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Morgan Stanley



COVID-19 and Its Effects on the US Economic Outlook

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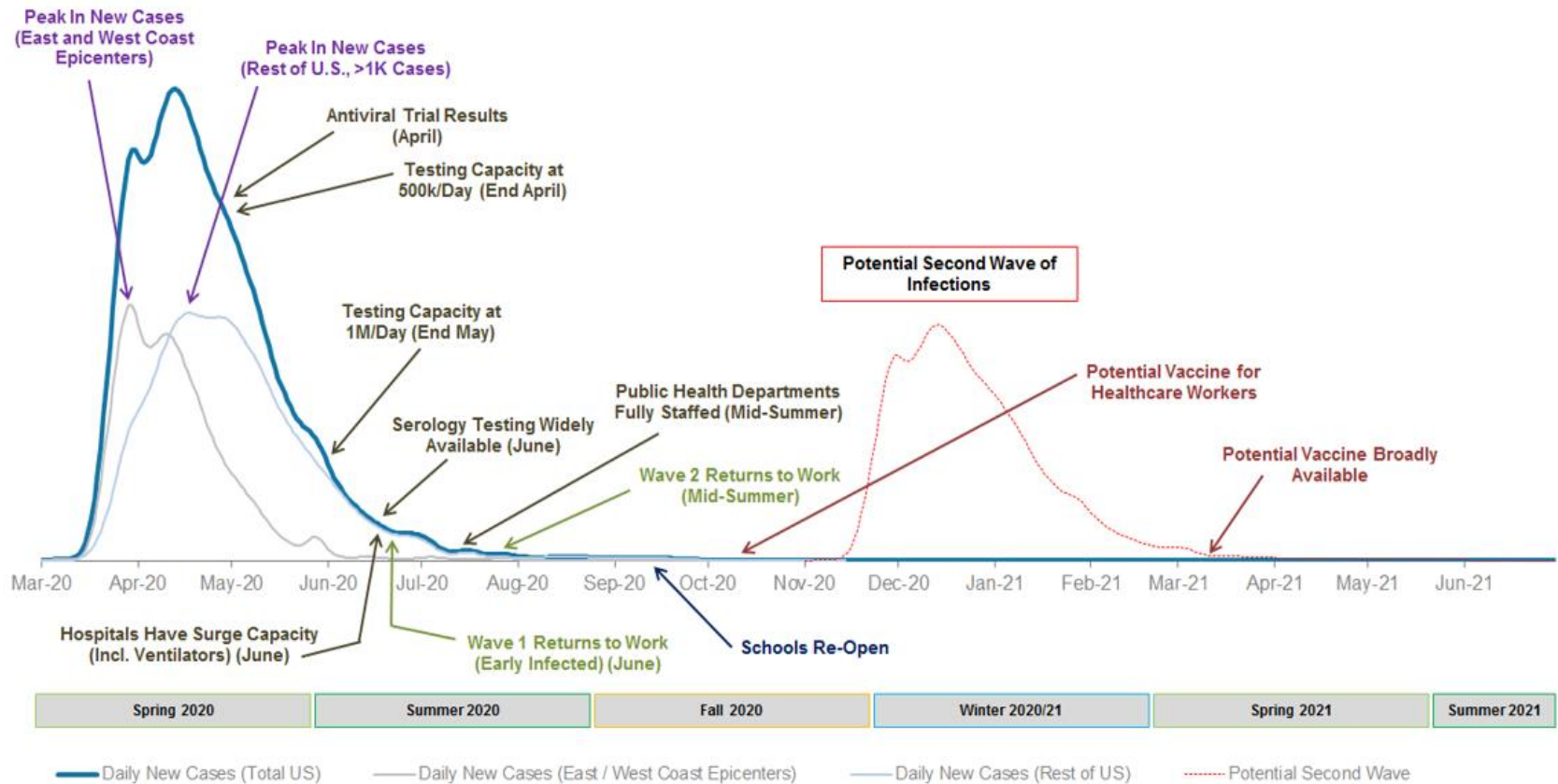
For important disclosures, refer to the Disclosure Section, located at the end of this report.

All information as of April 9, 2020 unless otherwise stated.

A Prescription to Get the US Back to Work

Projected timeline and milestones for a return to work in the US

Actual/Estimated New Case Count (United States, Non-Cumulative)



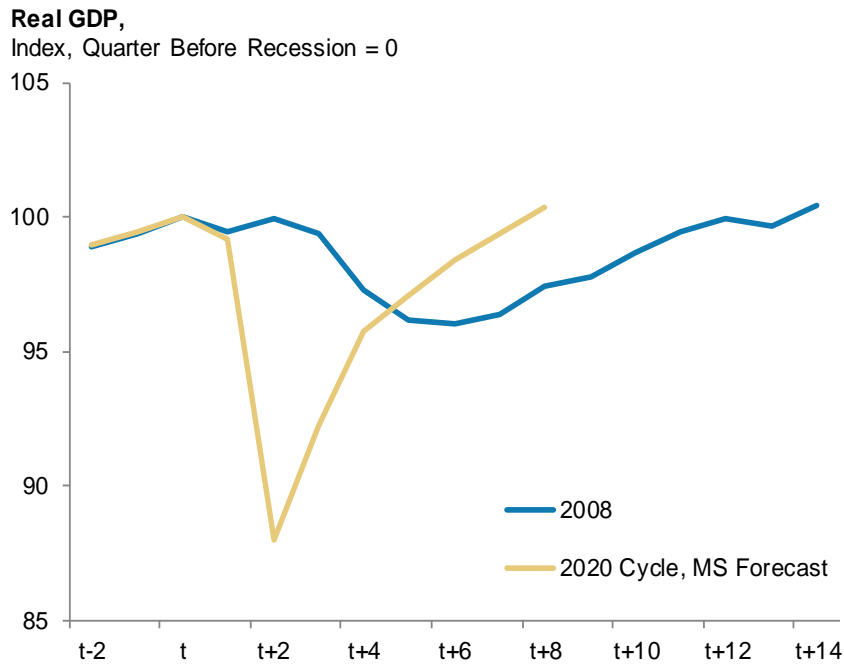
Note: See Biotechnology: COVID-19: A Prescription To Get The US Back To Work (3 Apr 2020)

