



Economic Implications of the COVID-19 Crisis Webinar



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Retirement Security

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Speakers



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Economic Implications of the COVID-19 Crisis

April 9, 2020

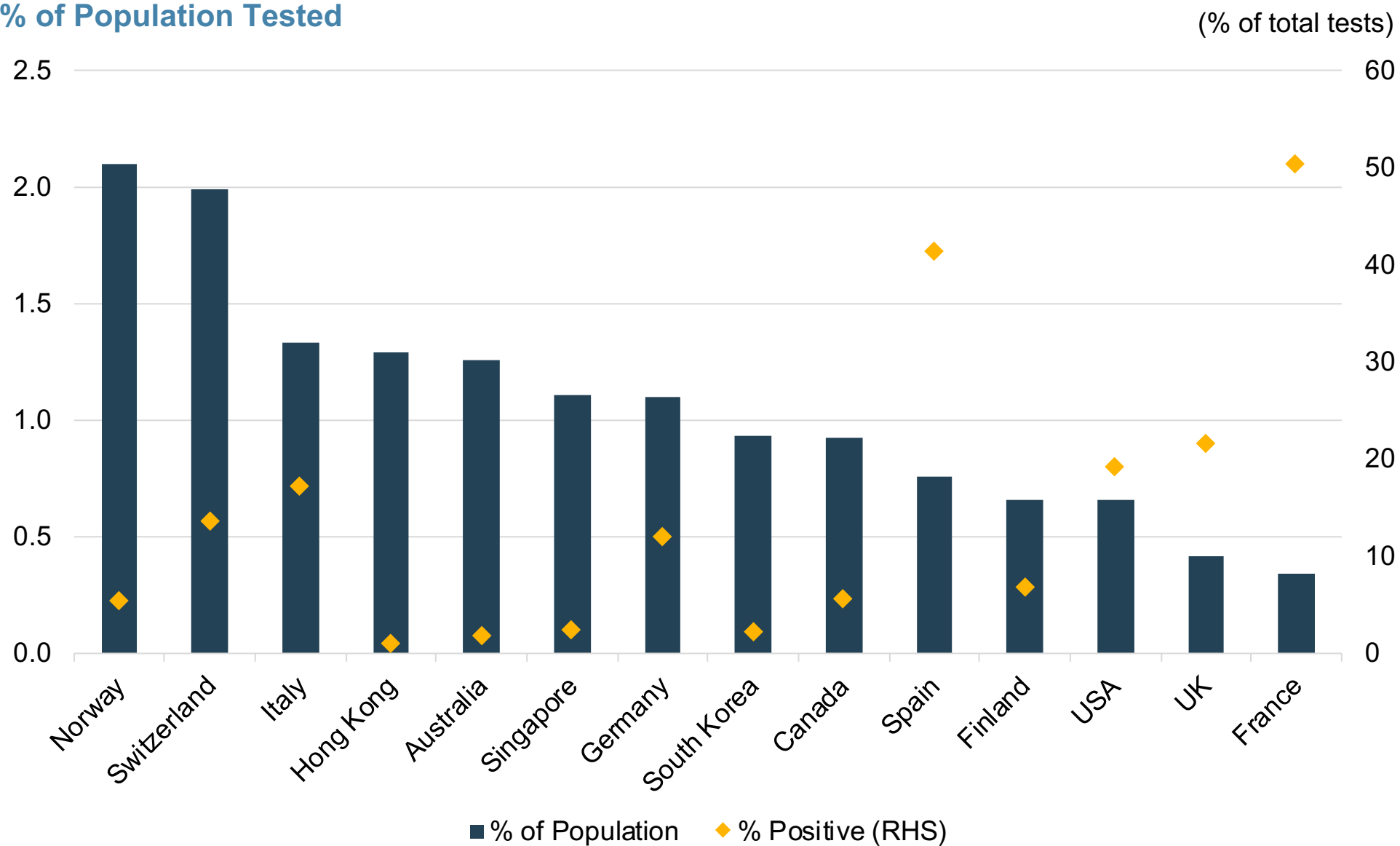
Ronald Temple

Agenda

- Key building blocks to exit the COVID-19 crisis
 - Healthcare solutions
 - Testing
 - Therapies
 - Vaccine
 - Monetary policy
 - Fiscal stimulus
- Economic implications
- Policy response to date
- Investment Implications

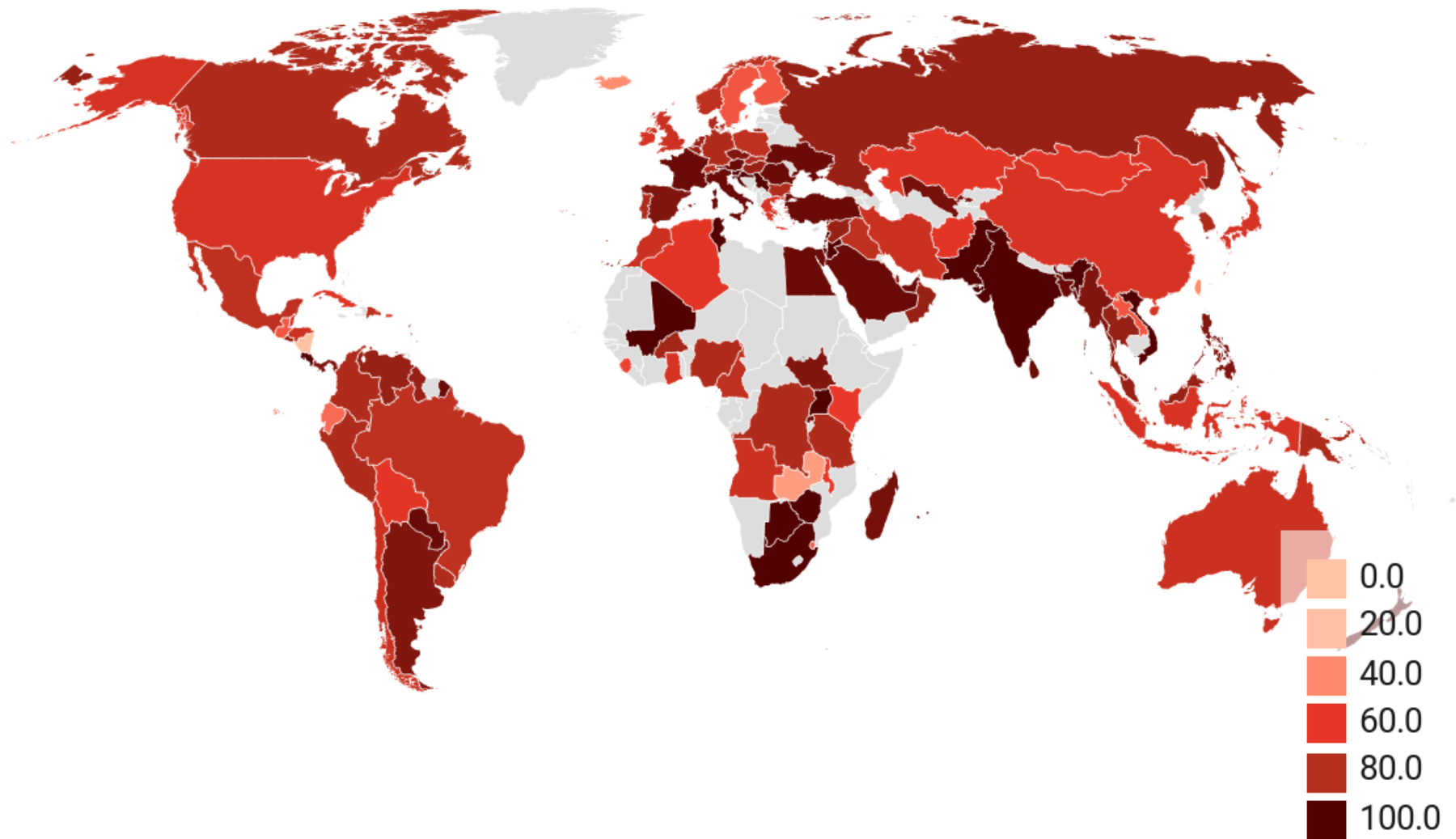
The United States Continues to Lag in Testing

% of Population Tested



Mobility Restrictions Are in Place Globally

Government Response Stringency Index



As of 5 April 2020

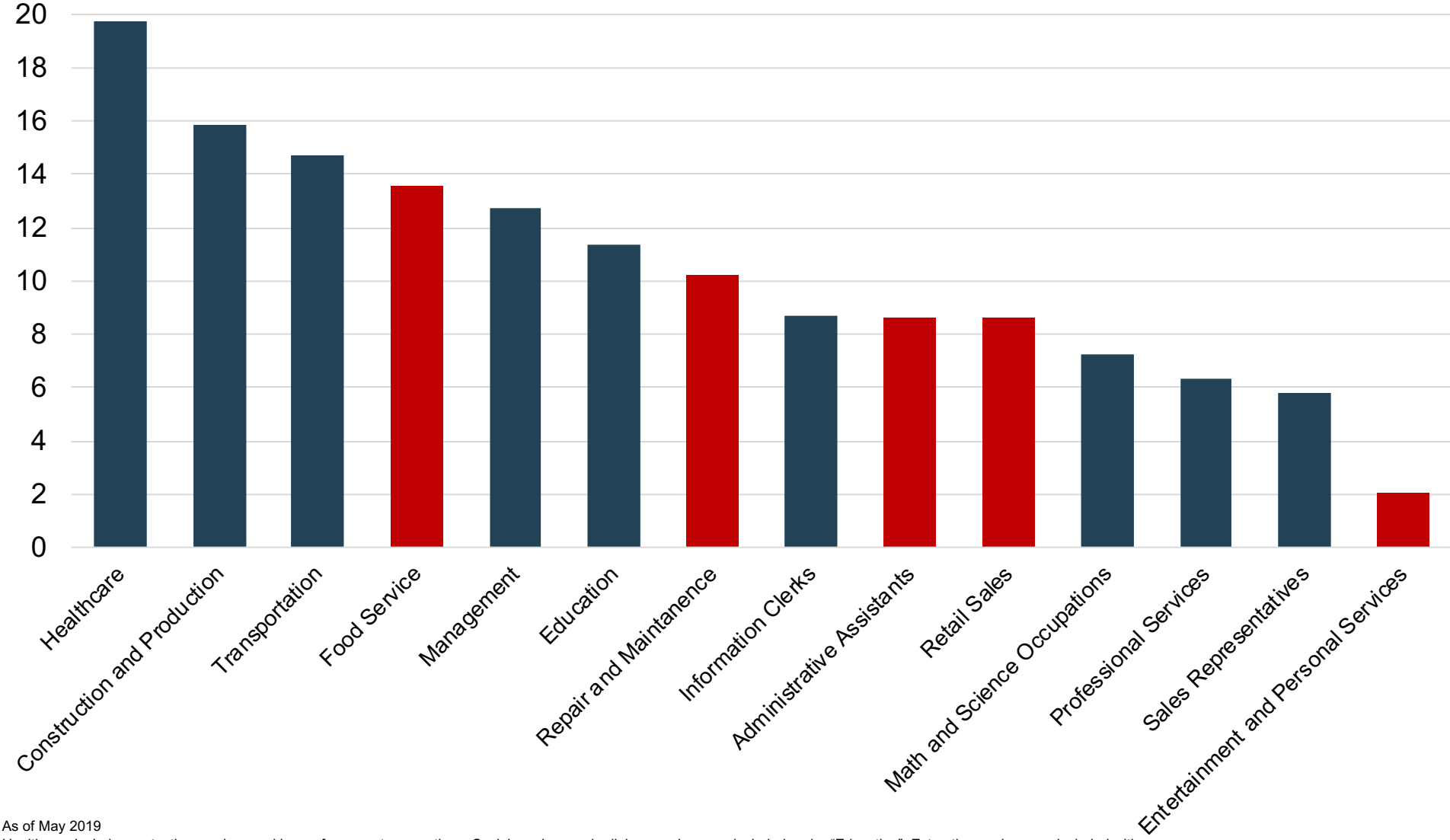
OxCGRT collects publicly available information on 11 indicators of government response (S1-S11). The first seven indicators (S1-S7) take policies such as school closures, travel bans, etc. are recorded on an ordinal scale; the remainder (S8-S11) are financial indicators such as fiscal or monetary measures. Please note that this measure is for comparative purposes only, and should not necessarily be interpreted as a rating of the appropriateness or effectiveness of a country's response.

Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, Datawrapper

16% of Workers Are Most Vulnerable to Shutdowns

Employment by Occupation

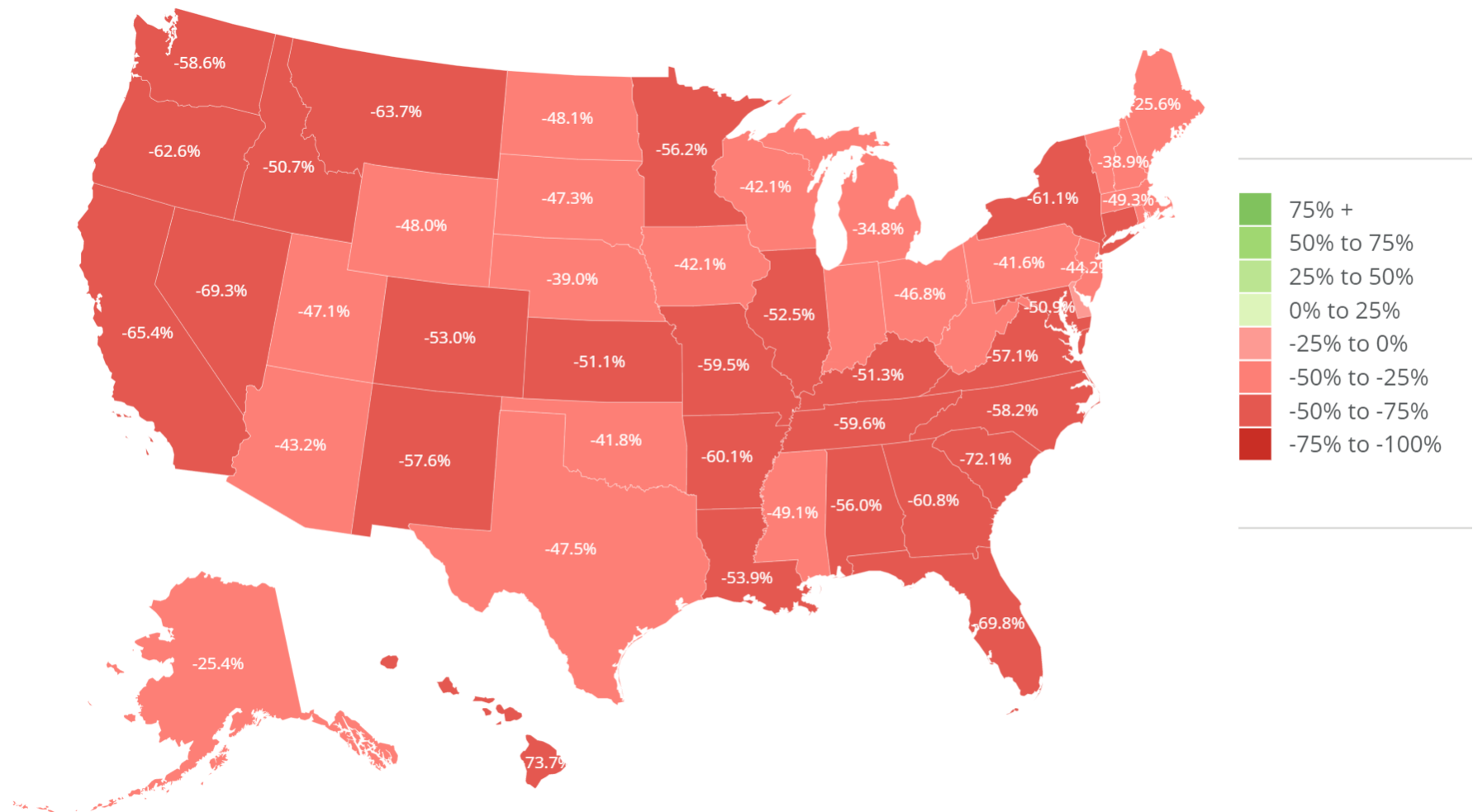
(Millions)



As of May 2019
 Healthcare includes protective services and law enforcement occupations. Social services and religious workers are included under "Education". Extraction workers are included with construction and production occupations.
 Source: Bureau of Labor Statistics

High Frequency Data: US Restaurant Revenue

Restaurants, Revenue in Week Ending April 3rd vs. Same Week in 2019 (% YoY)

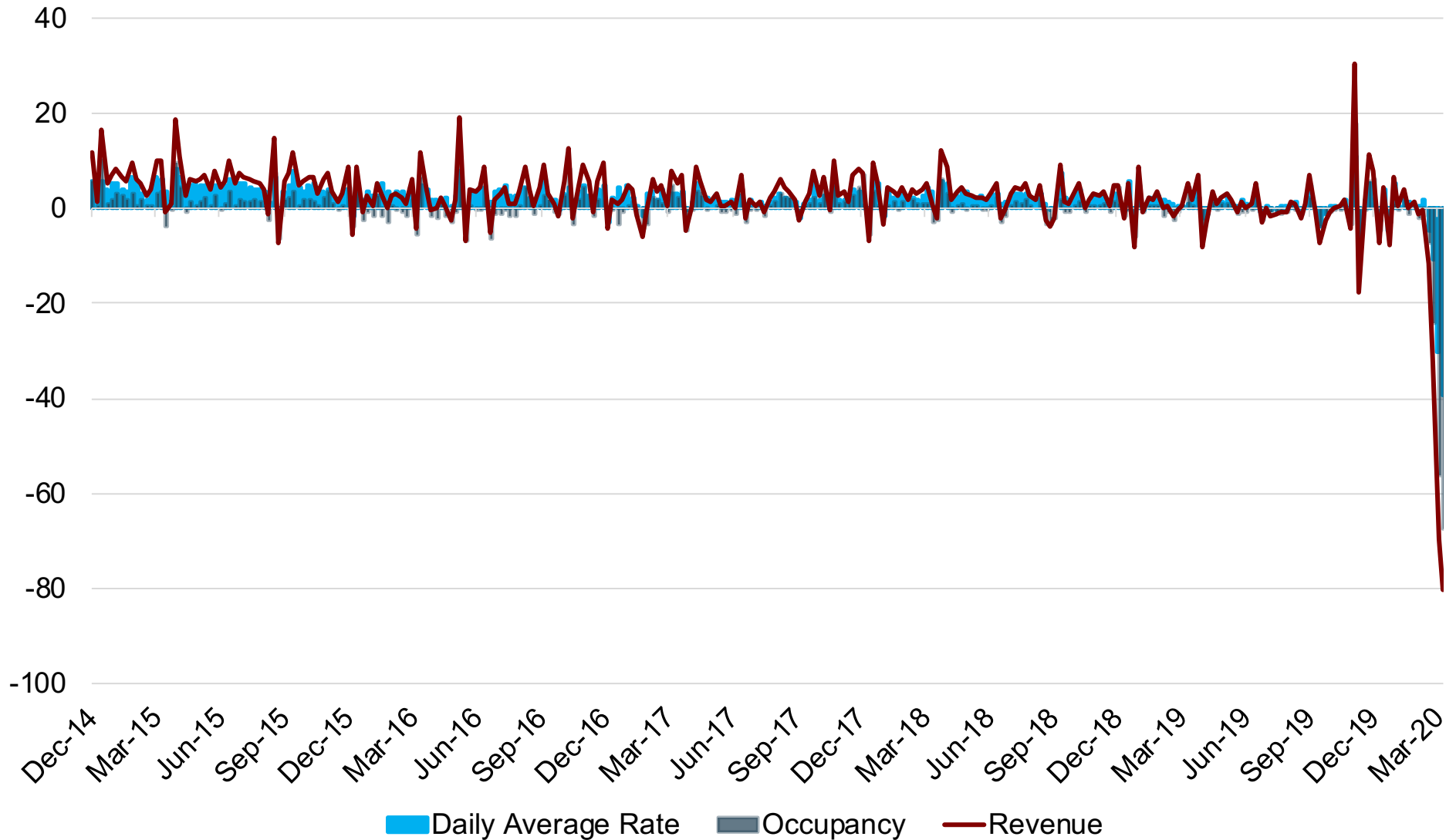


As of 3 April 2020
Source: Womply, based on data from credit card transactions of small businesses

High Frequency Data: US Hotel Revenue per Available Room

Hotel Revenue Per Available Room

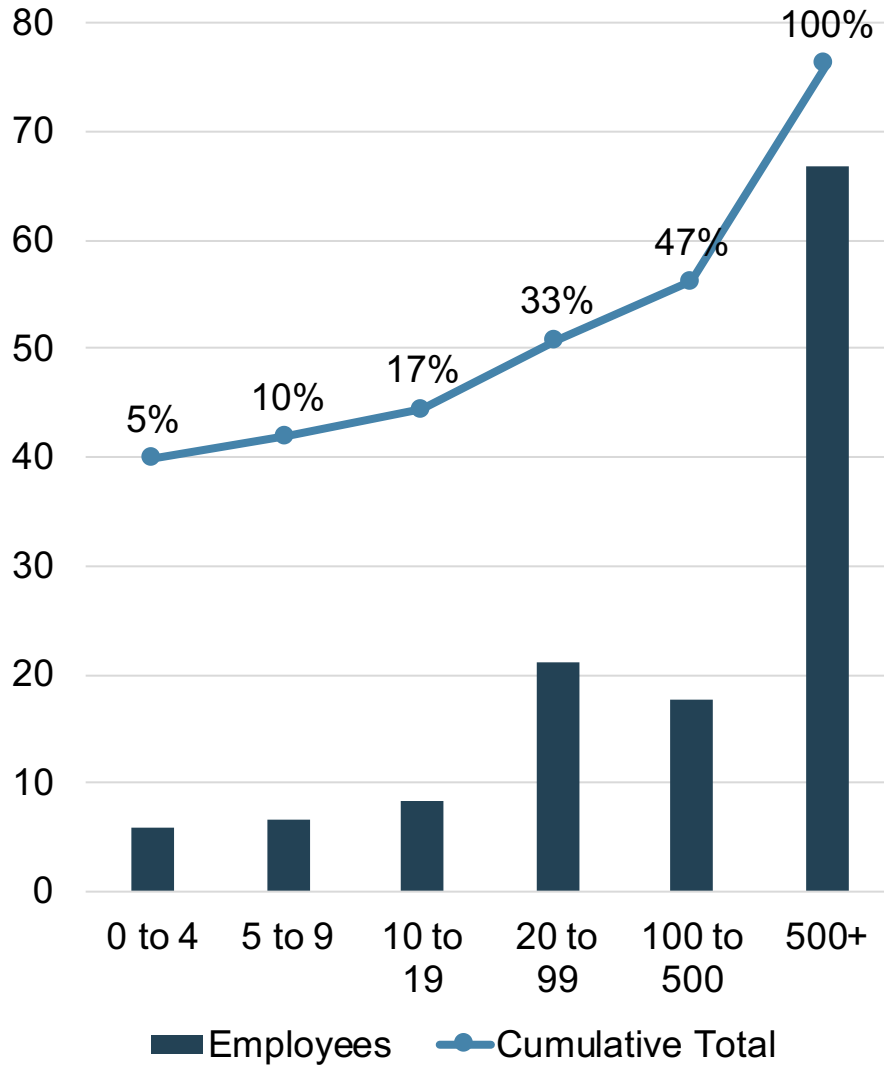
(% YoY, Weekly)



33% of Americans Work for Companies with <100 Employees

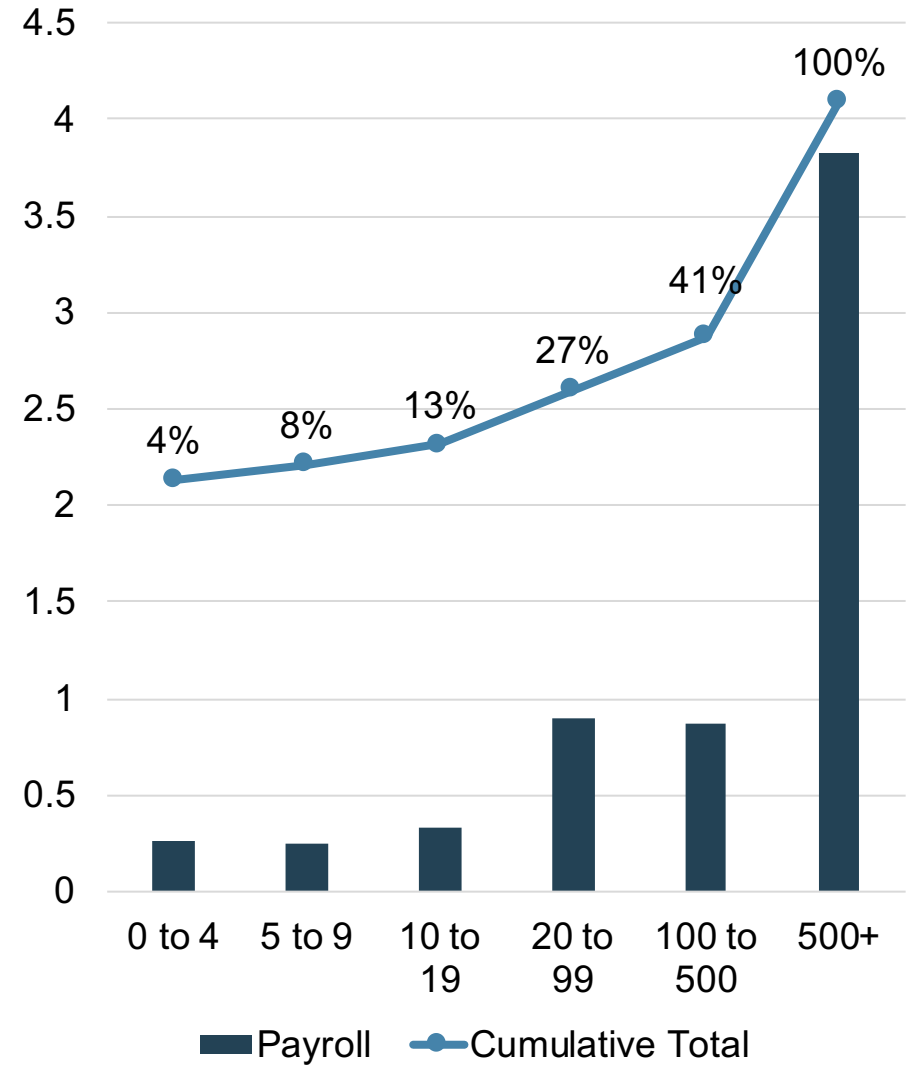
Employment by Firm Size

(Millions)



