Capital Markets Strategy

Essential inCights for the C-Suite

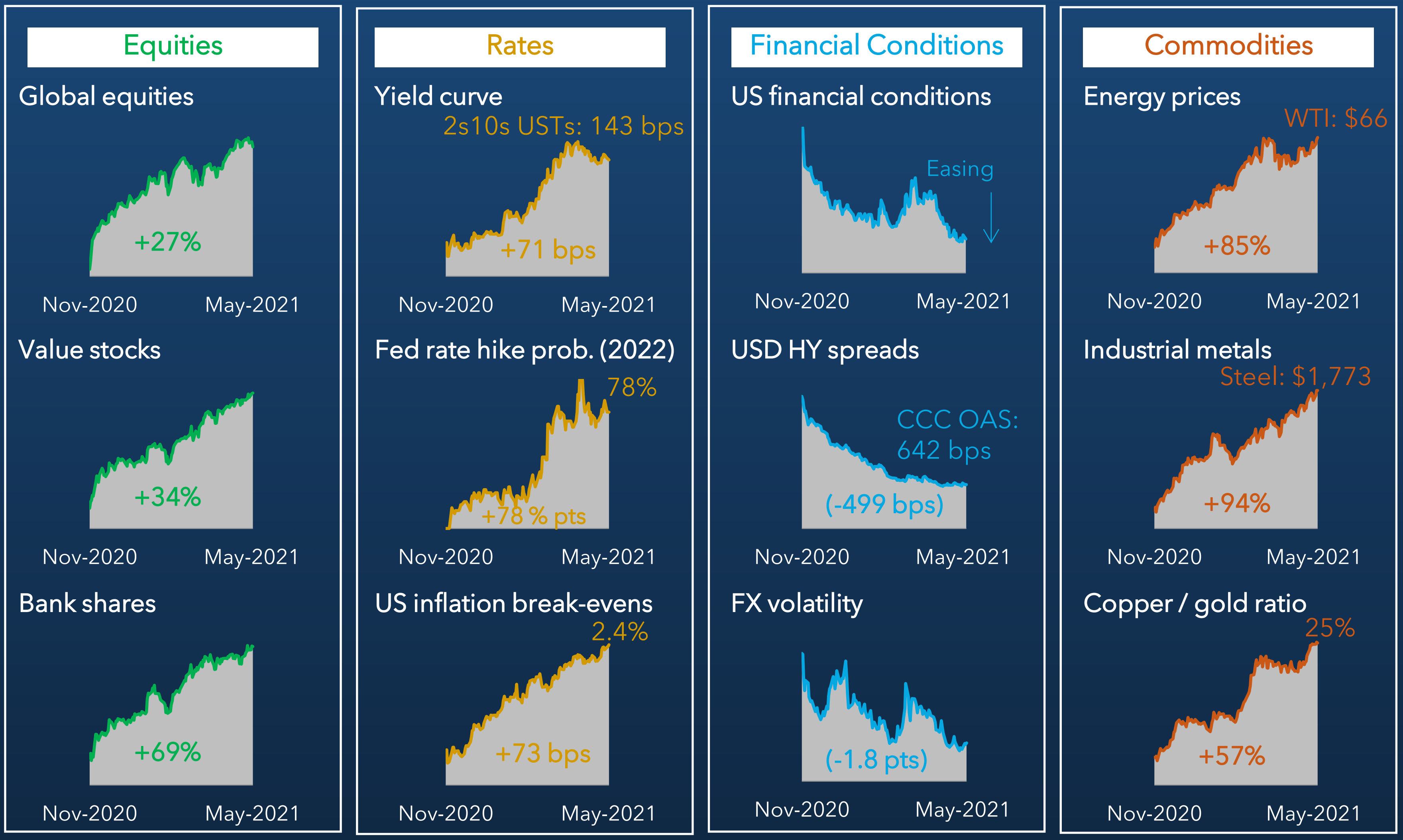
MUFG

Repricing Global Growth

Balancing Policy Activism & a Resurgent Economy

Markets Repricing for Higher Growth

Performance since November 1, 2020



Source: (1-12) Bloomberg. Data as of May 5, 2021. FRED. Global equities is MSCI all world, value stocks is S&P 500 value, bank shares is S&P 500 bank index, financial conditions is GS FCI, FX volatility is CVIX,.

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Contents

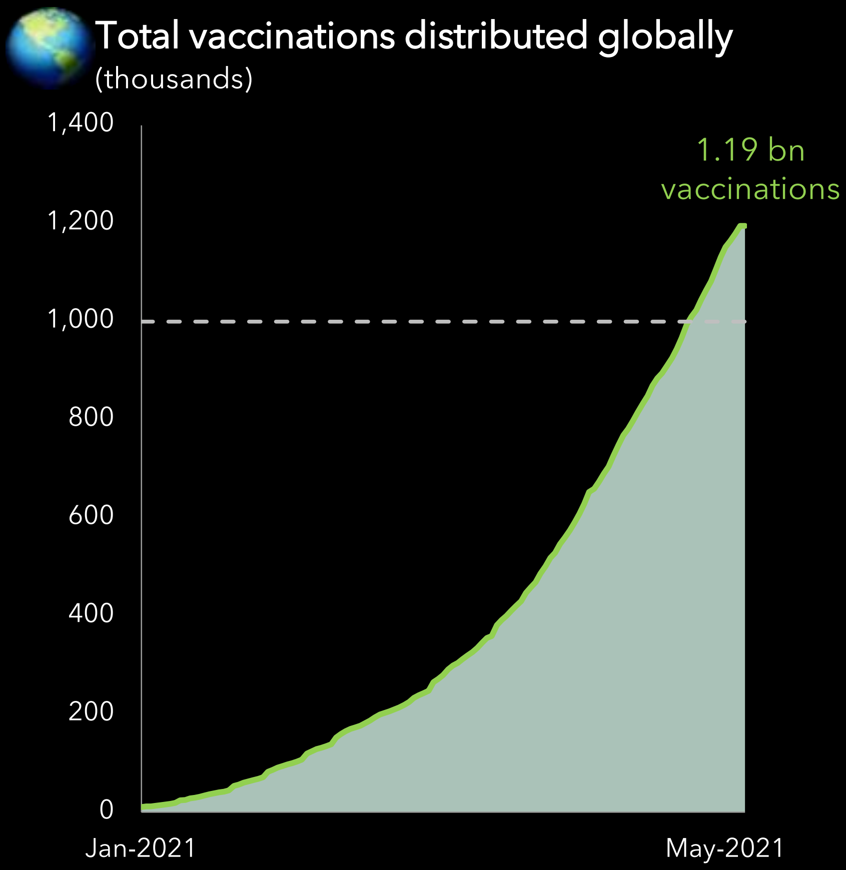
"Read 500 pages every day. That's how knowledge works. It builds up like compound interest."

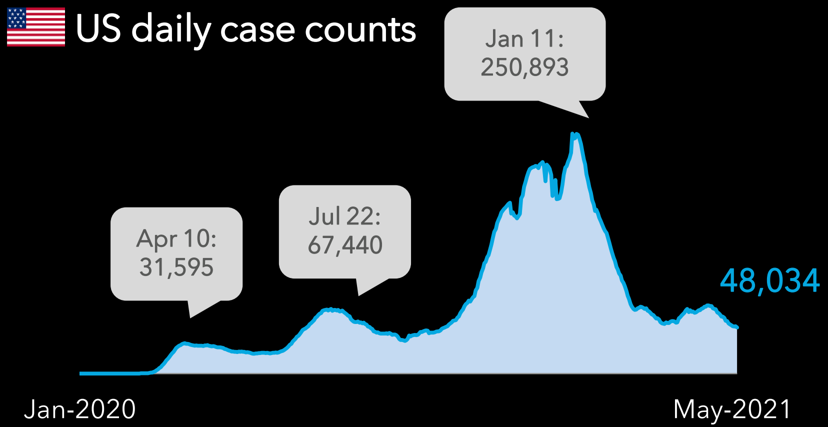
Warren Buffet, Chairman & CEO of Berkshire Hathaway

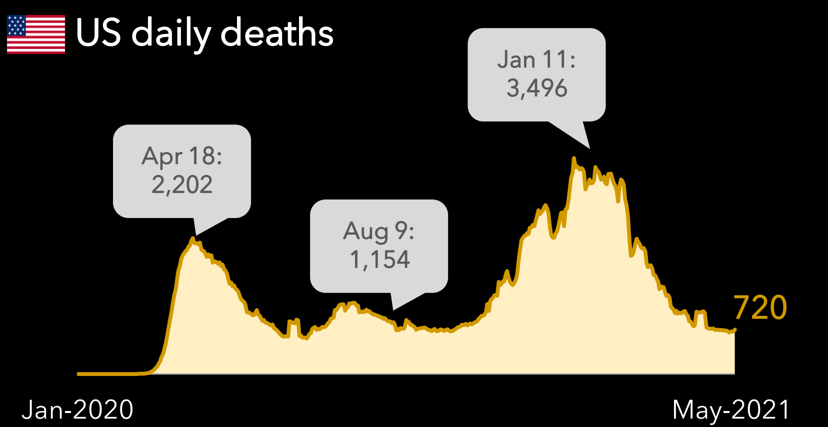

1
Vaccine Rollout Accelerating

Over 1 Billion Vaccines Globally

In less than 150 days, over 1.1 billion doses of the COVID-19 vaccine have been administered globally. With the benefit of rapid vaccine rollout, US COVID case counts and deaths have declined approximately 80% in less than four months. While vaccine progress has been impressive (over 20 mm shots now administered daily), global heard immunity will not be reached in 2021 and possibly not until late 2022.



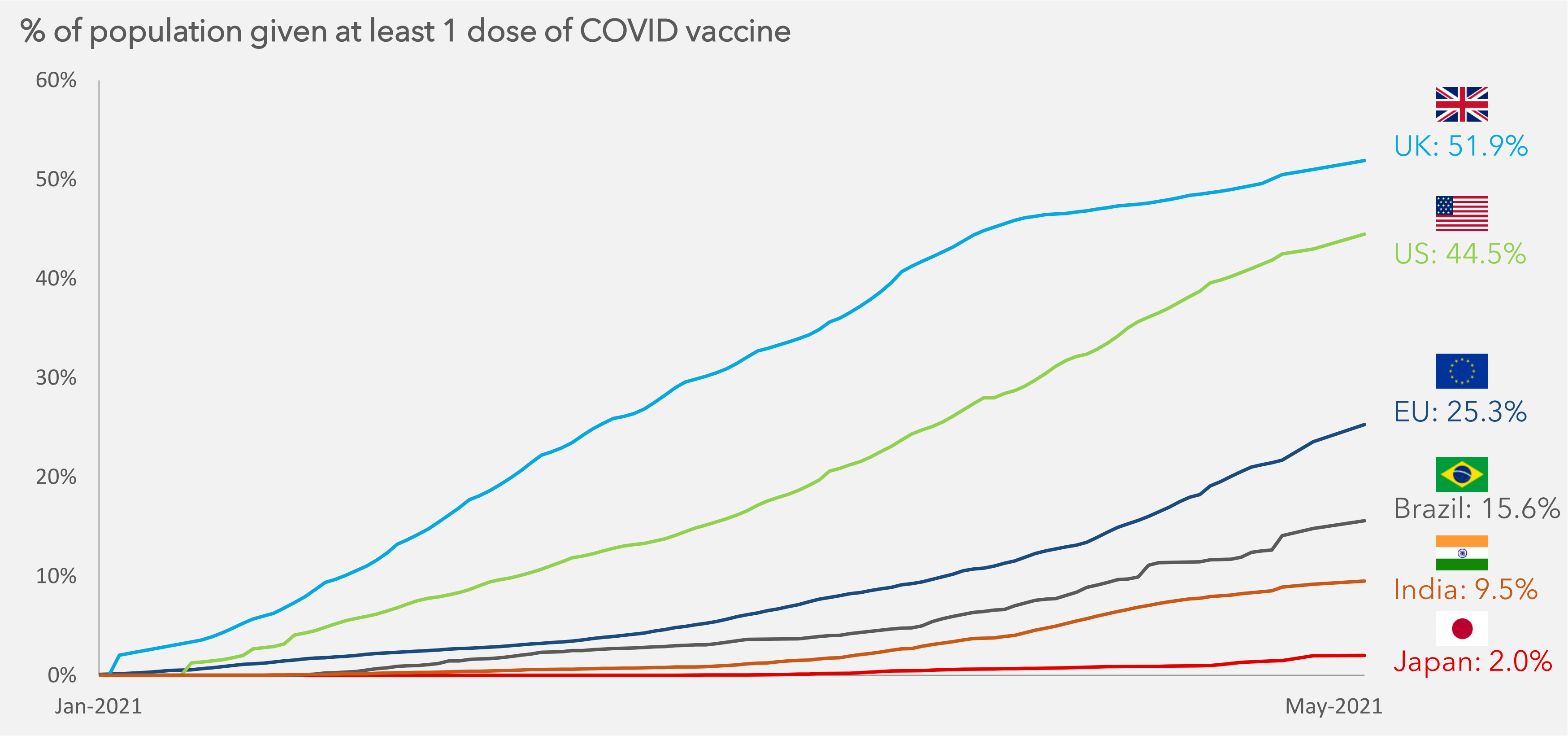




Source: (1) Bloomberg. Data as of May 5, 2021.

Vaccine Rollout Exceeding Expectations

The stronger than anticipated vaccine rollout in **developed economies** has driven consensus market and economic expectations higher in 2021. While the pace of vaccinations in Europe has picked up markedly since early April, European economic data will continue to lag in the weeks ahead until the impact of containment measures and vaccinations bring virus transmission more under control. The low rate of vaccinations across the EM complex remains a critical risk going forward.

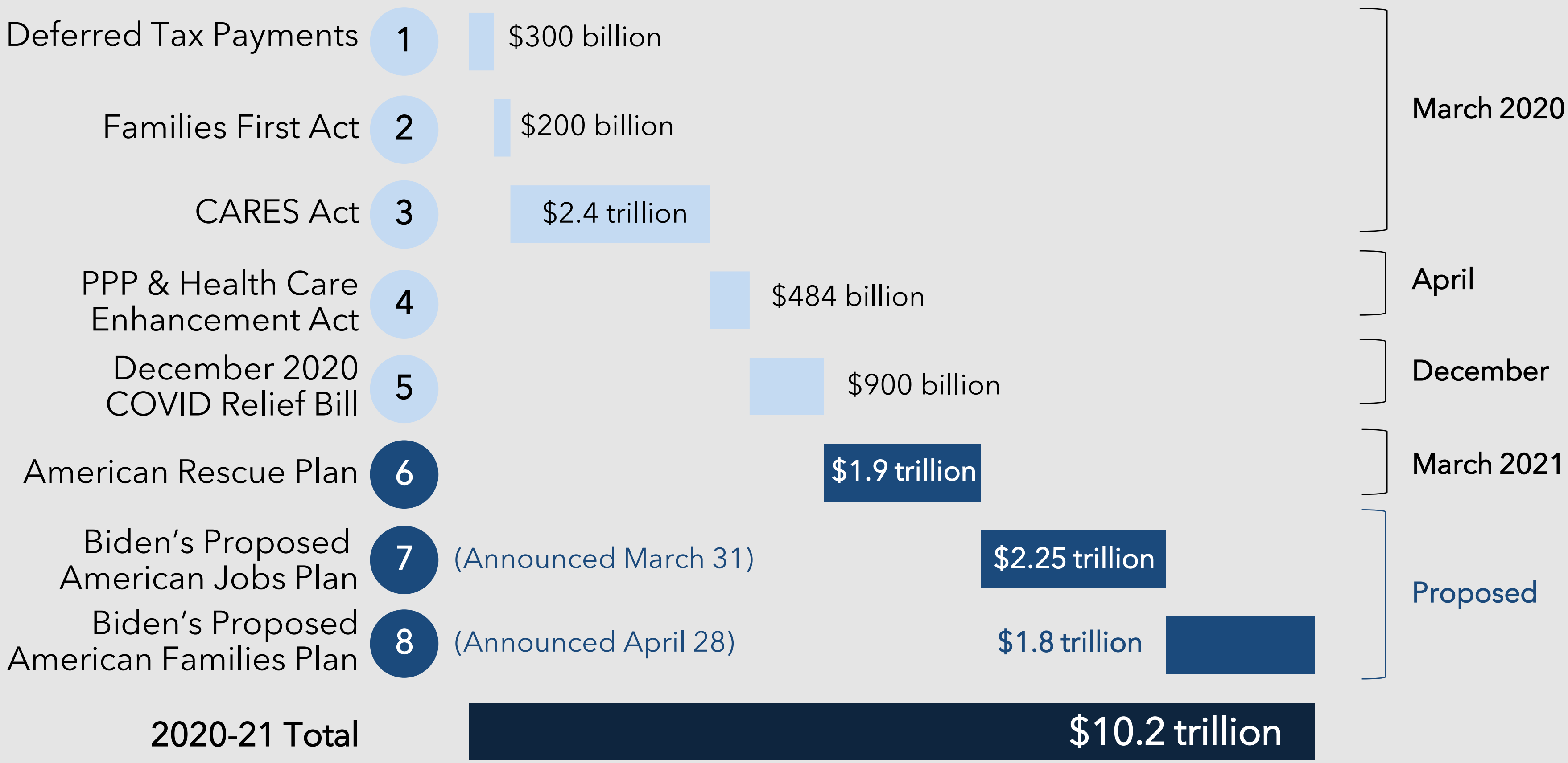


Source: (1) OurWorldinData. Bloomberg. Data as of May 5, 2021.

2 Historic US Fiscal Stimulus

Over $10 Trillion of US Fiscal Stimulus

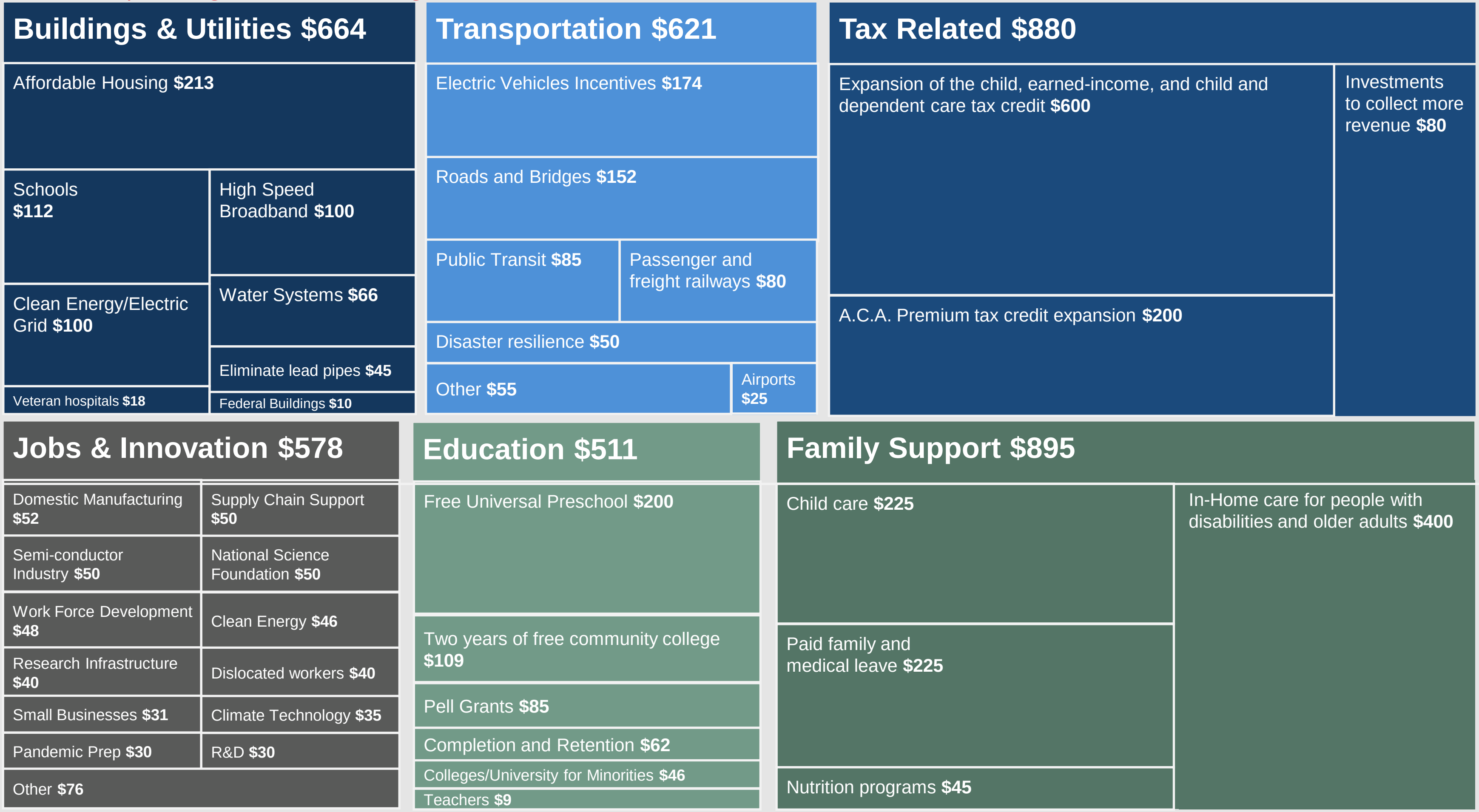
Since COVID's acceleration in March 2020, the US Government has announced more than $10 trillion of fiscal stimulus, representing over 45% of US GDP and 35% of total US gross debt outstanding. $6 trillion of the $10 trillion was announced or passed into law during President Biden's First 100 Days.



