Capital Markets Strategy

Essential inCights for the C-Suite

The Case for Transitory Inflation

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Bagan, Myanmar

Global Corporate & Investment Banking
Capital Markets StrategyTeam

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Summary Conclusions

1. **Historical Perspective:** Some economists have become concerned that a 1970s stagflation era is re-emerging, that rising prices will cause demand destruction, and possibly policy errors, that ultimately choke off growth. In our view, growth today is more robust than 50 years ago, supply side COVID disruptions are slowly unwinding, and central banks today are more effective in combatting inflation.

2. **Inflation Pressures Rising:** US Core PCE, the Fed's preferred inflation measure, has risen to 3.5% y/y, its highest level in over 30 years. Headline CPI is at 5.4%. However, the majority of the increase is concentrated in sectors directly or indirectly impacted by COVID-19.

3. **Markets Not Concerned:** As evidenced by low UST yields, yield curve flattening, and declining breakeven inflation rates, markets are not very concerned about inflation risk. Just as markets remain confident in the Fed's ability to control US pricing pressures, negative bond yields across Germany and Japan suggest that markets do not expect those large economies to snap through their disinflationary headwinds anytime soon.

Summary Conclusions

4 **Transitory Redefined:** Historically, Fed and market expectations around the term “transitory” have typically been 2-3 months. However, the strength of the reopening demand shock, and the scale of supply chain disruptions, have forced a “redefinition” of transitory to a longer period of perhaps 6-18 months, with large variance across industry segments.

5 **Transitory Inflation:** Q2 likely represents the most severe period for inflation base effects, persistently elevated demand and supply side shortages. Although well above Fed targets, core PCE has declined for two sequential months. For most sectors of the economy, supply side adjustments to the largest positive demand shock since WW2 should be resolved in the 2H 2021 and early 2022. Energy prices are also approaching cyclical peaks.

6 **Persistent Inflation:** While pricing pressures should decline across much of the economy, certain micro segments of the economy may have more “persistent” inflation over a longer period of time (i.e., leisure segment labor shortages, housing markets, certain supply chains).

Summary Conclusions

7 **Base Effects:** Comparisons to a very weak 1H 2020 are certainly a factor in rising Y/Y inflation numbers ("base effects"). However, inflationary pressures have strengthened considerably across much of the economy, and across numerous time periods (y/y, q/q, m/m). Other contributing factors include the economy's reopening, consumer behavior changes, supply chain disruptions and rising energy prices.

8 **Goods vs. Services:** For much of the last year, consumer behavior shifts toward durable goods drove inflationary pressures in those areas (i.e., furniture, autos, lumber). However, with the rapid vaccine rollout, the largest current drivers of inflation are related to services and leisure activities (hotels, airfare, car rentals) linked to reopening the economy.

9 **Energy Prices:** Rising oil and commodity prices have contributed to headline inflation, and have had a greater impact on those economies with resource intensive energy imports (i.e., India). However, oil and commodity prices are likely approaching their cyclical peak, and should proceed lower from here.

Summary Conclusions

10 **Supply Chain Disruptions:** Longer delivery times, transportation delays, rising order backlogs, declining inventories and higher input costs have all contributed to supply chain bottlenecks, and therefore inflationary pressures. With high vaccination rates and fiscal stimulus, a stronger US demand shock has made the US a global outlier on the severity of supply chain disruptions.

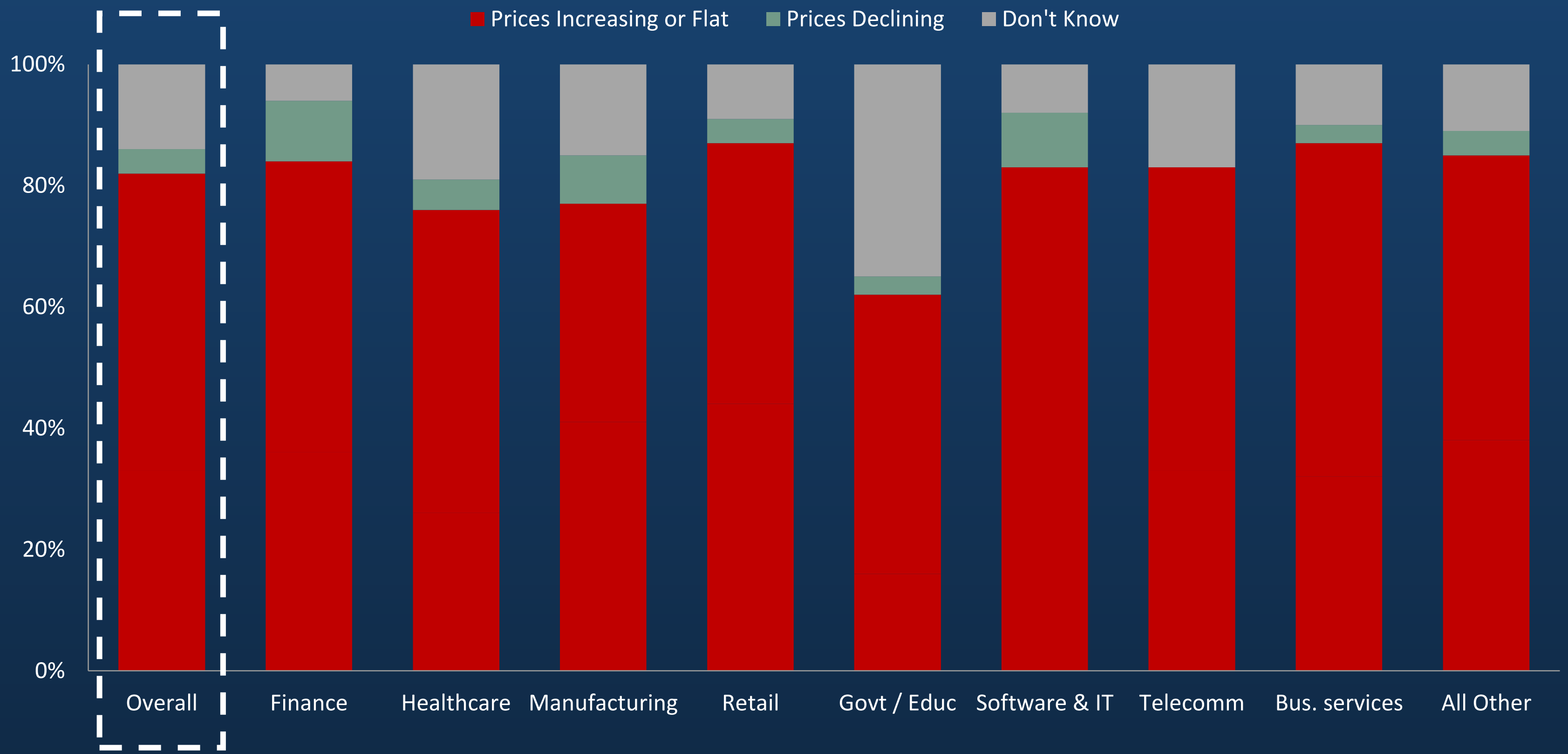
11 **Labor Market Shortages:** Labor market shortages have been driven by a myriad of COVID-related forces, and are therefore unlikely to dissipate after the enhanced unemployment benefits expire on Sept 6th. For many industries, labor market resolution is more likely in 2022.

12 **Structural Headwinds:** As the economy normalizes, pre-COVID disinflationary pressures are likely to become more evident (rising debt, aging demographics, technology, globalization). In the absence of a productivity driven breakthrough, and as fiscal tailwinds fade, a modest to below trend growth environment is therefore likely to return, with structurally lower growth, inflation and interest rates.

01
Introduction: Inflation Pressures Rising

US Businesses are Raising Prices

A quarterly survey conducted by S&P Market Intelligence of over 600 US businesses found that 33% of US companies are raising prices, while only 4% are decreasing prices. While the survey suggests inflation pressures have likely peaked, persistent pricing pressures are expected to continue in certain sectors.



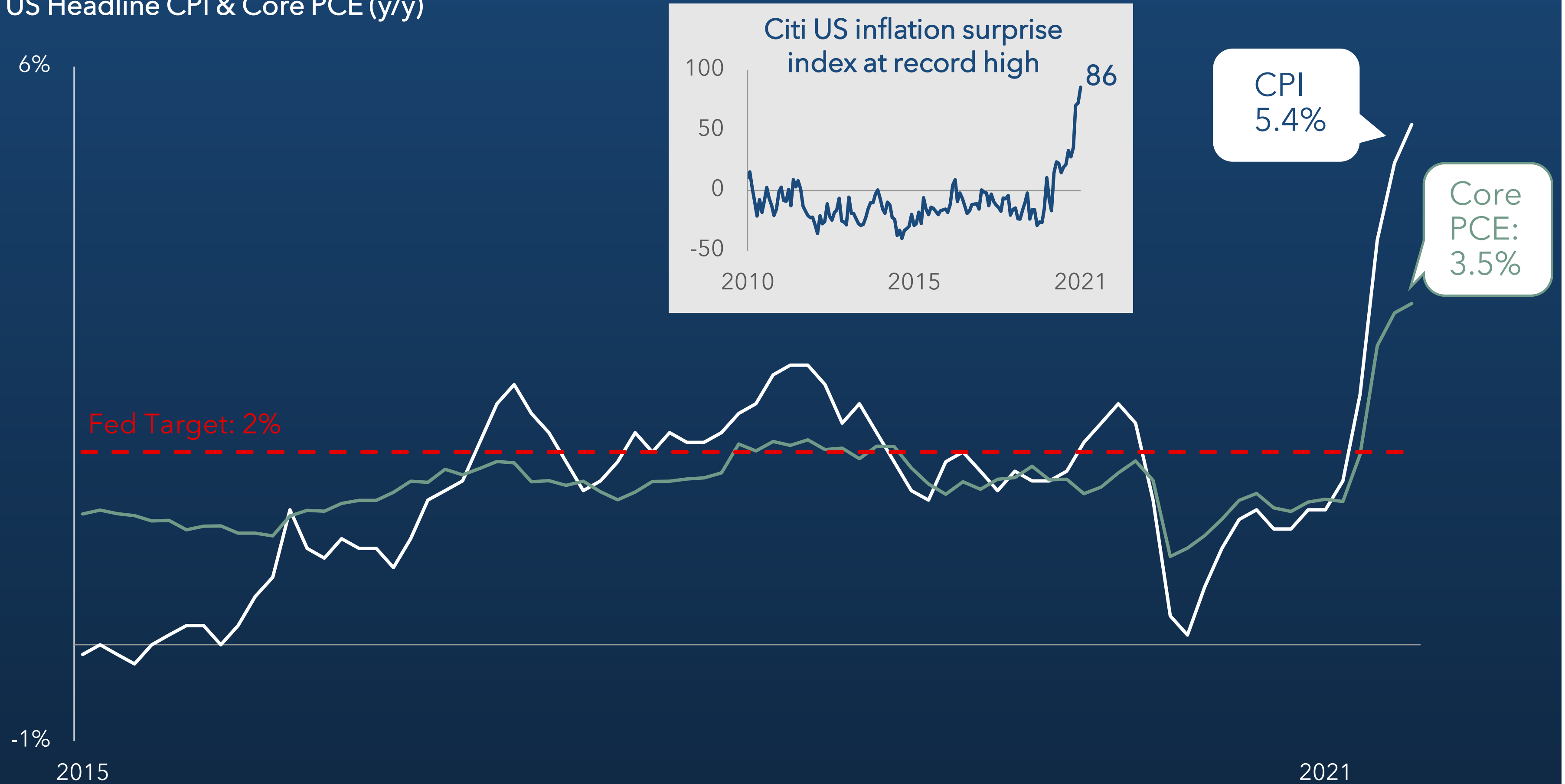
Note: Quarterly survey was conducted from May 25 to June 16, 2021. 606 survey respondents were asked "With regard to your own company, how are the prices for your products doing in the current marketplace?". The Sample size for telecommunications industry is too low (n=12) and should be interpreted anecdotally.