Annual Payroll By Firm Size

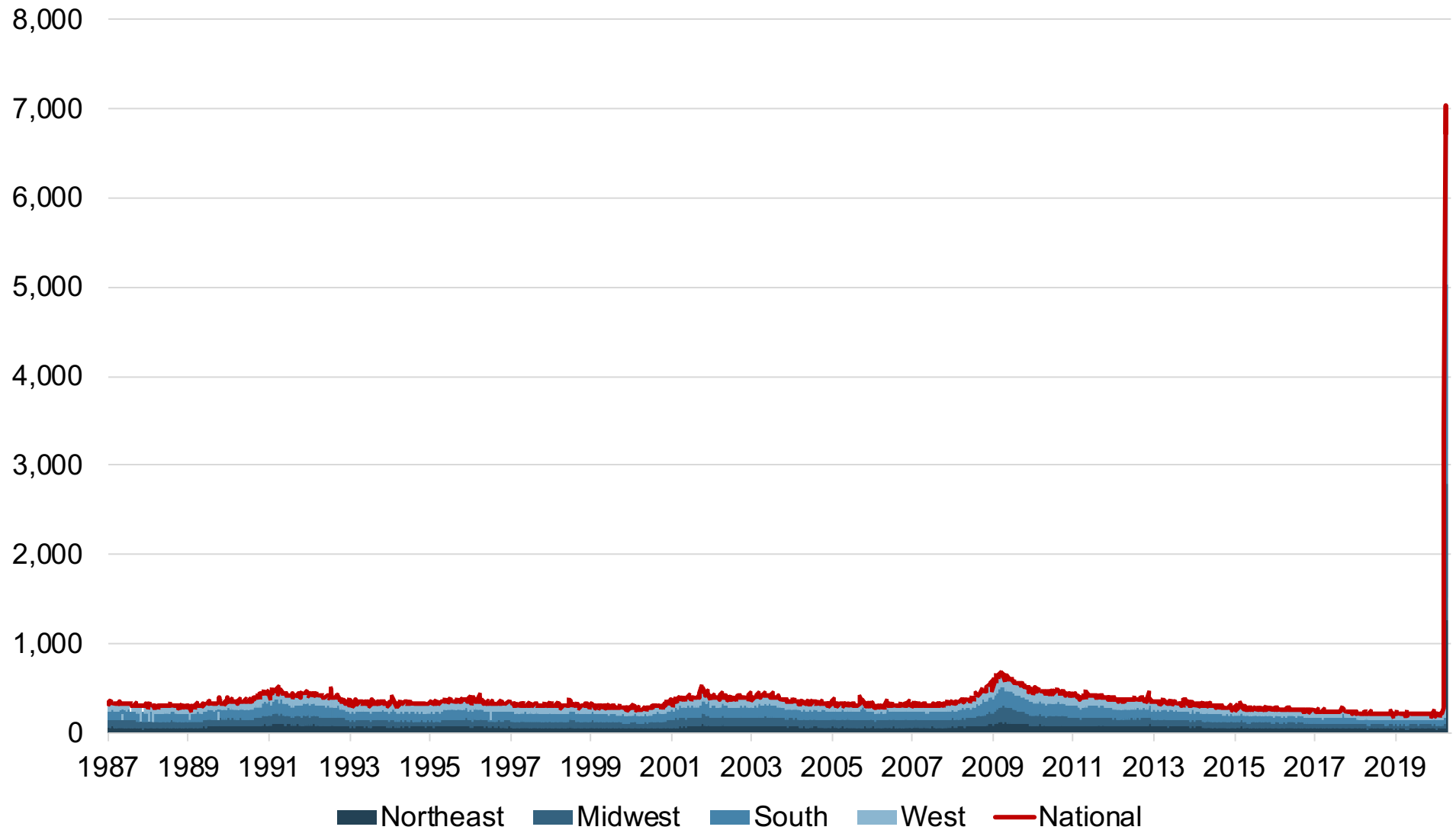
(\$ Trillions)



US Jobless Claims Total ~17 Million in Three Weeks

Unemployment Insurance: Initial Claims, State Programs

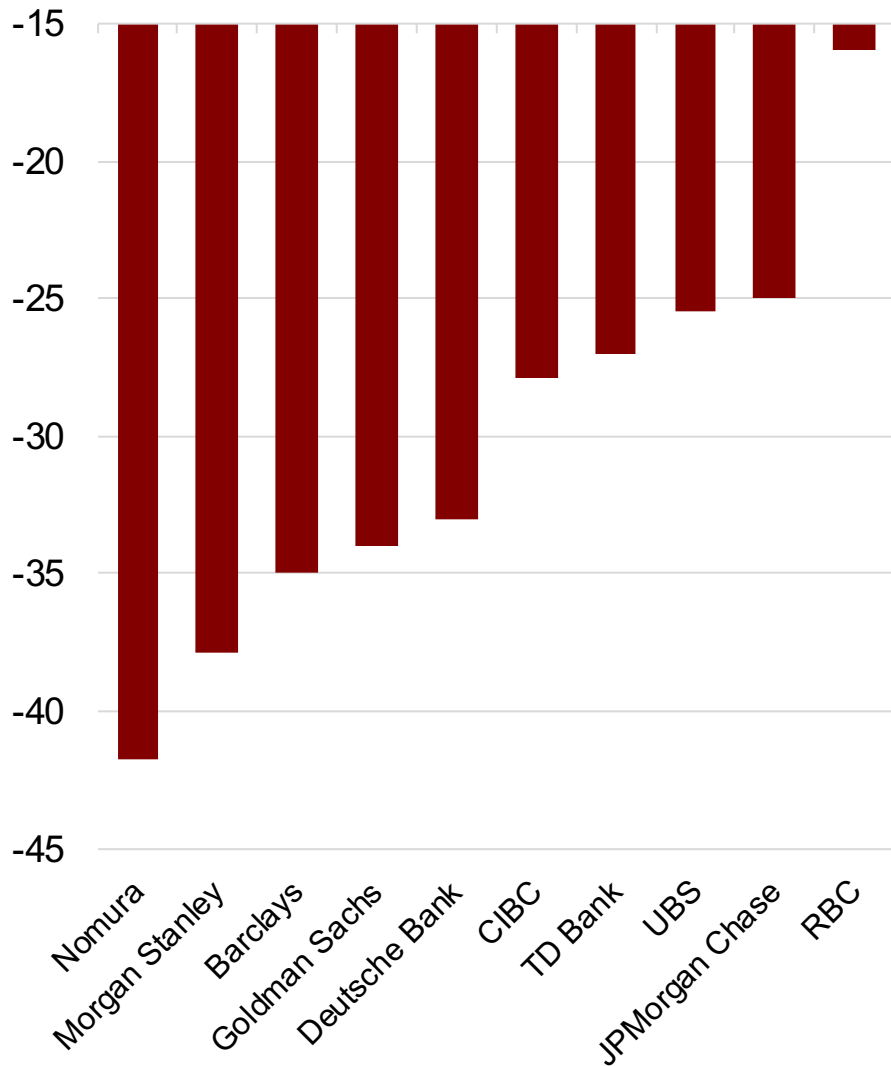
(Thousands)



US GDP Estimates Vary Wildly: Q2 versus Q3

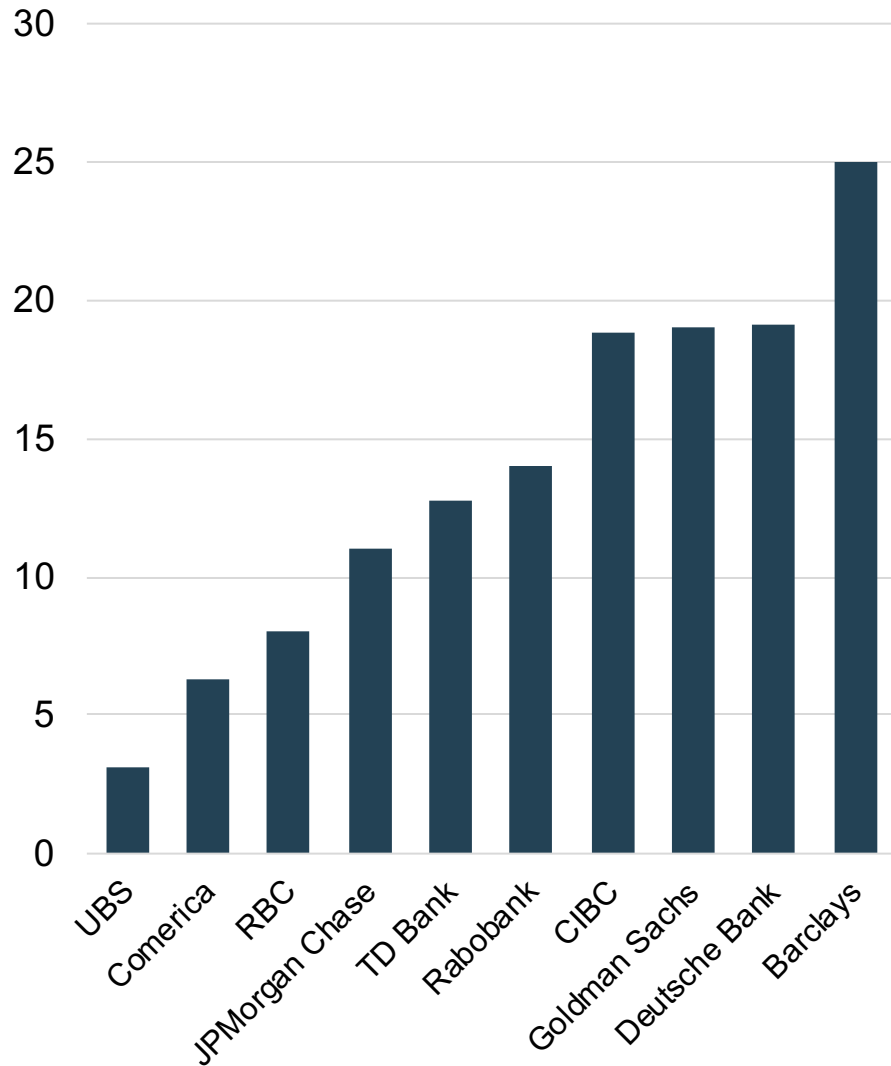
2Q2020 GDP Estimates

(% QoQ Annualized)



3Q2020 GDP Estimates

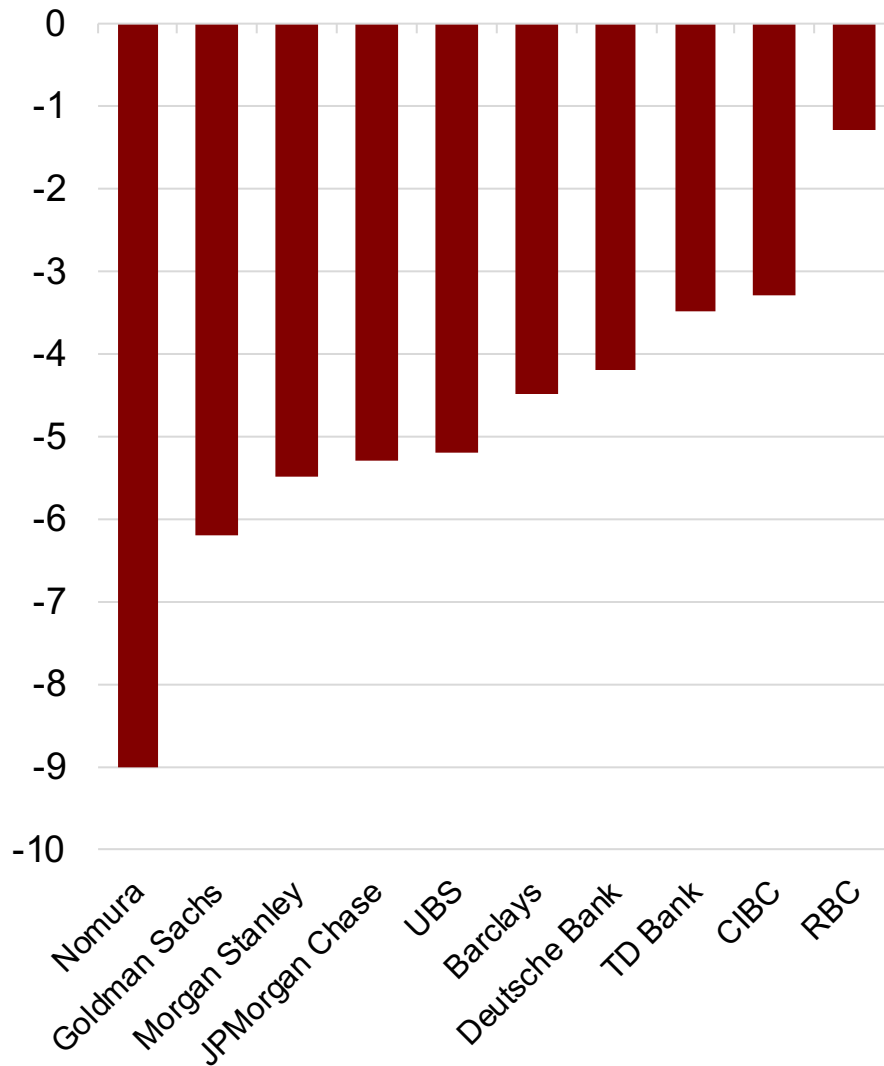
(% QoQ Annualized)



US GDP Estimates Vary Wildly: 2020 versus 2021

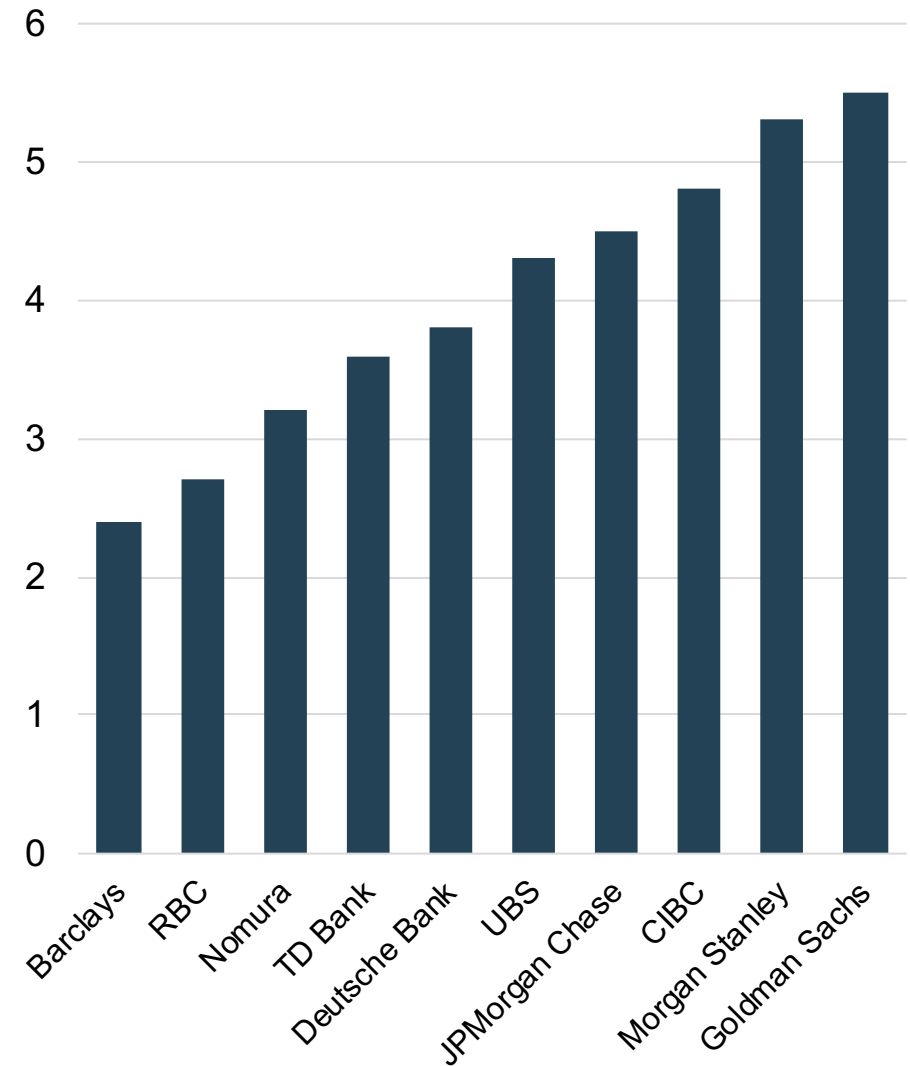
2020 GDP Estimates

(% YoY)