Source: Morgan Stanley Research

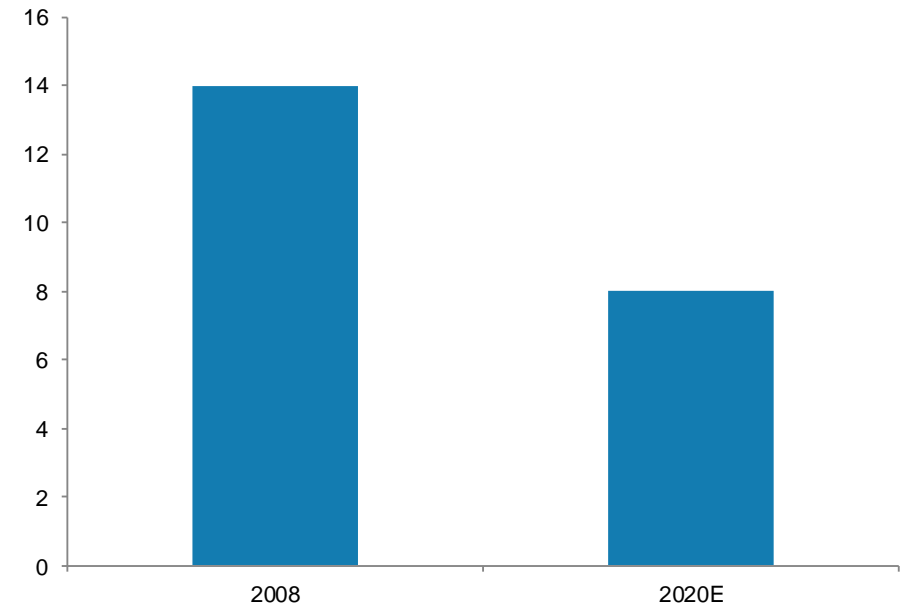
The Great COVID-19 Recession - Output

The loss of real GDP will be greater compared with 2008...

...but real GDP should recover faster compared with 2008



Number of Quarters After Beginning of Recession to Recover Back to Pre-Recession Level of Real GDP



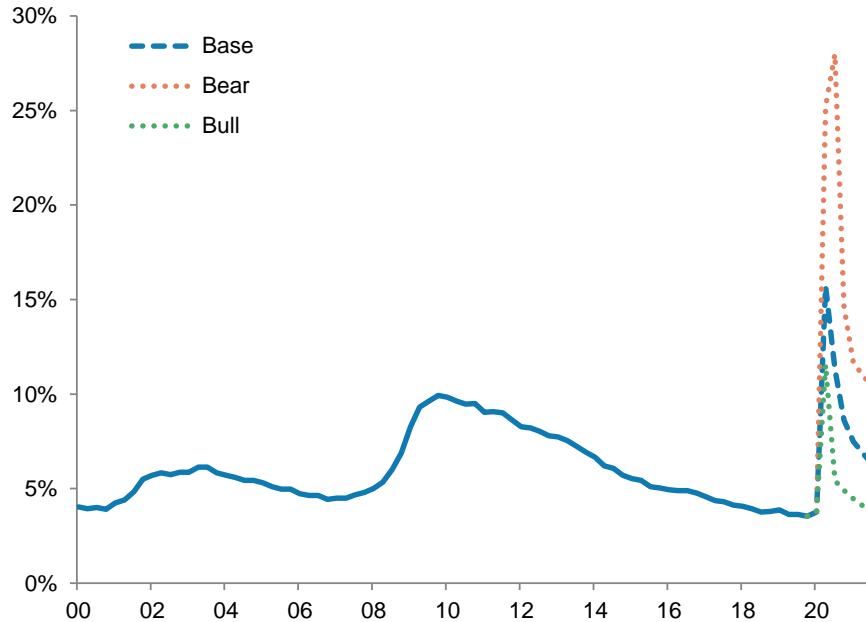
Note: Bars show the number of quarters between the beginning of the recession and the quarter in which real GDP returns back to that level. See US Economics: Deeper Drop, Slower Climb (3 Apr 2020)
 Source: Bureau of Economic Analysis, Morgan Stanley Research forecasts

The Great COVID-19 Recession - Unemployment

We expect the unemployment rate to average **15.7%** in 2Q20 (high of **16.4%** hit in May)