Source: (1) 451 Research. S&P Market Intelligence " US likely hit peak inflation as consumers switch from buying goods to services" (Brennan, Scheid), July 21, 2021.

Inflation Pressures Strengthening Considerably

Both headline inflation, and the Fed's preferred metric "core PCE", are currently well above the Fed's 2% target. Key contributors include the economy's reopening, consumer behavior changes, supply chain disruptions and rising energy prices.

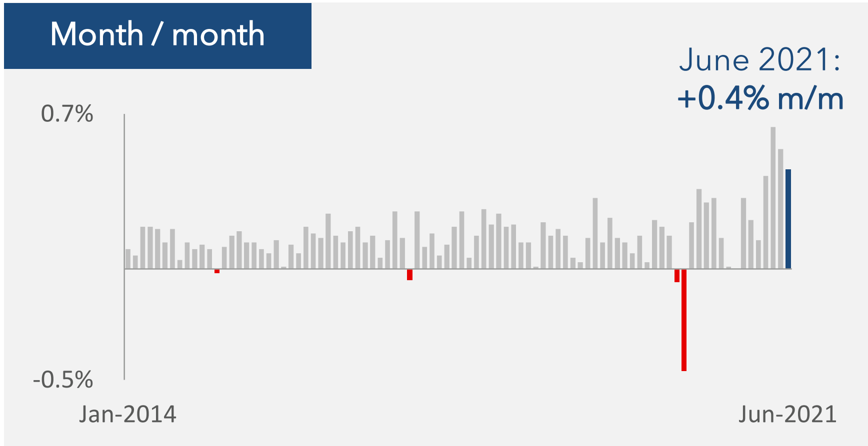
US Headline CPI & Core PCE (y/y)

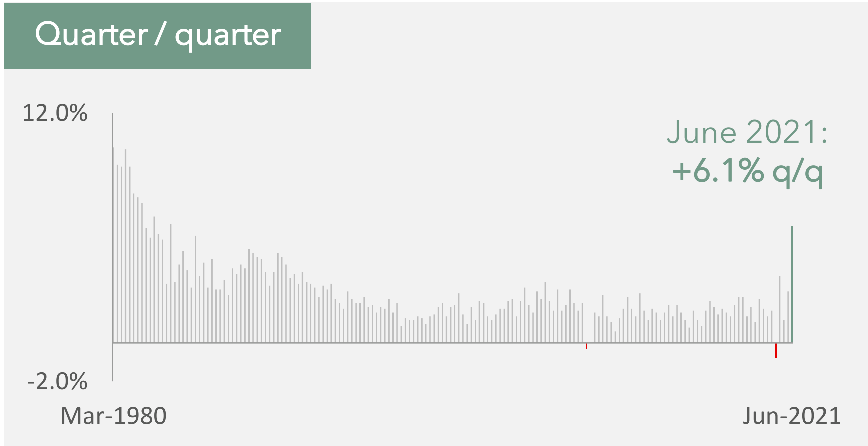


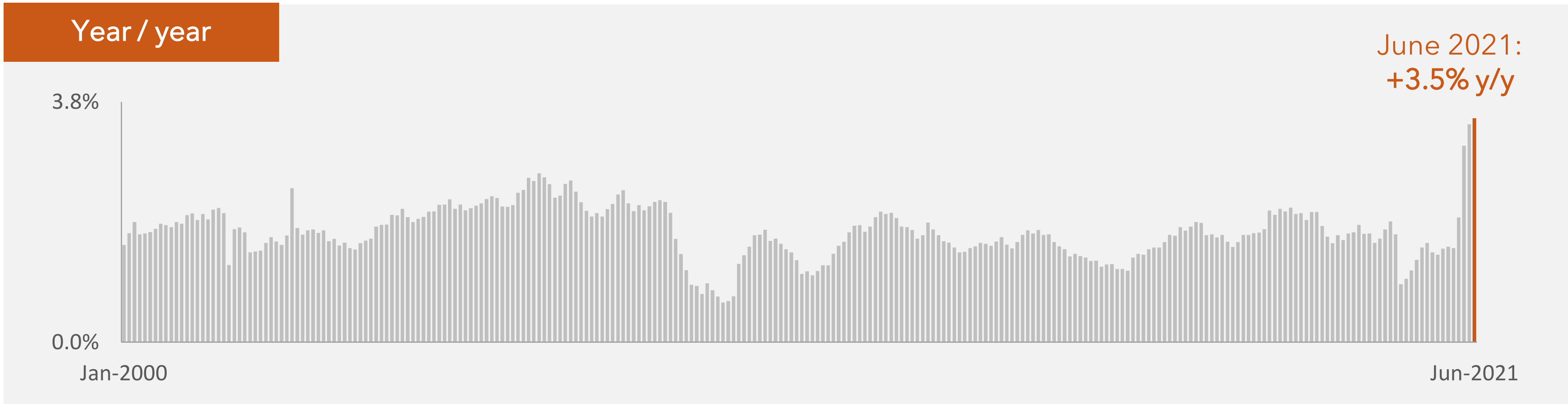
Source: (1-2) Bloomberg. Data as of August 4, 2021. FRED.

A Closer Look at US Core PCE

A closer look at the Fed's preferred inflation metric, Core PCE, reveals that price pressures may have peaked in the second quarter and have declined on a monthly basis in May and June. While pricing pressures are likely to decelerate from here, on a year-on-year basis, inflation will remain elevated in 2021.



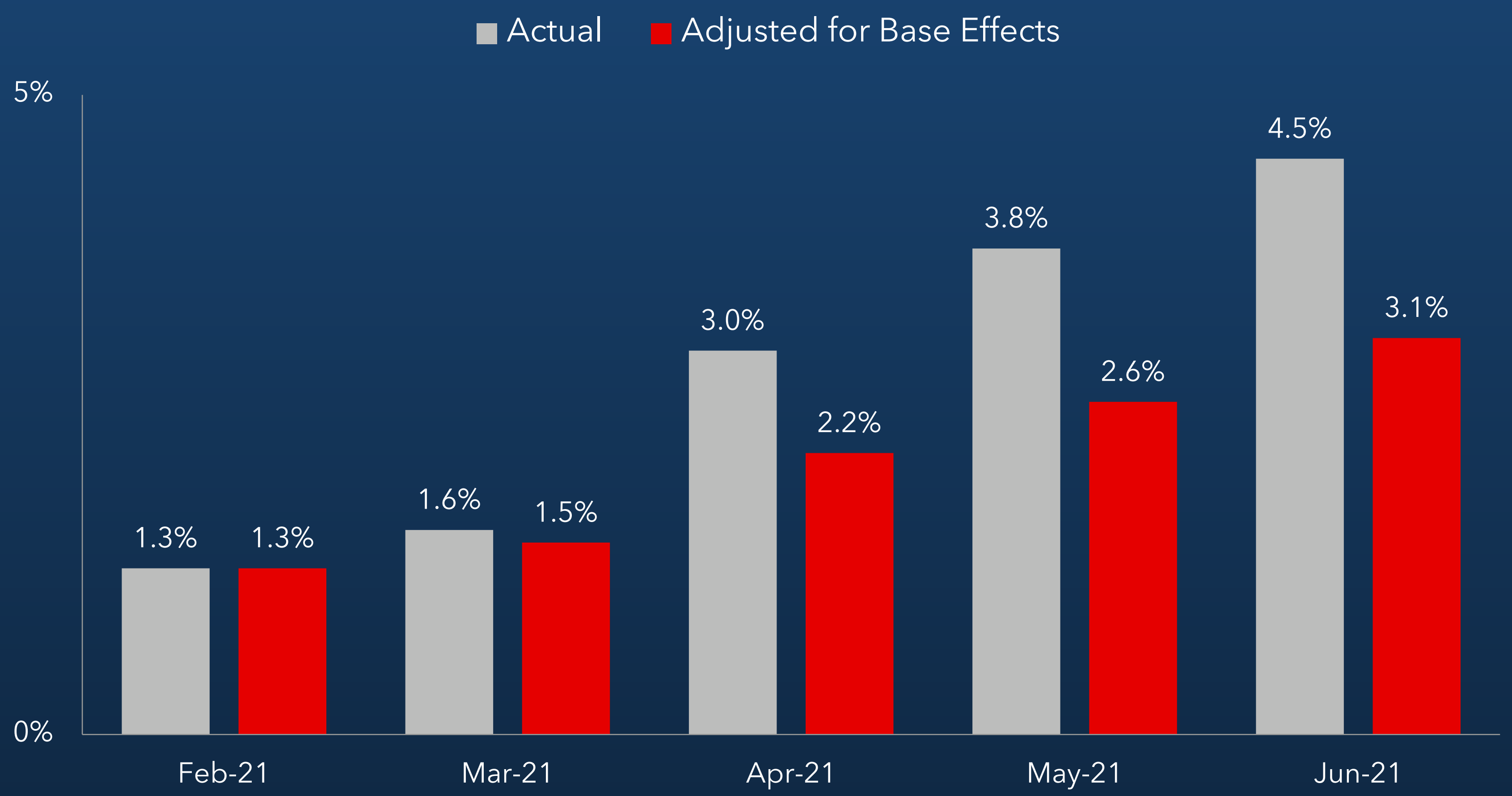




Source: (1-3) Bloomberg. Data as of August 4, 2021.