2021 GDP Estimates

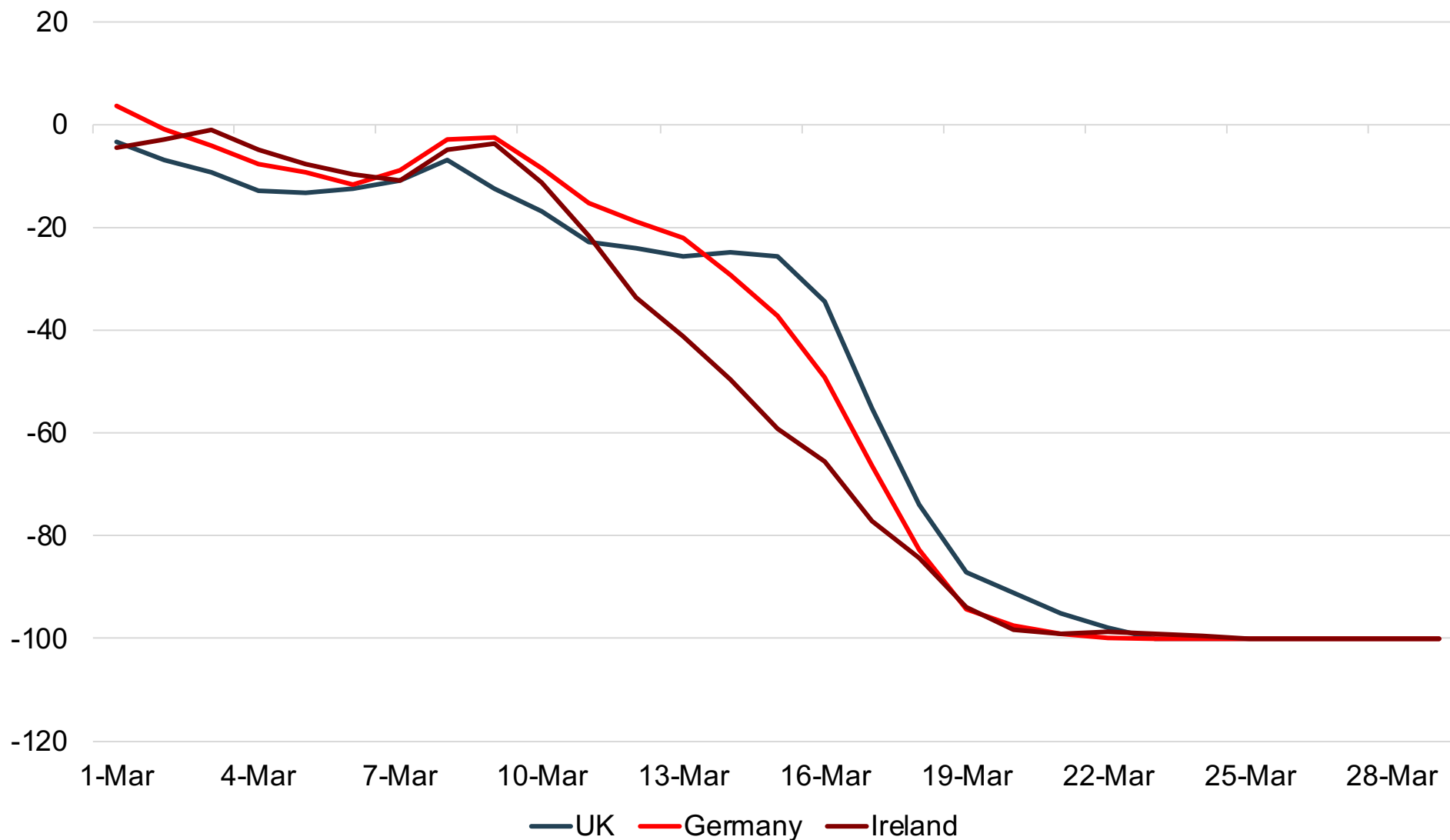
(% YoY)



High Frequency Data: European Restaurant Visits

Number of Seated Dinners at Restaurants

(% YoY, 3-day moving average)

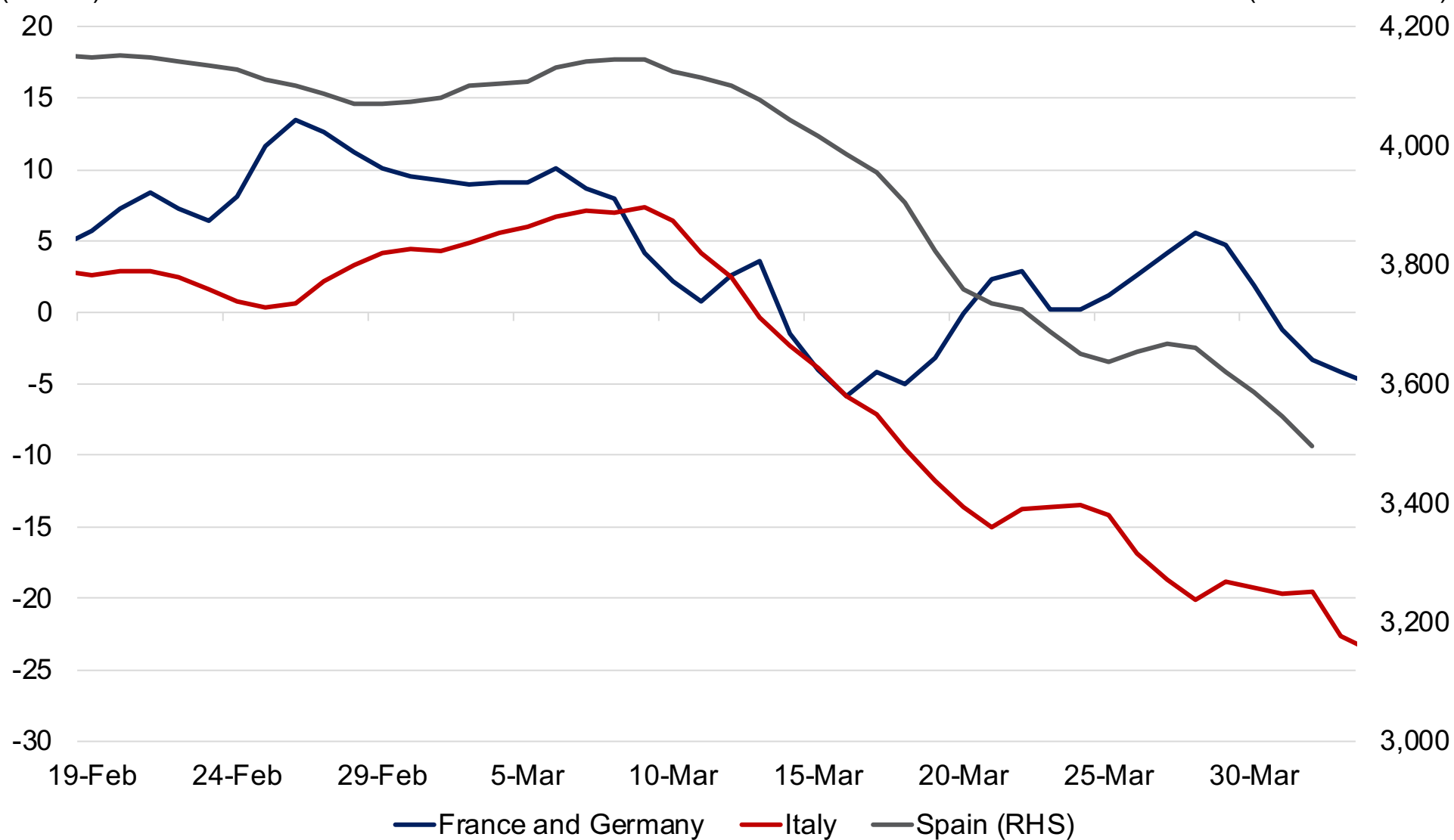


High Frequency Data: European Electricity Use

Electricity Usage

(% YoY)

(Thousand MW)

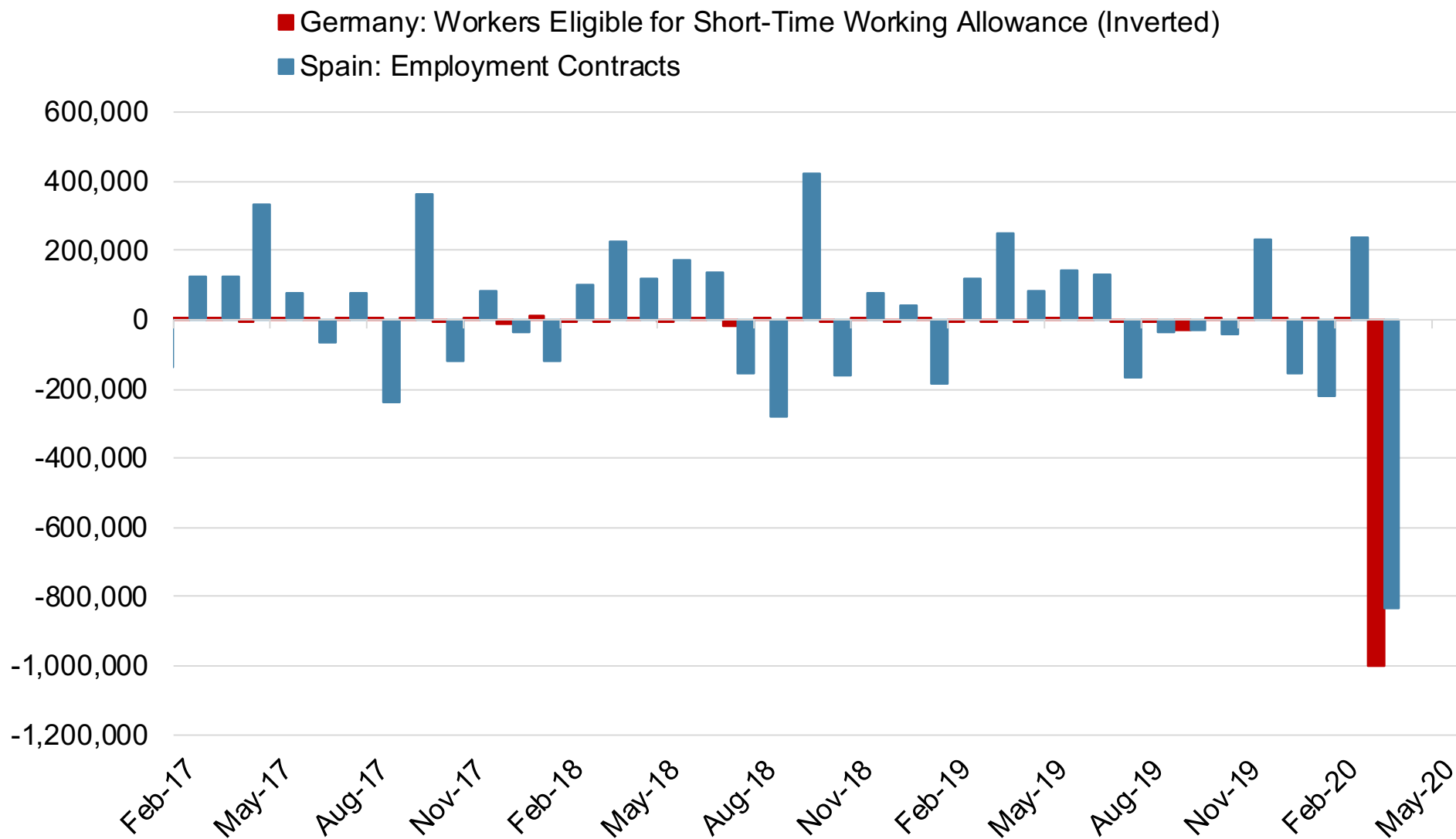


As of 5 April 2020. Spain as of 1 April 2020
Source: ENTSO-E, Goldman Sachs

European Employment Data Shows Similar Shocks Are Coming

Employment Metrics, Change from Prior Month

(Persons)