Source: (1) Committee for a Responsible Federal Budget. CBO. Note – bill size includes mandatory and discretionary outlays, loss of revenue and loan guarantees that are not expected to have a net effect on the budget. Families First Act includes $8 bn from the Coronavirus Preparedness and Response Supplemental Appropriates Act. Deferred tax payments originated by Treasury Department not US Congress.

President Biden's $4 Trillion of New Stimulus

Over the last month, President Biden has proposed more than $4 trillion of new spending, with a much more expansive definition of "infrastructure" to include traditional shovel-ready, green, tech and social spending. Announced in two parts, the $1.8 trillion American Families Plan (AFP) faces a steeper uphill climb to passage than the larger (and more traditional) $2.3 trillion American Jobs Plan (AJP).



Source: NY Times Biden's $4 Trillion Economic Plan, in One Chart; Tax Foundation; President Joe Biden (White House)

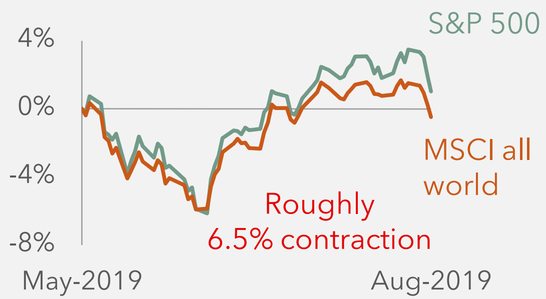
3 Improved Global Trade Regime

Case Study: A Look at Peak US – China Trade War

The 2018-19 US-China trade war, which escalated sharply between May 1 and August 1, 2019, had profound implications for the global economy and global markets which included: largest global rates shock in history, significant risk asset price corrections and a global manufacturing recession

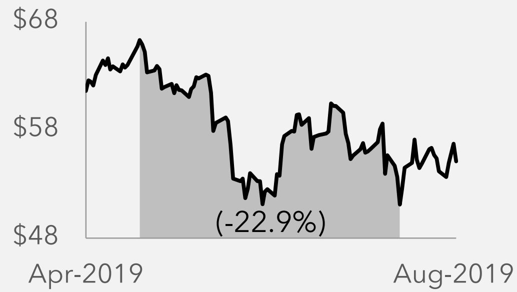
Global equity market correction

S&P 500 & MSCI all world



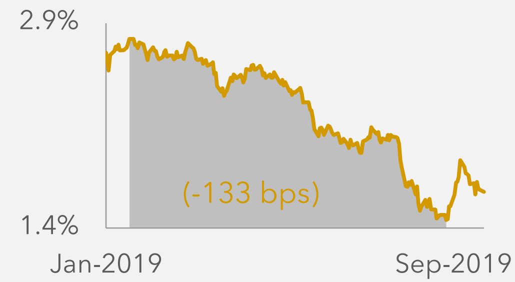
Global oil price correction

WTI



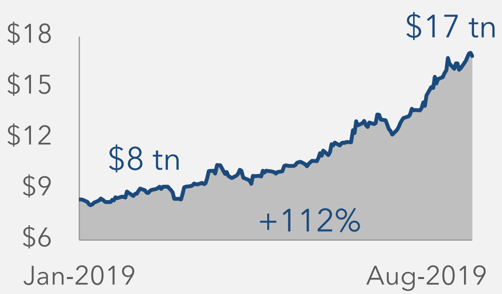
Global rates shock

10 year UST



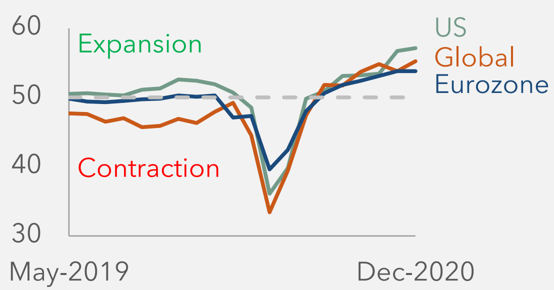
Negative yielding securities double

Global negative yielding debt, USD tn



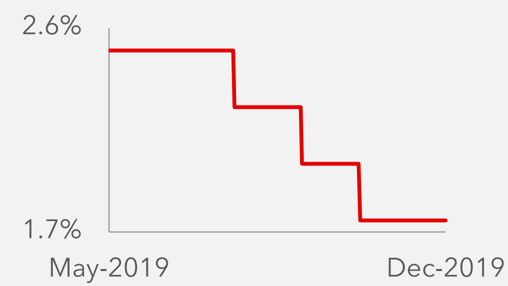
Global manufacturing recession

Manufacturing PMI



3 Fed rate cuts

Fed funds rate



Source: (1-6) Bloomberg. Data as of April 30, 2021. Negative yielding debt is Bloomberg Barclays Global Aggregate Negative Yielding Debt Market Value. Manufacturing PMI is Markit.

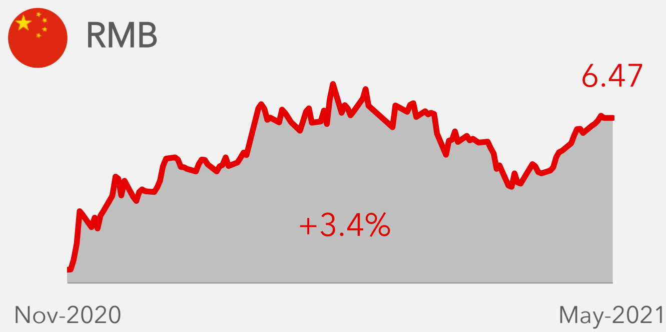
Continuity & Change in US – China Policy

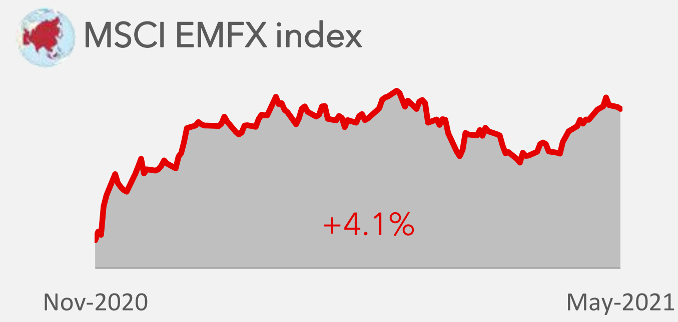
While there is significant continuity between Trump and Biden China policy, President Biden's "approach" is completely different. Instead of bilateral confrontation, President Biden is focused on trying to "reshape the world around China" in American interest. This, in turn, has had a formidable impact on economic and market cycles.

Continuity in substance	Change in approach
Removal of US – China tariffs unlikely	More measured, consistent
No relaxation on Huawei / 5G expansion	More rules-based, predictable
No rollback on increased technology restrictions	More consultative, soliciting cooperation with allies
Human rights / geopolitical overlay	More process-oriented, with inter-agency cooperation

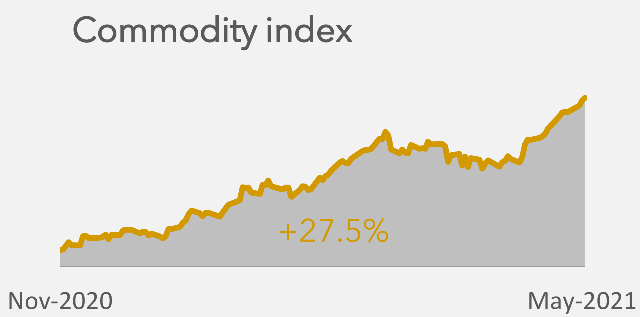
Markets Signaling Improved Global Trade Regime

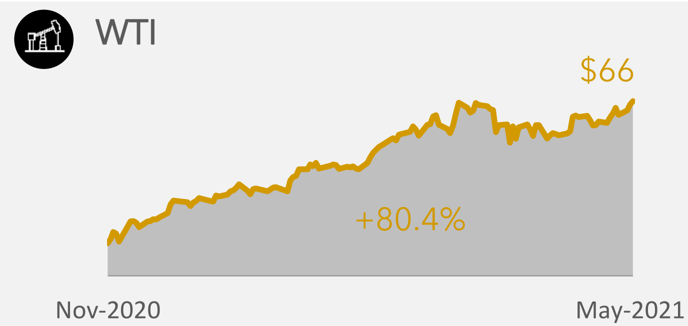
China / EM recovery cycle proceeding more smoothly



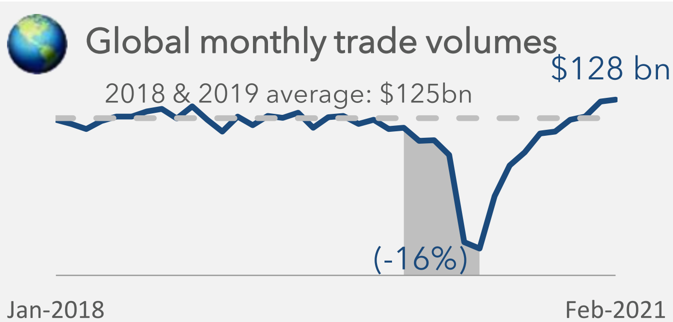


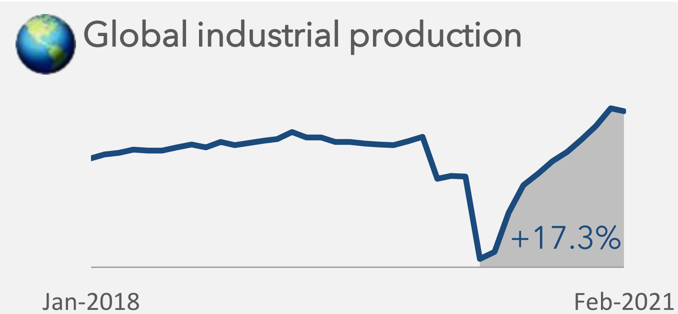
Commodity cycle proceeding more smoothly





Industrial / manufacturing cycle proceeding more smoothly





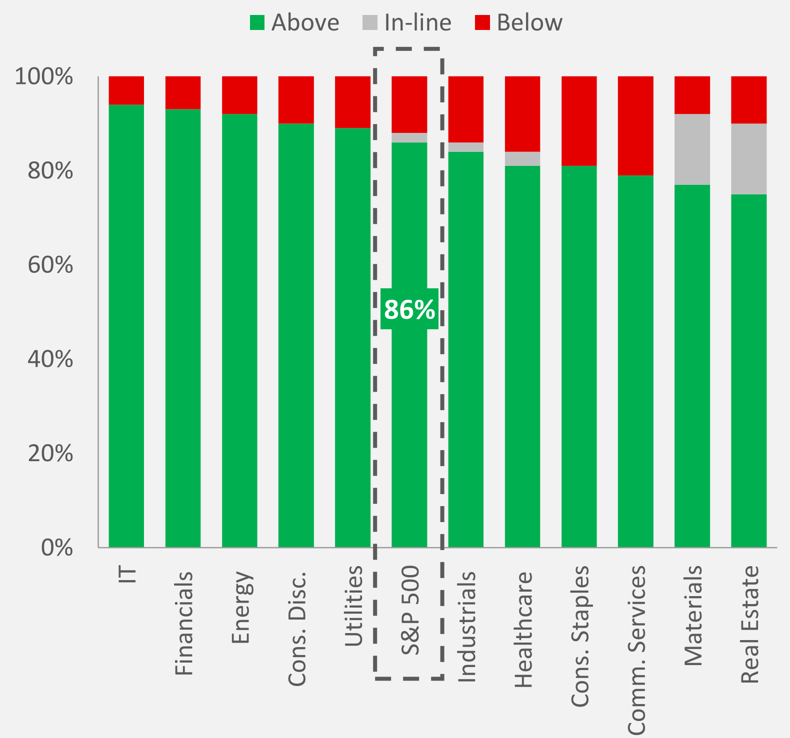
Source: (1-4, 6) Bloomberg. Data as of May 5, 2021. RMB vs. USD. PMI is Markit. Global industrial production is the CPB industrial production world production. (5) CPB Netherlands Bureau for Economic Policy Analysis. World Trade Monitor. SA. Data as of May 5, 2021.

4 Repricing Higher Growth

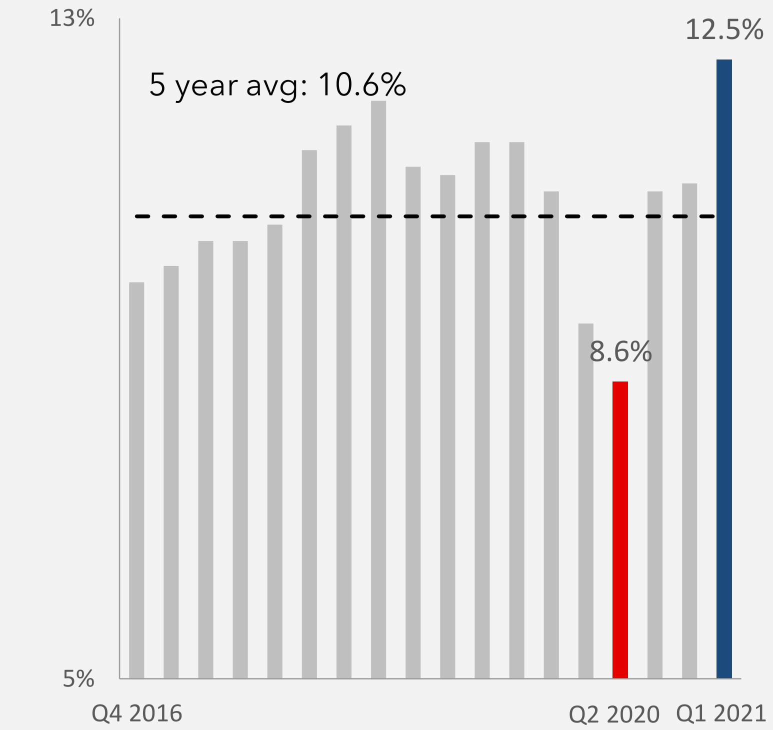
Record Corporate Earnings Beats

With approximately 60% of S&P 500 companies reporting, Q1 earnings are growing 46% year-over-year, nearly double the expected growth rate of 24% and the fastest pace of earnings growth since Q1 2010. Additionally, 86% of S&P 500 companies have reported a positive EPS surprise, the highest positive surprise rate since FactSet began tracking in 2008.

S&P 500 earnings above, in-line and below estimates, Q1 2021



S&P 500 net profit margins

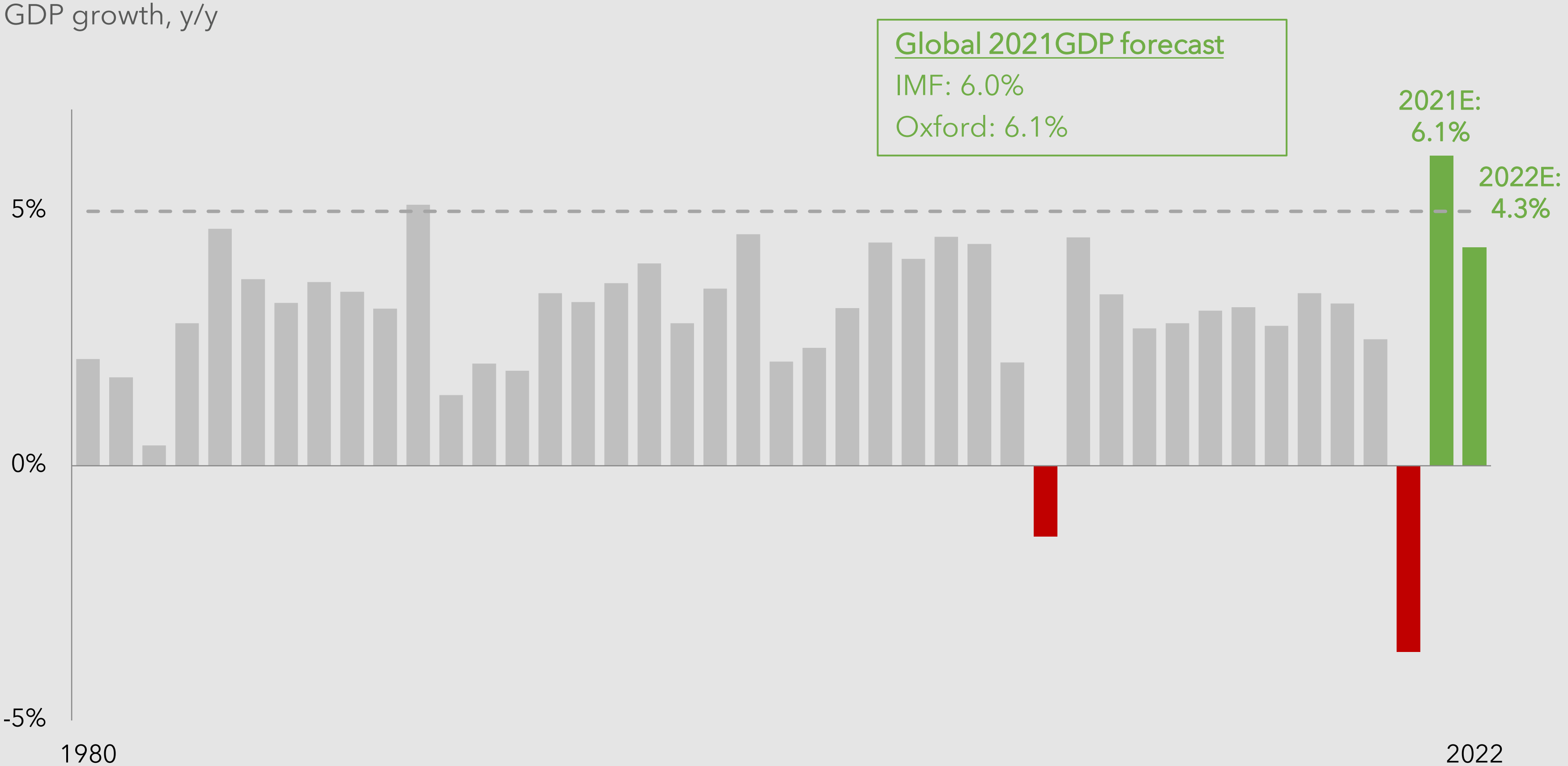


Source: (1-3) FactSet Earnings Insight. (April 30, 2021).