Inflation High, Even When Adjusted for Base Effects

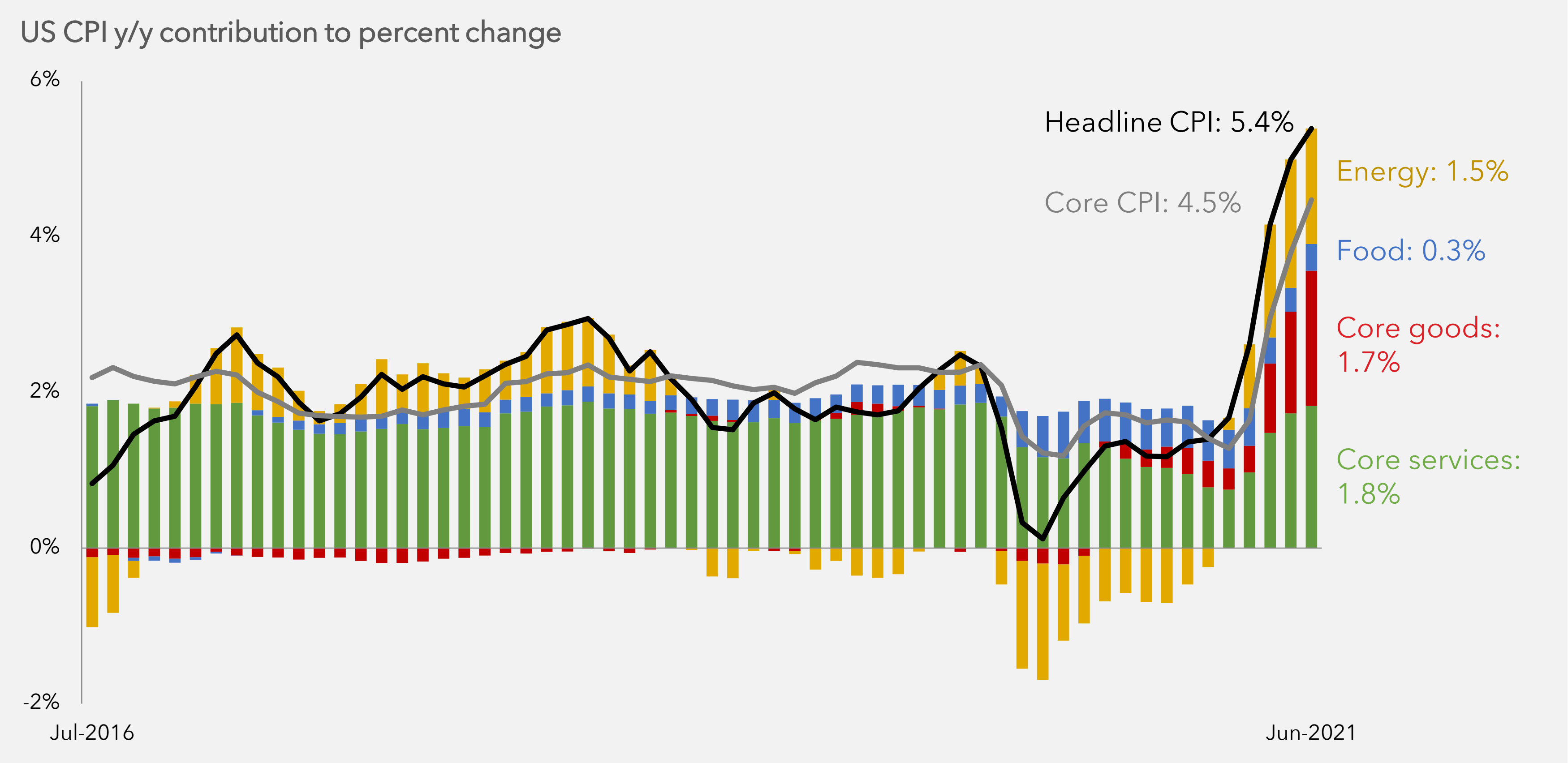
The contributions to high inflation are numerous, as evidenced by the fact that CPI inflation continues to rise even when adjusted for base effects



Source: (1) BLS. CEA. Annualized price growth using February 2020 as a fixed base.

Contributions to US Inflationary Pressures

Headline inflation surprised the market in June reaching 5.4% y/y, its highest annual increase since August 2008 and fastest monthly increase since October 1981. While pent-up demand continues to outpace supply on the goods side, the largest drivers of inflation are services associated with the reopening economy, namely in hotels, car rentals and airfare.

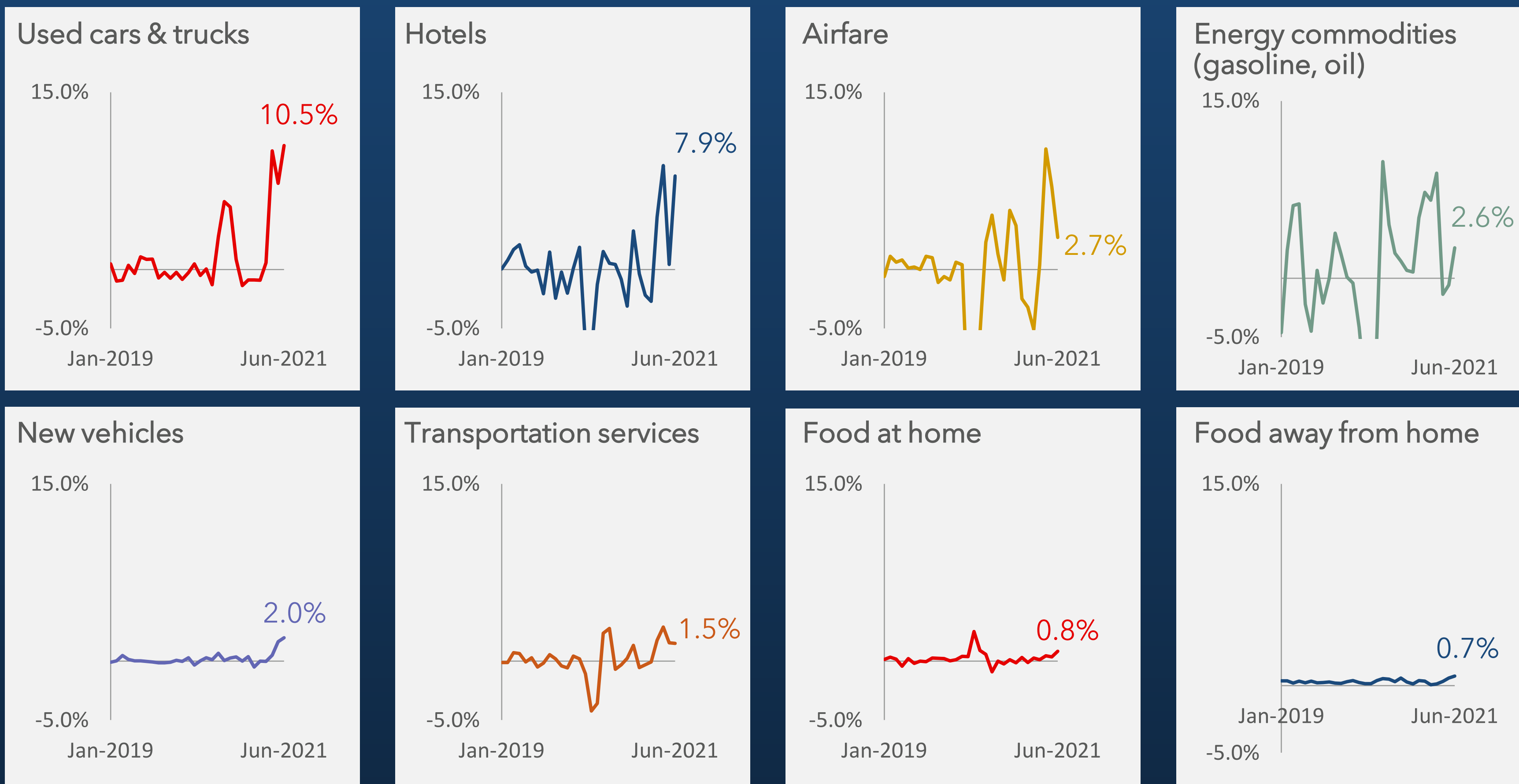


Source: (1) Bloomberg BQNT. Bureau of Labor Statistics. Data as of August 4, 2021.

Inflation Leaders & Laggards

While inflationary pressures were initially limited to largely durable goods and commodities, the rapid vaccine rollout and fiscal stimulus have contributed to larger and broader-based inflation across both goods and services sectors

Inflation for selected sectors, m/m

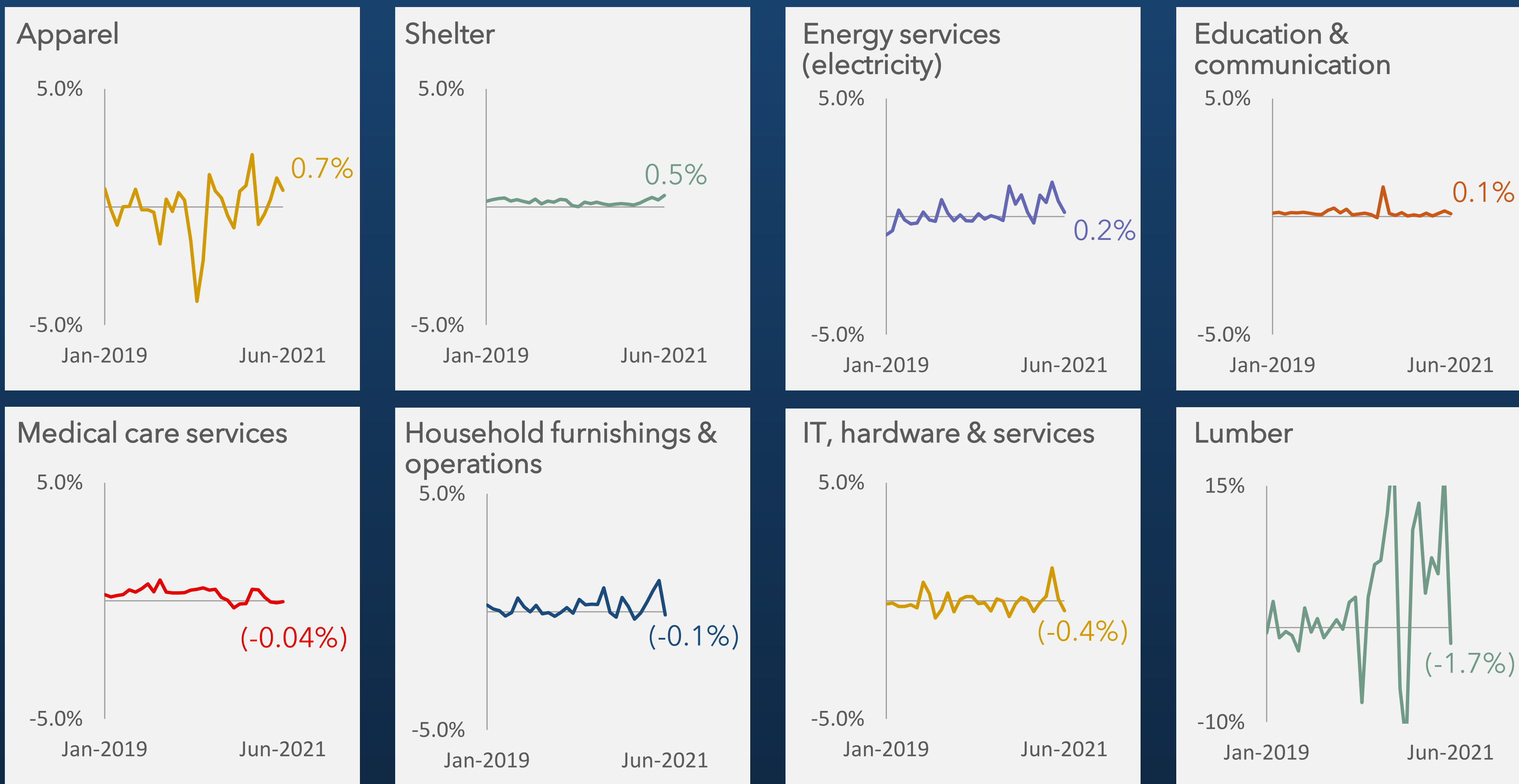


Source: (1-8) FRED. Consumer Price Indices for all urban consumers, US city average. Seasonally adjusted. Data as of August 4, 2021. Lumber is Producer Price Index.