As of March 2020

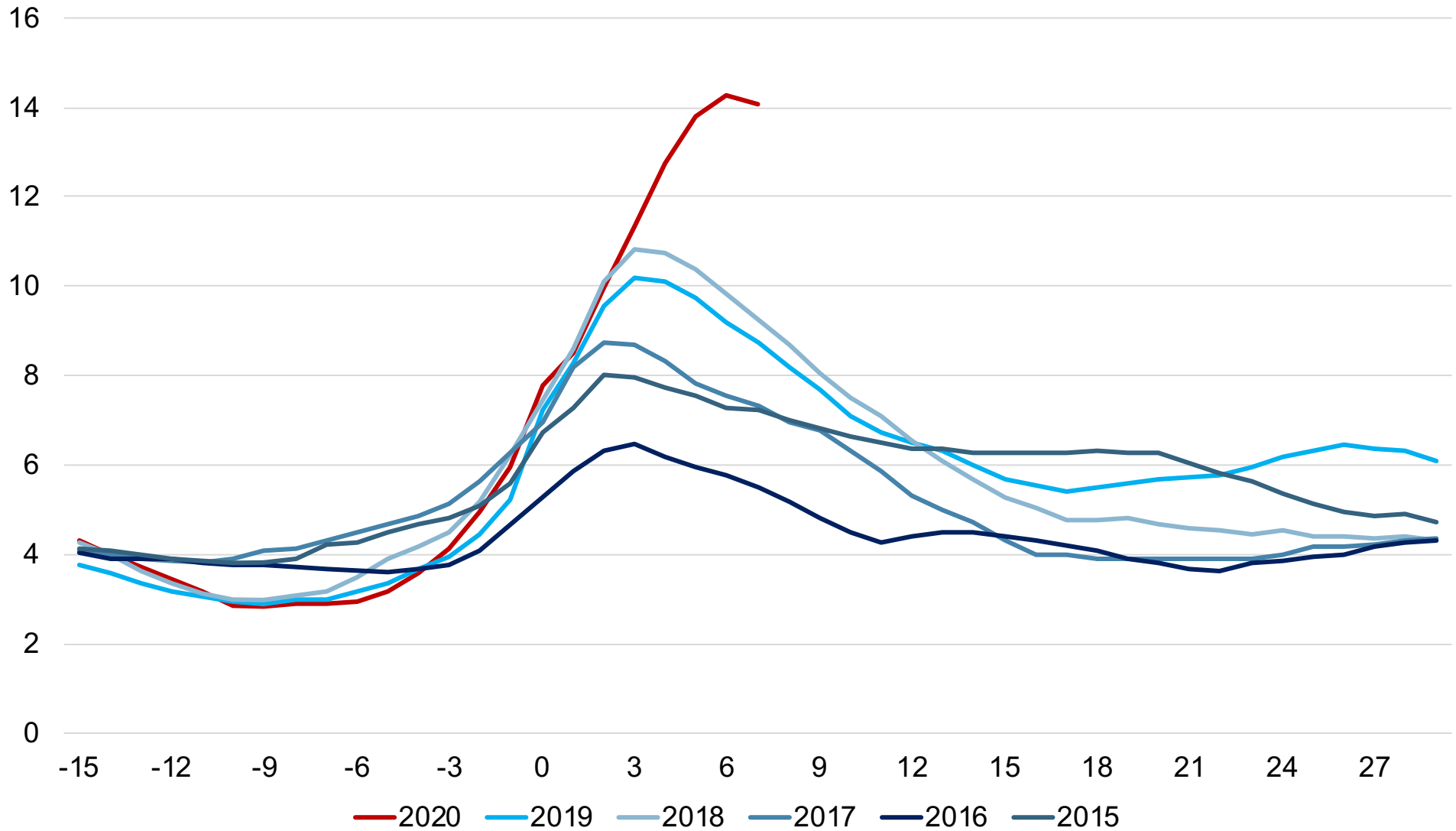
The German government supplements salaries for those workers, whose employer applied for short-time working allowance on their behalf. Number of employment contracts in Spain is approximated by social security affiliations at month's end.

Source: National agencies, HSBC, Haver

High Frequency Data: China Steel Inventories

Steel Inventories, First Week of Lunar New Year = 0

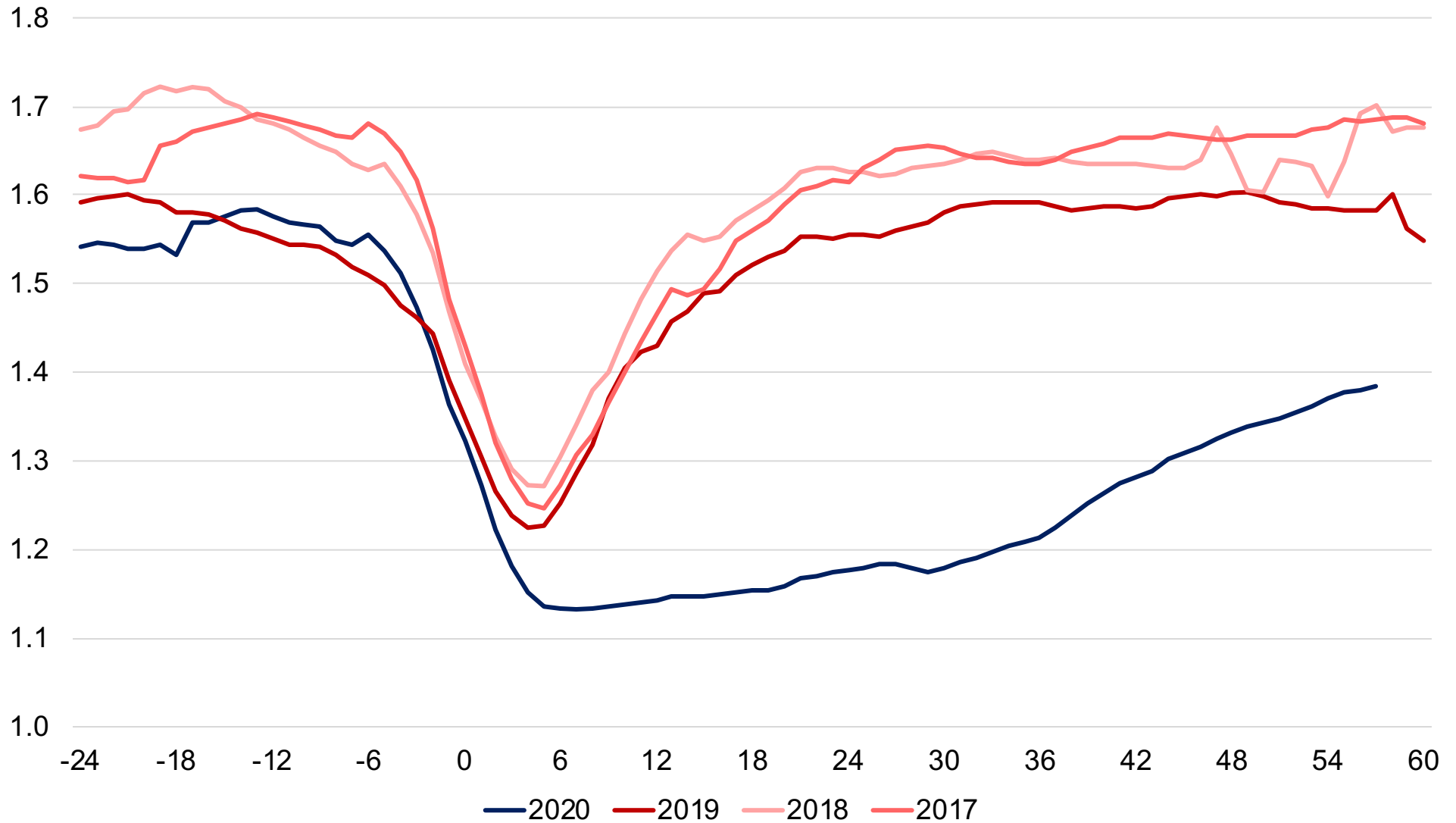
(Million Tons)



High Frequency Data: China City Traffic Levels

City Traffic Levels, First Day of Lunar New Year = 0

(Index, 7-day moving average)



As of 22 March 2020

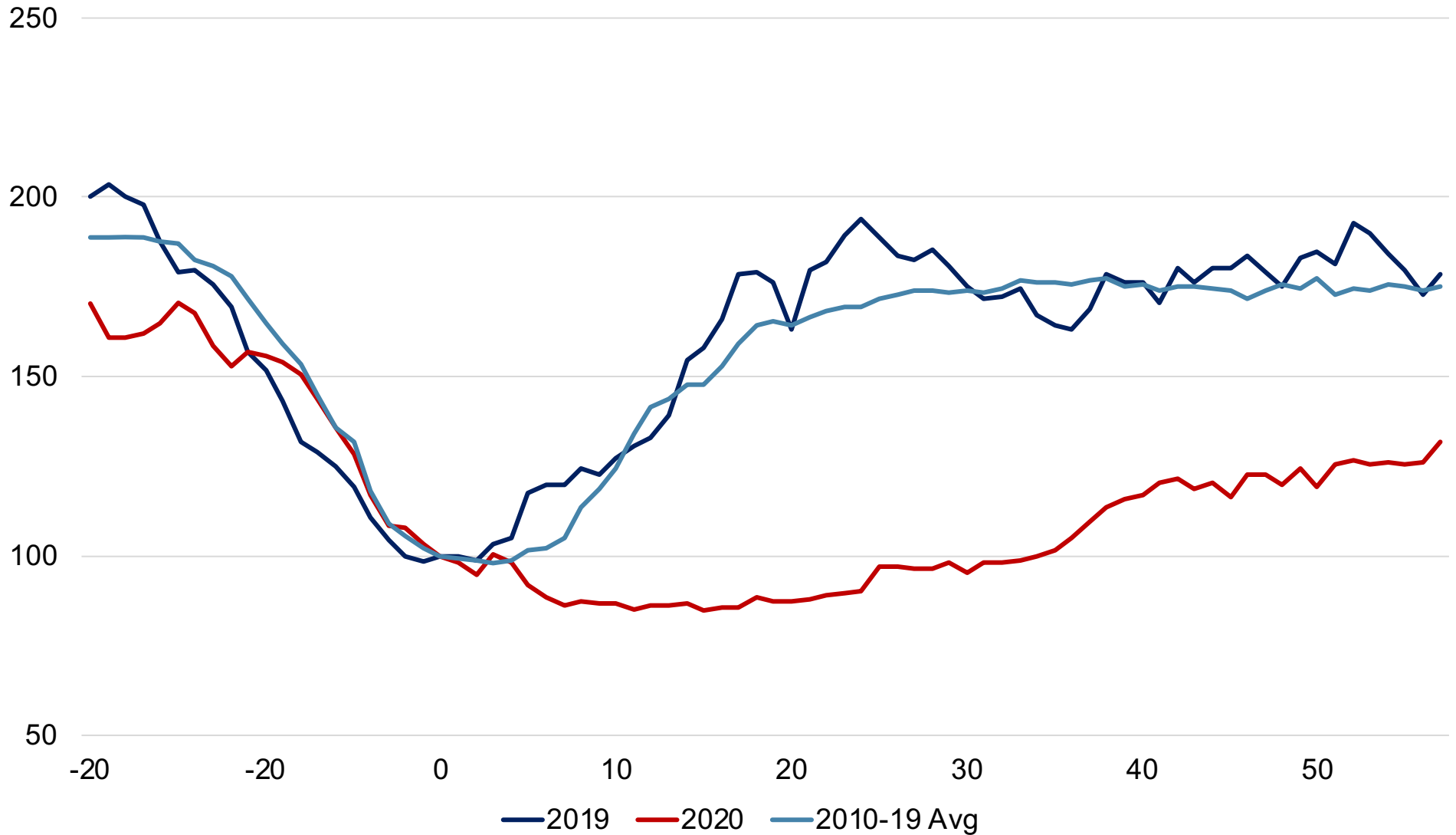
Note: Amap traffic congestion index is the ratio of the actual travel time in a city to the time under no traffic. The index in the chart average levels of 100 cities.

Source: Wind, Amap.com, HSBC

High Frequency Data: China Power Coal Consumption

Power Coal Consumption, First Day of Lunar New Year = 0

(Index, First Day of Lunar New Year = 100)

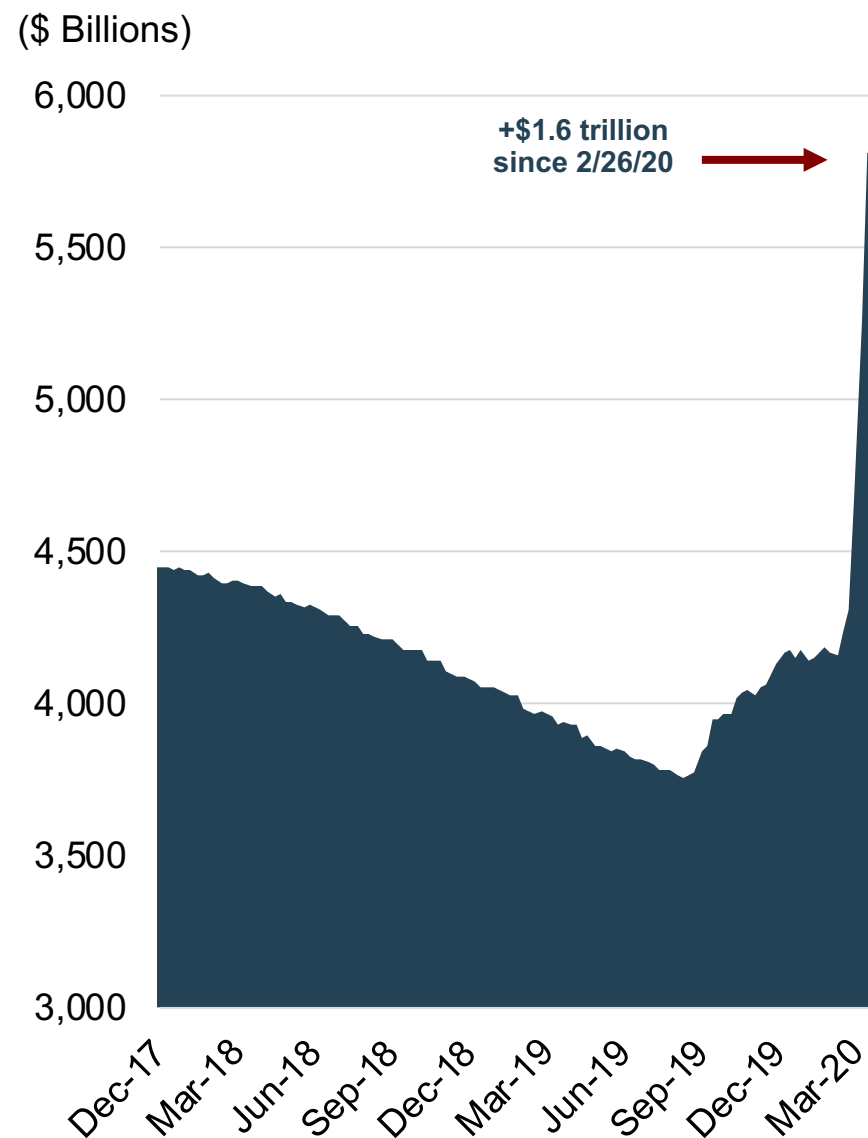


Monetary Stimulus: The Fed Has Acted Aggressively

Federal Reserve, Announced Actions

- 150bps rate cut to 0% Fed Funds Rate
- Unlimited purchases of Treasuries and MBS
- Primary Dealer Credit Facility (PDCF)
- Term Asset-Backed Securities Loan Facility (TALF)
- Commercial Paper Funding Facility
- Money Market Mutual Fund Liquidity Facility
- \$2.3 trillion funding to corporations, SMEs, state and local governments through:
 - Primary Market Corporate Credit Facility (PMCCF)
 - Secondary Market Corporate Credit Facility
 - Main Street Lending Program
 - Expanded TALF

