Repricing Global Growth
Balancing Policy Activism & a Resurgent Economy
Markets Repricing for Higher Growth

Performance since November 1, 2020

**Equities**
- Global equities: +27% (Nov-2020 to May-2021)
- Value stocks: +34% (Nov-2020 to May-2021)
- Bank shares: +69% (Nov-2020 to May-2021)

**Rates**
- Yield curve: 2s10s USTs: 143 bps
- Fed rate hike prob. (2022): +71 bps
- US inflation break-evens: 2.4%

**Financial Conditions**
- US financial conditions
- USD HY spreads: CCC OAS: 642 bps
- FX volatility: (-499 bps)

**Commodities**
- Energy prices: WTI: $66
- Industrial metals: Steel: $1,773
- Copper / gold ratio: +57% (Nov-2020 to May-2021)

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.
Global Corporate & Investment Banking
Capital Markets Strategy Team

Tom Joyce
Managing Director
Capital Markets Strategist
New York, NY
Tom.Joyce@mufgsecurities.com
(212) 405-7472

Hailey Orr
Director
Capital Markets Strategist
New York, NY
Hailey.Orr@mufgsecurities.com
(212) 405-7429

Stephanie Kendal
Associate
Capital Markets Strategist
New York, NY
Stephanie.Kendal@mufgsecurities.com
(212) 405-7443
<table>
<thead>
<tr>
<th>RESURGENT GLOBAL GROWTH</th>
<th>DEVELOPMENTS TO MONITOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Historic US Fiscal Stimulus</td>
<td>8. Inflation Concerns Rising</td>
</tr>
<tr>
<td>3. Improved Global Trade Regime</td>
<td>9. Fiscal-Monetary Policy Conundrum</td>
</tr>
<tr>
<td>6. Resurgent Consumer Activity</td>
<td>12. ESG’s Acceleration</td>
</tr>
</tbody>
</table>
“Read 500 pages every day. That’s how knowledge works. It builds up like compound interest.”

Warren Buffet, Chairman & CEO of Berkshire Hathaway
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.

% of population given at least 1 dose of COVID vaccine

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.

Deferred Tax Payments 1 $300 billion
Families First Act 2 $200 billion
CARES Act 3 $2.4 trillion
PPP & Health Care Enhancement Act 4 $484 billion
December 2020 COVID Relief Bill 5 $900 billion
American Rescue Plan 6 $1.9 trillion
Biden’s Proposed American Jobs Plan 7 (Announced March 31) $2.25 trillion
Biden’s Proposed American Families Plan 8 (Announced April 28) $1.8 trillion

2020-21 Total $10.2 trillion

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).