Inflation Leaders & Laggards

Many sectors that originally outperformed during COVID-related closures (i.e., information technology, medical services, and food at home) are now lagging in the economic recovery

Inflation for selected sectors, m/m



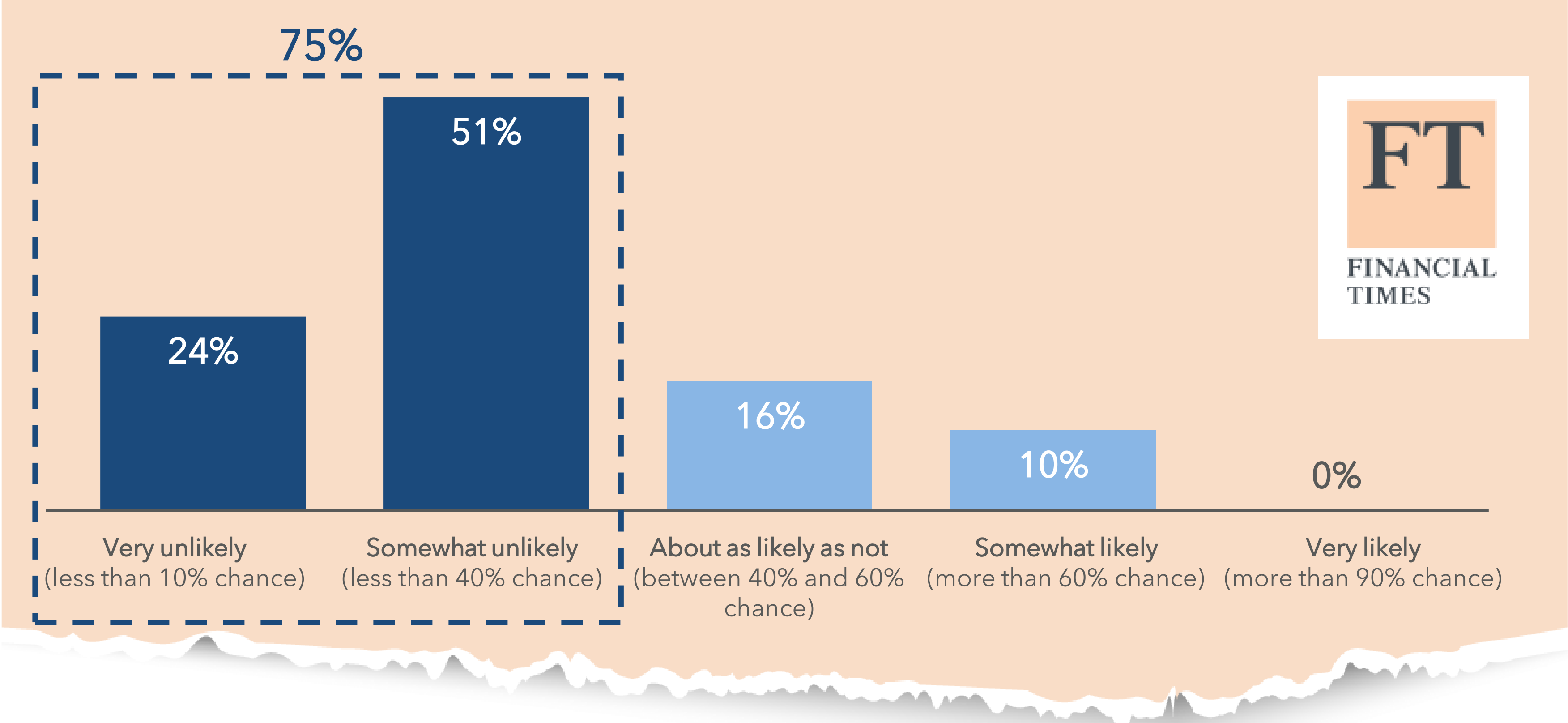
Source: (1-8) FRED. Consumer Price Indices for all urban consumers, US city average. Seasonally adjusted. Data as of August 4, 2021.

02
Markets Not Concerned About Inflation

Economists Believe Fed Can Manage Inflation Risks

Economists surveyed in a recent poll by the Financial Times expect core PCE to be 3% by year-end and to remain above the Fed's 2% target by year-end 2022. However, 75% of those polled believe market expectations for long-term inflation are unlikely to rise above 3% next year given confidence in the Fed's ability to combat inflation.

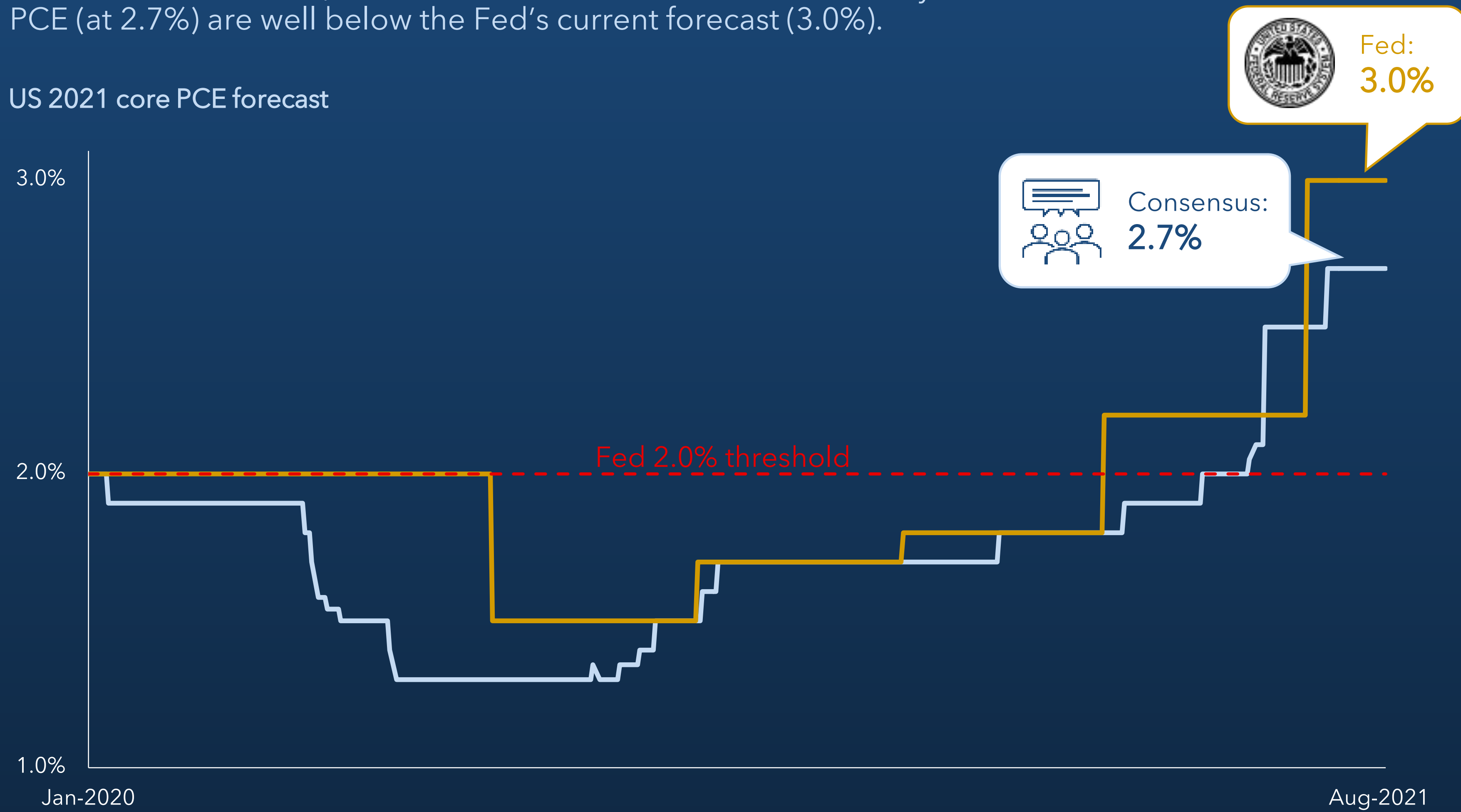
Likelihood of market inflation expectations exceeding 3% in 2022



*Source: (1) FT-IGM survey of 52 economists fro June 25 to June 28. Survey asked as of June 18, the level of five-year five-year forward inflation compensation (from TIPS) is 2.18 percent. What is your estimate of the likelihood that five-year five-year forward inflation compensation will exceed 3 percent at the end of the first week of January 2022? *Numbers do not sum to 100% due to rounding*

Consensus US Core PCE Forecasts Below Fed

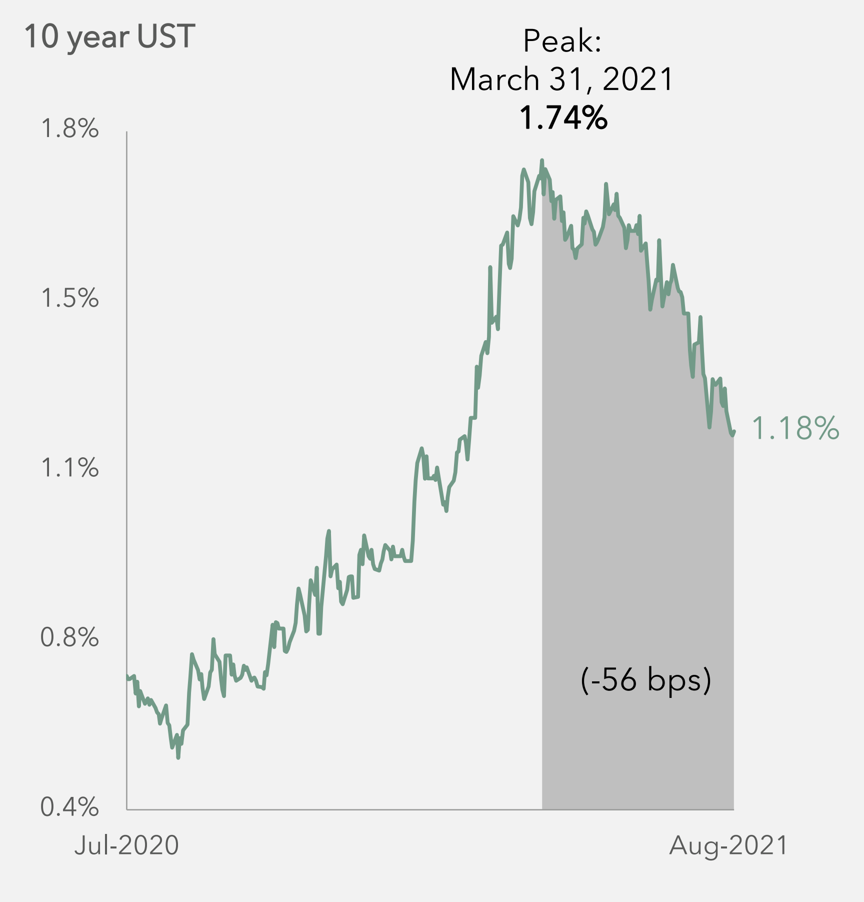
Wall Street economists, as aggregated by Bloomberg, are also not overly concerned about inflation. In fact, consensus Wall Street forecasts for 2021 year end US core PCE (at 2.7%) are well below the Fed's current forecast (3.0%).