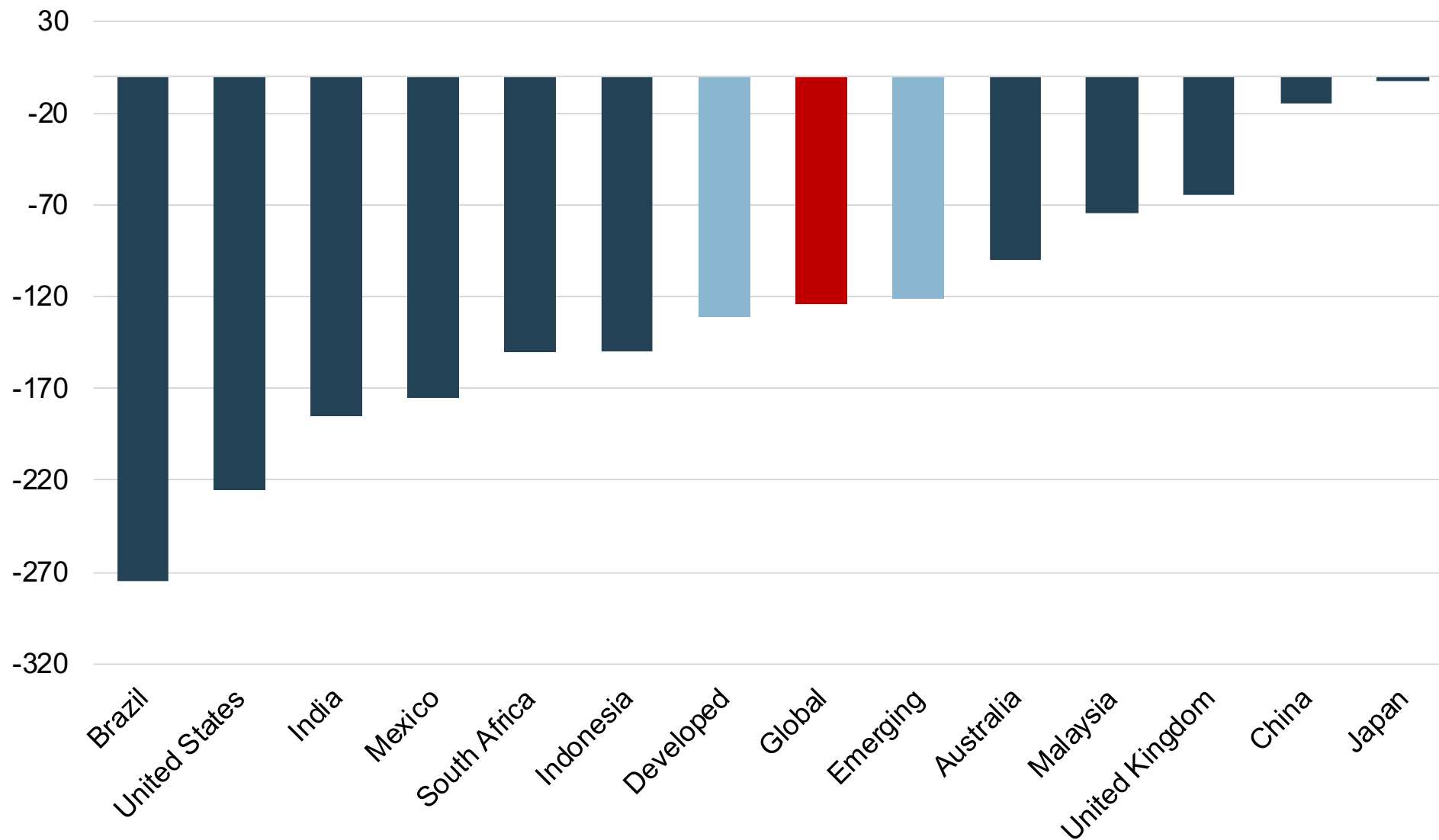
Federal Reserve, Total Assets



Monetary Stimulus: The Fed Is Not Alone

Central Bank Rate Cuts

(4-quarter change, bps)



Fiscal Stimulus: The CARES Act Offers Sweeping Assistance

Intended Funds Use

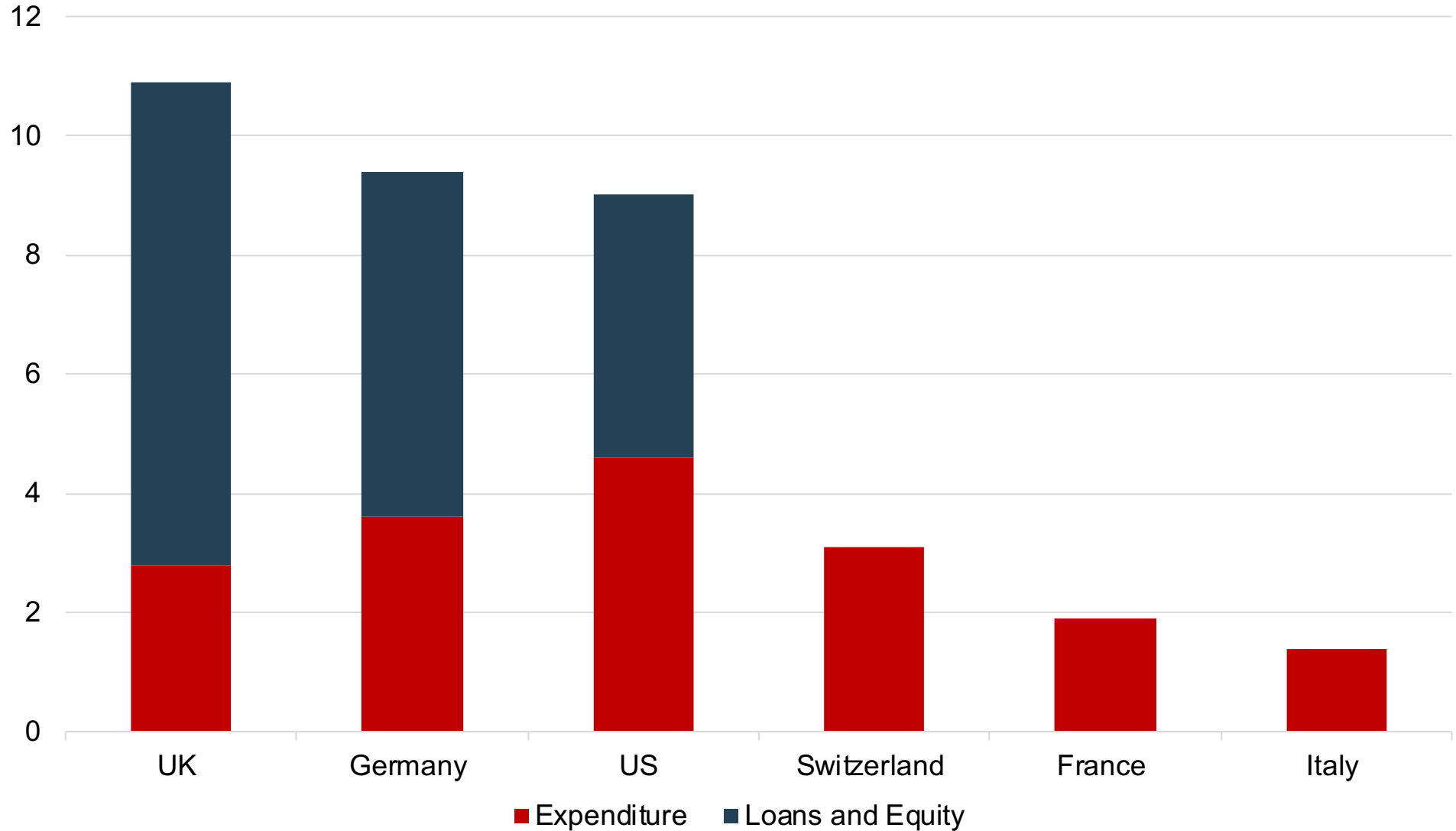
(\$ Billions)



Fiscal Stimulus: Support Provided Throughout Europe

Fiscal Packages By Tool

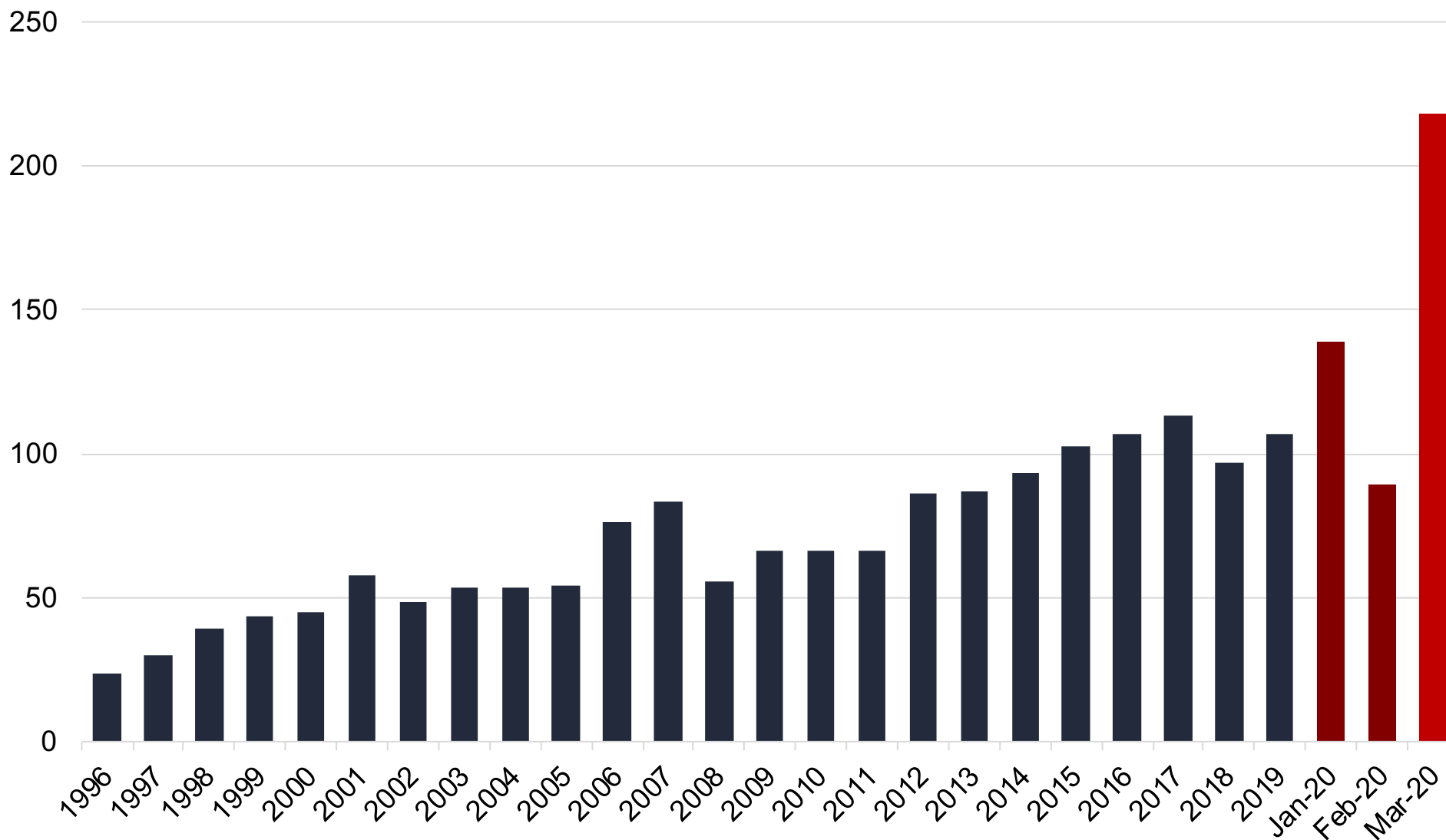
(% of GDP)