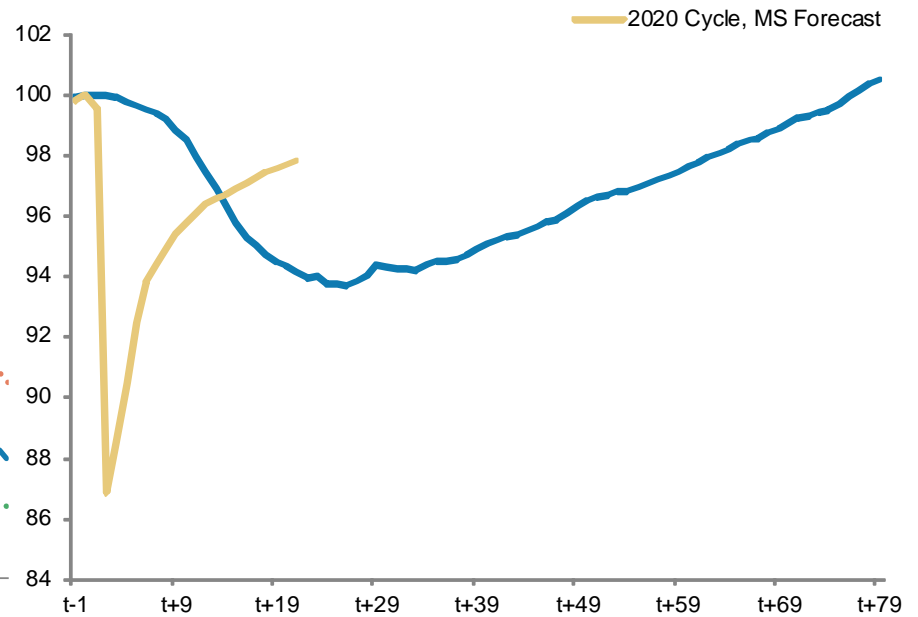
We expect a sharp upfront pattern of job losses

Unemployment Rate



Total Nonfarm Payroll Employment

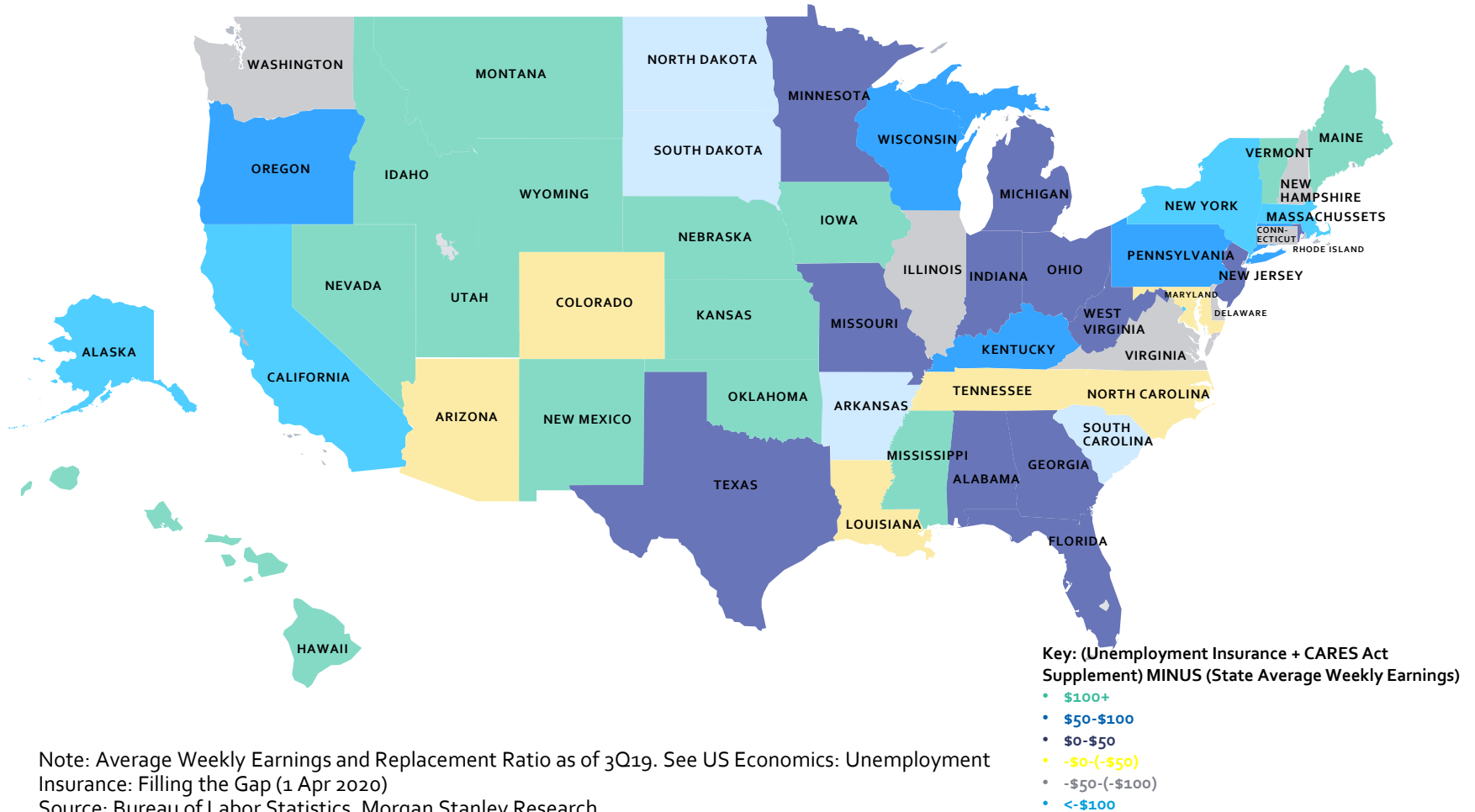
Index, Month Before Start of Recession = 100