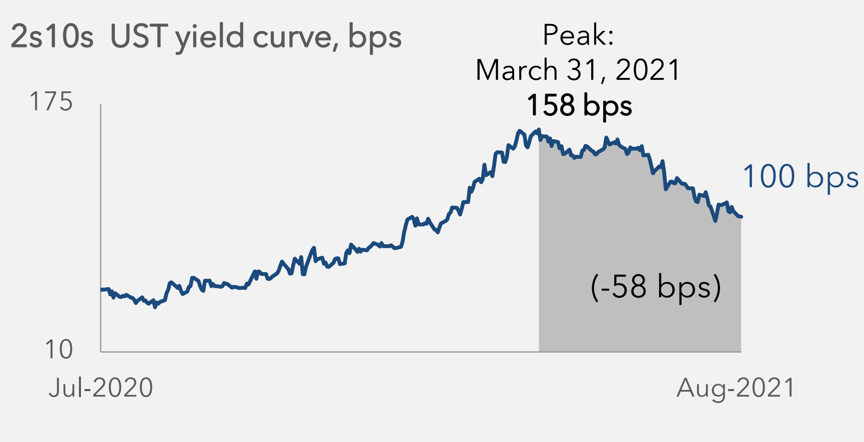


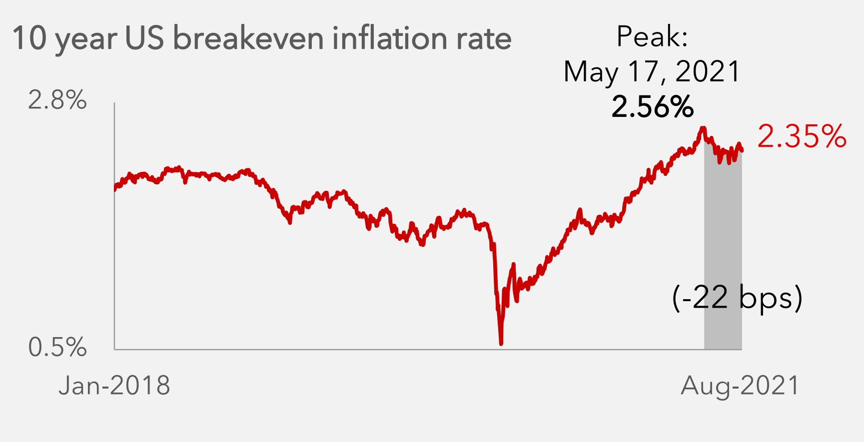
Source: (1) Bloomberg. Data as of August 4, 2021. FOMC.

Markets Not Concerned About Inflation

Declining US government bond yields, a flattening yield curve, and inflation breakevens "past peak" all suggest that markets believe many of the supply-side inflationary pressures in the economy will be resolved in the year ahead







Source: (1-3) Bloomberg. Data as of August 4, 2021.

US Inflation Breakeven Rate Signals

As evident in US inflation breakeven rates, the market is expecting a substantive improvement in inflation over the next year, with rates nonetheless remaining elevated above the Fed's 2% target on a multi-year basis

Source: (1-8) Bloomberg. Data as of August 4, 2021.

Disinflationary Forces Still a Concern

Just as markets remain confident in the Fed's ability to control US pricing pressures, over $16 trillion of negative bond yields across Europe and Japan suggest that markets do not expect those large economies to snap through their disinflationary pressures anytime soon

Source: (1) Bloomberg. Data as of August 5, 2021. US benchmark is upper bound. ECB is deposit facility rate. Switzerland is sight deposit rate. Denmark is certificates of deposit rate.

03
The Case for Transitory Inflation

The Case for Transitory Inflation

Central bankers, market participants and economists have engaged in a debate over whether recent inflationary pressures are "transitory," or if they represent a new "paradigm shift" in the macro-economic environment that is likely to persist for a multi-year period. In our view, the case for "transitory" inflation is more compelling, though we believe for certain micro-sectors of the economy, "transitory" may be a longer time period than expected (i.e., > 6-18 months). For most sectors, however, many of the supply side adjustments to the demand shock should be resolved in the 2H 2021 and early 2022.

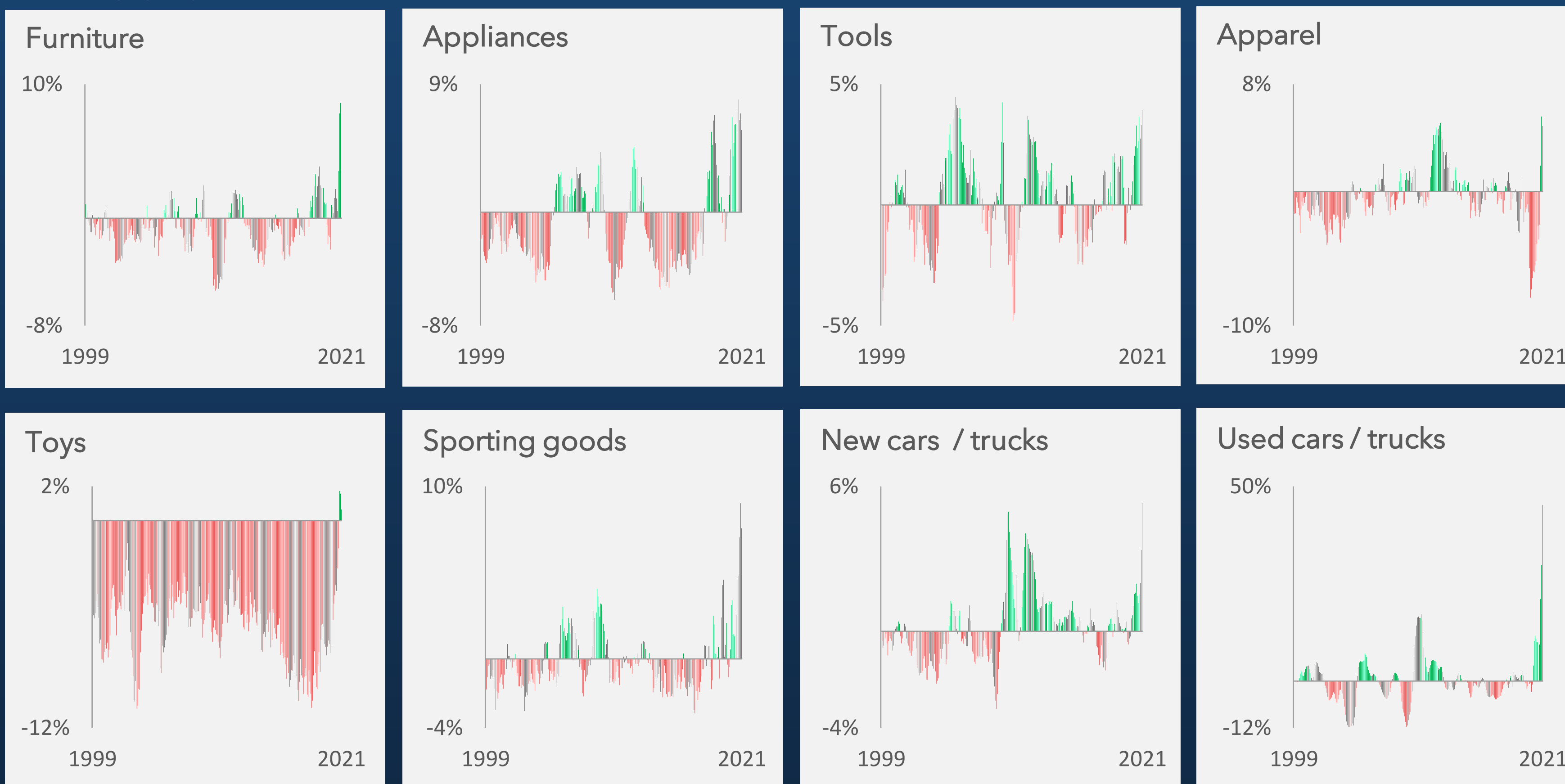
The Case for Transitory Inflation

Growth past peak (normalizing)	Consumer spending rebalancing towards services (normalizing)
Supply side adjustments to "demand shock" will take months (not years)	Labor market shortages should improve significantly by 2022
Commodities approaching cyclical highs	Return of pre-COVID structural headwinds (aging demographics, elevated debt)

COVID Consumer Behavior Changes

Many of the sectors that have pushed inflation higher this year were actually a deflationary force in the decades prior to the COVID period. As consumer behavior normalizes, expect inflationary pressures in these areas to ease as purchases transition back towards the services sector.