Debt Markets: US Investment Grade Issuance at Record Levels

Average Monthly Investment Grade Issuance

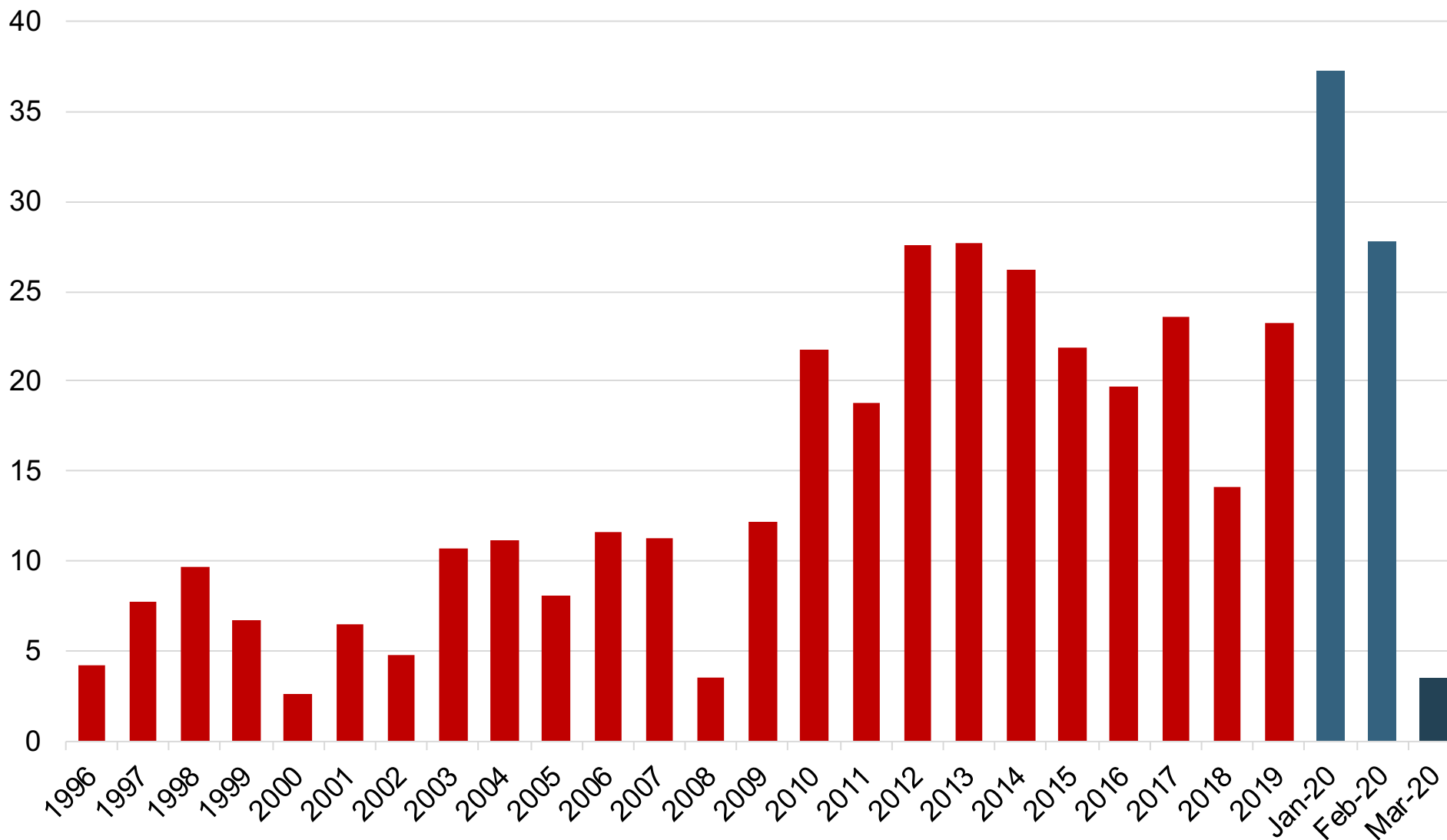
(\$ Billions)



Debt Markets: US High Yield Issuance Has Collapsed

Average Monthly High Yield Issuance

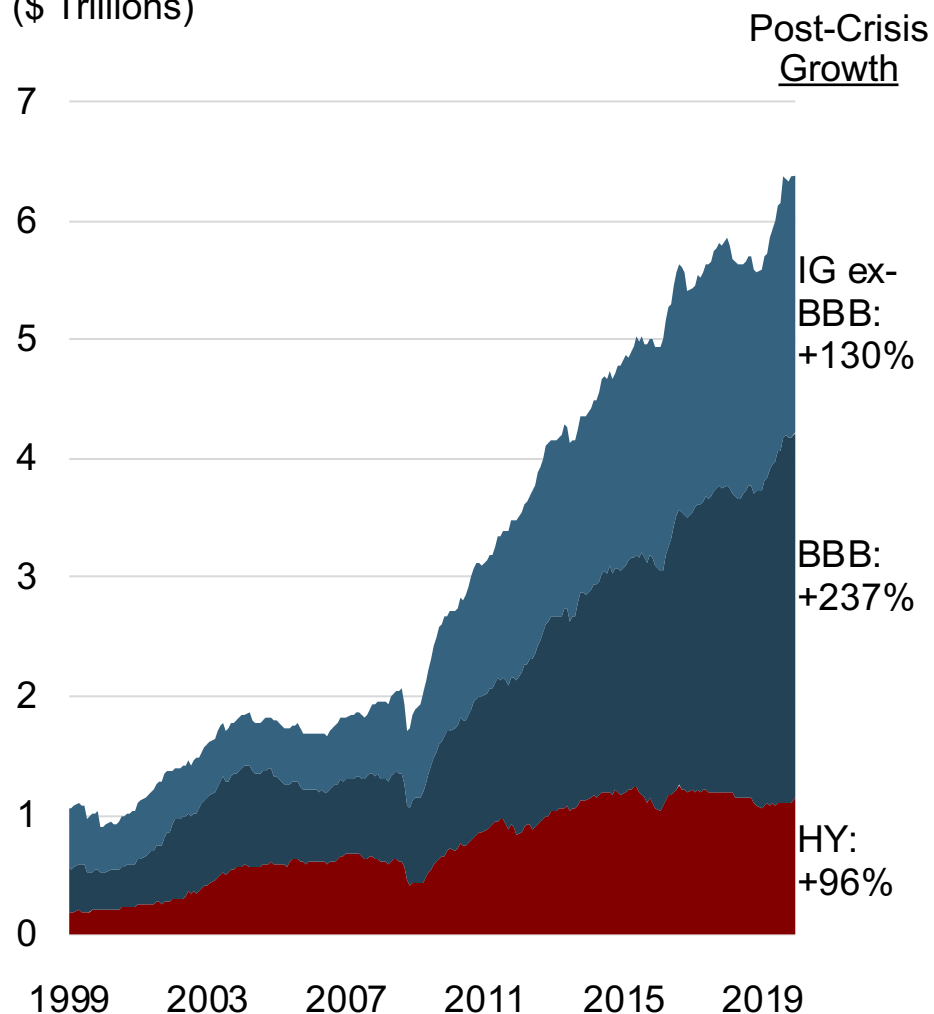
(\$ Billions)



Riskier Nonfinancial Corporate Debt Grew Rapidly since 2009

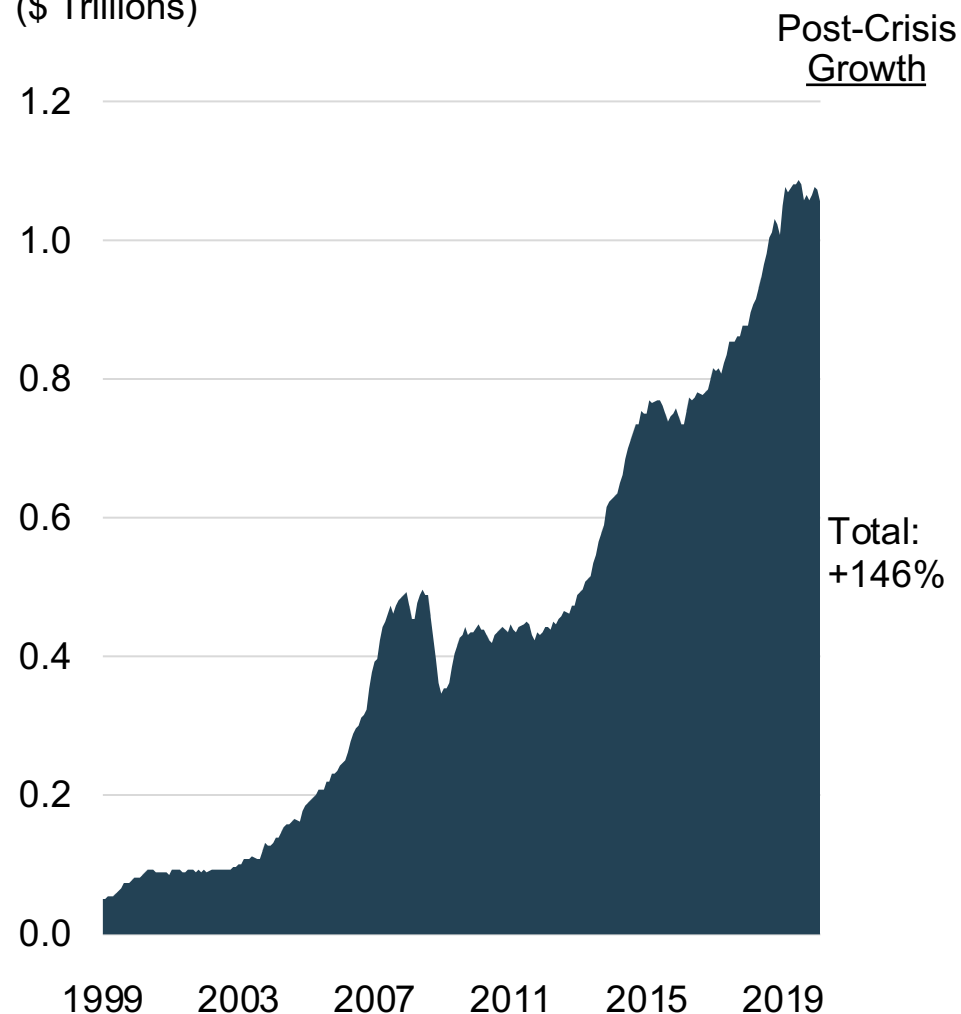
Outstanding US Corporate Bonds

(\$ Trillions)



Outstanding US Leveraged Loans

(\$ Trillions)



As of December 2019. Leveraged Loans as of February 2020.

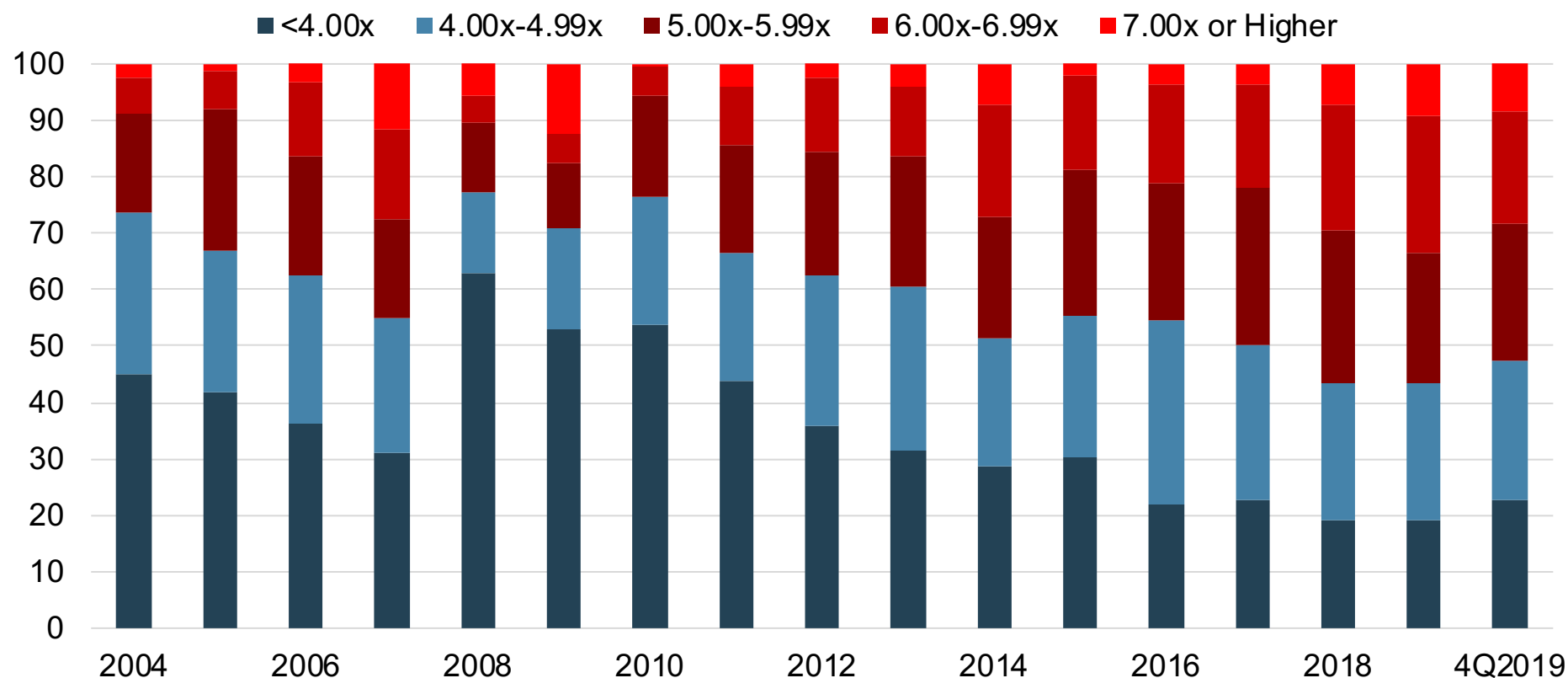
Data are for nonfinancial corporations. Corporate bond data are based on ICE Bank of America Merrill Lynch indices for US dollar denominated corporate debt publicly issued in the US domestic market and do not reflect the same concept as aggregate corporate credit data. Leveraged loan data do not reflect the same concept as aggregate corporate credit data.

Source: UBS, ICE, Bank of America Merrill Lynch, Bloomberg

US Leveraged Loan Quality Has Deteriorated

Distribution of Leveraged Loan Issuance by Debt-to-EBITDA

(%)



As of December 2019

Volumes are for large corporations with earnings before interest, taxes, depreciation, and amortization (EBITDA) greater than \$50 billion and exclude existing tranches of add-ons and amendments and restatements with no new money.

Source: S&P Global, Leveraged Commentary & Data "Quarterly Leveraged Lending Review", UBS

Economic Summary

- The critical requirements to exit the COVID-19 crisis are the healthcare requirements:
 - Testing
 - Therapies
 - Vaccine
- Monetary stimulus is aggressive and effective
- Fiscal stimulus is on target, but execution and timeliness are critical
- 2Q20 contraction likely to break records in the US and Europe
 - Visibility beyond 2Q20 is minimal
- Rebound unlikely to be as sharp as many expect
 - Long-term economic damage is likely, especially as small businesses fail
 - Policy intervention is intended to mitigate the damage; the question is whether it will succeed

Investment Implications

- Fixed Income:
 - Security selection critical
 - Zero short-term rates and QE likely to be sustained for extended period of time
 - Yield curve control possible in Europe and the US
 - Avoid leveraged loans, high yield, CLOs for now
 - Investment grade attractive within credit
- Equities
 - Security selection critical
 - Focus on quality – balance sheet strength, funding, liquidity
 - Gauging viability very important for long-dated cash flow stories
 - Opportunities amidst capital raises – convertibles
- Alternative Investments
 - Excessively leveraged projects/firms/properties vulnerable
 - Opportunities to capitalize on distress

Questions

Please type your question(s) into the “Question” field in your control panel. We will read aloud and reply.