Source: Bureau of Labor Statistics, Morgan Stanley Research forecasts

Unemployment Insurance Under the CARES Act

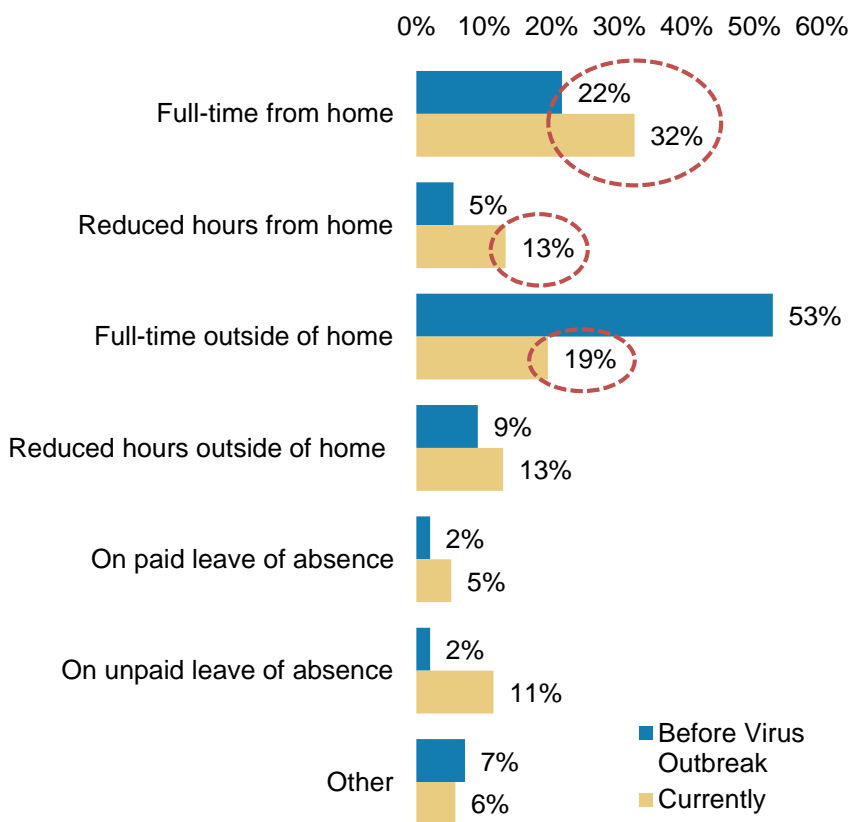
Supplement brings total benefit higher than average weekly earnings in 34 states



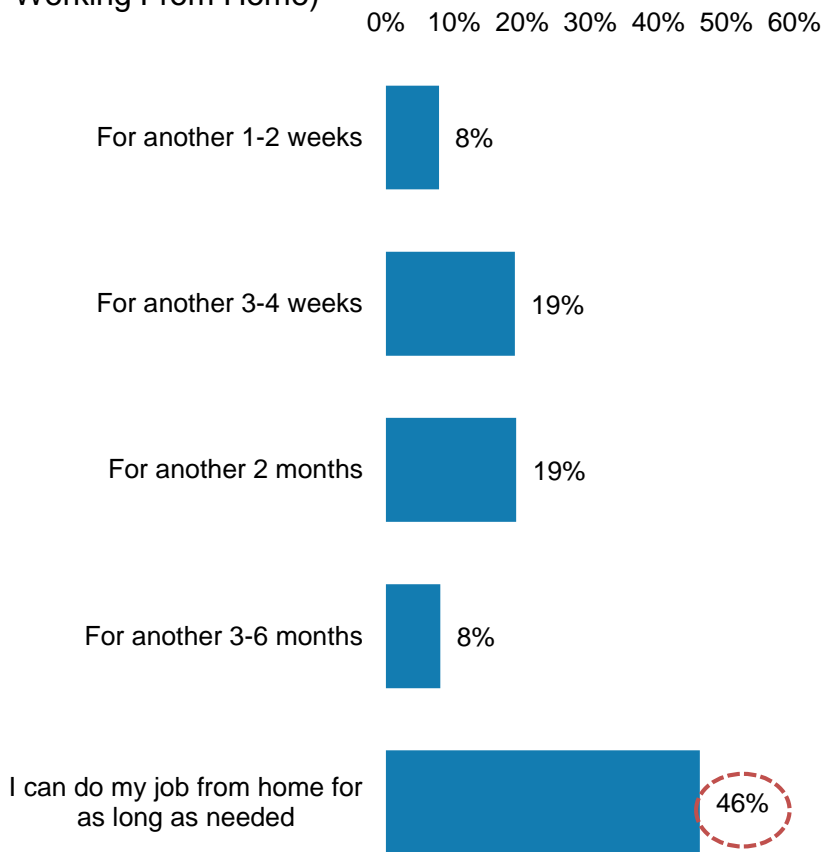
The Great COVID-19 Recession – Consumer Discretionary

Tacking back to normal will be a slower process dampened by high rates of job loss, rolling WFH arrangements and lingering uncertainty over future finances.