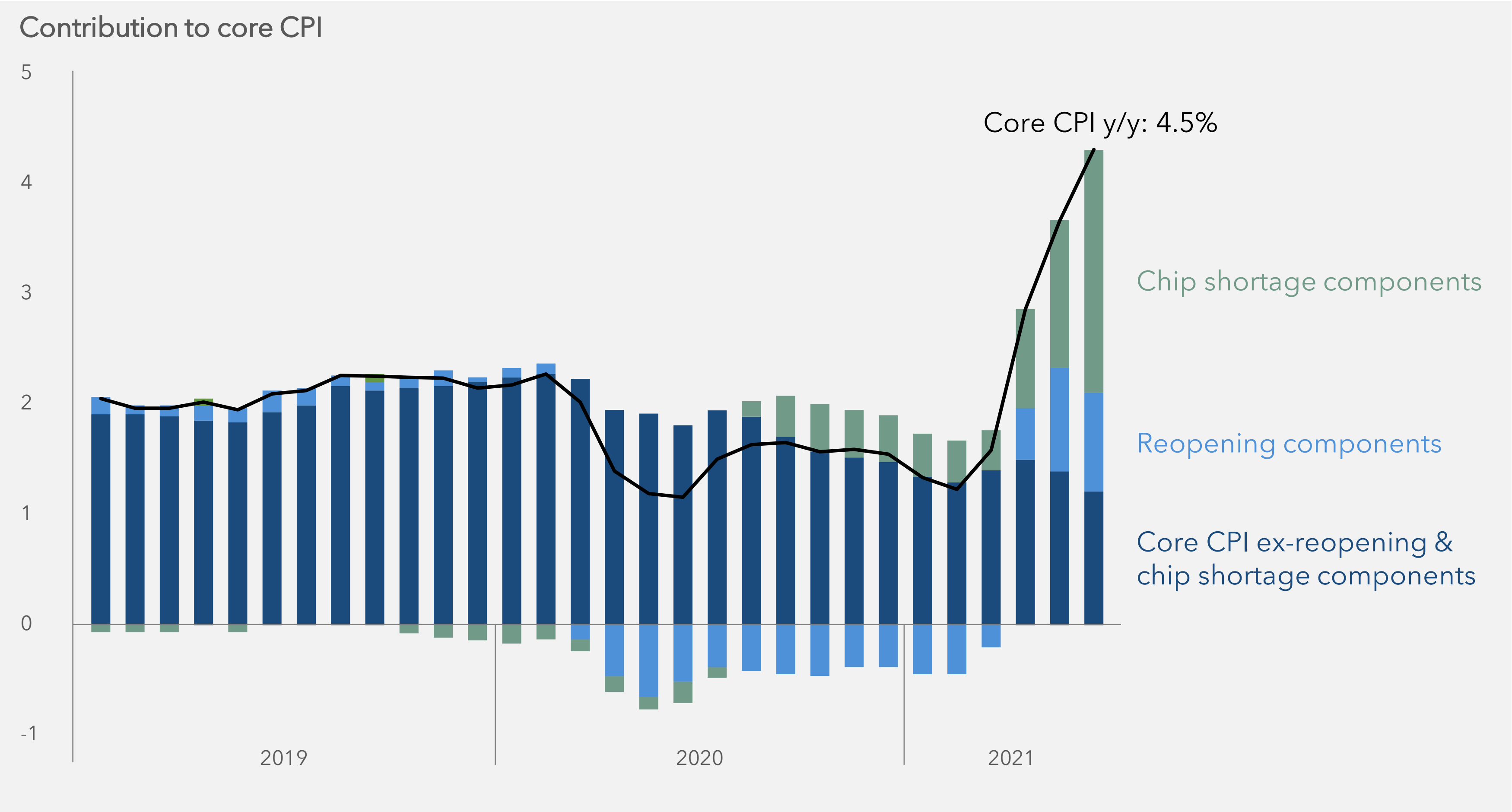
US CPI y/y by sector



Source: (1-8) Cornerstone Macro. Bloomberg. Data as of August 4, 2021. FRED.

Transitory Factors Driving CPI Gains

Rick Rieder, Blackrock's CIO of Global Fixed Income, notes that the segments driving CPI are predominately in reopening sectors and in chip-shortage components, giving credence to the Fed's thesis that inflation will be transitory



Source: (1) BlackRock (Rick Rieder). Bureau of Labor Statics data as of August 2, 2021. Bloomberg.

Oil Prices Approaching Cyclical Peak

According to MUFG's head of EM Research, Ehsan Khoman, oil prices are likely approaching their cyclical peak, and are likely to trade lower in the quarters ahead as a result of higher OPEC+ production, a recovery in the US shale market, and an eventual return of Iranian supply. This, in turn, should also serve to reduce inflationary pressures on the global economy going into 2022.

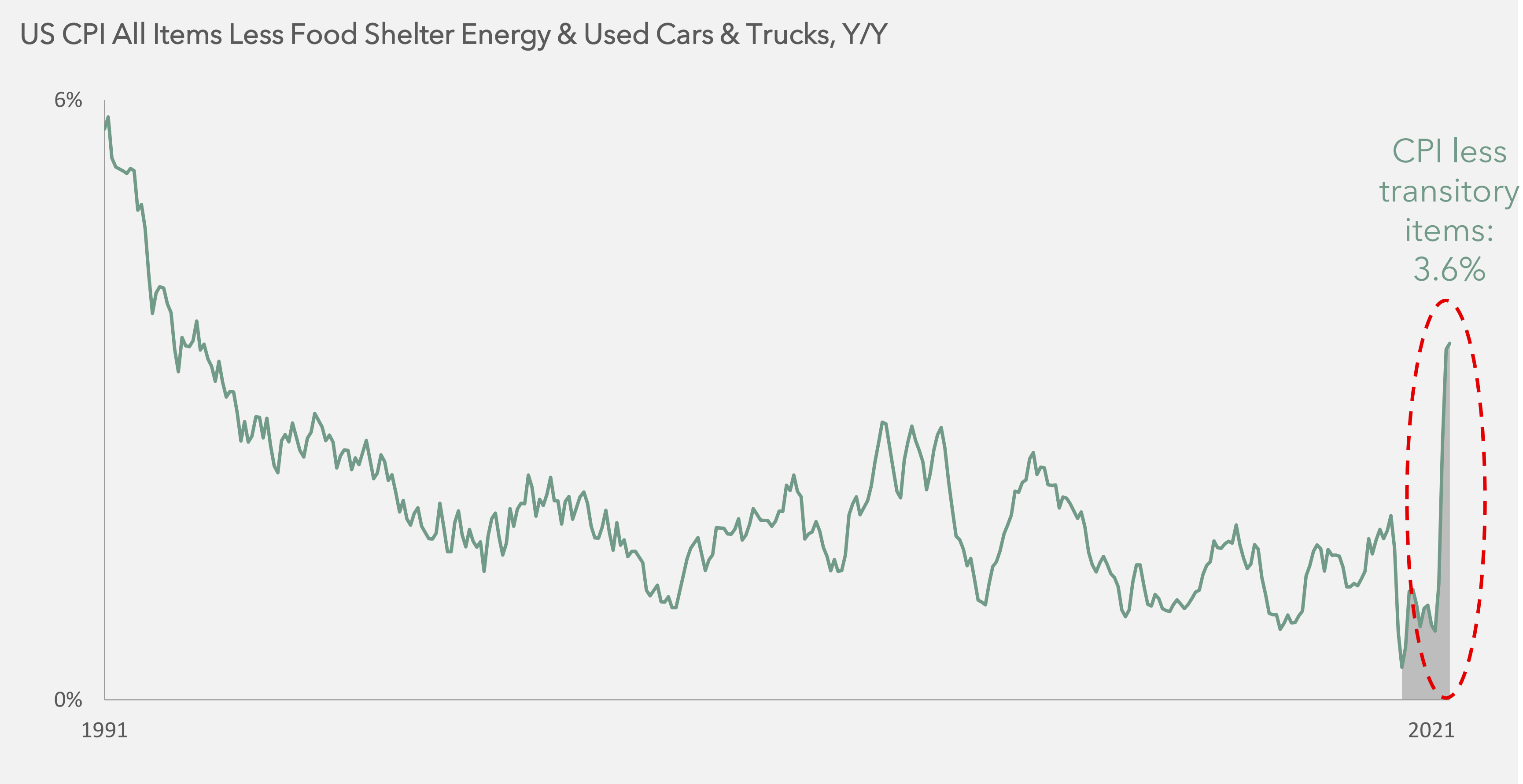
Quarter end Brent price, USD / barrel

Source: (1) MUFG EM Research "Oil Markets Weekly Report – OPEC+ Close to a Compromise Deal" July 15, 2021, (Khoman).

04
Areas Where Inflation May Persist

Areas of Persistent Inflation

Even if all “transitory” items are excluded, year on year inflation is still at its highest level since 1993. Specifically, we expect persistent inflationary pressures from supply chain disruptions, labor market shortages and selected sectors of the domestic economy like housing.

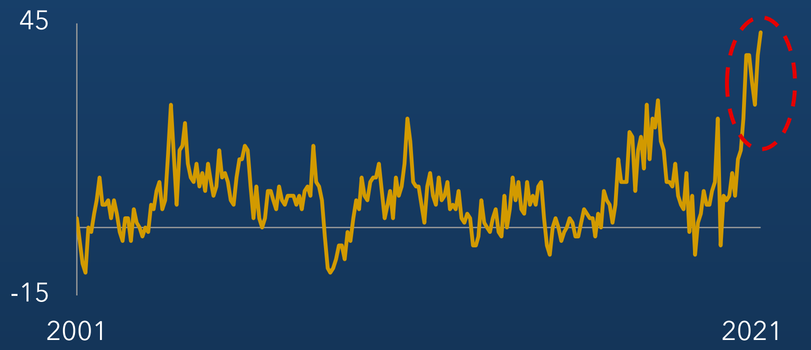


Source: (1) Bloomberg. Data as of August 5, 2021. Seasonally Adjusted.

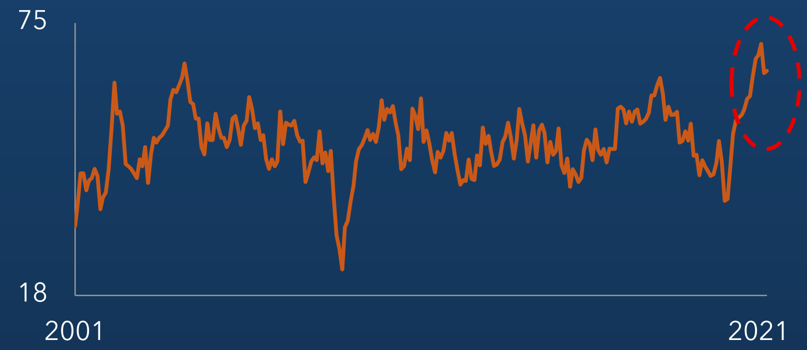
Supply Chain Bottlenecks

COVID-19 has precipitated a broad range of formidable supply chain disruptions driven by employee health issues, regional lockdowns and changing consumer behavior patterns. The unexpected demand drops and surges, supply shortages and inventory placement challenges have been formidable. This, in turn, has contributed to significant bottlenecks, shortages and inflation in numerous micro sectors of the economy.