Strongest Global Growth in Four Decades

While the US is likely to have its strongest growth year since 1984, the IMF recently upgraded its forecasts for 2021 global growth to 6.0%, the strongest global GDP growth number since the IMF began tracking the data in 1980. The IMF also upgraded its 2022 global GDP growth forecast to 4.4%, up from 4.2% in January.

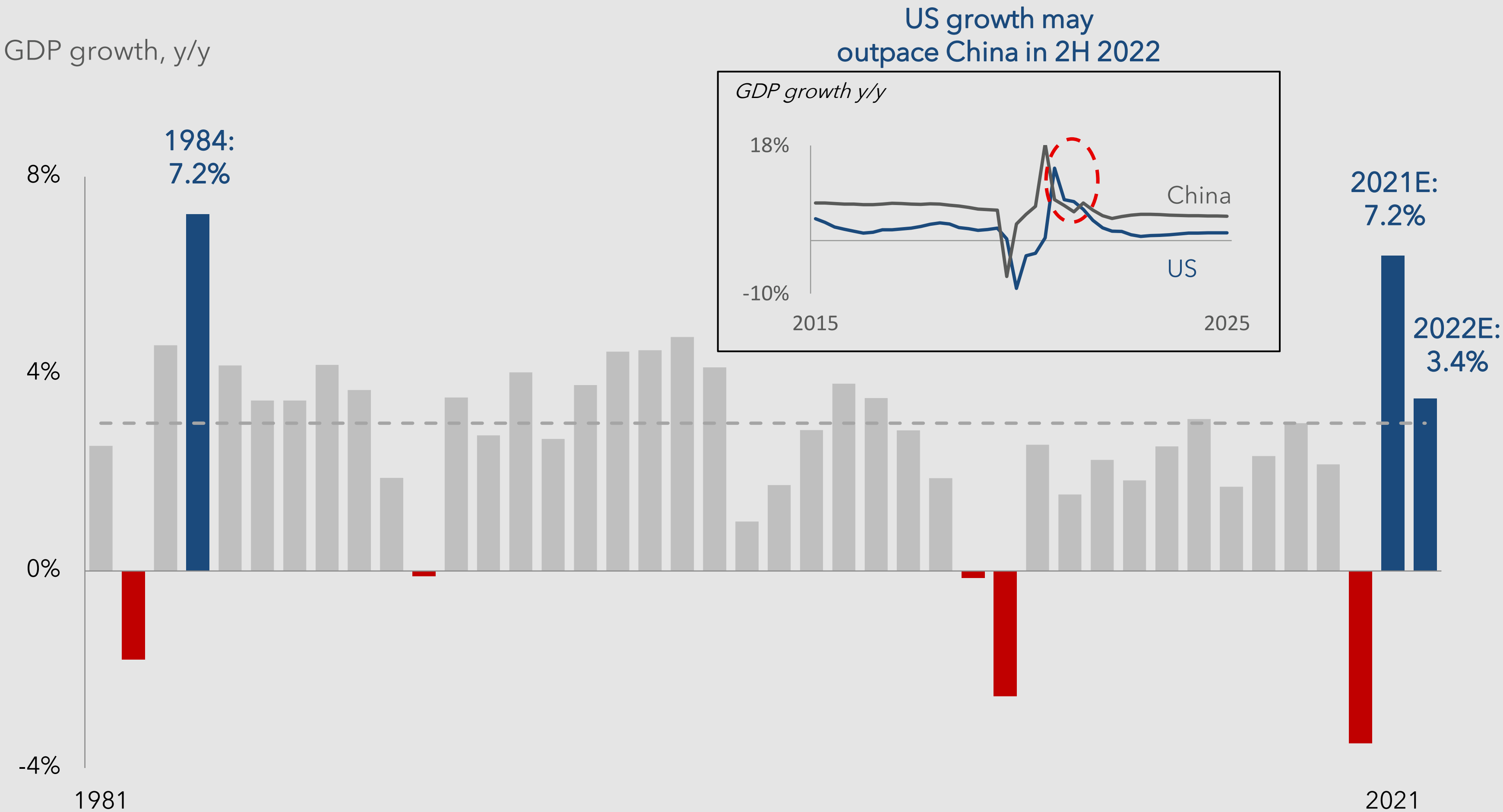
GDP growth, y/y



Source: (1) Oxford Economics. IMF. Data as of April 27, 2021.

Strongest US Growth Since 1984

The US economy is expected to grow in 2021 at rates more than 3x "normalized" US growth, its strongest pace since 1984. Remarkably, US growth may even outpace China in the 2H of 2021.



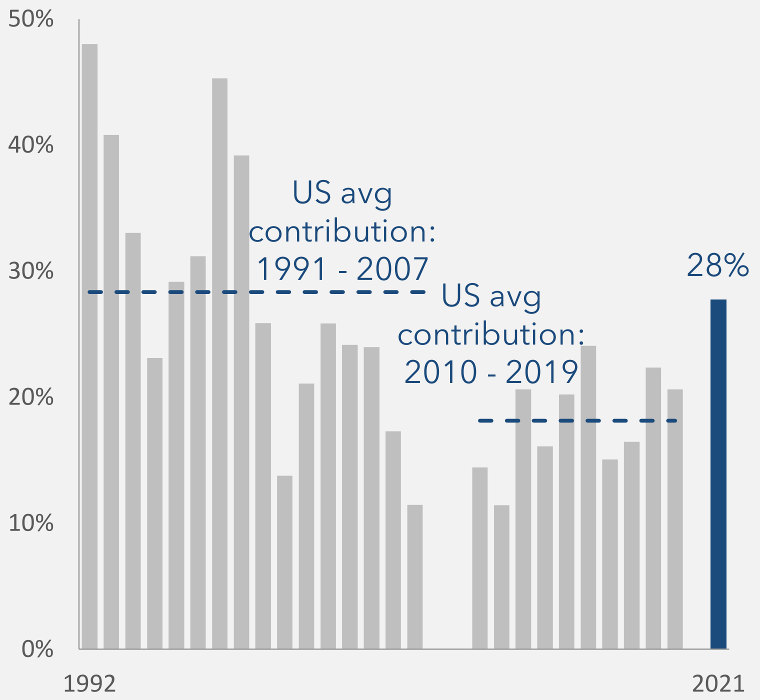
Source: (1) Oxford Economics. IMF. Data as of April 27, 2021.

US as Engine of Global Growth

With vaccinations and fiscal stimulus running at 2x and 3x European levels, respectively, the US economy has become a primary engine for global growth in 2021. Similarly, US trade deficits rose to their highest levels on record in March, due in part to the elevated demand in the US economy vis-à-vis our primary trading partners globally.

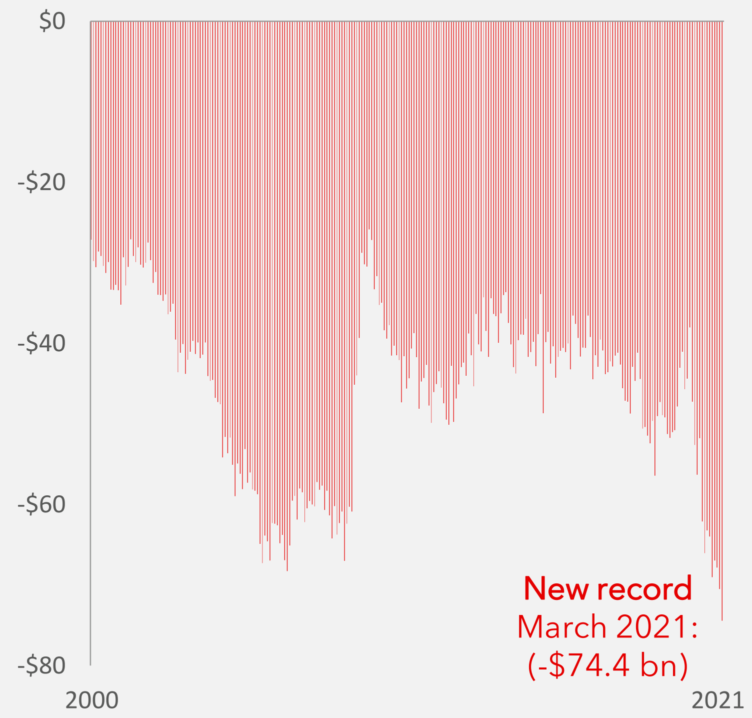
US a rising % of global growth

US share of real global GDP growth



Largest US trade deficit on record

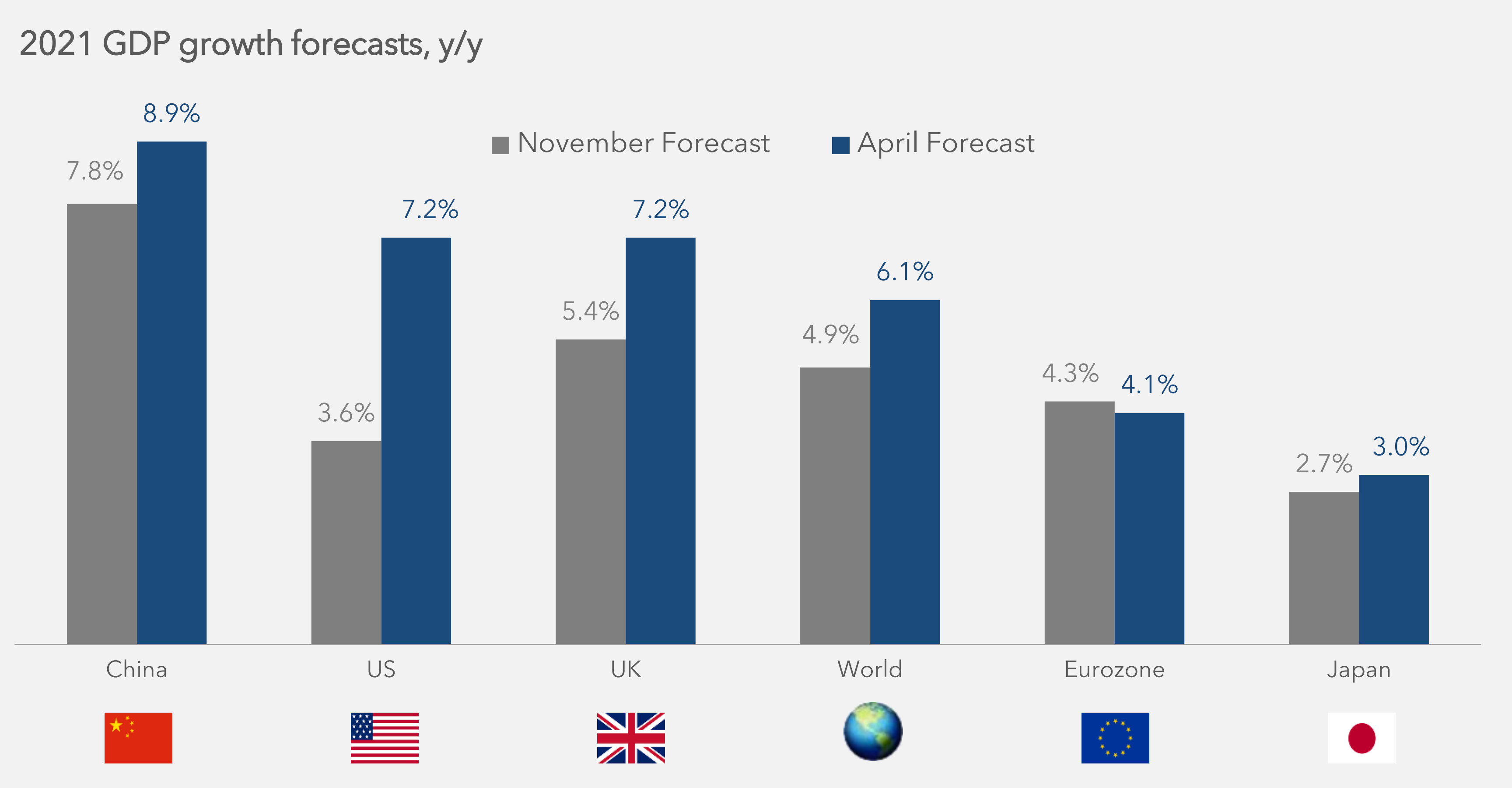
US trade in goods & services, USD bn



Source: (1) Oxford Economics. (2) Bloomberg. Data as of May 4, 2021.

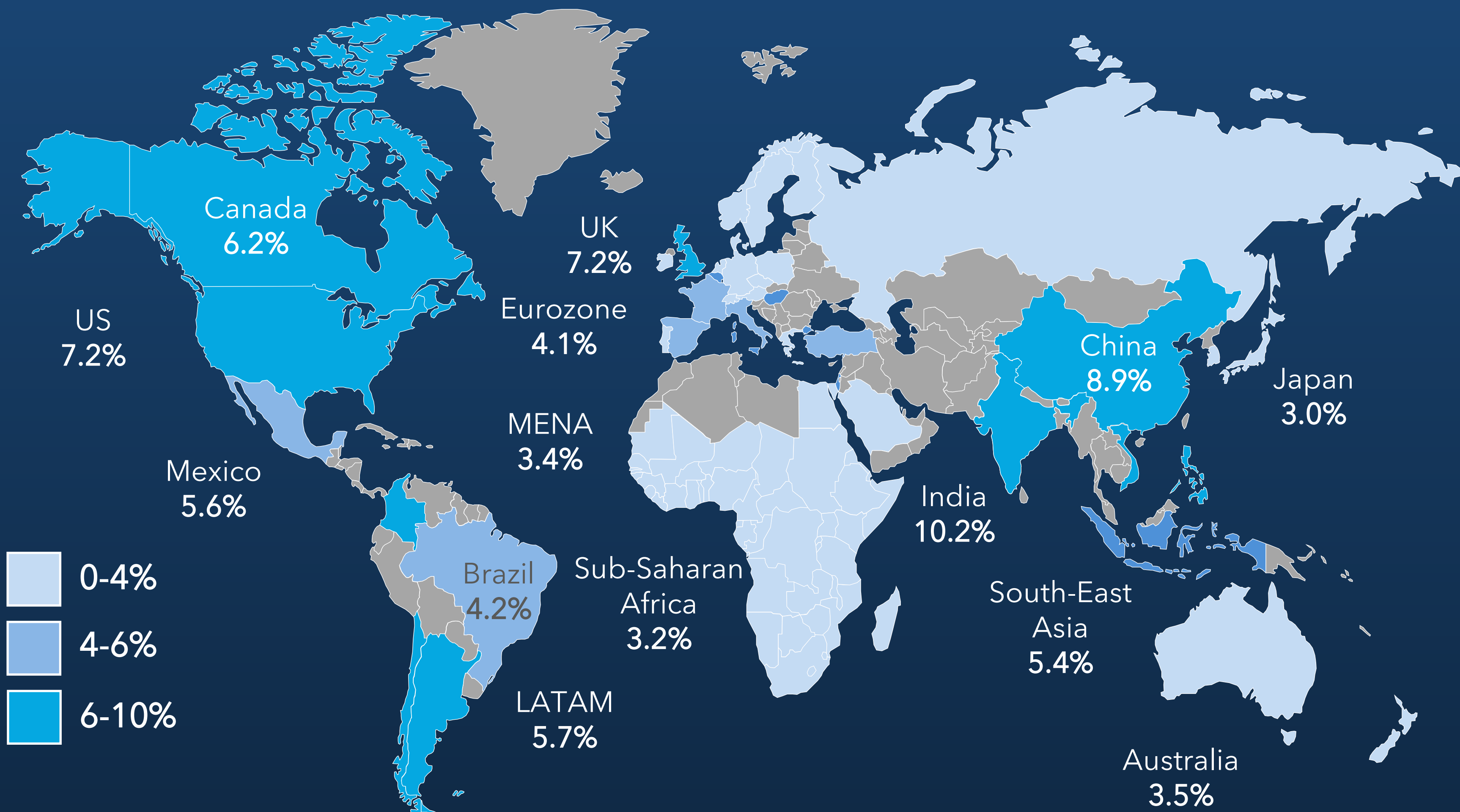
Significant Forecast Revisions Since November

Remarkable vaccine progress, record fiscal stimulus, and an improved global trade regime have driven a "paradigm shift" in global growth expectations for 2021 since early November



Source: (1) Oxford Economics. Data as of November 1, 2020 and April 30, 2021.

2021 Global GDP Forecasts

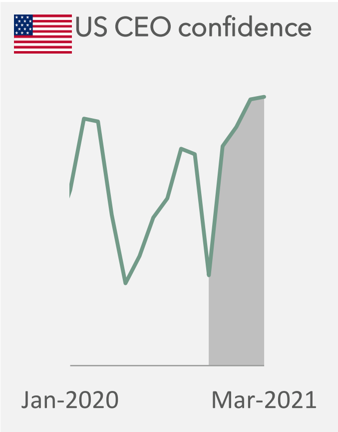


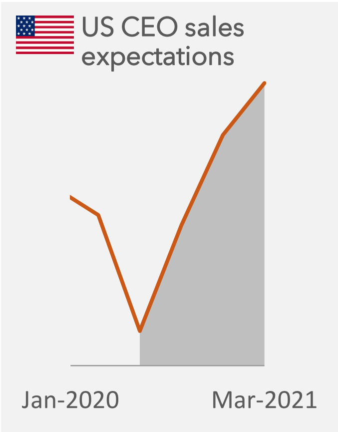
Source: Oxford Economics. Data as of April 30, 2021.

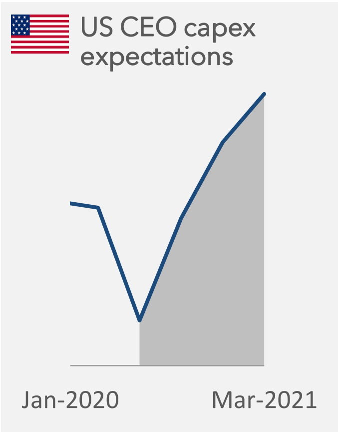
5 Business Confidence Rising

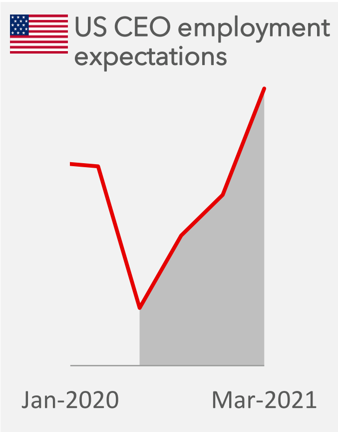
Business & CEO Confidence Rising

Global and US business confidence measures have been rising sharply during the post-COVID recovery, with positive knock on effects for longer term business investment and strategic activity







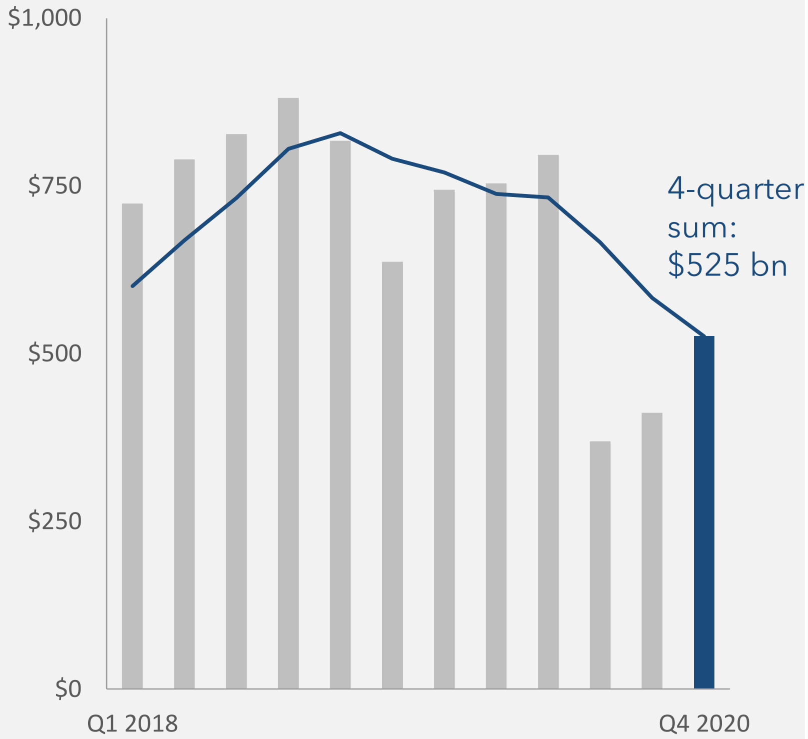


Source: (1) Bloomberg. (2-5) Business Roundtable CEO Economic Outlook Index. (6-10) OECD. All data as of April 30 2021.