Working Arrangement Before Virus Outbreak and Currently (Excludes Retired and Students)

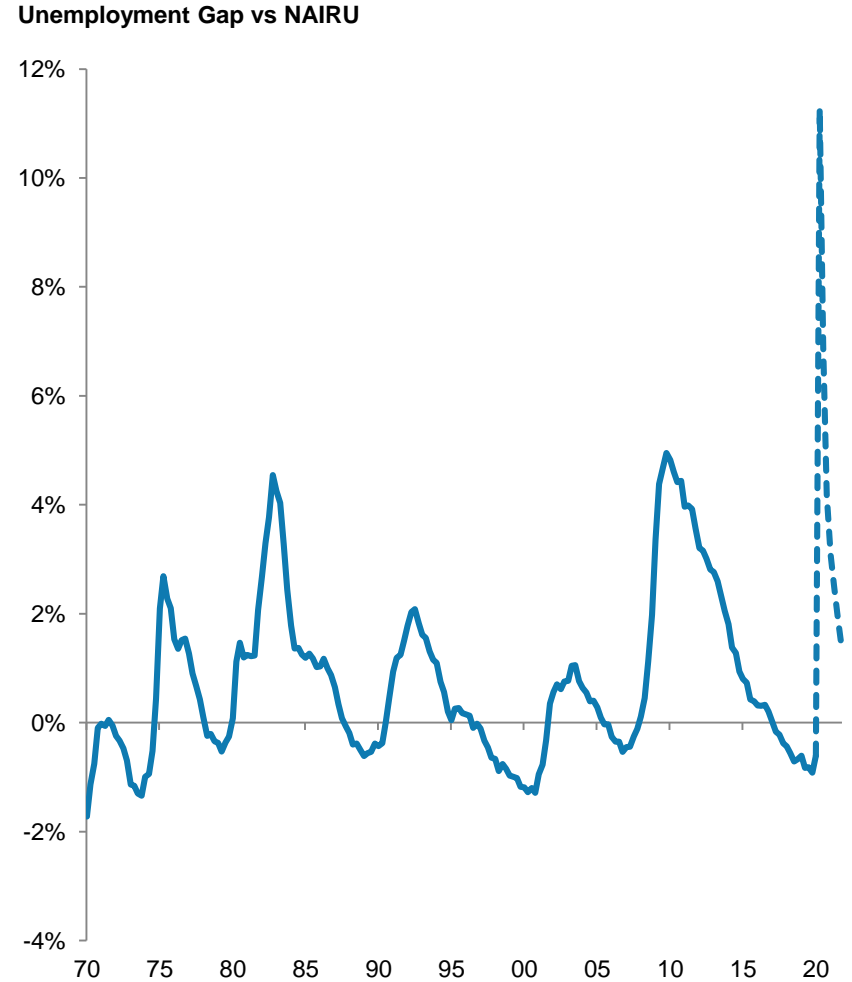
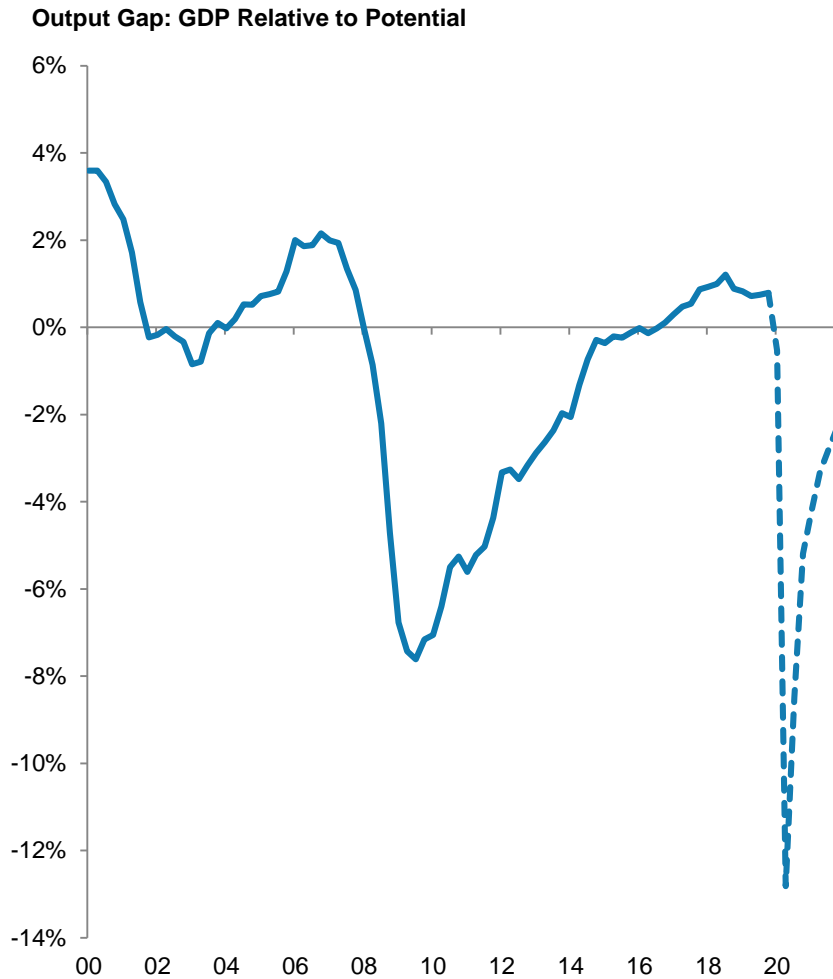


Able to do Job from Home (Among Those Working From Home)



Source: Morgan Stanley AlphaWise weekly survey of 2,000 US consumers aged 16-75, conducted the week of April 6, Morgan Stanley Research

