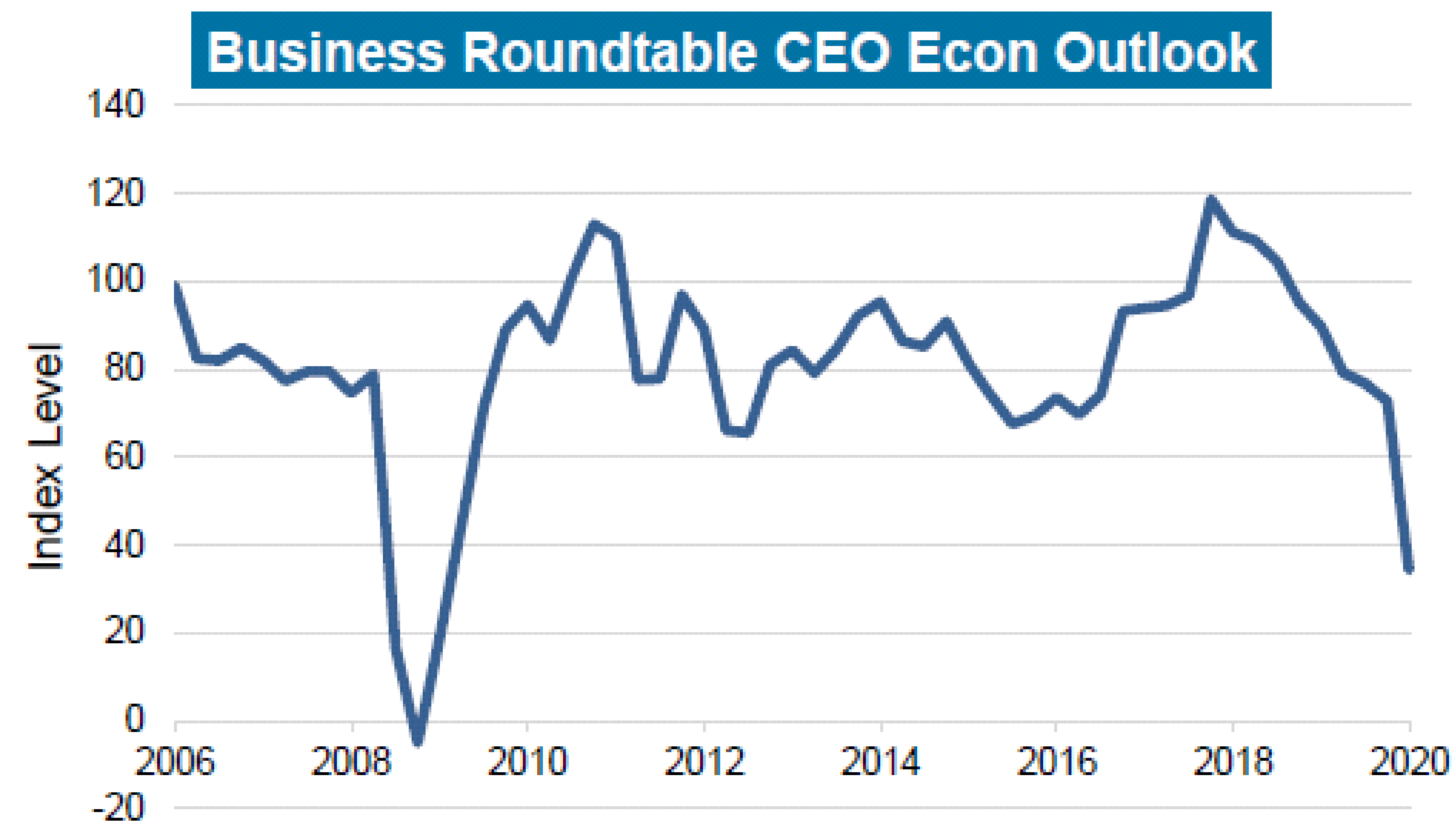
The optimism around an economic recovery gave an expectation of pent-up demand, thus spurring a rise in investor confidence in June