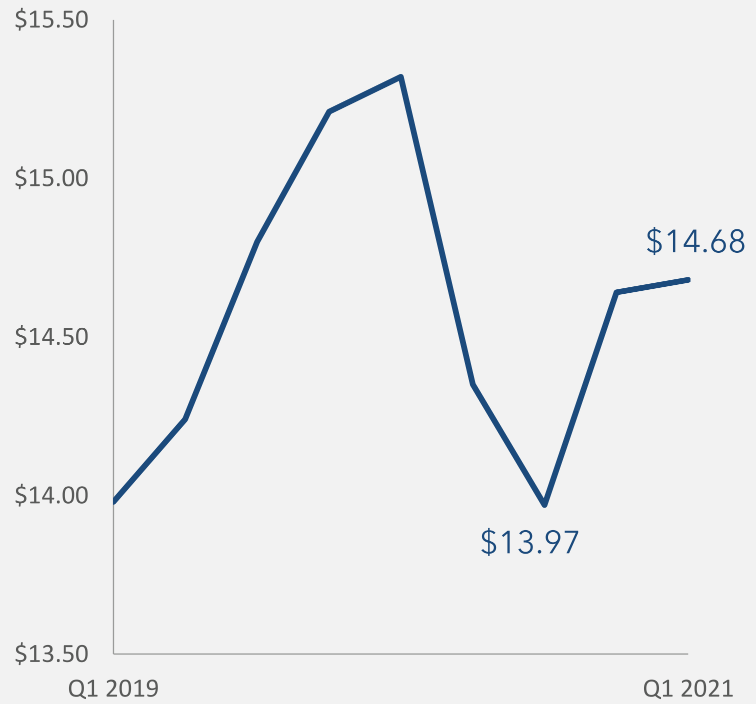
Buybacks & Dividends Also Rising

After pausing dividend and share repurchase programs to preserve cash at the start of the pandemic, S&P 500 companies, on average, increased dividends by 11% in Q1 2021 (vs. a 9% increase in Q1 2020). Share repurchase levels fell nearly 29% in 2020 and remain below pre-pandemic levels, but have rebounded significantly since their Q2 2020 lows.

S&P 500 buybacks, USD bn, annualized



Cash dividends per share for S&P 500 companies

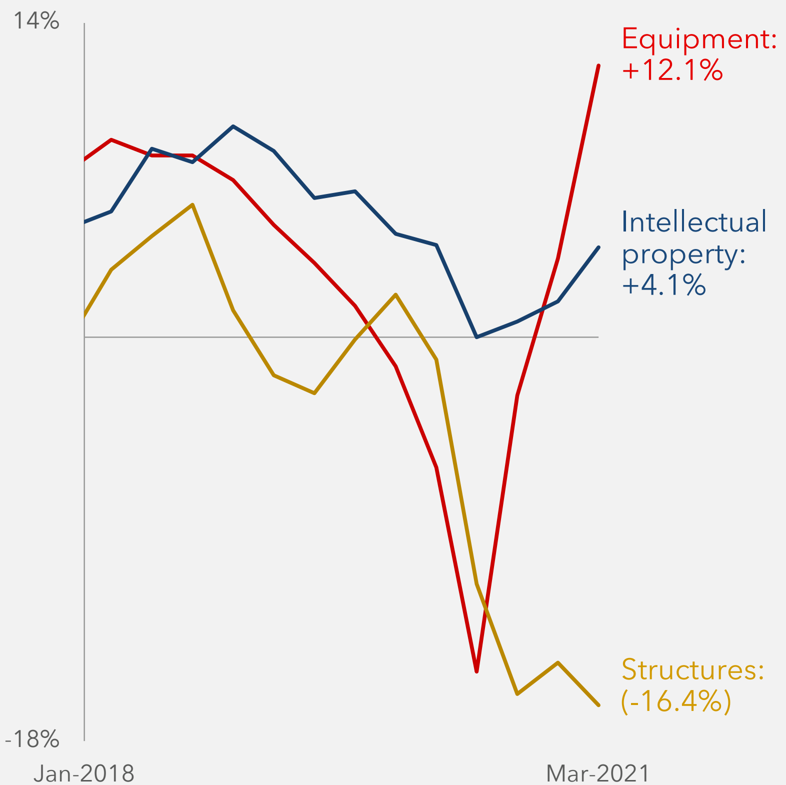


Source: (1) Bloomberg Index / Portfolio Buyback & Dividend Analysis. Data as of April 30, 2021. (2) WSJ. S&P Dow Jones Indices.

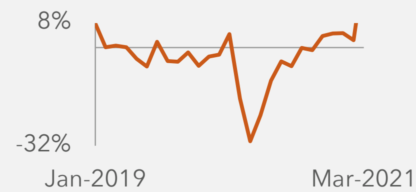
Business Investment Recovery

Profit expectations are the most important driver of corporate capex. Record corporate cash balances, fiscal stimulus and vaccine implementation will be important drivers for the longer term nature of corporate investment cycles. After declining 10% in 2020, S&P 500 (ex-financials) capex spending is expected to rise 7%+ in 2021.

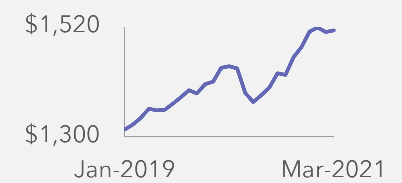
Business investment, % change y/y



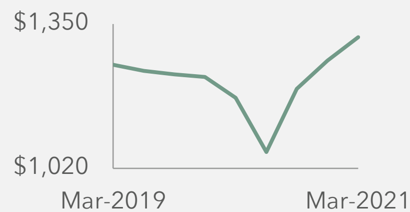
Durable goods new orders y/y



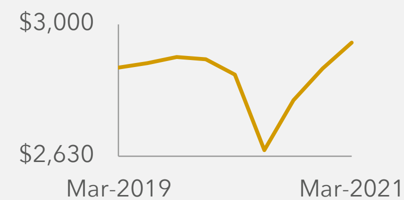
Construction spending, mm



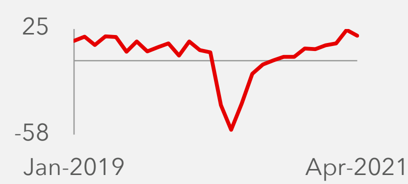
Equipment capex, USD bn



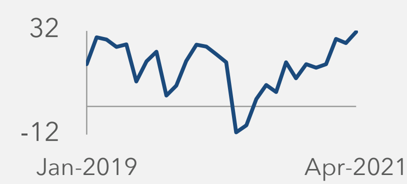
Fixed nonresidential investment, USD bn



Dallas Fed Manufacturing capex outlook index



Empire Manufacturing Survey, 6M ahead capex expectations

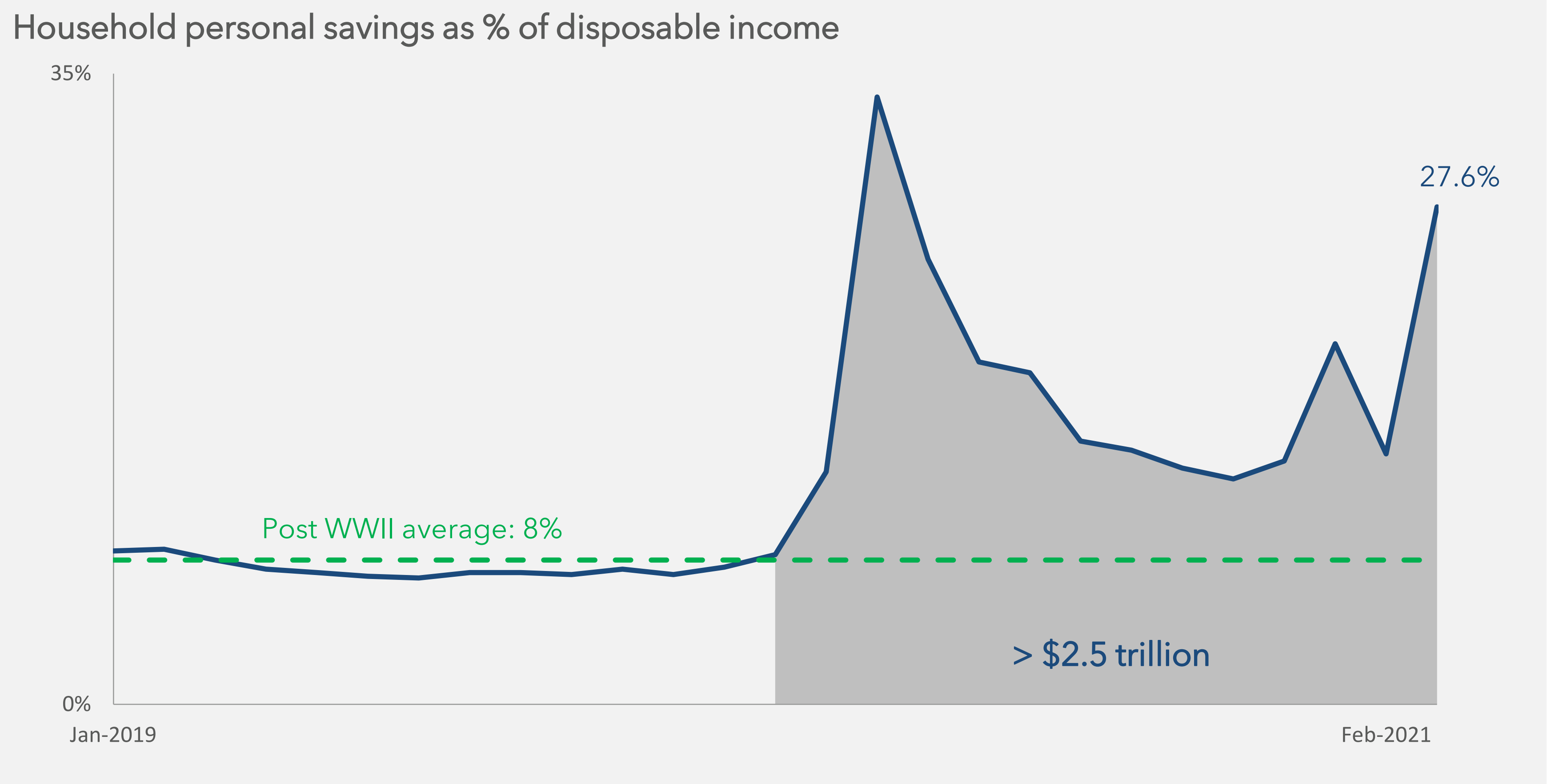


Source: (1) FRED. Business investment is real gross private domestic , fixed, nonresidential investment. (2-7) Bloomberg. Data as of April 30, 2021. Oxford Economics.

6 Resurgent Consumer Activity

Elevated Savings Fueling Resurgent US Consumer

According to economists, US households have accumulated more than $2 trillion in "excess" savings over the COVID-crisis period vis-à-vis pre-COVID trend lines. However, as measured by numerous metrics, over 80% of this excess savings has accumulated at the top two quintiles (top 40%) of the US income distribution.

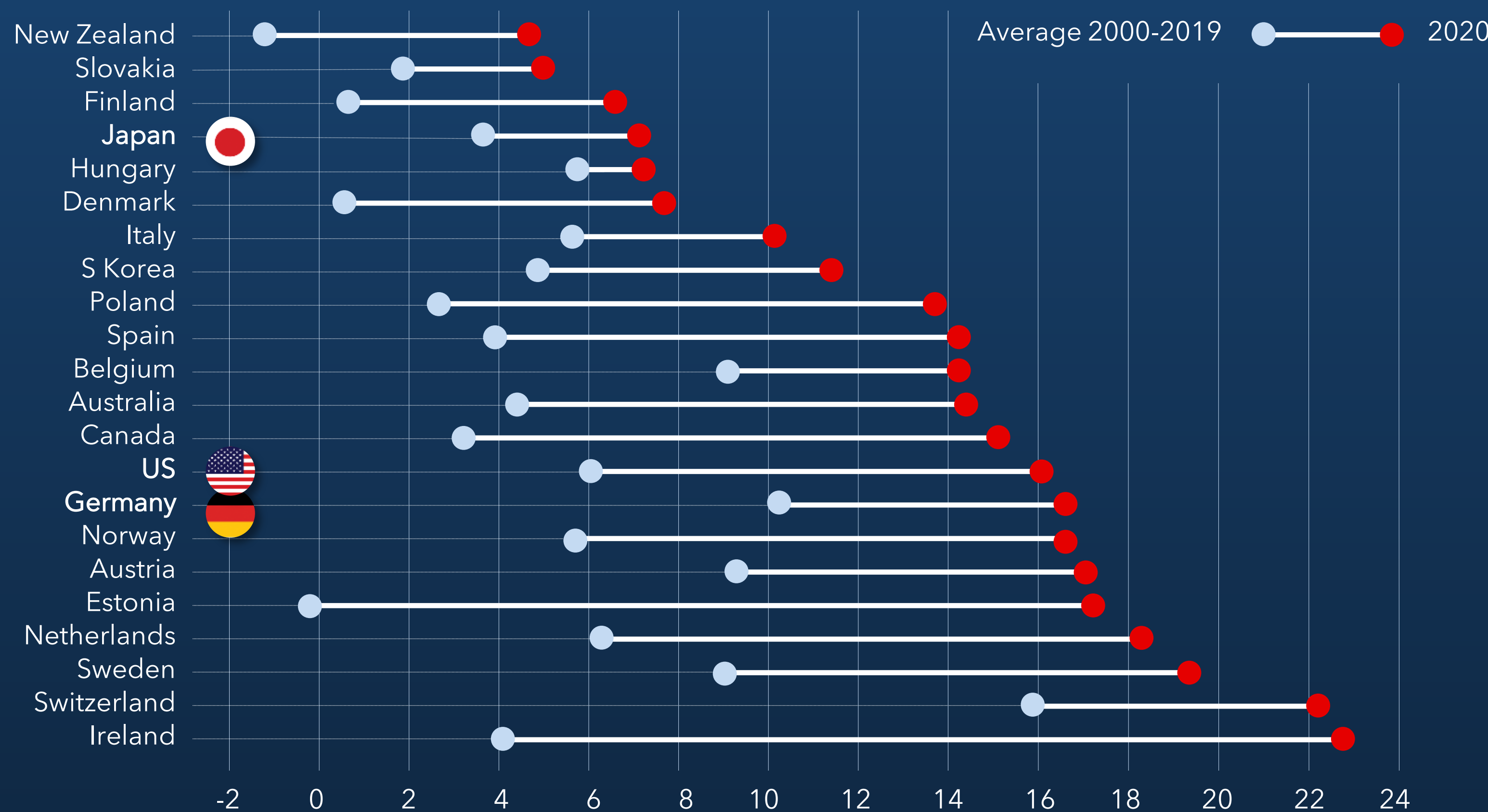


Source: (1-4) Bloomberg. Data as of April 30, 2021.

Over $5 Trillion of Global Consumer Savings

Consumers globally have accumulated approximately $5.4 tn of excess savings since the pandemic began, the cash equivalent of 6% of global output. However, savings rates, while at century highs in many advanced economies, have been uneven across income levels with higher savings heavily concentrated in wealthier households.

Net household saving rate (% households are saving out of current income)

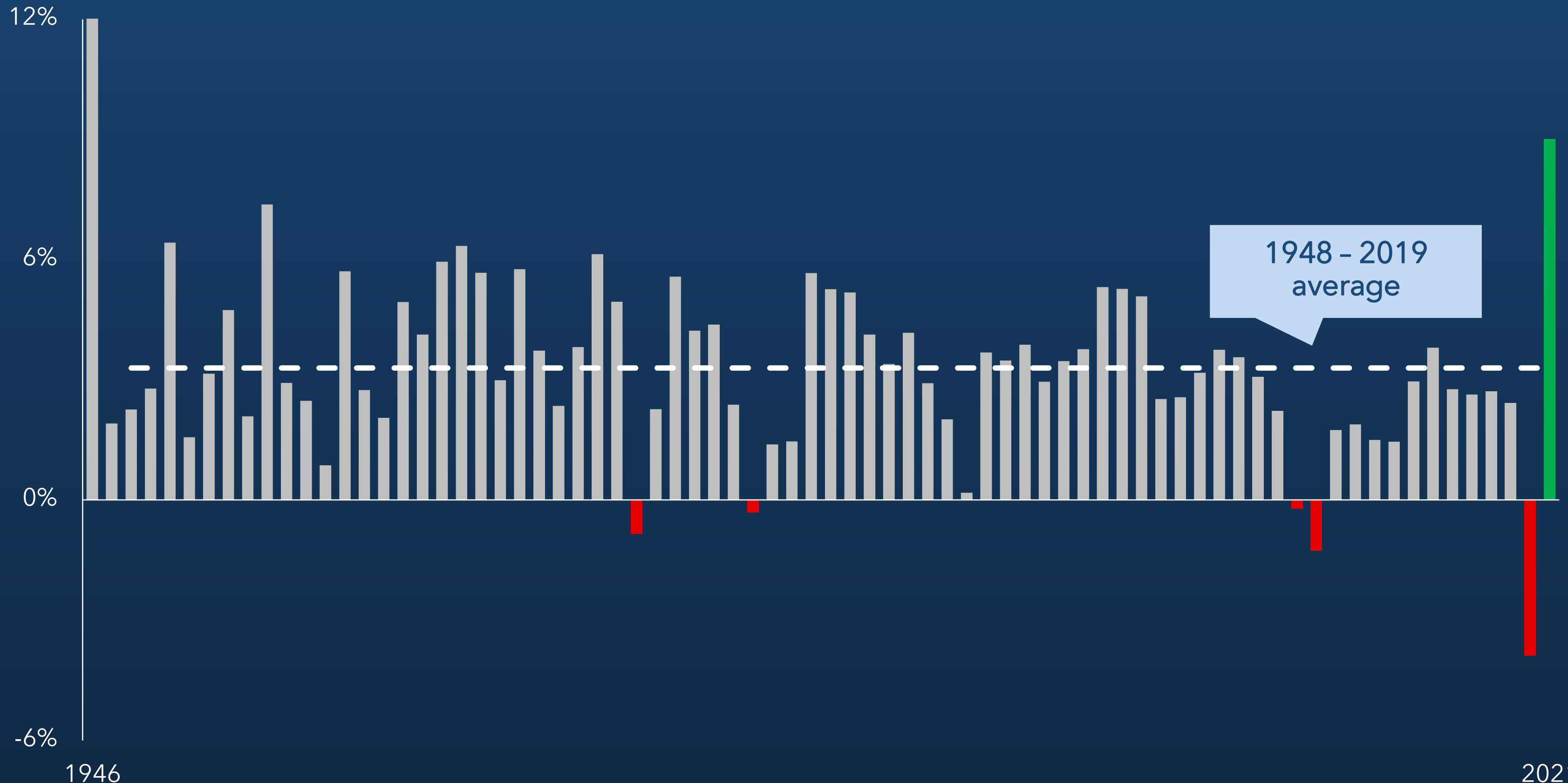


Source: FT. OECD.