The Great COVID-19 Recession – Output & Unemployment Gaps

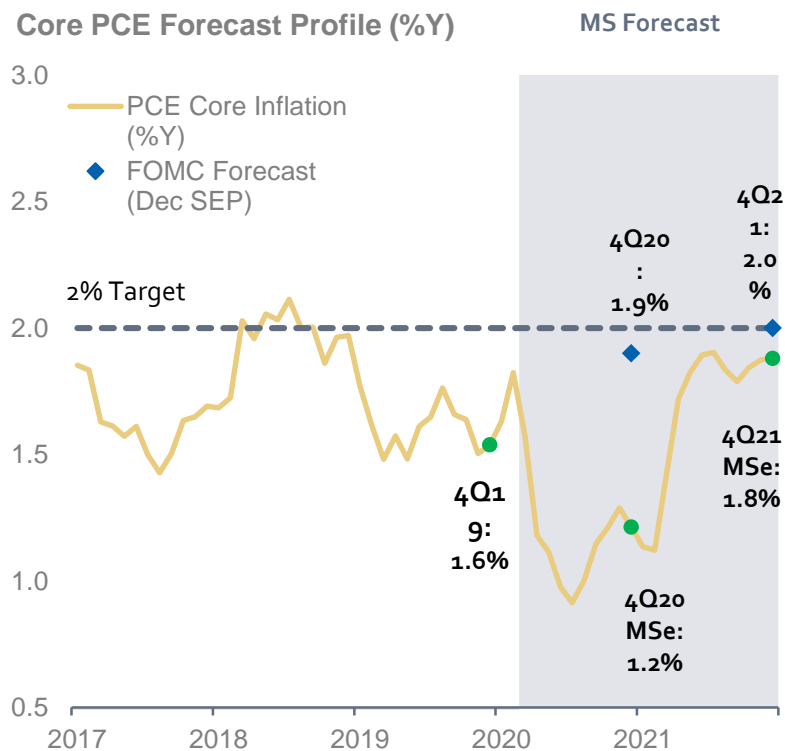


Source: Bureau of Labor Statistics, Congressional Budget Office, Federal Reserve, Morgan Stanley Research forecasts

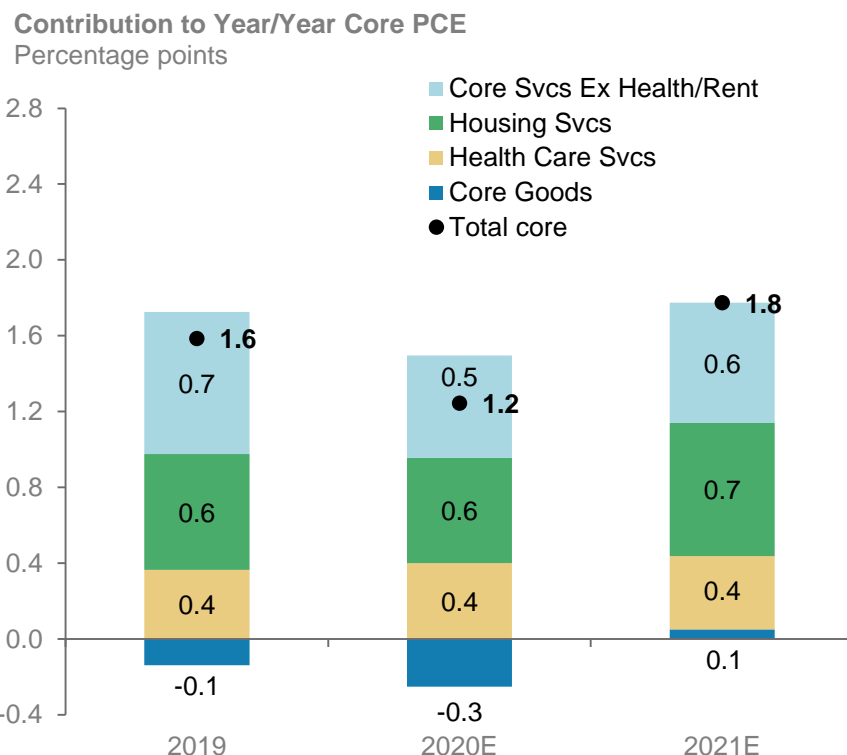
The Great COVID-19 Recession – Near Term Disinflation

Price discovery in the near-term will be fraught with measurement issues. Pressure on households income will keep the substitution effect alive.