<table>
<thead>
<tr>
<th>Buildings &amp; Utilities $664</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Housing $213</td>
</tr>
<tr>
<td>Schools $112</td>
</tr>
<tr>
<td>Clean Energy/Electric Grid $100</td>
</tr>
<tr>
<td>Veteran hospitals $18</td>
</tr>
<tr>
<td>Federal Buildings $10</td>
</tr>
<tr>
<td>High Speed Broadband $100</td>
</tr>
<tr>
<td>Water Systems $66</td>
</tr>
<tr>
<td>Eliminate lead pipes $45</td>
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<table>
<thead>
<tr>
<th>Transportation $621</th>
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</thead>
<tbody>
<tr>
<td>Electric Vehicles Incentives $174</td>
</tr>
<tr>
<td>Roads and Bridges $152</td>
</tr>
<tr>
<td>Public Transit $85</td>
</tr>
<tr>
<td>Passenger and freight railways $80</td>
</tr>
<tr>
<td>Disaster resilience $50</td>
</tr>
<tr>
<td>Other $55</td>
</tr>
<tr>
<td>Airports $25</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Tax Related $880</th>
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</thead>
<tbody>
<tr>
<td>Expansion of the child, earned-income, and child and dependent care tax credit $600</td>
</tr>
<tr>
<td>Investments to collect more revenue $80</td>
</tr>
<tr>
<td>A.C.A. Premium tax credit expansion $200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jobs &amp; Innovation $578</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Manufacturing $52</td>
</tr>
<tr>
<td>Semi-conductor Industry $50</td>
</tr>
<tr>
<td>Work Force Development $48</td>
</tr>
<tr>
<td>Research Infrastructure $40</td>
</tr>
<tr>
<td>Small Businesses $31</td>
</tr>
<tr>
<td>Pandemic Prep $30</td>
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<tr>
<td>Other $76</td>
</tr>
<tr>
<td>Supply Chain Support $50</td>
</tr>
<tr>
<td>National Science Foundation $50</td>
</tr>
<tr>
<td>Clean Energy $46</td>
</tr>
<tr>
<td>Dislocated workers $40</td>
</tr>
<tr>
<td>Climate Technology $35</td>
</tr>
<tr>
<td>R&amp;D $30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education $511</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Universal Preschool $200</td>
</tr>
<tr>
<td>Two years of free community college $109</td>
</tr>
<tr>
<td>Pell Grants $85</td>
</tr>
<tr>
<td>Completion and Retention $62</td>
</tr>
<tr>
<td>Colleges/University for Minorities $46</td>
</tr>
<tr>
<td>Teachers $9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Support $895</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child care $225</td>
</tr>
<tr>
<td>Paid family and medical leave $225</td>
</tr>
<tr>
<td>In-Home care for people with disabilities and older adults $400</td>
</tr>
<tr>
<td>Nutrition programs $45</td>
</tr>
</tbody>
</table>

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

- Roughly 6.5% contraction

Global oil price correction
*WTI*

- (-22.9%)

Global rates shock
*10 year UST*

- (-133 bps)

Negative yielding securities double
*Global negative yielding debt, USD tn*

- $8 tn

- +112%

Global manufacturing recession
*Manufacturing PMI*

- Expansion

- Contraction

- US Global Eurozone

3 Fed rate cuts
*Fed funds rate*

- 2.6%

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
- Removal of US – China tariffs unlikely
- No relaxation on Huawei / 5G expansion
- No rollback on increased technology restrictions
- Human rights / geopolitical overlay

### Change in approach
- More measured, consistent
- More rules-based, predictable
- More consultative, soliciting cooperation with allies
- More process-oriented, with inter-agency cooperation
Markets Signaling Improved Global Trade Regime

China / EM recovery cycle proceeding more smoothly

- RMB: +3.4%
- MSCI EMFX index: +4.1%

Commodity cycle proceeding more smoothly

- Commodity index: +27.5%
- WTI: +80.4%

Industrial / manufacturing cycle proceeding more smoothly

- Global monthly trade volumes: +17.3%
- Global industrial production: +17.3%

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.

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.

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.

GDP growth, y/y

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

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.

2021 GDP growth forecasts, y/y

<table>
<thead>
<tr>
<th>Region</th>
<th>November Forecast</th>
<th>April Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>8.9%</td>
<td>7.8%</td>
</tr>
<tr>
<td>US</td>
<td>7.2%</td>
<td>3.6%</td>
</tr>
<tr>
<td>UK</td>
<td>7.2%</td>
<td>5.4%</td>
</tr>
<tr>
<td>World</td>
<td>6.1%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Eurozone</td>
<td>4.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Japan</td>
<td>2.7%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

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

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.

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.

![Graph showing business investment recovery](image)

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

Repricing Global Growth / MAY 2021 / page 30
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.

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.
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)

Wave 1: Apr 2020 peak 81,406
Wave 2: Jul 2020 peak 270,366
Wave 3: Dec 2020 peak 753,306
Wave 4: Apr 2021 peak 817,466

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.

![Daily COVID cases, 7 day moving average (thousands)](chart)

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.

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.

Real GDP % change vs. 2019

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.