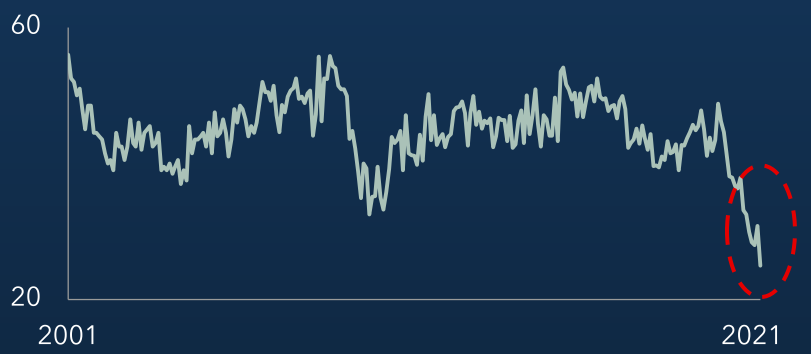
Longer delivery times



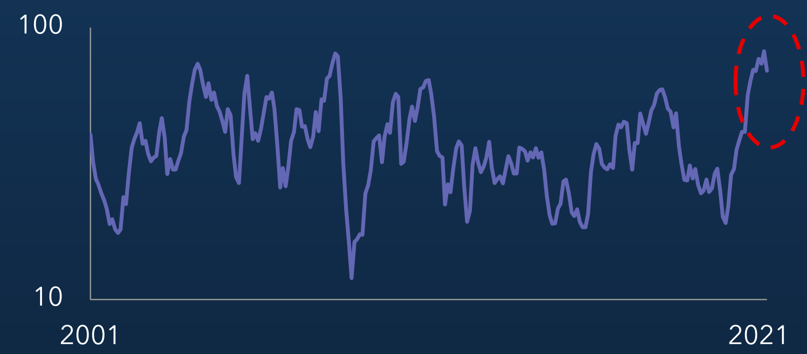
Order backlogs elevated



Low inventories



Higher prices paid

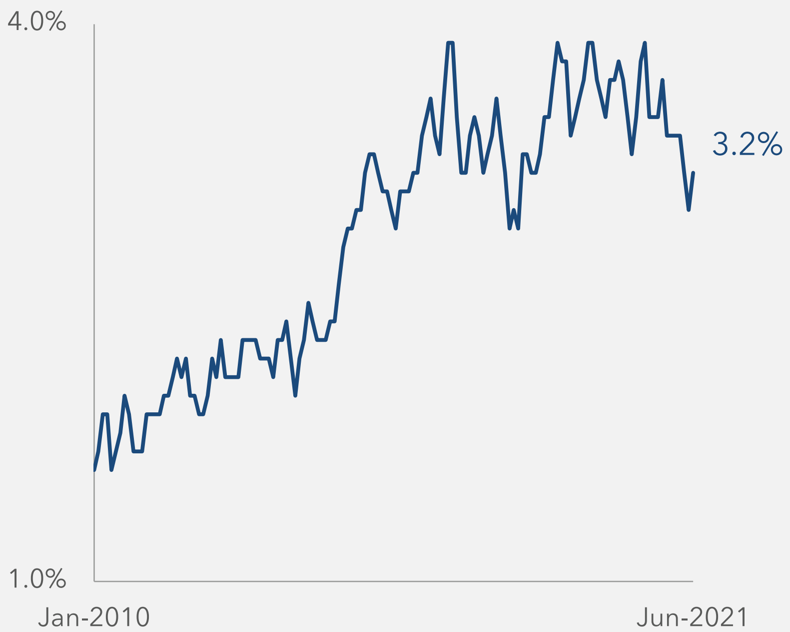


Source: (1) Kansas City Fed Manufacturers Supplier Delivery Time index. Torsten Slok, Chief Economist, Apollo . (2-4) Bloomberg. Data as of August 4, 2021.

Labor Market Shortages

Labor market shortages in the US economy have been driven by a myriad of COVID-related and demand shock forces that extend well beyond expansive unemployment benefits. In particular, the rapid improvement in labor market conditions over the last 6 months has been highly correlated statistically with progress on the vaccine rollout. As such, we expect labor market shortages to continue for several months after the extended unemployment benefits expire on September 6th, with resolution more likely in 2022.

Wage growth, y/y

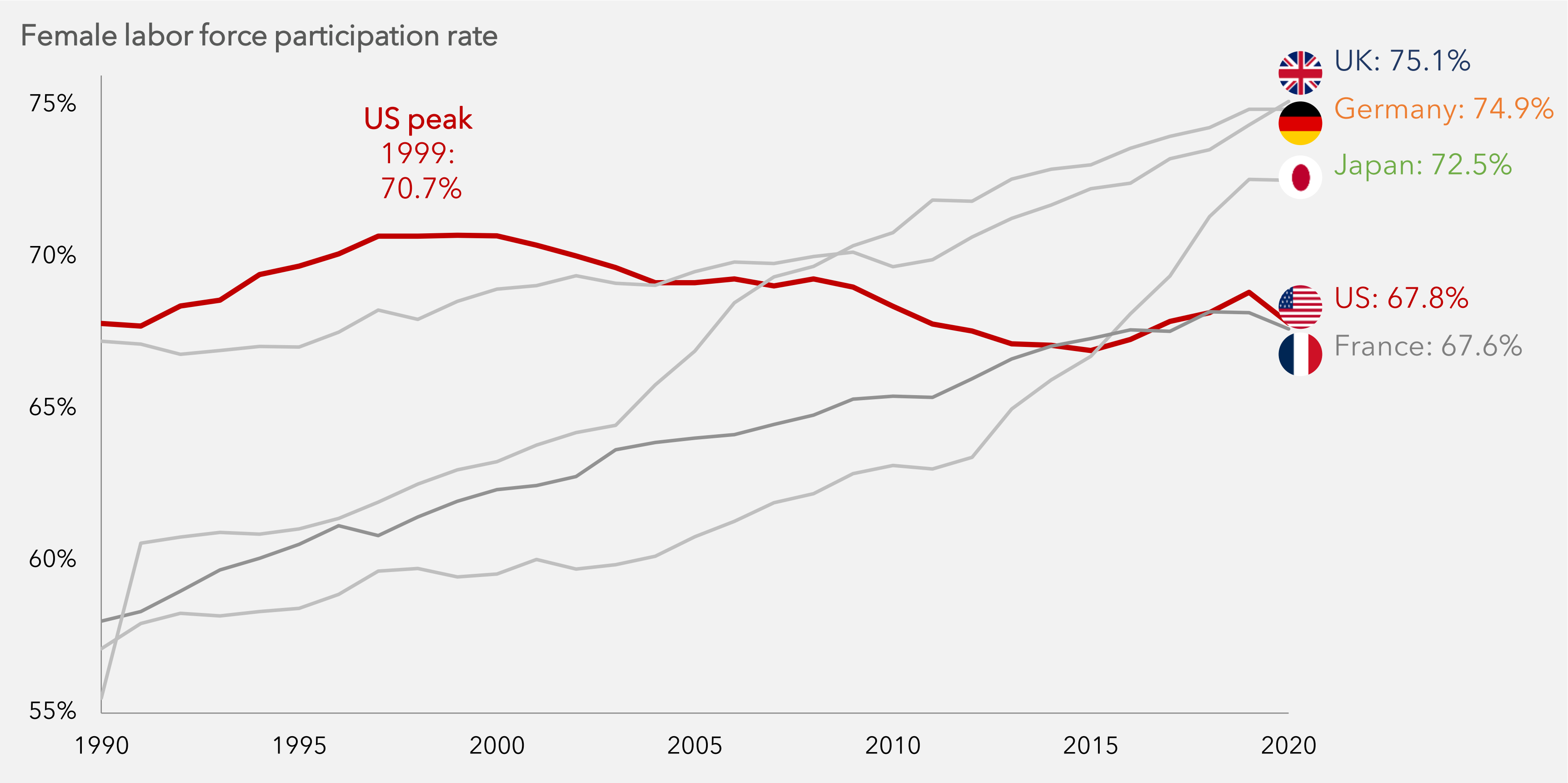


Drivers of US labor shortages
Expansive unemployment benefits (expire Sept 6)
COVID related fears
COVID related visa / travel restrictions
Child & elderly care challenges
Elevated consumer savings rates
High workforce exit rates (baby boomers, women)
"Mismatches" between job needs and skillsets
Impact of supply chain disruptions

Source: (1) Wage growth is The Atlanta Fed's Wage Growth Tracker Measure of the nominal wage growth of individuals. It is constructed using microdata from the Current Population Survey (CPS), and is the median percent change in the hourly wage of individuals observed 12 months apart. Data as of August 4, 2021.

Structural Changes in Labor Market Participation

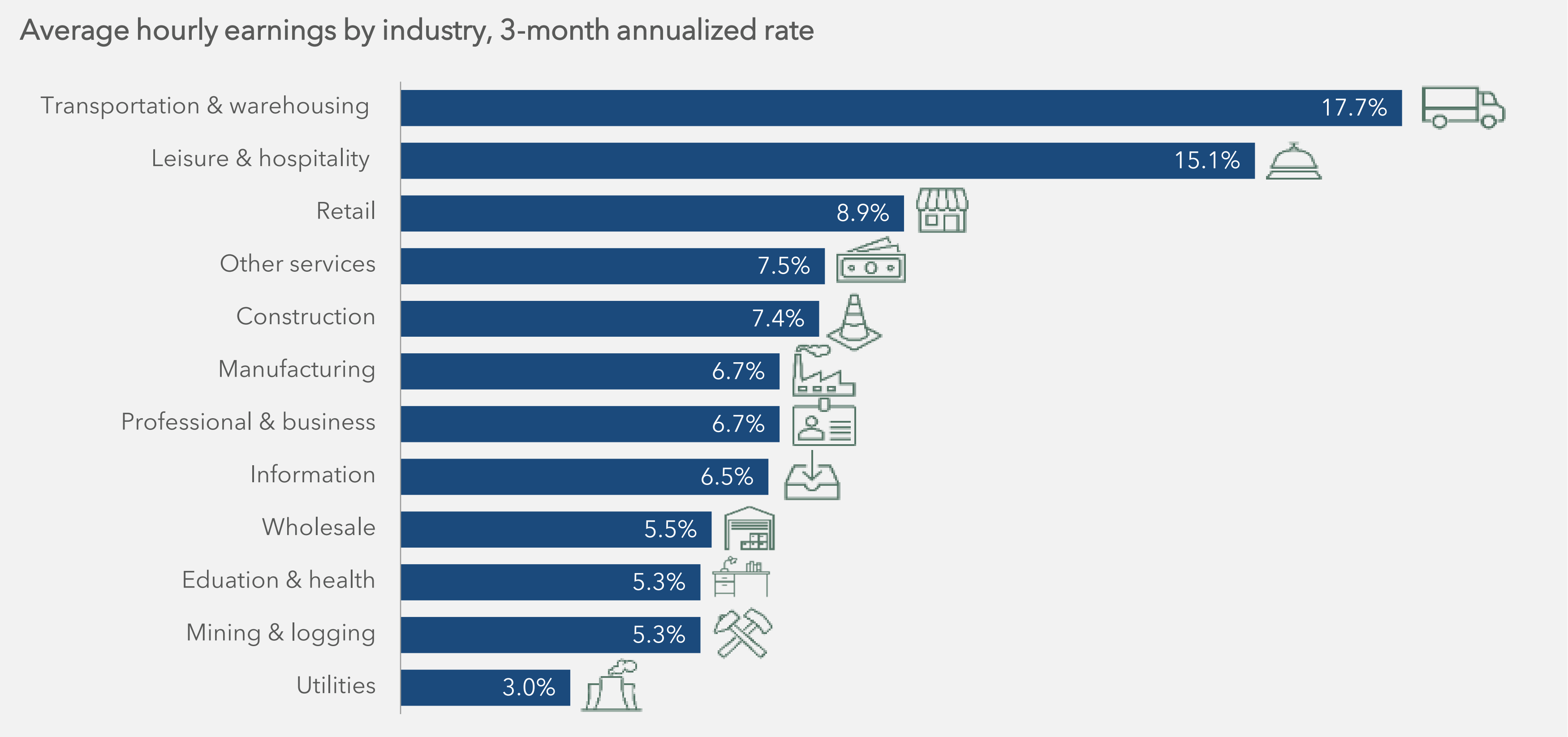
Female labor force participation began rapidly rising in the US in the 1960s, and while the rate peaked in 1999, the percentage of women working in the US outpaced other advanced economies through the early 2000s. The Global Financial Crisis in 2008-2009 accelerated the pace of women leaving the workforce and today a similar trend has been observed as working women take on more hours of unpaid child care compared to working men in the wake of the COVID-19 recession.