# Business Confidence Mixed (Despite Improving Economic Activity)



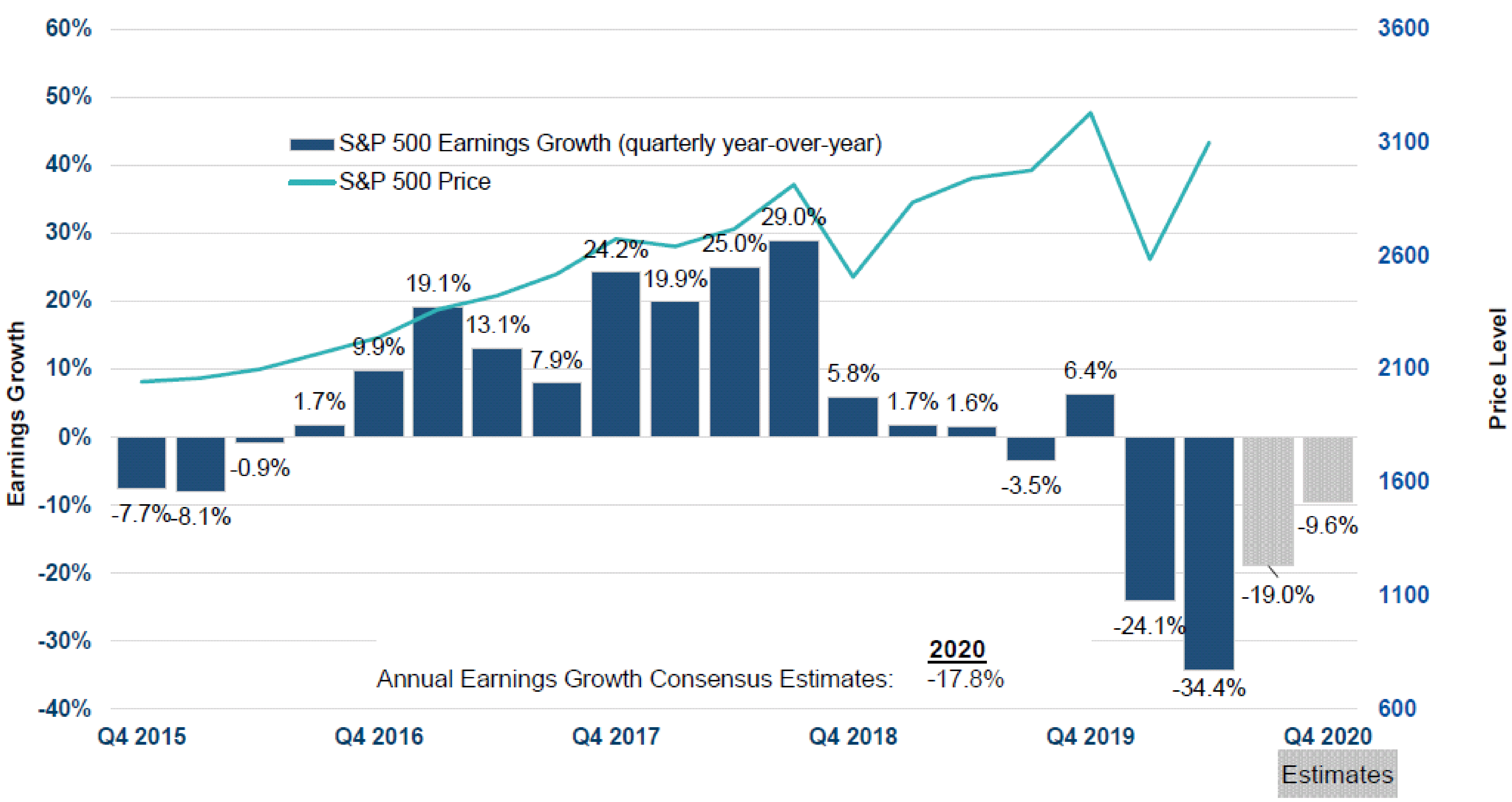




Source: Bloomberg and Amundi Pioneer. NFIB Small Business Optimism surveys the views of small business owners. PMI or Purchasing Managers Indexes are measures of business conditions among purchasing managers. Business Rountable CEO Ouotlook derives from a survey of managers on the general state of the economy. Last data point 6/30/20.