US Consumer Spending at Record Pace

Oxford Economics is forecasting full year 2021 US consumer spending growth to be the strongest since 1946

Real personal consumption growth



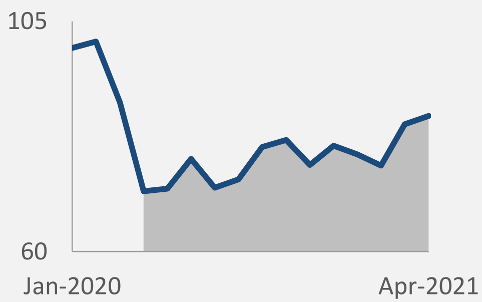
Source: (1) Oxford Economics. FRED. Expenditures, Billions of Chained 2012 Dollars, Annual, Not Seasonally Adjusted.

US Consumer Sentiment & Spending Rebounding

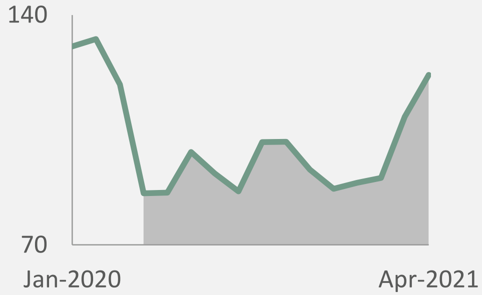
US consumer sentiment and consumption have improved rapidly in recent months, with a recovery in services spending expected to accelerate sharply in the months ahead. In aggregate, consumer balance sheets are also expected to recover in 2021 from peak delinquencies in Q4 2020, with aggregate household net worth and balance sheets strengthening.

Consumer sentiment recovering post-COVID

U of M consumer sentiment

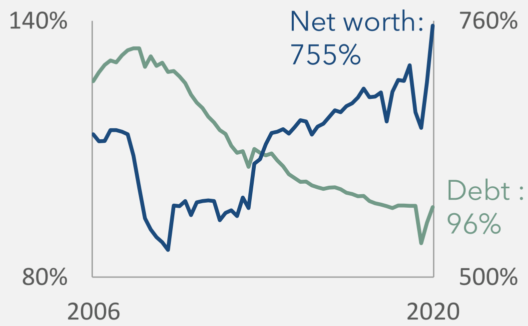


Conference Board consumer confidence

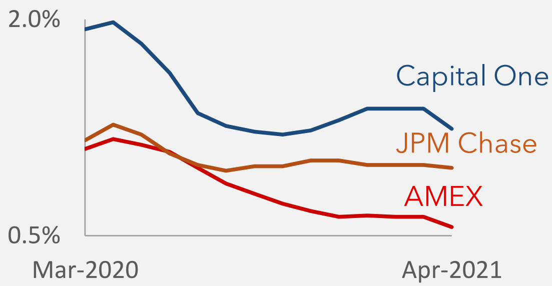


Consumer balance sheet strengthening

Household debt & net worth

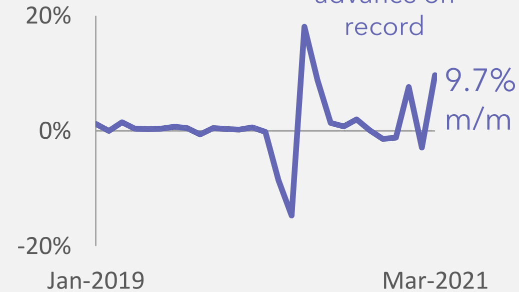


Credit card master trust 30+ day delinquency rates



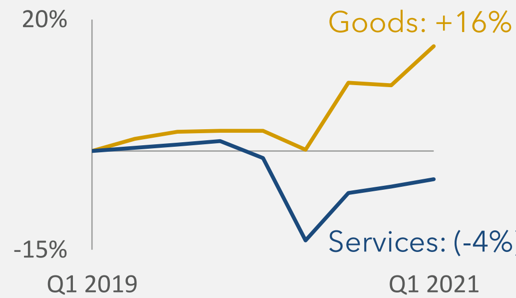
Consumer spending rising

Retail sales



US Consumer spending

(change since Q1 2019)



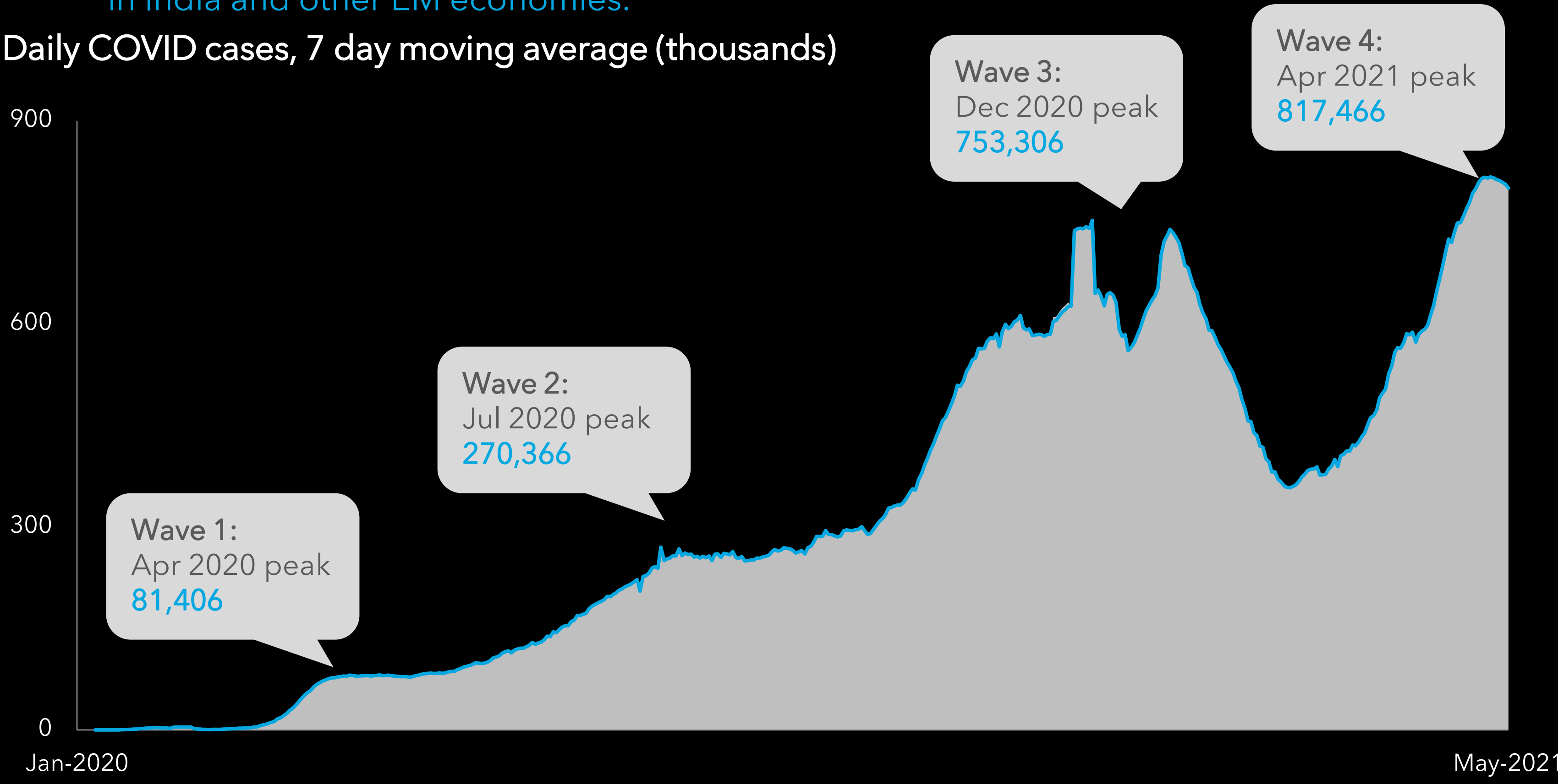
Source: (1-4, 6) Bloomberg. Data as of April 30, 2021. (5) BEA. Real PCE SA. Data as of April 30, 2021. Household debt is ratio of debt to disposable income . Household net worth is FOF household net worth as % of disposable income.

7 Asynchronous Recovery Risk

Global Virus Case Counts Surging to New Record

Despite the rapid vaccine rollout in developed markets, global virus case counts have actually surged to the highest levels since the crisis began. After declining 52% between January and March, daily new cases have increased 124%, predominately driven by worsening outbreaks in India and other EM economies.

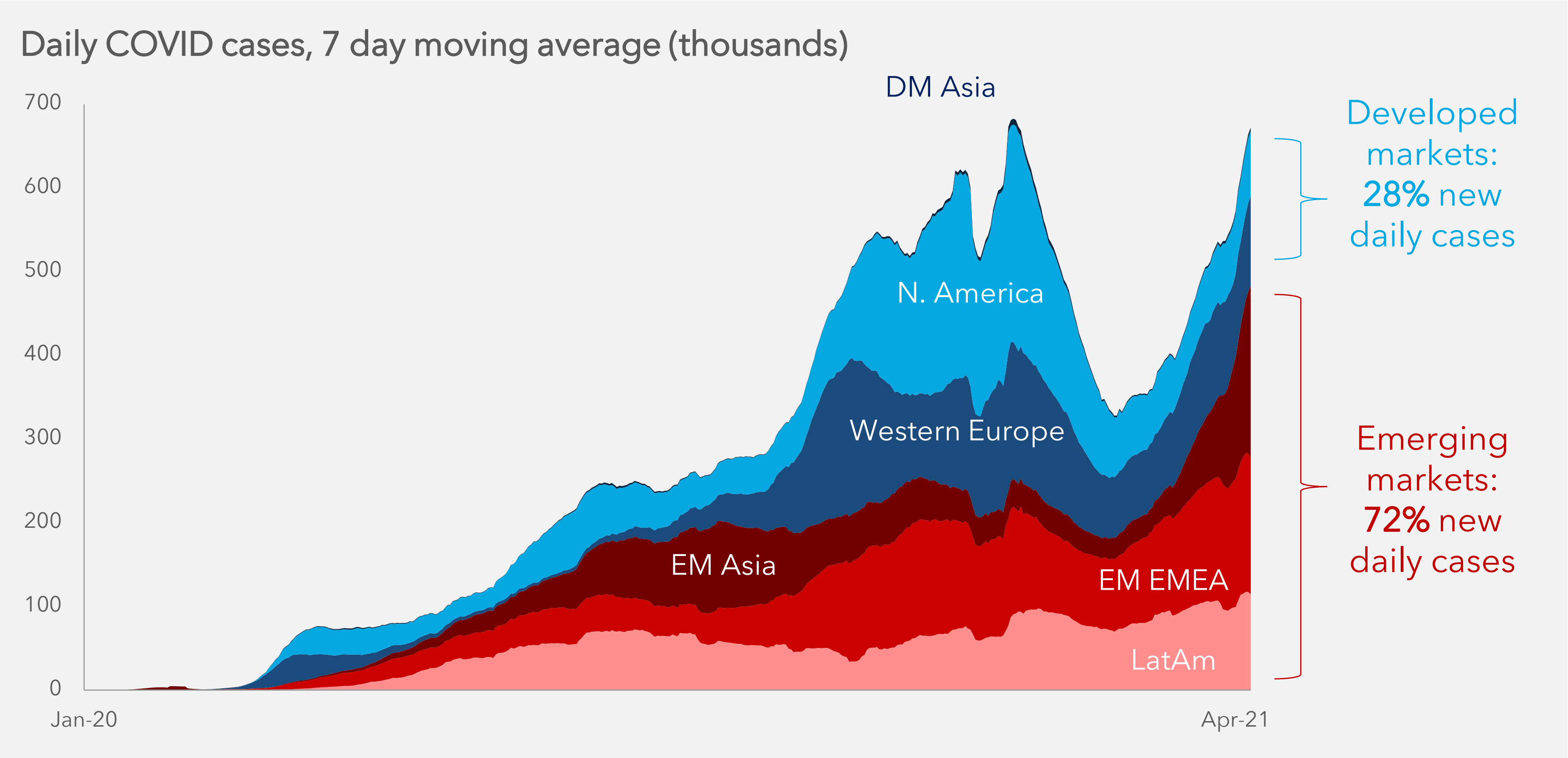
Daily COVID cases, 7 day moving average (thousands)



Source: (1) Bloomberg. Data as of May 5, 2021. Peak case counts are 7 day moving average.

EM Lagging on Virus Suppression

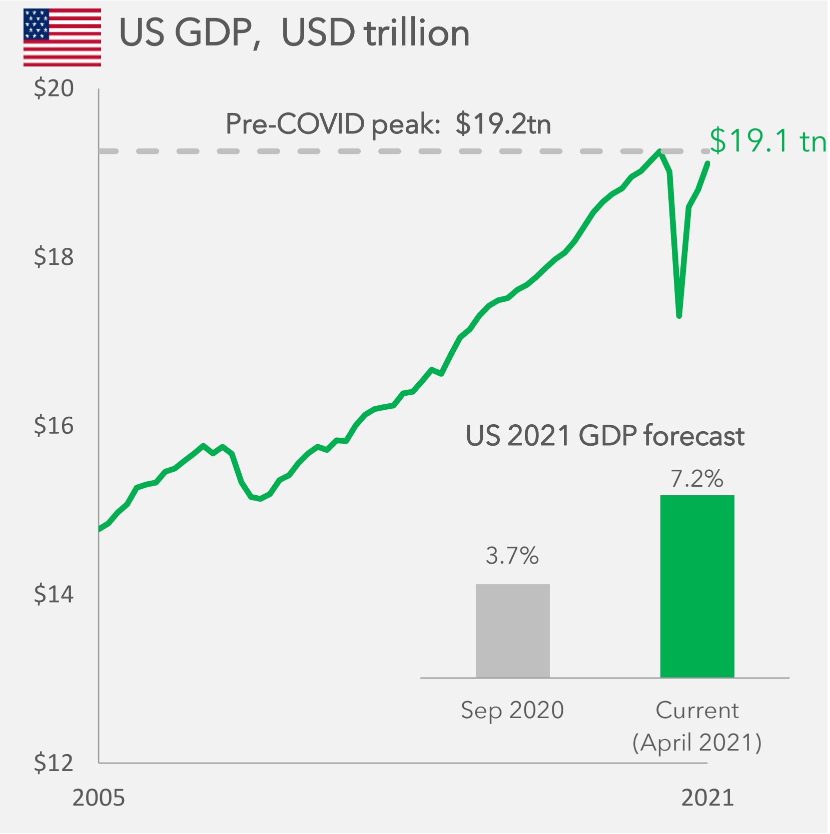
As noted by MUFG's Head of EM Research Ehsan Khoman, new virus case counts are now running about 2x higher in EM (emerging markets) compared to DM (developed markets) with implications for currency and the growth recovery. However, with EM GDP increasingly resilient to virus proliferation, a younger age demographic, and improving vaccine rollout, the EM recovery for 2H 2021 remains on track.

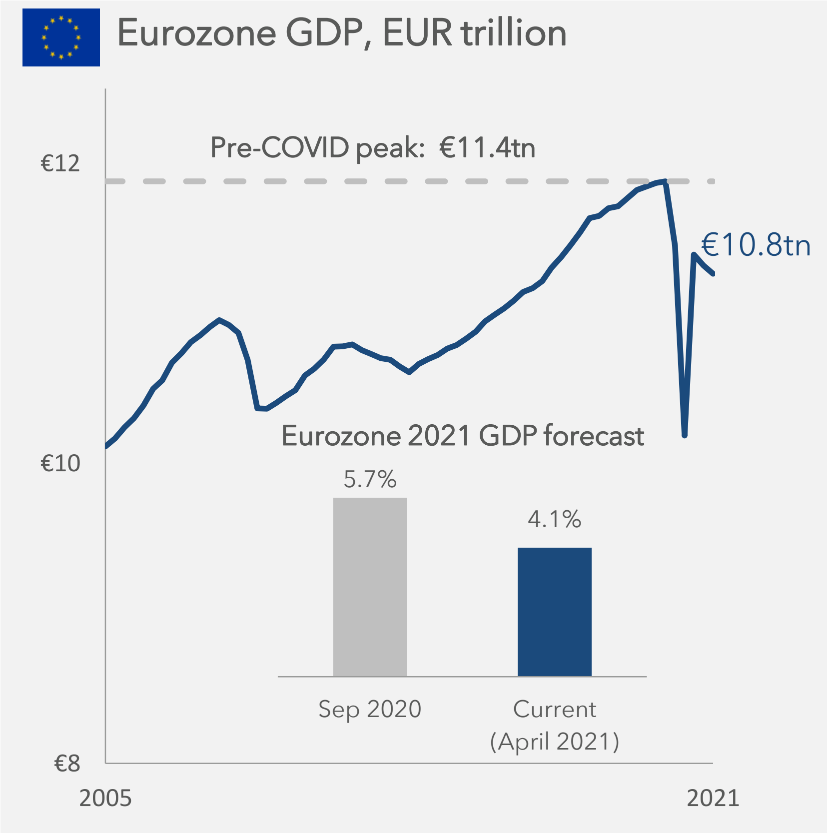


Source: (1) Global Markets Monthly – Emerging Markets April 2021 (Ehsan Khoman).

Growth Divergence Across Developed Economies

The United States' strong outperformance vis-à-vis Europe on virus policy (vaccines administered, case count trajectory) has, in turn, rippled through consensus views on economies and markets. After growing 6.4% in Q1, the US has nearly returned to pre-COVID levels. Europe, however, is not expected to reach its pre-pandemic size until Q1 of 2022.

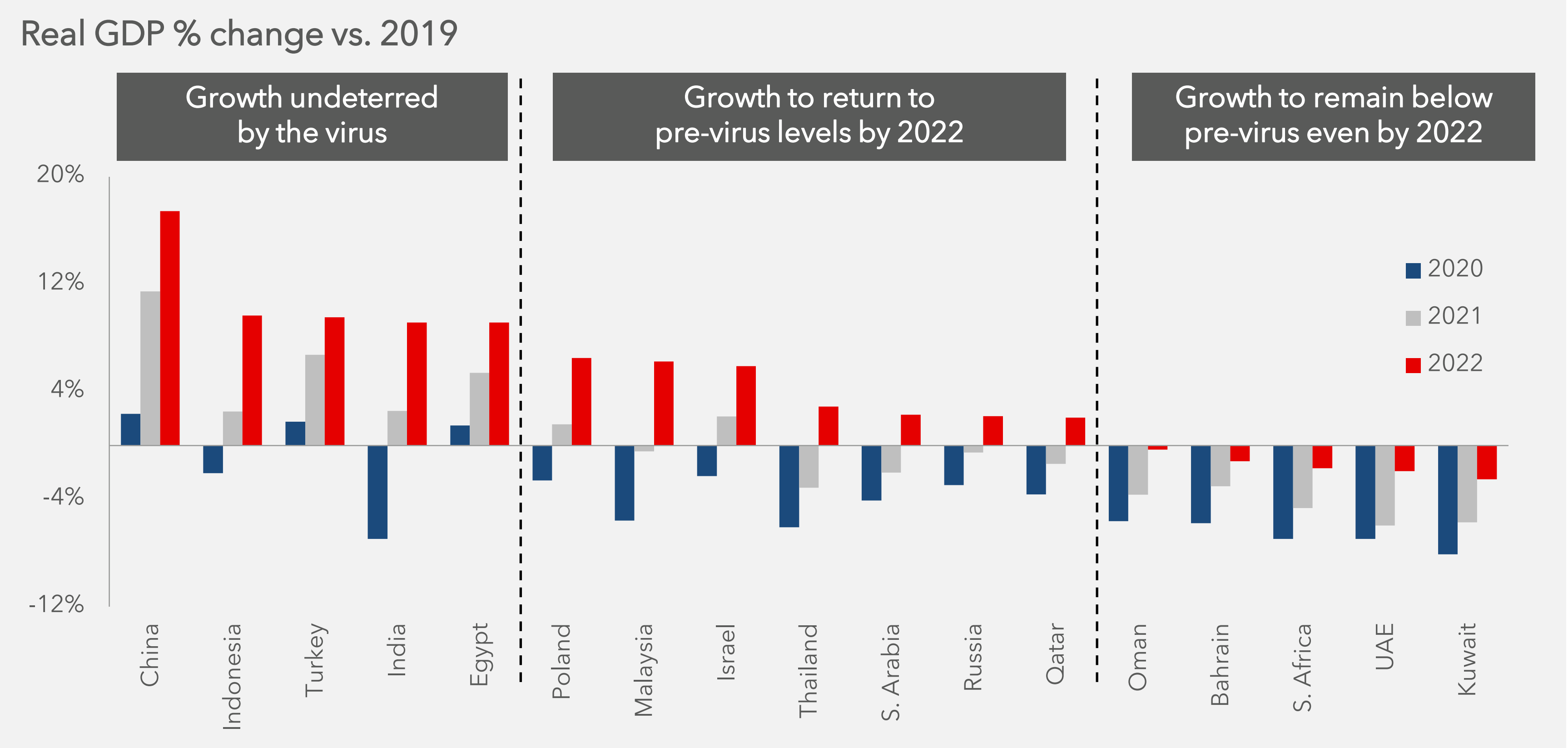




Source: (1-4) Oxford Economics. Data as of April 30, 2021. US GDP is 2012 dollars, seasonally adjusted. Eurozone GDP is 2010 Euros.