Source: (1) OECD. Female labor force participation rate is all females ages 15-64. Data as of August 4, 2021. Germany data available through 2019, all other countries through 2020. BLS Reports, "Women in the labor force: a databook" (December 2018).

Wage Inflation in Face of Labor Shortages

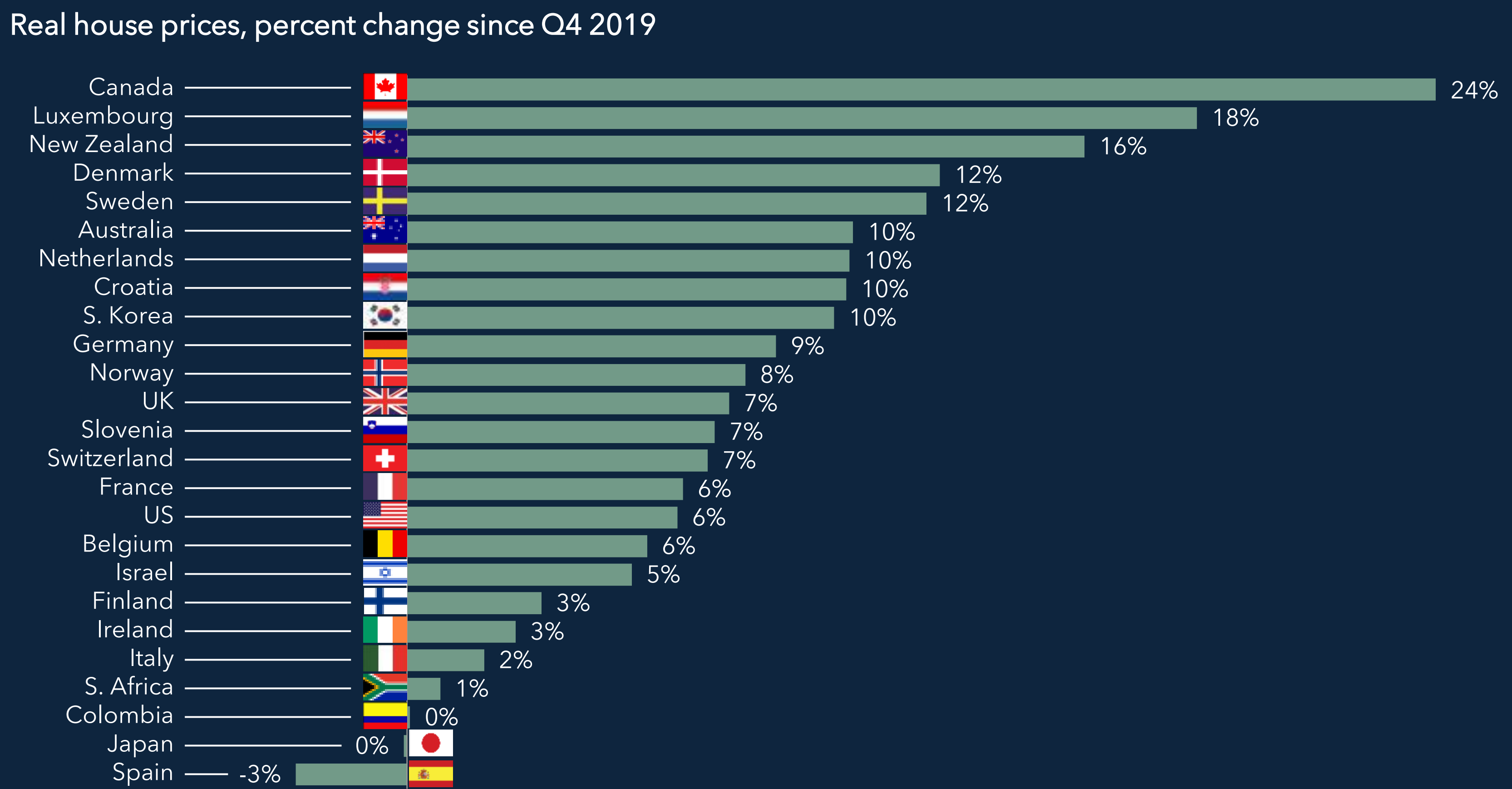
As the US economy experiences the largest demand shock since WWII, many businesses are struggling to hire or re-hire enough employees to meet demand. In an effort to attract qualified candidates, employers are raising wages, particularly in traditionally lower wage sectors. Overall hourly earnings have increased 5.9% on an annualized basis over the last three months, more than double the 2.4% average of the last economic cycle. Some sectors, such as leisure & hospitality and transportation & warehousing are experiencing wage inflation over 15% on an annualized basis.



Source: (1) Axios. US Department of Labor.

Housing Inflation a Major Concern Globally

While global housing prices have risen steadily since 2009, in the post-COVID recovery period of the last year, prices have surged at rates not seen since the lead up to the financial crisis in 2008. As a result, housing bubble concerns are growing in several economies around the world.

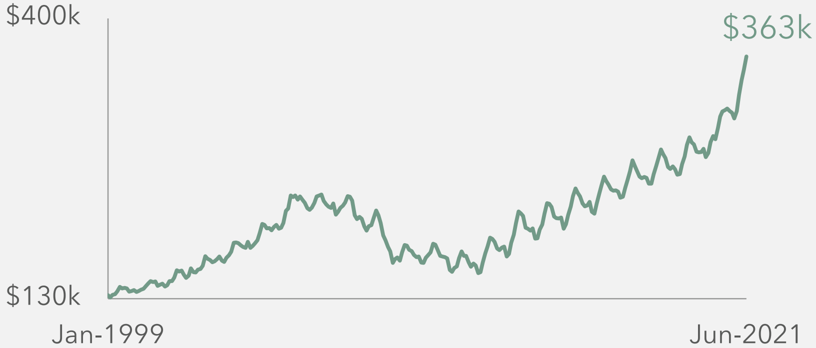


Source: (1) Mack, A., and E. Martínez-García. 2011. "A Cross-Country Quarterly Database of Real House Prices: A Methodological Note." Globalization and Monetary Policy Institute Working Paper No. 99, Federal Reserve Bank of Dallas.

A Closer Look at US Housing Inflation

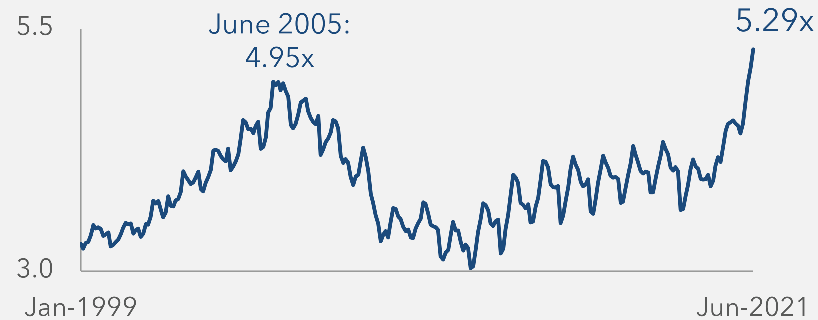
US home prices reached record levels in May

US existing home sales, median price



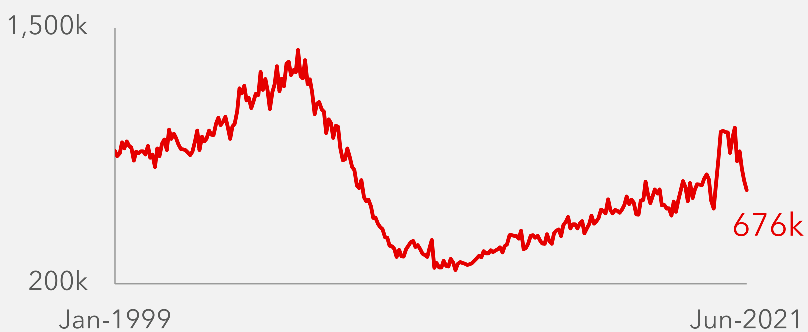
As a result, home price affordability has deteriorated sharply

US median home price / median income



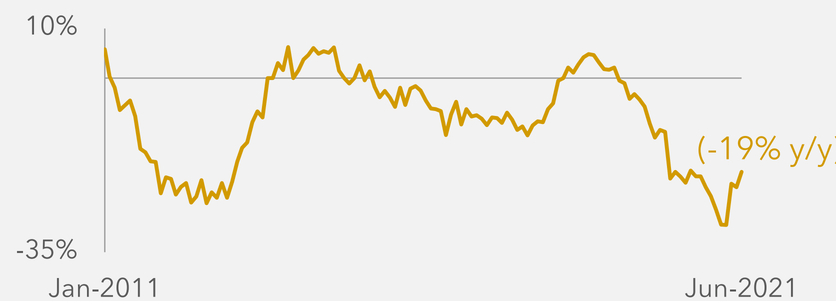
Mortgage applications fell 30% from their December peak as the number of homes sold declined

US new home sales



Despite declining affordability, low inventories are likely to keep a floor on home prices

Existing homes for sale, y/y



Source: (1-4) Bloomberg. Data as of August 4. 2021.

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Tom Joyce is a Managing Director and Capital Markets Strategist within MUFG's global capital markets and investment banking business. Based in New York, Tom heads a team that creates customized analytical content for multi-national US corporates and Fortune 500 companies. His team provides in depth analysis on the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

Tom has over 25 years of Investment Banking experience in New York, London, Hong Kong, and San Francisco. Over the last 15 years, Tom created and built the Capital Markets Strategy role, advising corporate C-Suite executives (Boards, CEOs, CFOs, and Treasurers) on the pervasive macro forces driving markets. Tom also presents at dozens of corporate events each year including Board meetings, CEO ExCo sessions, CFO and Treasury off-sites, corporate leadership events and conferences.

Tom's educational background includes a year of study at Oxford University from 1991 - 1992, a Bachelor of Arts in Political Science from Holy Cross College in 1993, and a MBA from Kellogg Business School, Northwestern University in 2000.

Tom resides in New Canaan, CT with his wife and four sons, where he coaches youth basketball and serves on the Board of Trustees of the New Canaan Library, as well as the Board of the New Canaan Football (Soccer) Club.

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Hailey Orr is a Director in MUFG's Capital Markets Strategy group within the global capital markets and investment banking business. The team provides market based content for corporate clients to assist in strategic decision making. Focus areas include the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

Hailey has a decade of Wall Street experience, including three years as a Consumer Sector Specialist in Equity Sales and seven years as a Capital Markets Strategist. Hailey is also a member of MUFG's Inclusion & Diversity Council and has devoted years to participating in and developing Wall Street recruiting programs.

Hailey graduated with honors from the University of Michigan's Ross School of Business with a BBA and a minor in International Studies.

In March 2020, Crain's New York Business Magazine named Hailey one of the "Rising Stars in Banking and Finance".

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Stephanie has spent over three years as a Capital Markets Strategist. At her prior firm, Stephanie was a part of the Americas Women's Network Junior Council and was an active member of the University of Michigan recruiting team.

Stephanie graduated with honors from the University of Michigan's Ross School of Business with a BBA .

MUFG's Capital Markets Strategy Team

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