Core PCE Inflation to move to 1.8% in 4Q21



2020: Downside from core-core services & core goods

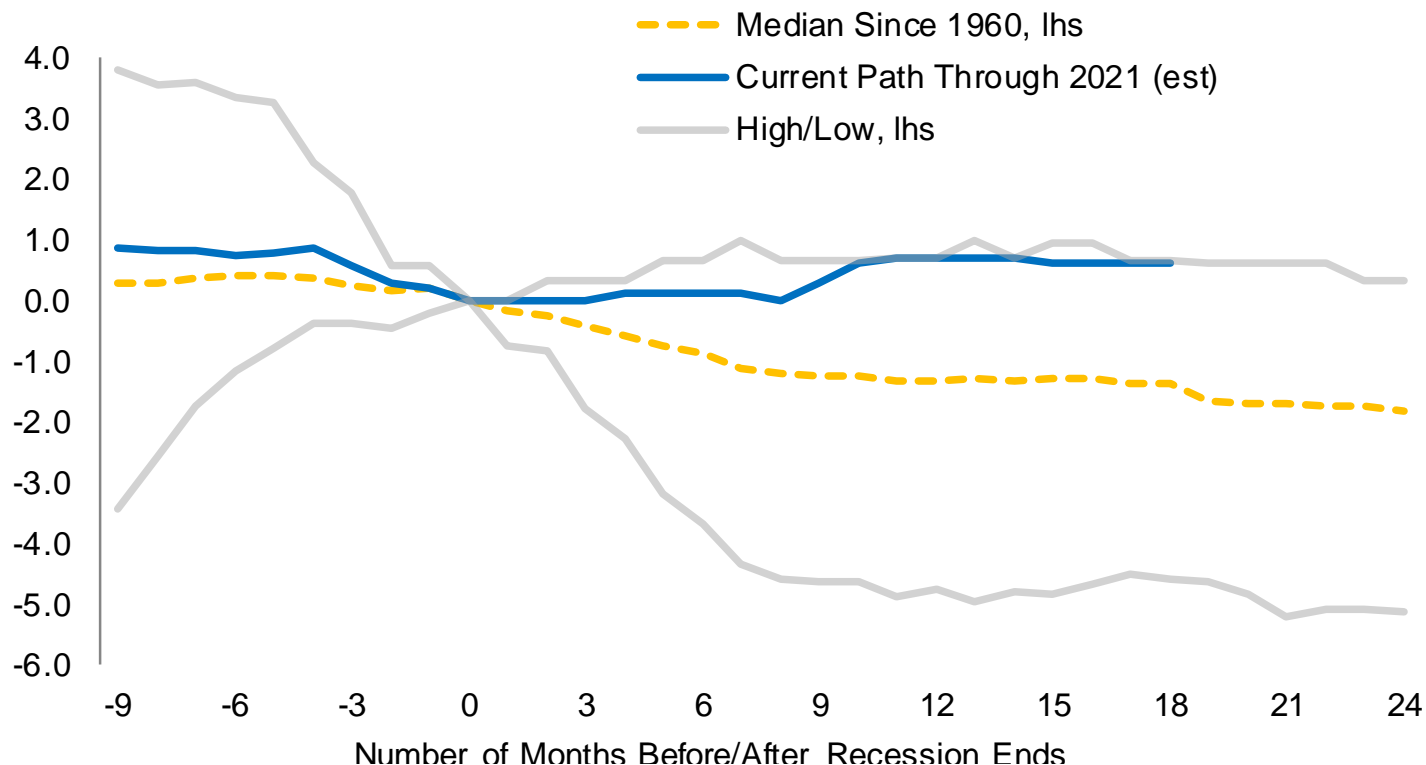


Source: Bureau of Labor Statistics, Morgan Stanley Research forecasts

The Great COVID-19 Recession – Will Disinflation Prevail?

Core inflation continues to slow following the start of expansion, most impacted by slack effects in the labor market. This suggests downside risks to our projected path for core CPI.

Path of core consumer price inflation (percentage point difference in y/y growth rate around recession)

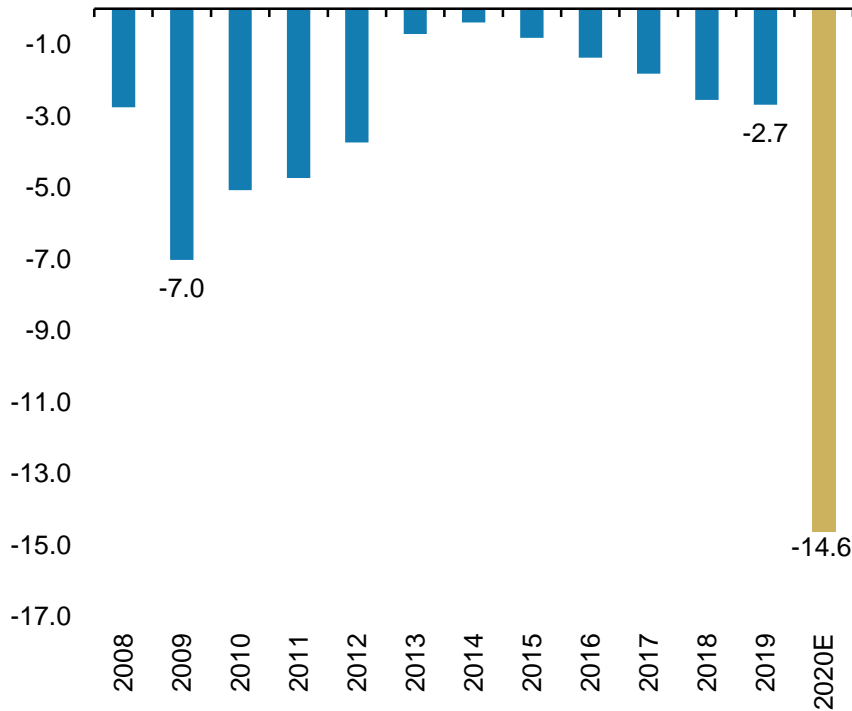


Note: Current path reflects actual core CPI through February 2020 with MS forecasts through December 2021 and assumes June 2020 as start of expansion.
 Source: Bureau of Labor Statistics, Morgan Stanley Research