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

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

- **Gasoline**: 35%
  - Jan-2019: -40%
  - Mar-2021: -5%

- **Used cars**: 12%
  - Jan-2019: -5%
  - Mar-2021: 10%

- **Lumber**: 40%
  - Jan-2019: -30%
  - Mar-2021: 5%

- **Medical care services**: 6%
  - Jan-2019: 2%
  - Mar-2021: 4%

### More disinflationary sectors

- **Hotels**: 5%
  - Jan-2019: -18%
  - Mar-2021: -30%

- **Airfare**: 3%
  - Jan-2019: -8%
  - Mar-2021: -2%

- **Apparel**: 2%
  - Jan-2019: -8%
  - Mar-2021: 0%

- **IT (hardware & services)**: 0%
  - Jan-2019: 0%
  - Mar-2021: 0%

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

Fiscal-Monetary Policy Conundrum
The Monetary & Fiscal Policy Conundrum

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

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

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

Repricing Global Growth / MAY 2021 / page 44
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.

Core PCE, y/y %

Target: average 2% core inflation

U6 underemployed rate

8.4 mm still unemployed

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.


+54 percentage points
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).

## Important Observations on Real Yields

<table>
<thead>
<tr>
<th>Observation</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>US real yields still not pricing significant growth recovery</td>
<td></td>
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<tr>
<td>Despite recent spike, 10 year US real yields still negative</td>
<td></td>
</tr>
<tr>
<td>Historically, real yields do not remain disconnected from business cycle for long</td>
<td></td>
</tr>
<tr>
<td>Risk assets perform well during “moderate” increases in real yields</td>
<td></td>
</tr>
<tr>
<td>Certain risk assets more vulnerable to episodic rate volatility (EMFX, commodities, high growth equities, HY market)</td>
<td></td>
</tr>
<tr>
<td>US dollar more closely tied to ST rates (unstable relationship with LT real yields over time)</td>
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</tbody>
</table>
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
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.

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

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

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

**Uses**
- **No tax change**
  - $1 - $1.5 trillion infrastructure

**Uses**
- **Significant tax change**
  - $2 - $3 trillion infrastructure

**Uses**
- **Modest tax changes**
  - $1 - $2 trillion infrastructure
Headwinds for Tax Code Change

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

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

Source: (1) Tax Foundation “How Many Words are in the Tax Code.” CCH.
## Proposed Corporate Tax Changes

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

## Proposed US International Tax Changes

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

*Indicates provision is part of American Rescue Plan Act

## Proposed Climate Related Tax Changes

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

## Proposed Individual Tax Changes

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

## Proposed Individual Tax Changes

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

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

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?”

Source: Martin Whittaker, CEO of JUST Capital

**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.
- Corporate fraud. 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**

**Private & Public Sector Acceleration**
- Over 3,500 UN PRI signatories representing $125 trillion of AUM.

**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.
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.

## 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

Tom Joyce
Managing Director
Capital Markets Strategist
New York, NY

Tom.Joyce@mufgsecurities.com
(212) 405-7472

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.
About the Authors

Hailey Orr
Director
Capital Markets Strategist
New York, NY
Hailey.Orr@mufgsecurities.com
(212) 405-7429

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”.

Stephanie Kendal
Associate
Capital Markets Strategist
New York, NY
Stephanie.Kendal@mufgsecurities.com
(212) 405-7443

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.

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

- **Biden’s First 100 Days**
  Policy, Markets & the COVID-19 Recovery
  MAY 2021

- **Tax Code Changes**
  Expectations for US Tax Policy in the Year Ahead
  MAR 2021

- **Paradigm Shift**
  3D Glow Themes for Markets in 2021
  MAR 2021

- **The First 100 Days**
  Expectations for policy, the economy and global markets in 2021
  JAN 2021

- **Passing the Baton**
  The Transition from Monetary to Fiscal Policy During COVID-19
  DEC 2020

- **The Uneven Recovery**
  Frameworks for assessing COVID-19, the US election and markets
  NOV 2020
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