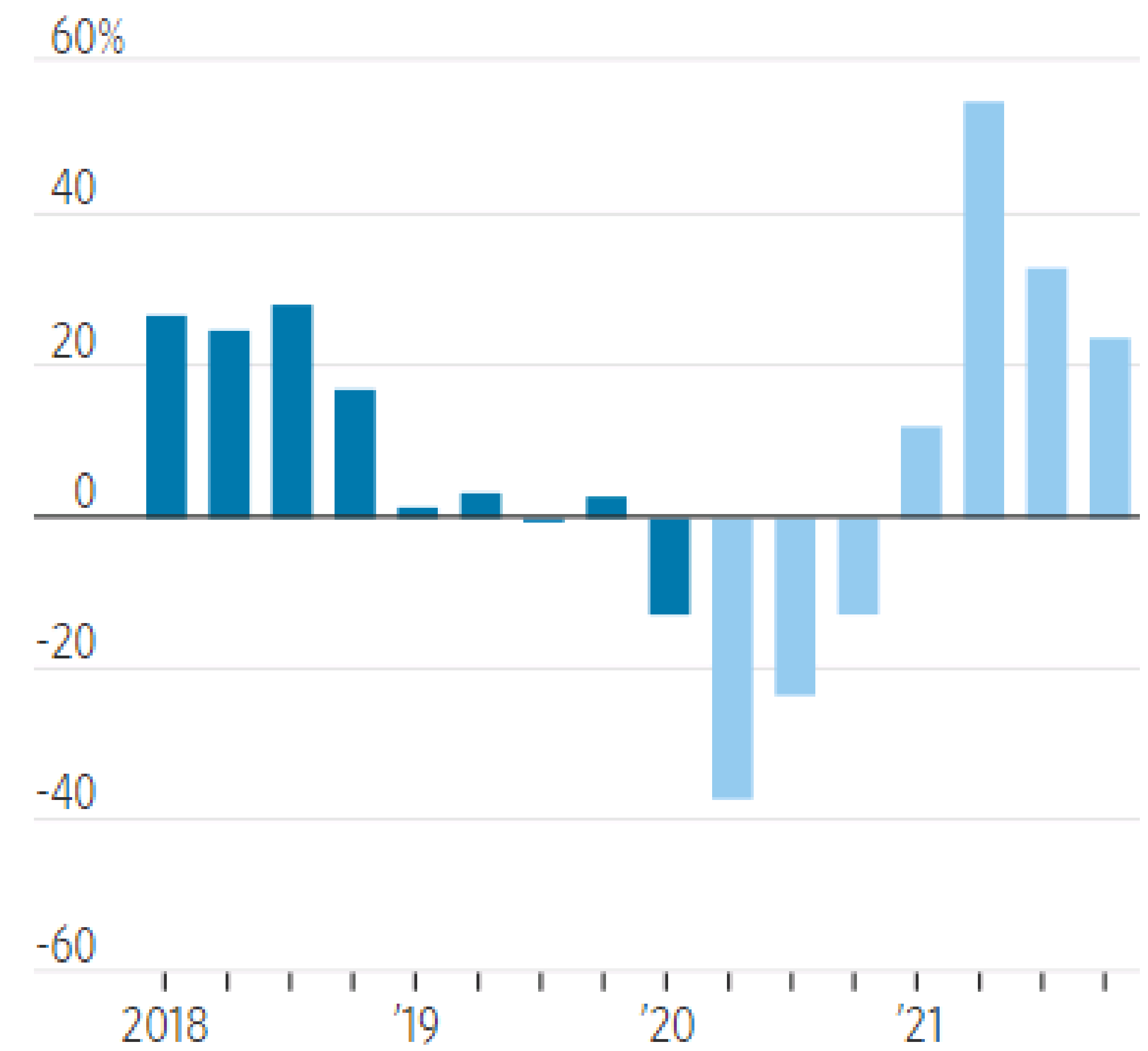
# Corporate Profits Appear Depressed Until 2021




Source: Bloomberg including estimates. Last data point for Q419 earnings season as of July 13, 2020.