Growth Divergence Across Emerging Markets

MUFG's head of EM research, Ehsan Khoman, forecasts EM growth on average is running at a 6.7% rate this year. However, he notes there is a wide disparity between individual economies within EM based on several factors, including: i) government strategy for suppressing the virus; ii) vaccine roll-out effectiveness; iii) structure of each economy; iv) individual willingness to spend accumulated savings; and v) scale and mix of policy stimulus.



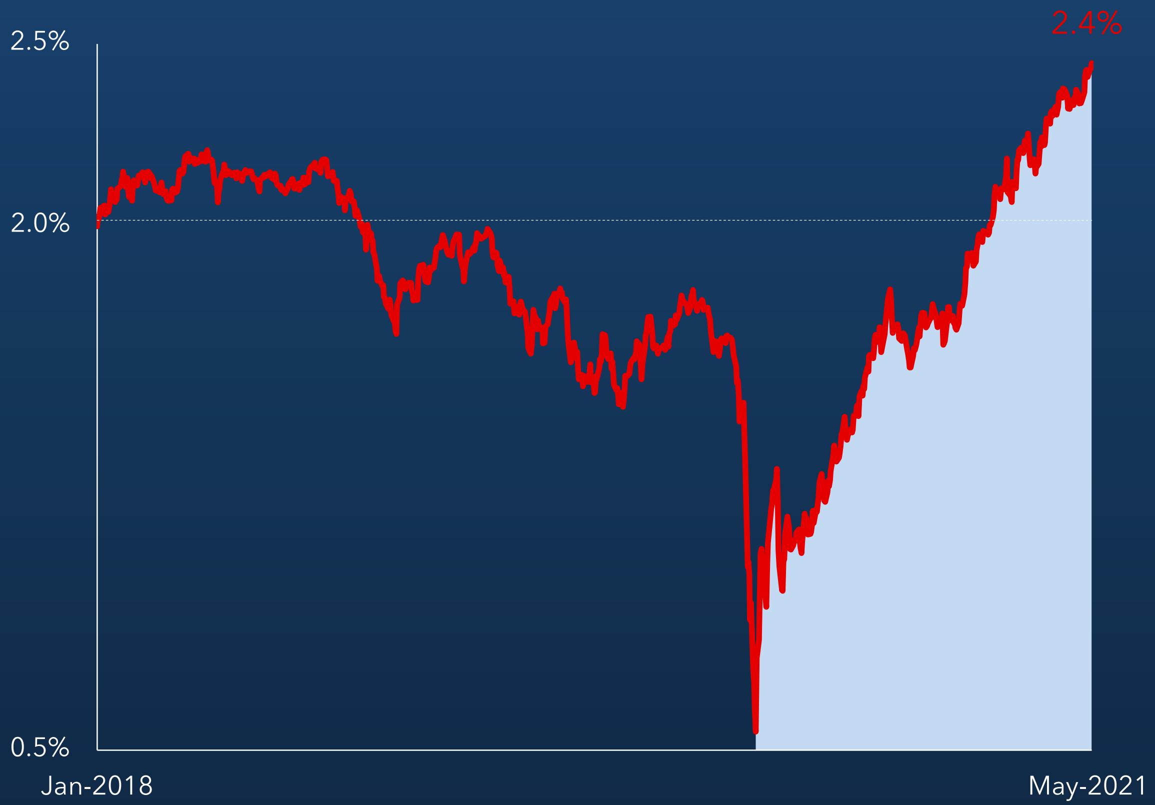
Source: (1) Global Markets Monthly – Emerging Markets April 2021 (Ehsan Khoman). Oxford Economics.

8 Inflation Concerns Rising

Inflation Pressures Strengthening Considerably

US inflation break-evens have risen to their highest levels since 2013

10 year US breakeven inflation rate



Drivers of higher near term inflation:

- Y/Y comparisons to a weak 2020
- Economic and COVID recovery
- Record size fiscal stimulus (> 45% of US GDP proposed)
- Consumer behavior changes (i.e., durable goods)
- Higher energy prices
- Supply chain disruptions and bottlenecks

Source: (1) Bloomberg. Data as of May 5, 2021. FRED.

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 rising

Low inventories

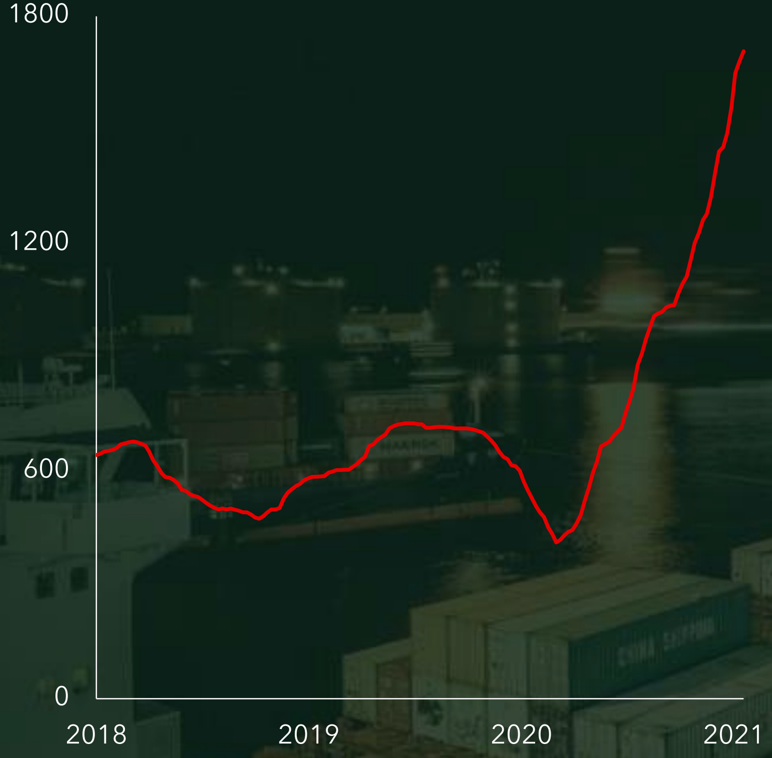
Higher prices paid

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

Supply Chain Bottlenecks

Supply chain stress has accelerated across multiple fronts: hiring, lead times, raw materials, inventories, pricing and shipping availability

Harpex index of container ships price



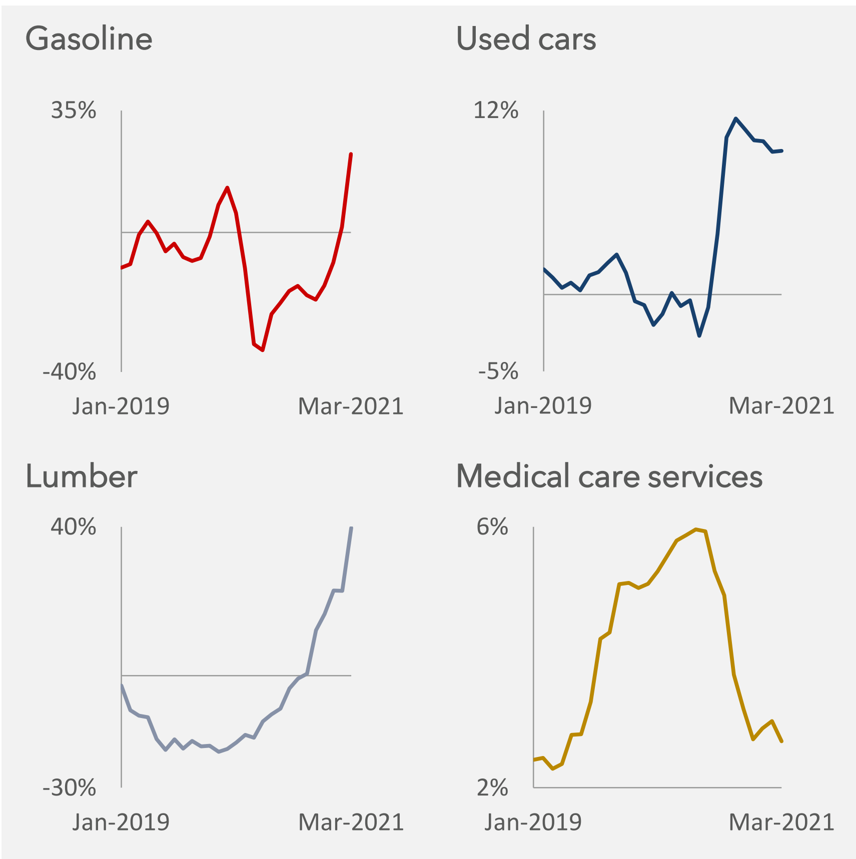
Philadelphia semiconductor index at all time high

Source: (1) Oxford Economics. Harper Peterson & Co. Data as of April 30, 2021. (2) Bloomberg. Data as of April 30, 2021.

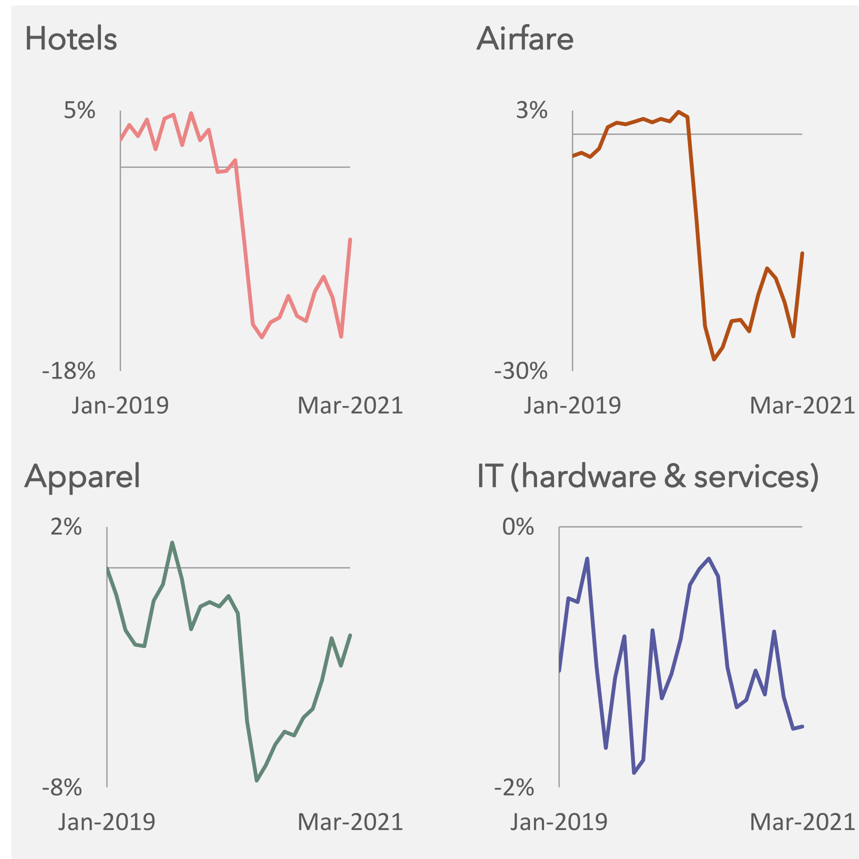
Significant Variance in Inflation by Sector

Sector by sector inflation metrics have been heavily impacted by the uneven nature of the post-COVID recovery

More inflationary sectors



More disinflationary sectors

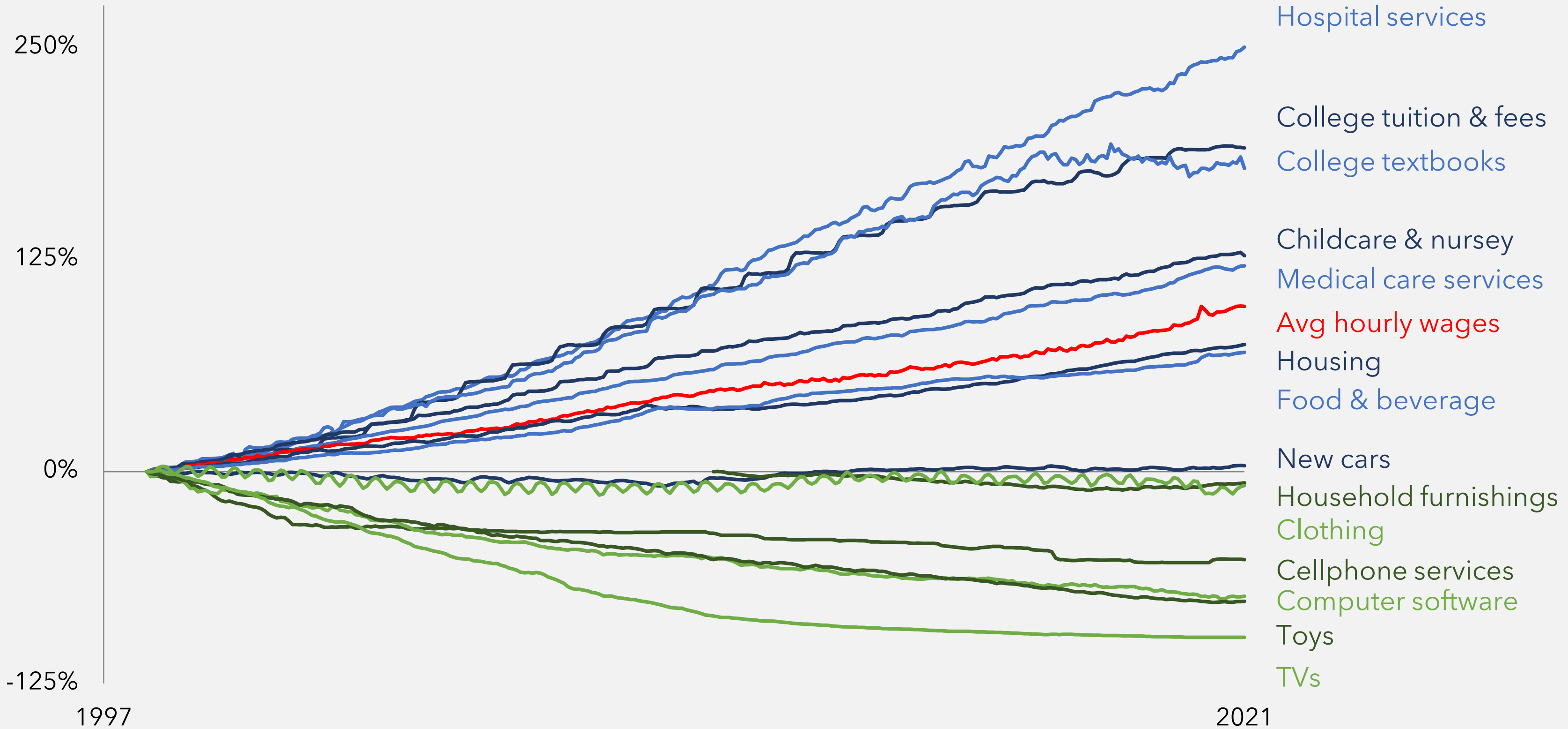


Source: (1-8) FRED. Consumer Price Indices for all urban consumers, US city average. Seasonally adjusted. Data as of April 30, 2021. Lumber is Producer Price Index.

Historical Perspective on US Inflation

AEI economist Mark Perry presents a detailed breakdown of inflation over more than 20 years across 14 categories of goods and services, plus average wages and CPI. Perry's observations are: i) sectors with greater government funding and regulation have experienced sharply higher pricing pressures; ii) segments more exposed to global competition have experienced notable disinflation; and iii) services have generally experienced sharply higher inflation than manufactured goods.

Price changes, selected US consumer goods and services



Source: (1) Bureau of Labor Statistics. AEI "Chart of the Day… or Century" (Mark J. Perry). Data as of April 30, 2021.

9 Fiscal-Monetary Policy Conundrum

The Monetary & Fiscal Policy Conundrum

Excess Monetary & Fiscal Policy

- COVID relief
- Running economy "hot"
- Redefining infrastructure (tech, care, green)

Asset Price Distortions

- Risk assets (oil, equity, HY)
- Alternative assets (crypto, SPACs)
- Supply chain disruptions
- TINA / FOMO

Above Trend GDP Growth

- Strongest growth in 40 years
- Re-engaged consumer
- Accelerating business investment
- Labor market shortages

Rising Inflation

- Durable goods
- Commodities / transportation
- Housing & wages

Central Bank Response

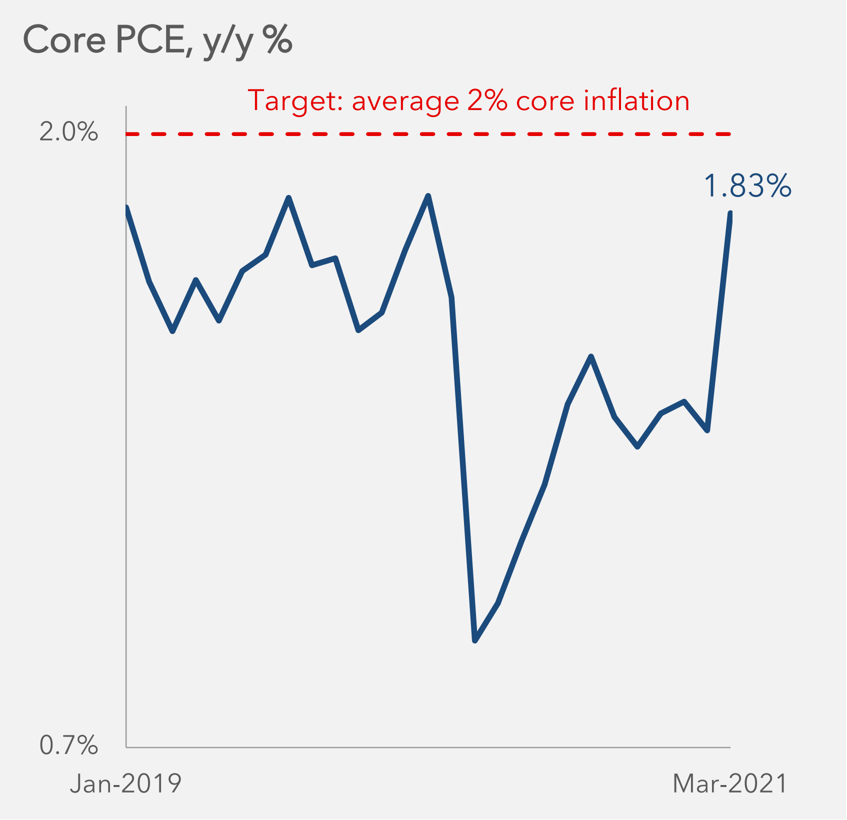
- Verbal tightening signals
- Tapering asset purchases
- Raising interest rates
- Increasing reserve requirements

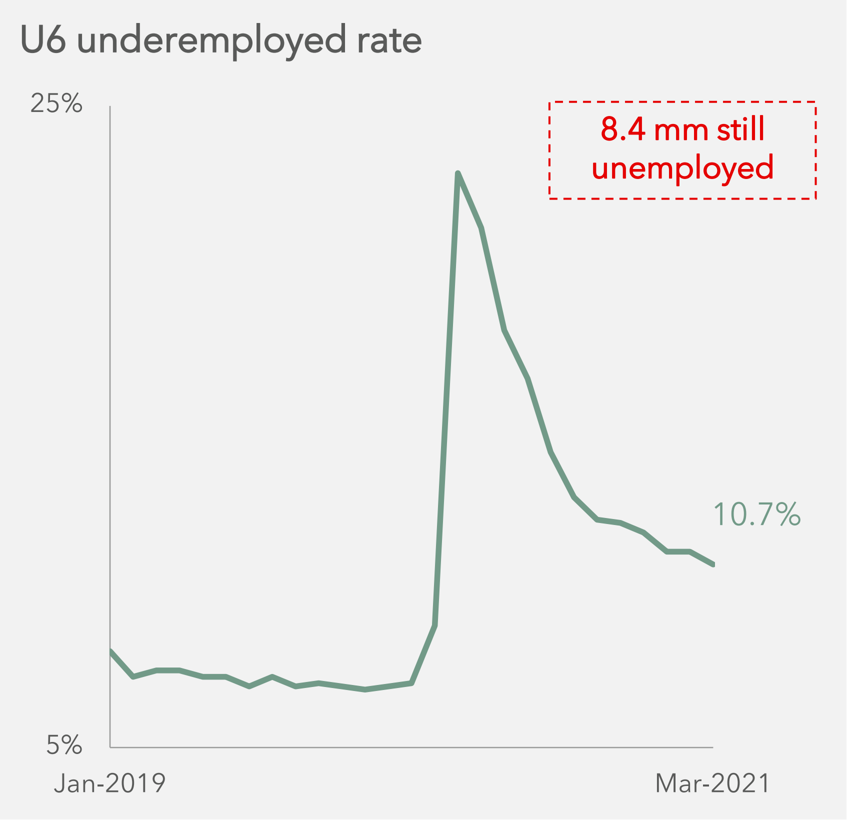
Recession

- Tightening financial conditions
- Asset price volatility
- Credit default cycle turns
- Transmission to real economy (confidence, spending, jobs)

Still Below Fed's Mandate

In response to COVID-19, the Fed nearly doubled the size of its balance sheet to a record $7.6 tn, expanded its QE purchases to include HY bonds, and committed to near 0% rate policy through 2023. With unemployment and core PCE still below the Fed's mandate at a macro-level, the risk of "liquidity-induced" market volatility and high inflation in micro-segments of the economy should be monitored closely.