Aggressive Fiscal & Monetary Policy Response

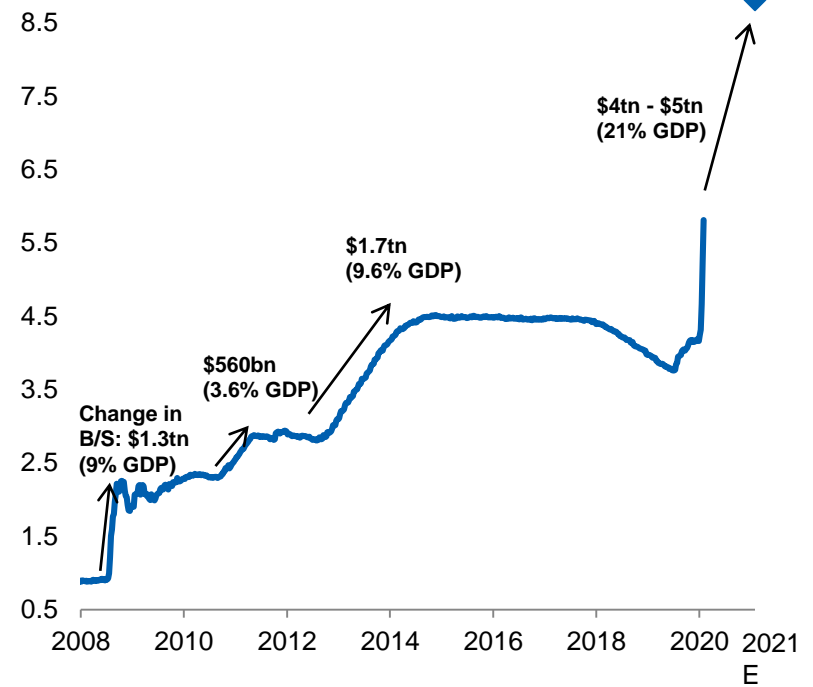
US cyclically adjusted primary balance, CY

US General Government Cyclically Adj Primary Balance (% of GDP)



Federal Reserve balance sheet trend

Federal Reserve Balance Sheet (USD tn)



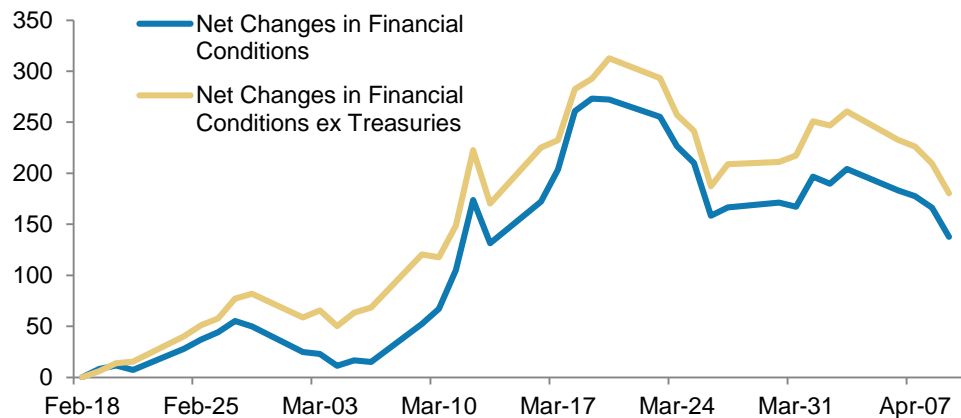
Source: Bureau of Economic Analysis, Department of Treasury, Morgan Stanley Research forecasts

Financial Conditions Remain Tight

Financial conditions remain tighter and more volatile since mid-February, but both the level and volatility of financial conditions have receded from peaks

Changes in Financial Conditions Since Mid-February

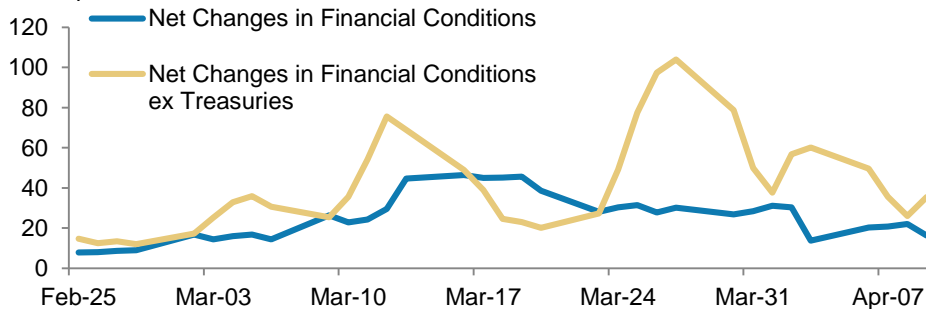
Feb 18 2020 = 0



- As of April 9, financial conditions remained tight, but had eased somewhat after the Fed's announcement of expanded credit facilities.
- Broad financial conditions remain about 138bp tighter since the middle of February, and excluding the effect of lower Treasury yields financial conditions remain about 180bp tighter of that same period. But notably, this is the easiest level for both broad financial conditions and ex Treasuries FCI since March 13.

5-Day Rolling Standard Deviation of Changes in FCI

basis points



- **Portfolio balance channel focus:** The Treasury will issue significant amounts of new Treasuries to finance the \$2tn CARES Act, and we expect the Fed to keep buying Treasuries in QE (\$4-\$5tn total, in our view). We expect Treasury issuance to complement Fed buying with the Fed switching to buying more back-end Treasuries and the Treasury issuing in the front end (seeing its current WAM as appropriate).

Source: Morgan Stanley Research

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