Source: Amundi Pioneer Quarterly Compass

**Change in S&P 500 earnings from a year earlier**




Note: 2Q 2020 and beyond reflect industry-analyst estimates

Source: Refinitiv

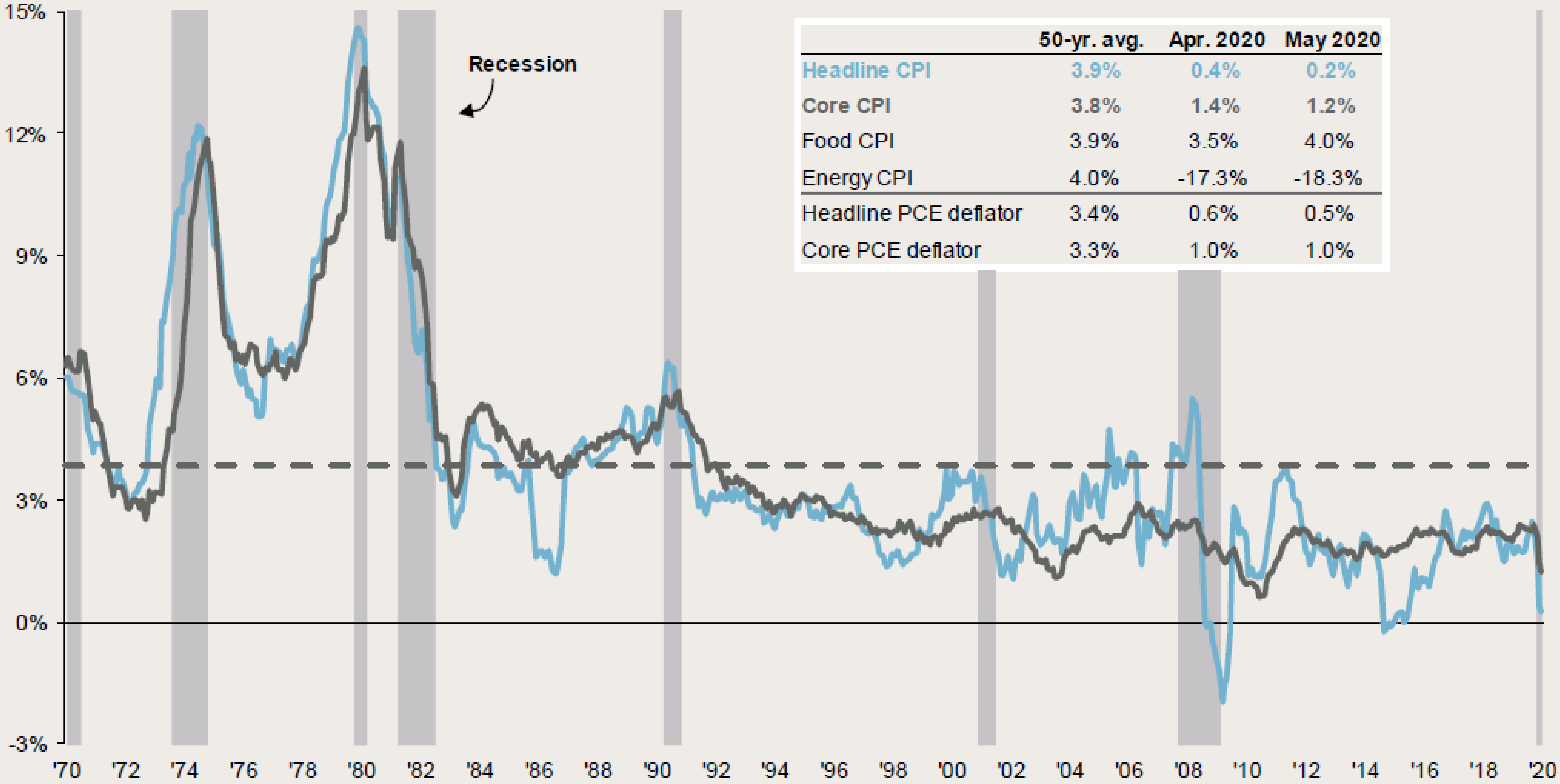
*Commentary –*

- For the S&P 500, current estimates show earnings could be down about 37% from a year earlier, marking the sharpest decline since the financial crisis during Q4 2008
- Analysts don't expect earnings to grow again until the first quarter of next year, and they forecast that it won't be until 2022 that profits are meaningfully above 2019 levels
- Earnings estimates are in flux, making current valuations less meaningful