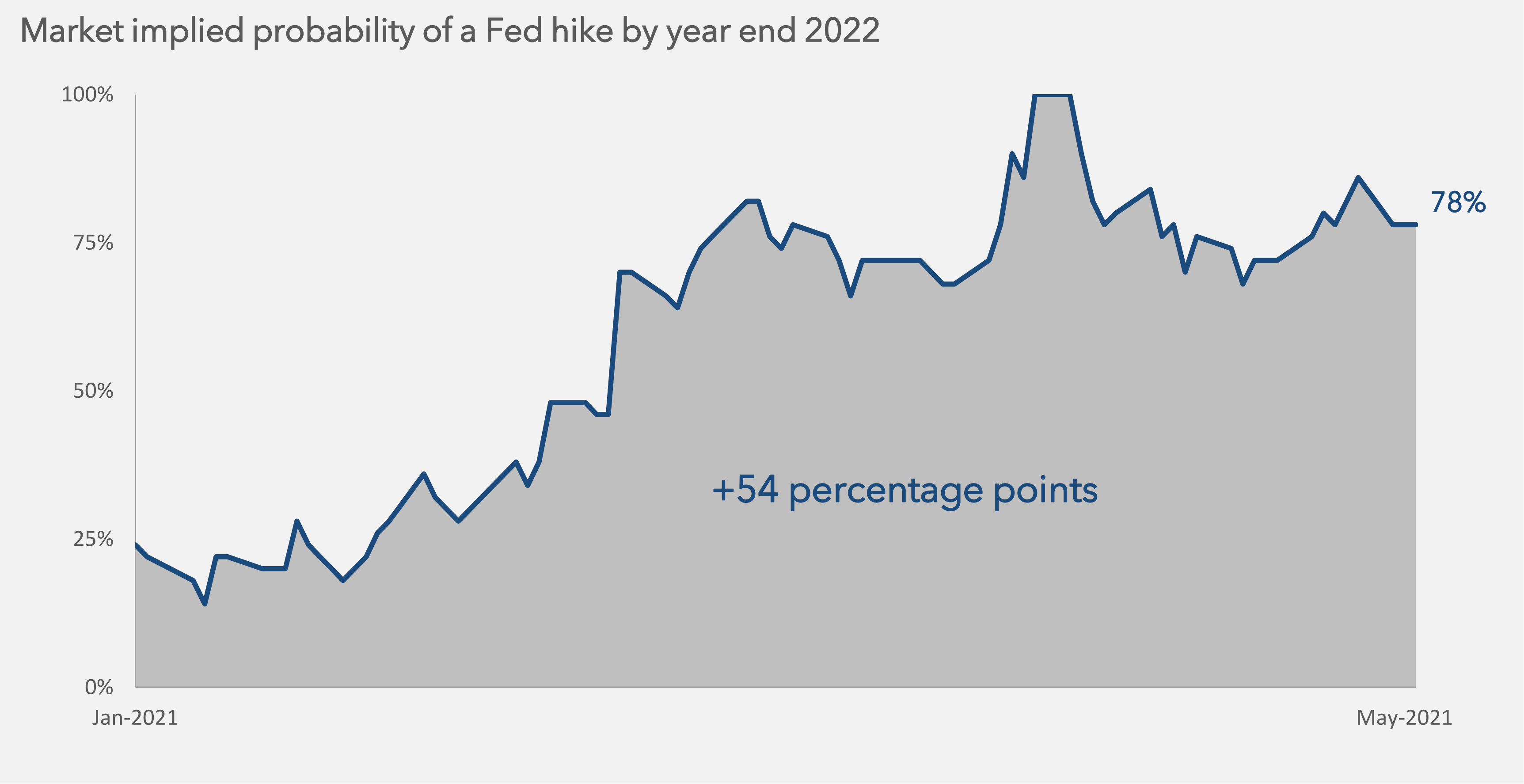




Source: (1-2) Bloomberg. Data as of April 30, 2021.

Market Repricing Timing of Fed Rate Hike

Despite Chair Powell's commitment to maintain QE purchases at $120 bn per month and keep rates at the zero lower bound, the market is increasingly pricing a more rapid QE taper and a rate hike before the end of 2022

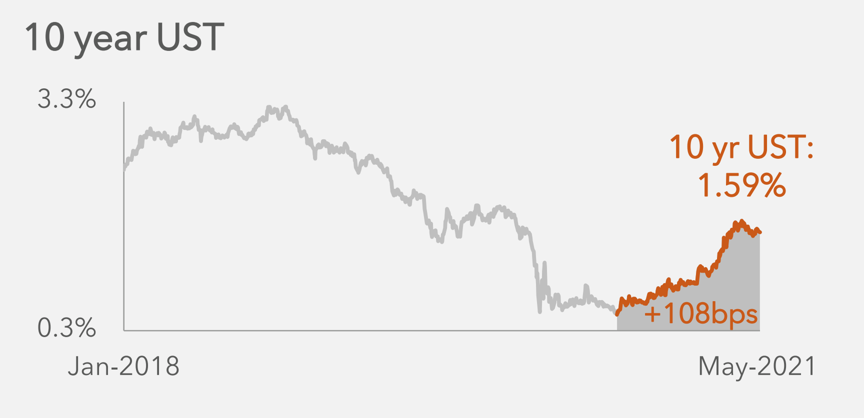


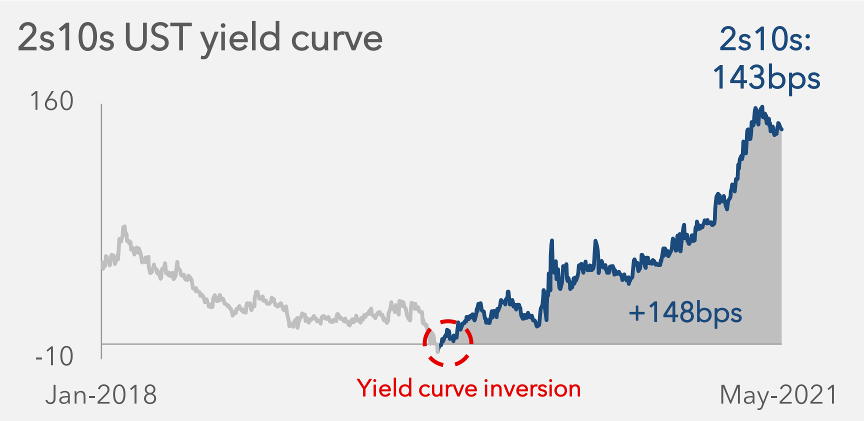
Source: (1) Bloomberg. Data as of May 5, 2021. Market implied probability of Fed rate hike based of off January 2023 futures contract and current effective federal funds rate.

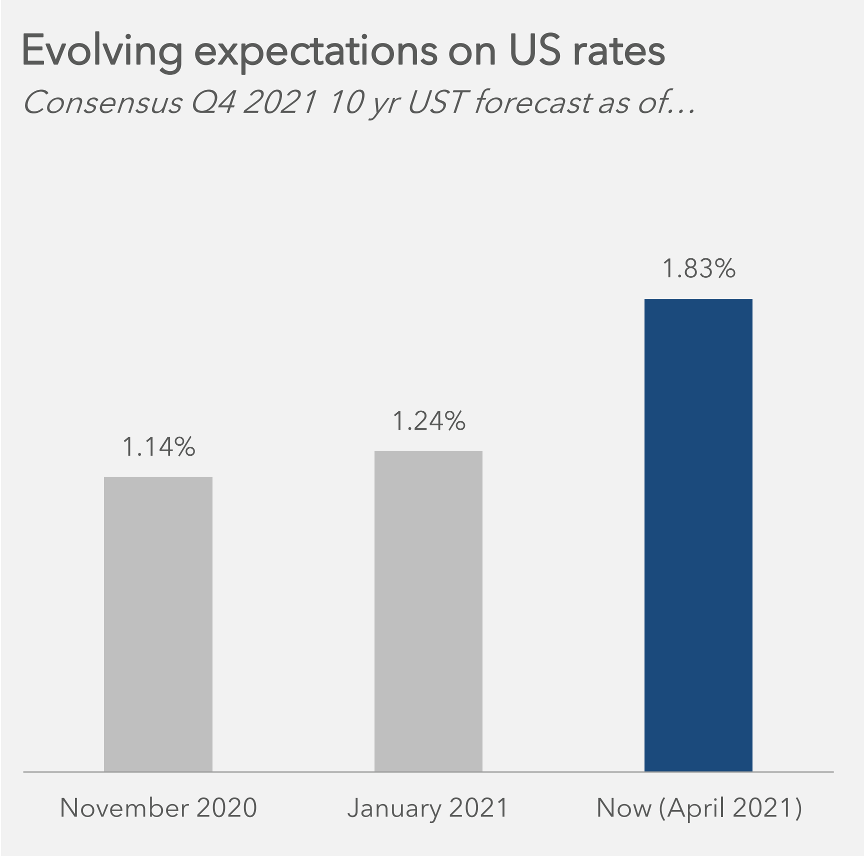
10 Yield Curve Steepening

Rapid Curve Steepening

Even with recent volatility, 10 year UST yields are at the same level as pre-COVID one year ago, and still very low by historic standards. More problematic, however, has been the rapid pace of change in yields, and the rapid steepening of the curve (vis-à-vis the flat curve one year ago).







Source: (1-3) Bloomberg. Data as of May 5, 2021. MUFG Rates Strategist. Oxford Economics.

Important Observations on Real Yields

US real yields still not pricing
significant growth recovery

Despite recent spike,
10 year US real yields still negative

Historically, real yields do not remain
disconnected from business cycle for long

Risk assets perform well
during “moderate” increases in real yields

Certain risk assets more
vulnerable to episodic rate volatility
(EMFX, commodities, high growth equities, HY market)

US dollar more closely tied to ST rates
(unstable relationship with LT real yields over time)

Longer Term Tug-of-War in Rates Markets

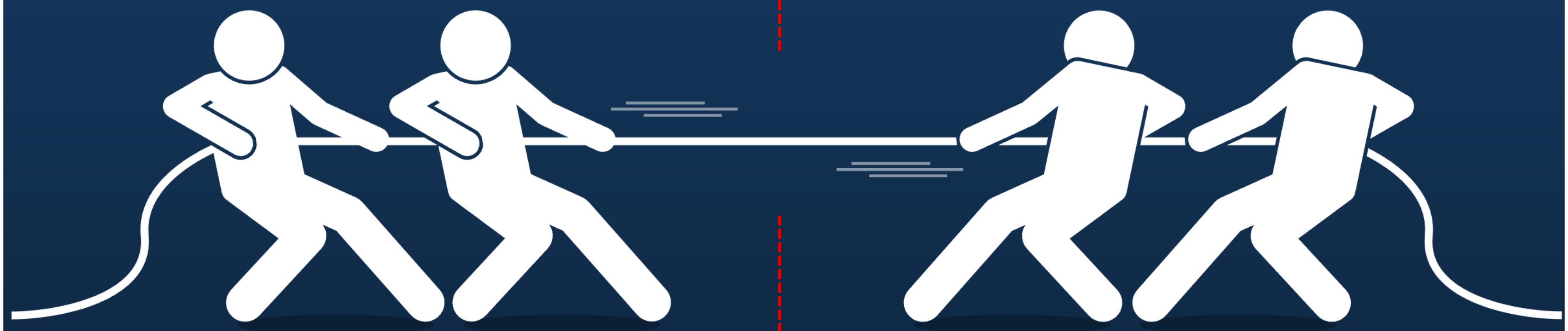
Looking beyond 2021, US rates markets will grapple with the growth and inflationary forces of the post-COVID recovery, and the re-emergence of pre-COVID long term headwinds (and post-COVID scarring) as the economy normalizes.

Near Term COVID-Reopening Tailwinds

- Fiscal stimulus and vaccine
- High velocity of money
- High savings rates
- Pent up consumer demand
- Higher growth and inflation

Long Term Secular Growth Headwinds

- Aging demographics
- Rising debt burdens
- Low productivity
- Disruptive forces (tech, de-globalization)
- Declining policy toolkits



11 Tax Code Changes

Spectrum of US Tax Code Change Scenarios

Tax and infrastructure bills are tough to do with very large electoral mandates, and may be prohibitively challenging in a polarized Washington with razor thin majorities. The "path" and "scope" for US tax code change is therefore difficult to predict so early in the year.

No tax change ← → Significant tax change

Sources

- No tax changes
- Narrow Congressional majority and tax code complexity preclude change

Uses

$1 - $1.5 trillion infrastructure

Sources

- Modest tax changes
- Corporate rate 23-25%
- GILTI rate to ~15%
- Higher individual rates for those earning >$400k

Uses

$1 - $2 trillion infrastructure

Sources

- Significant tax changes
- Corporate rate 26-28%
- GILTI rate 18-21%
- Possible minimum tax by country
- Higher individual rates for those earning >$400k

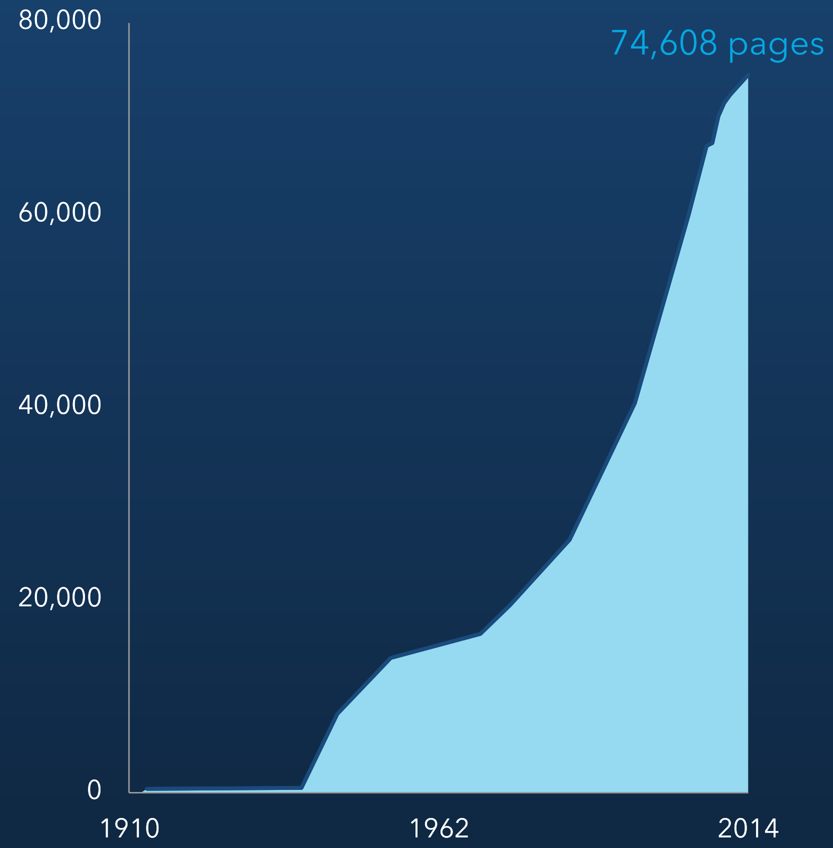
Uses

$2 - $3 trillion infrastructure

Headwinds for Tax Code Change

Tax Code Change Headwinds
• Complexity of US tax code
• Narrow majorities in Senate and House
• Power politics and bipartisan acrimony
• Balancing Democratic moderates and progressives
• Congressional procedural rules and processes (i.e., Byrd rule)
• Entrenched vested interests (politicians, regulators, corporates, lobbyists, trade associations)
• International competitiveness and political pushback
• Economic and labor market implications
• Debt and deficits
• Resistance to "green agenda" incentives
• Varying assessments of fairness and inequality

The complete list of statutes, regulations and case law that make up US tax law has been estimated at > 70,000 pages



Source: (1) Tax Foundation "How Many Words are in the Tax Code." CCH.

Proposed Corporate Tax Changes

Tax Provision	Current	Proposed
Corporate tax rate	21%	28%
Minimum tax	N/A	15% on "book income" for companies with profits >$2 bn
Pass through entities	20% deduction of non-wage portion	Phase out deduction over $400 k income
Manufacturing	N/A	Establish manufacturing communities credit
Domestic manufacturing	N/A	10% credit for new investments
New market tax credit	Credit for private investment in distressed communities	Expand & make permanent
Financial risk fee	N/A	Applied for certain liabilities for financial institutions >$50 bn
Real estate	Like-kind exchanges, accelerated depreciation for rental housing	Eliminate like-kind exchange tax benefit for gains >$500k
DTC prescription drug advertising	Fully deductible	Eliminate deduction
Affordable Care Act	N/A	Expand premium tax credit
Independent contractors	N/A	More stringent classification rules

Source: (1) Tax Policy Center "An Updated Analysis of Former Vice President Biden's Tax Proposals". Tax Foundation "Details and Analysis of President-elect Joe Biden's Tax Proposals, October 2020 Update". PWC "2021 Tax Policy Outlook: The Changing Horizon" January 2021. New York Times "What's in Biden's Tax Plan?"