# Inflation Expectations Subdued

**CPI and core CPI**

% change vs. prior year, seasonally adjusted



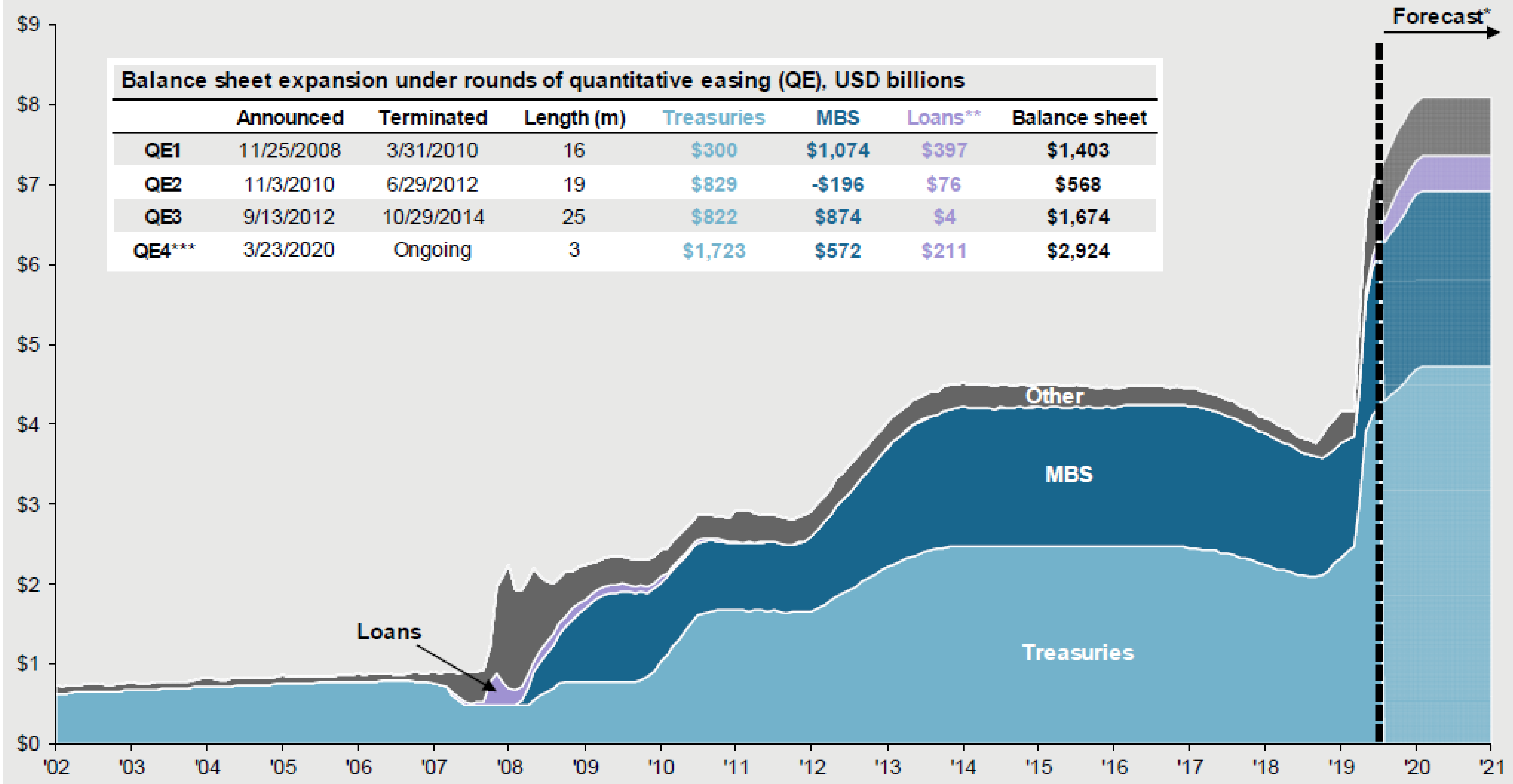

| | 50-yr. avg. | Apr. 2020 | May 2020 |
|---|---|---|---|
| Headline CPI | 3.9% | 0.4% | 0.2% |
| Core CPI | 3.8% | 1.4% | 1.2% |
| Food CPI | 3.9% | 3.5% | 4.0% |
| Energy CPI | 4.0% | -17.3% | -18.3% |
| Headline PCE deflator | 3.4% | 0.6% | 0.5% |
| Core PCE deflator | 3.3% | 1.0% | 1.0% |

Source: BLS, FactSet, J.P. Morgan Asset Management.
CPI used is CPI-U and values shown are % change vs. one year ago. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed-weight basket used in CPI calculations.
*Guide to the Markets – U.S.* Data are as of June 30, 2020.