Proposed US International Tax Changes

Tax Provision	Current	Proposed
GILTI	Effective 10.5% rate	Replace with 21% minimum tax on country-by-country basis
Foreign-derived intangible income (FDII)	Effective 13.125% rate	Repeal FDII deduction
QBAI exemption	10% exemption for Qualified Business Asset Investment	Eliminate exemption
Global book income tax	N/A	Minimum 15% with foreign tax credit allotment
Allocation of interest expense*	Allowed on worldwide basis	Repeal worldwide allocation
Preventing inversions	BEAT provisions	SHIELD provision eliminates deductibility of related-entity payments to low-tax countries
Offshoring manufacturing and services jobs	N/A	10% surtax on production overseas for sale back to US
Domestic manufacturing	N/A	10% credit for new investments that will create jobs in the US
Supply chain security	N/A	Incentives for making critical products in the US
Claw-backs	N/A	Return of public investments & tax benefits if production offshored

*Indicates provision is part of American Rescue Plan Act

Source: (1) Tax Foundation "An "Interest"ing Tax Hike in the COVID-19 Relief Proposal". Tax Policy Center "An Updated Analysis of Former Vice President Biden's Tax Proposals". Tax Foundation "Details and Analysis of President-elect Joe Biden's Tax Proposals, October 2020 Update". PWC "2021 Tax Policy Outlook: The Changing Horizon" January 2021. President Biden's American Jobs Act Plan. New York Times "What's in Biden's Tax Plan?"

Proposed Climate Related Tax Changes

Tax Provision	Current	Proposed
CORPORATE		
Fossil Fuels	Domestic production subsidies	Eliminate tax preferences
Clean energy production incentives	N/A	New and expanded credits for long-distance transmission lines, electricity storage, clean energy generation, sustainable aviation fuel, low carbon manufacturing technology
Carbon capture	Per-ton tax credit for carbon capture	Expand section 45Q tax credit for carbon capture, use and storage (refundable, easier to claim)
Renewable energy investment	N/A	Reinstate credit
Commercial building emission reductions	Deductions for energy efficiency	Expand deductions
Polluter tax	N/A	Restore tax to pay for EPA clean-up costs
INDIVIDUAL		
Residential energy efficiency	STAR credits	Reinstate full credits
Electric vehicles	Up to $7,500 credit for buying qualifying new electric-vehicle	Restore full credit targeted to middle income consumers

Source: (1) Tax Policy Center "TPC Finds the Ways & Means Pandemic Relief Plan Mostly Helps Low and Moderate Income Households, But Higher Income Families Benefit as Well", Howard Gleckman. Tax Policy Center "An Updated Analysis of Former Vice President Biden's Tax Proposals". Tax Foundation "Details and Analysis of President-elect Joe Biden's Tax Proposals, October 2020 Update". PWC "2021 Tax Policy Outlook: The Changing Horizon" January 2021. Joebiden.com "A Tale of Two Tax Policies: Trump Rewards Wealth, Biden Rewards Work." New York Times "What's in Biden's Tax Plan?"

Proposed Individual Tax Changes

Tax Provision	Current	Proposed
Tax rate above $400 k income	37%	39.6%
Itemized deductions above $400 k income	No overall limitation on itemized deductions; SALT cap at $10 k	Cap benefit at 28% of value; Restore Pease limit on itemized deductions
Long term capital gains & qualified dividends	20% top rate	Ordinary tax rate for household income above $1 million
Unrealized capital gains at death	Generally exempt	End basis step-up over $1 mm ($2.5 mm / couple) with some exemptions
Carried Interest	20% rate on carried interest	Tax as ordinary income
Qualified business income deduction	Up to 20% of QBI + 20% REIT dividends & PTP income	Phase out after $400 k income
Retirement credits	N/A	Automatic IRAs; small business start-up credit
IRA deductibility	Deduction phased out between $65k and $75k AGI if covered by work plan	Replace with 26% refundable credit

Source: (1) Tax Policy Center "TPC Finds the Ways & Means Pandemic Relief Plan Mostly Helps Low and Moderate Income Households, But Higher Income Families Benefit as Well", Howard Gleckman. Tax Policy Center "An Updated Analysis of Former Vice President Biden's Tax Proposals". Tax Foundation "Details and Analysis of President-elect Joe Biden's Tax Proposals, October 2020 Update". PWC "2021 Tax Policy Outlook: The Changing Horizon" January 2021.

Proposed Individual Tax Changes

Tax Provision	Current	Proposed
Estate tax	$11.6 million exemption; 40% top rate	**$3.5 million exemption; 45% top rate**
Renters' credit	N/A	**Provide refundable credit**
First time homebuyers	N/A	**$15,000 refundable credit**
Old-Age, Survivors & Disability Insurance payroll tax	12.4% Social Security tax applies to annual adjusted wage base limit	**Apply payroll tax to income above $400 k** (Does not qualify for budget reconciliation)
Earned Income Tax Credit*	$538 for childless adults	**$1,500 for childless adults; expanded eligibility**
Child Care Tax Credit*	Up to $2,000	**Up to $3,600 under age 6 / $3,000 age 6-17**
Child and Dependent Care Tax Credit*	Max credit rate 30%	**$8,000 max value; 50% refundability**
Family caregivers for those with physical and cognitive needs	N/A	**Up to $5,000**
Forgiven student loans	N/A	**Exempt from taxable income**

*Indicates provision is part of American Rescue Plan. Biden proposal may make change under American Rescue Plan permanent.

Source: (1) Tax Policy Center "TPC Finds the Ways & Means Pandemic Relief Plan Mostly Helps Low and Moderate Income Households, But Higher Income Families Benefit as Well", Howard Gleckman. Tax Policy Center "An Updated Analysis of Former Vice President Biden's Tax Proposals". Tax Foundation "Details and Analysis of President-elect Joe Biden's Tax Proposals, October 2020 Update". PWC "2021 Tax Policy Outlook: The Changing Horizon" January 2021.

12 ESG’s Acceleration

Why Now?

After more than 40 years of shareholder supremacy, unsustainable negative externalities and burden shifting have precipitated the rise of stakeholder capitalism, and the transformation of corporate strategy and global finance. While ESG's arrival into the mainstream is unambiguous, what may be less clear to many is "why now?"

ESG's Acceleration

- The Rise of stakeholder capitalism
- Transformation of global finance
- Purposeful corporate strategy
- ESG as new competitive frontier

Unsustainable Negative Externalities

Climate change. Environmental degradation. Fossil fuels. Rising inequality. Insufficient wages. Gender inequities. Race discrimination. Unsafe / unhealthy products. Socially-induced illness. Financial crises. Corporate fraud. Corruption. Human rights.

Unacceptable Burden-Shifting Away from Shareholders

To the environment, taxpayers, governments, customers, employees, & public health. Short term advantaged at longer term expense.

Socio-Political Secular Shifts

Populism. Globalization backlash. Green-sustainable agenda. "Me Too" movement. Black Lives Matter.

Government and regulatory activism. Evolving social values. Generational shifts. Consumer decisions.

Employment choices. Healthcare reform demands. Technology enabled communication & social media.

Private & Public Sector Acceleration

Over 3,500 UN PRI signatories representing $125 trillion of AUM.

US adopting "Whole of Government Approach". ESG proponents in key seats. Rules directives for every government agency. Disclosure requirements. Carbon taxes. Green technology subsidies & investment.

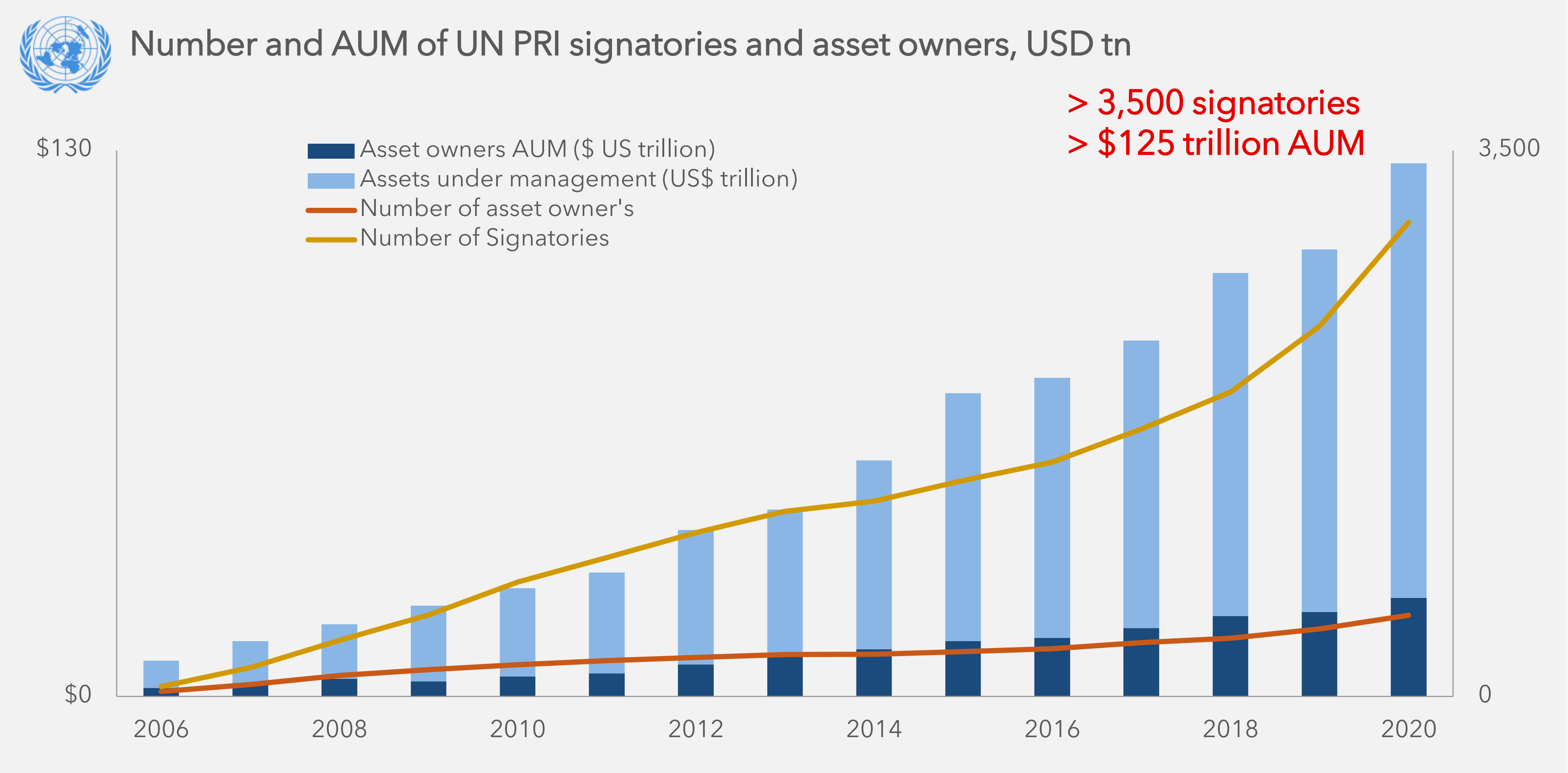
Impact of COVID-19

Private sector adoption and public policy continue to accelerate. Significant increase in the "S" dimension of ESG. Rapid progress on data collection, measurement, standardization and disclosure requirements.

Source: Martin Whittaker, CEO of JUST Capital

Acceleration of ESG Committed Assets

More than 3,500 signatories and asset owners, representing more than $125 trillion in global AUM, have joined the UN Principles for Responsible Investment (PRI) and agreed to incorporate ESG factors into their investment and ownership decisions



Source: (1) UN PRI. Data updated annually as of December 31, 2020. Total Assets under management (AUM) include reported AUM and AUM of new signatories provided in sign-up sheet that signed up by end of March of that year. Total AUM since 2015 excludes double counting resulting from subsidiaries of PRI signatories also reporting, and external assets managed by PRI signatories. AUM for previous years include some element of double counting.

First 100 Days' Green Agenda

In his first 100 days in office, President Biden executed a litany of personnel, regulatory, multi-lateral and research related initiatives that have been transformative in the US Government's approach to climate change

Domestic Green Policy Initiatives

Targets

- ❑ Cut US emissions by 50-52% of 2005 levels by 2030
- ❑ 100% carbon pollution-free electricity by 2035
- ❑ Transportation sector emission reduction (reduce tailpipe emissions; boost car / truck efficiency; EV charging infrastructure; battery R&D; etc.)
- ❑ Support carbon capture
- ❑ Enhance job creation in clean energy sectors

Approach

- ❑ "Whole-of-Government" approach (cabinet / advisor selection; department mandates; National Climate Task Force; climate risk incorporation in intelligence agencies' country risk assessments)
- ❑ Executive orders, use of Congressional Review Act to overturn Trump era regulations
- ❑ Declare climate a national emergency on White House website
- ❑ Nearly $300 mm in energy and transportation sector grant opportunities
- ❑ Green infrastructure spending and tax provisions in American Jobs and American Families plans

First 100 Days' Green Agenda

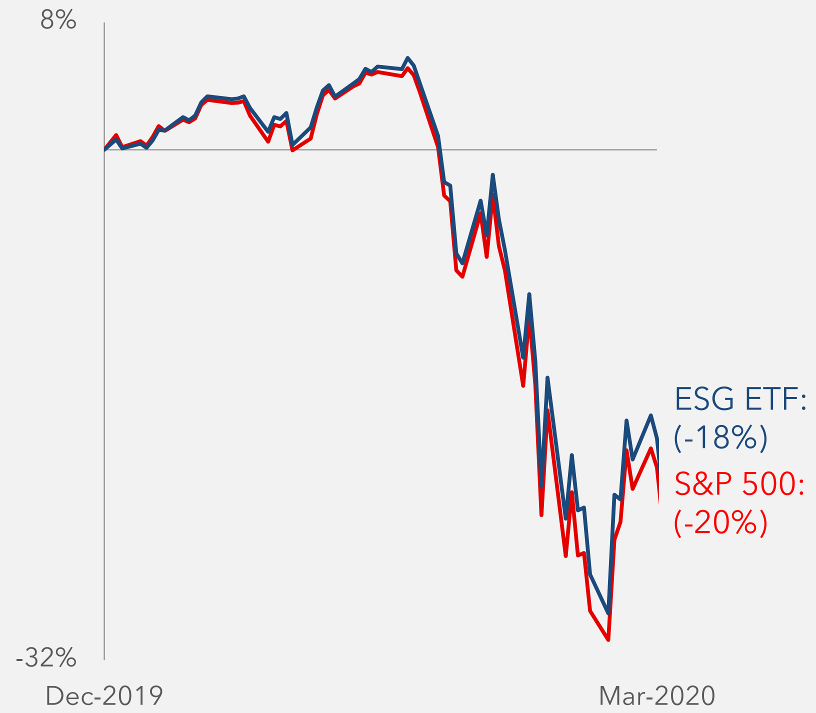
International Green Policy Initiatives

- ❑ Rejoined Paris Climate Accord
- ❑ Hosted April 22 Climate Leaders Summit
- ❑ Climate focused calls between President Biden and world leaders (Macron, Johnson, Trudeau, Merkel, Suga, Xi)
- ❑ Climate Envoy, John Kerry, global tour / meetings with global leaders
- ❑ Released US International Climate Finance Plan
  - Increase international climate finance
    - Double annual public financing in developing countries by 2024
    - Triple adaptation finance by 2024
  - Mobilize private sector finance
  - Move toward ending US government investment & financing of international carbon-intensive fossil-fuel based energy projects
    - Transition US International Development Finance Corp to a net-zero portfolio by 2040
  - Support capital flows into low-emission, climate-resilient projects
  - Define, measure and report on US public finance

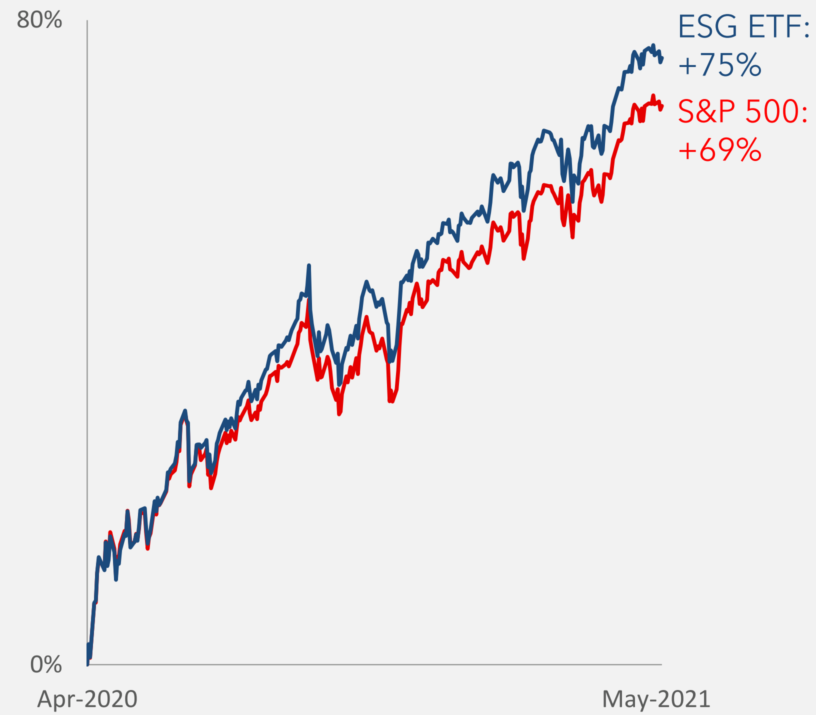
ESG's Outperformance

The COVID-19 crisis and recovery clearly demonstrated that ESG is not a bull market phenomenon, but rather, a long term secular growth trend with bear market resilience. Looking ahead, however, COVID-19 has also had a transformational impact on ESG and sustainability, accelerating its stronghold as a pervasive megatrend driving markets, public policy and business strategy in the years ahead.

ESG's resilience on the downside



ESG's outperformance on the recovery



Source: (1-2) Bloomberg. Data as of May 5, 2021.

Epilogue: Key Risks to Monitor in 2021

Economy & Markets

1. Rising inflation (commodities, durable goods, wages)
2. Virus transmission, mutation and lockdown risks
3. Asynchronous global recovery (between US & EU, DM & EM)
4. Rate market volatility & risk asset contagion (EM, equities, HY)
5. Asset price corrections (liquidity driven market distortions)
6. Rising debt burdens; declining policy toolkits

Business & Strategy

7. Preparing for US tax code changes
8. Falling behind ESG's acceleration
9. Supply chain security, bottlenecks and vulnerabilities
10. Impact of US-China policy escalation & decoupling (tech, trade, finance, Taiwan)
11. Reintegration of remote work forces, corporate culture impact
12. Repositioning for "Life after COVID" (consumer behavior changes, technology acceleration & innovation)

About the Authors

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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 Kendal is an associate 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.

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.

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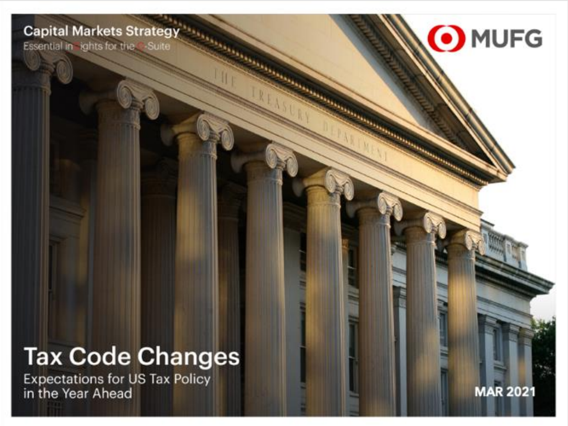
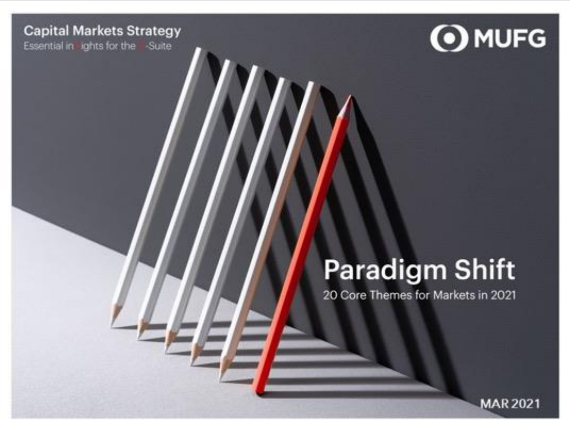
Recent Publications





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