# Fed's Balance Sheet Expands to New Records

**The Federal Reserve balance sheet**

USD trillions




**Balance sheet expansion under rounds of quantitative easing (QE), USD billions**

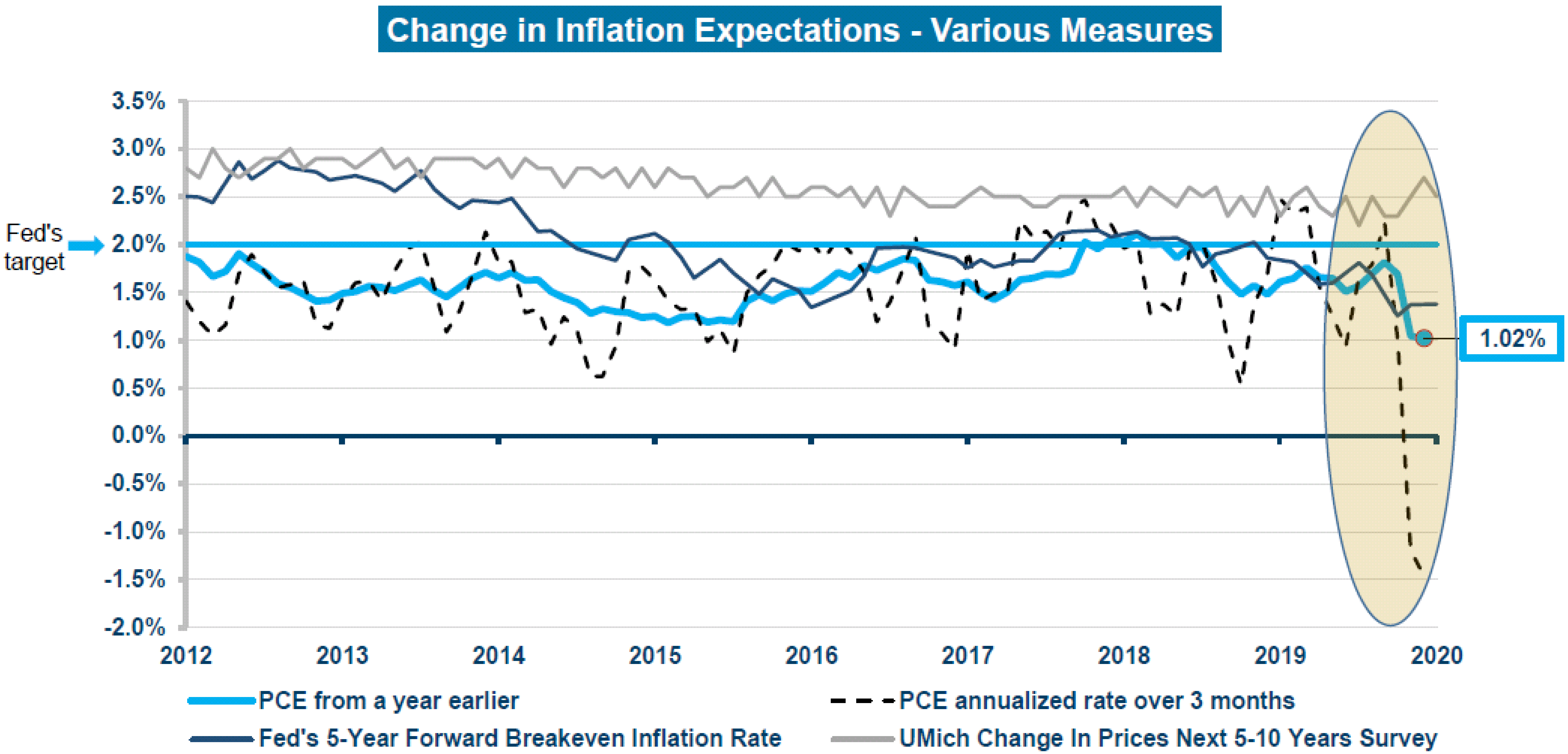
| | Announced | Terminated | Length (m) | Treasuries | MBS | Loans** | Balance sheet |
|---|---|---|---|---|---|---|---|
| QE1 | 11/25/2008 | 3/31/2010 | 16 | $300 | $1,074 | $397 | $1,403 |
| QE2 | 11/3/2010 | 6/29/2012 | 19 | $829 | -$196 | $76 | $568 |
| QE3 | 9/13/2012 | 10/29/2014 | 25 | $822 | $874 | $4 | $1,674 |
| QE4*** | 3/23/2020 | Ongoing | 3 | $1,723 | $572 | $211 | $2,924 |

Source: FactSet, Federal Reserve, J.P. Morgan Investment Bank, J.P. Morgan Asset Management.
Currently, the balance sheet contains $4.2 trillion in Treasuries and $1.9 trillion in MBS. The end balance forecast is $4.7 trillion in Treasuries and $2.2 trillion in MBS by December 2020. *Balance sheet forecast assumes the Federal Reserve maintains its current pace of purchases of Treasuries and MBS through December 2020 as outlined in the June 2020 FOMC meeting. **Loans include primary, secondary and seasonal loans, maiden lane securities and loans extended through newly established corporate credit facilities. Loan figures shown are max usage over the QE period referenced and are not growth of loan portfolio over the period. ***QE4 is ongoing and the expansion figures are as of the most recent Wednesday close as reported by the Federal Reserve.
*Guide to the Markets – U.S.* Data are as of June 30, 2020.

*Commentary –*

- To abate recessionary fears and improve market liquidity, the Fed expanded its balance sheet dramatically to a new high of $7.2 trillion, from $4.2 trillion at the end of February
- Asset purchases and anticipated usage of the Fed's credit facilities are estimated to bring the balance up to $10.3 trillion by the end of 2021, over 13% of GDP
- For context, the same level of stimulus implemented since March took nearly three years to achieve after the 2008 financial crisis

# In Short-Term, Disinflationary Pressures Are Mounting With Increase in Federal Budget Deficits & Fed's Balance Sheet




Source: Bloomberg and Amundi Pioneer. Last data point June 30, 2020. The **Personal Consumption Expenditure (PCE)** measure is the component statistic for consumption in gross domestic product (GDP) collected by the US Bureau of Economic Analysis (BEA).