Follow Up Questions:

- Tony Dote: tony.dote@lazard.com | 212.632.6439
- Dan Doonan: dan@nirsonline.org | 202.457.8190

Additional Resources

The following selected resources can be useful for ongoing updates to statistics.

<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

<https://www.worldometers.info/coronavirus/#countries>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

<https://docs.google.com/spreadsheets/d/e/2PACX-1vRwAqp96T9sYYq2-i7Tj0pvTf6XVHjDSMIKBdZHXiCGGdNC0ypEU9NbnG8mxea55JuCFuua1MUeOj5/pubhtml#>

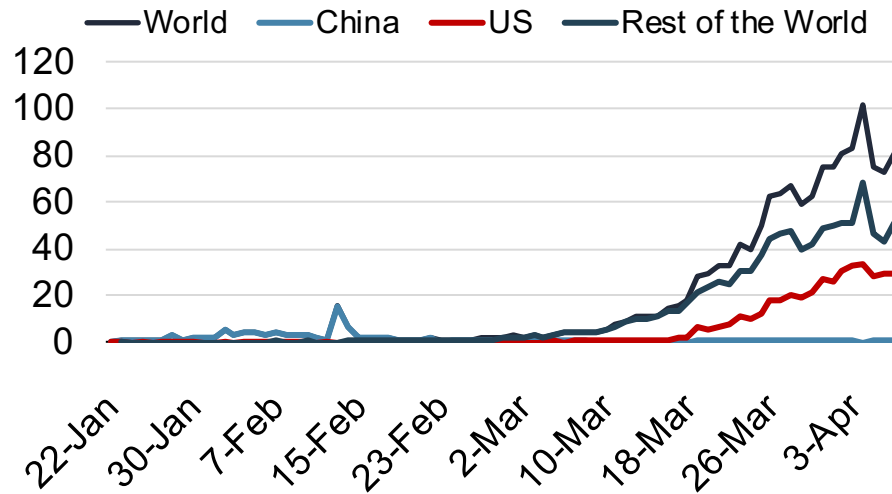
<https://www.federalreserve.gov/monetarypolicy/policytools.htm>

<https://www.federalreserve.gov/releases/h41/>

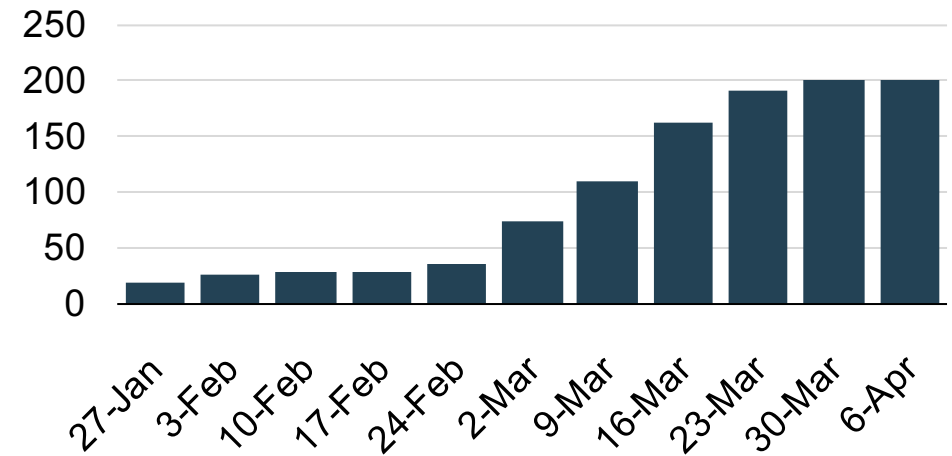
<https://www.ecb.europa.eu/press/pr/wfs/2020/html/index.en.html>

COVID-19 Case Count Updates

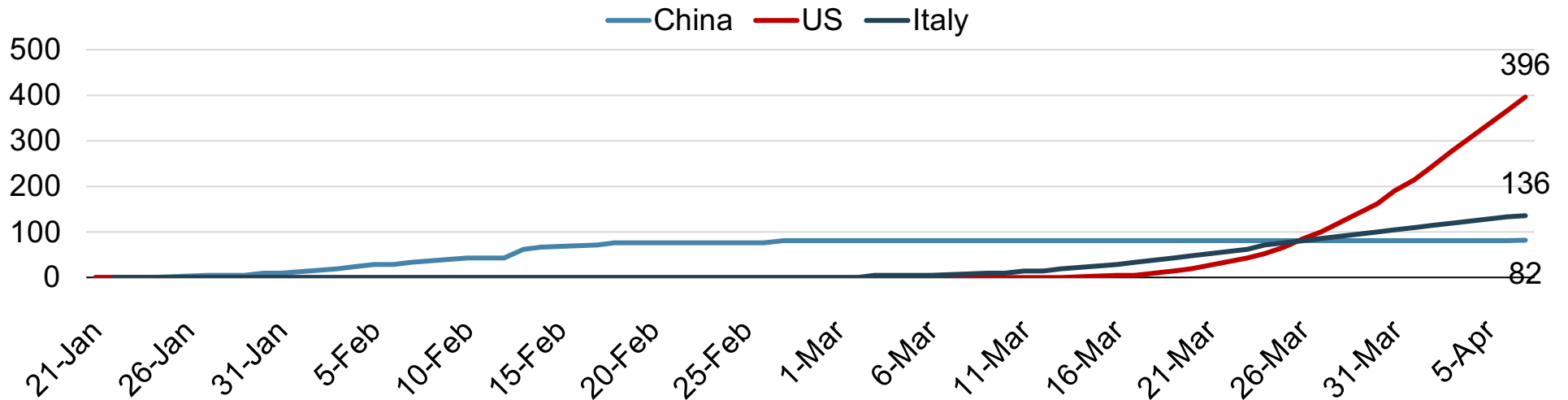
New Daily Confirmed Cases, Thousands



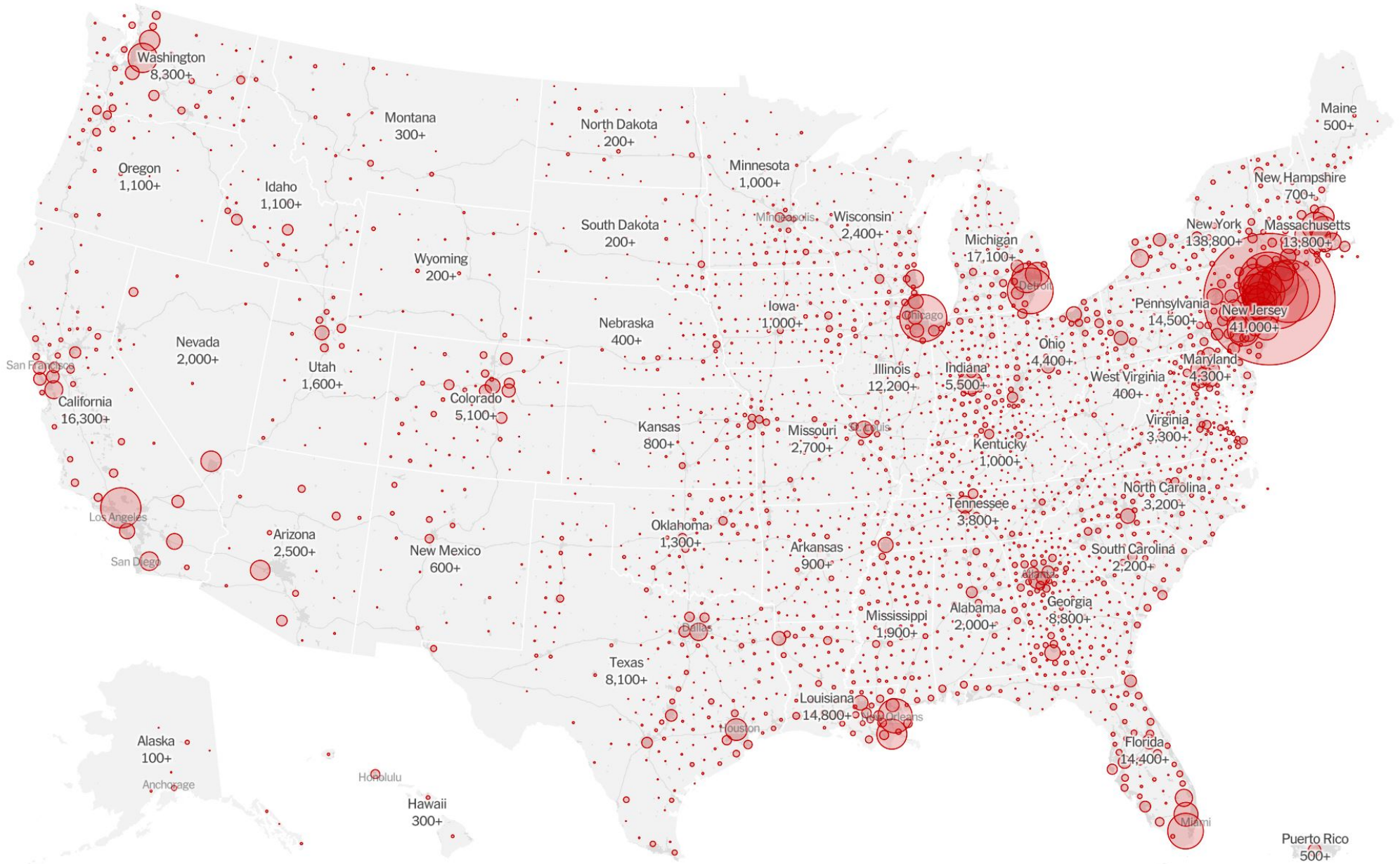
Number of Countries With Confirmed Cases



Cumulative Confirmed Cases, Thousands



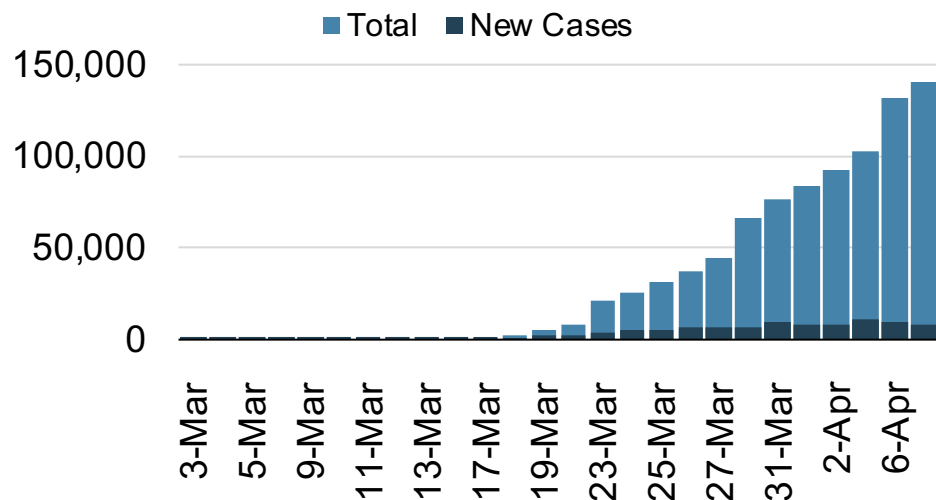
COVID-19 Case Count Updates



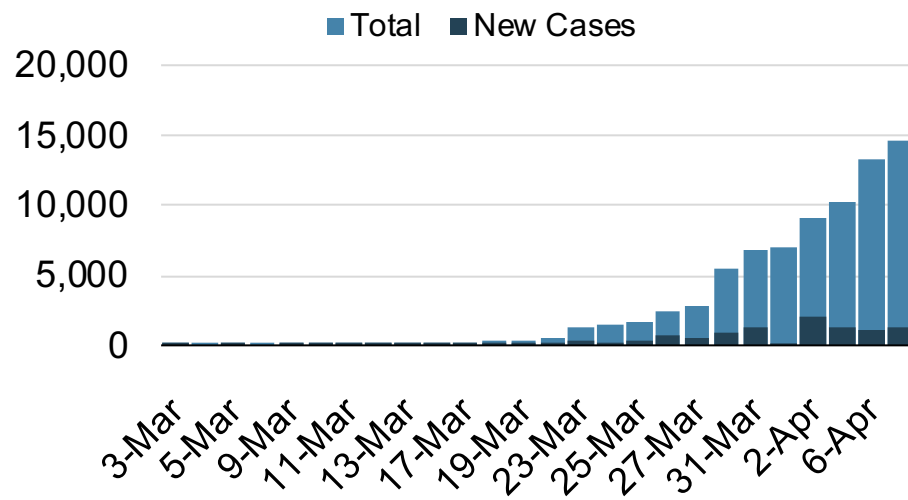
As of 6 April 2020
Source: Johns Hopkins, New York Times

COVID-19 Case Count Updates

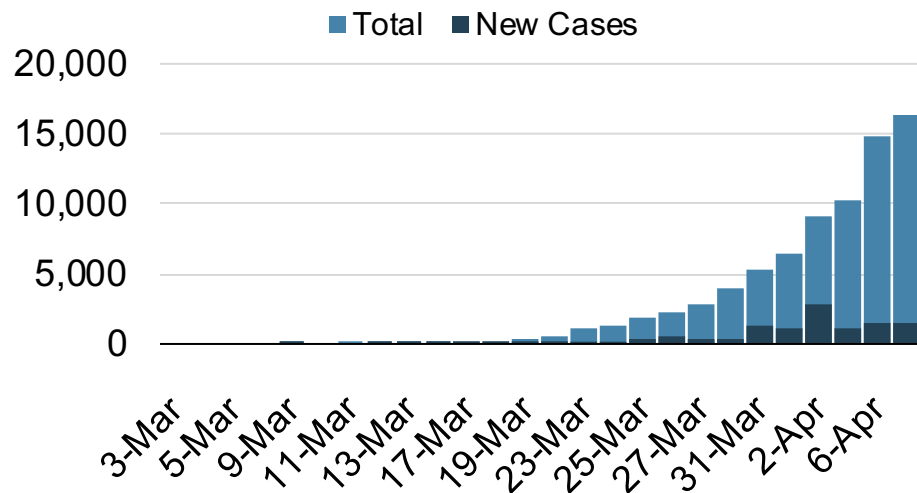
New York



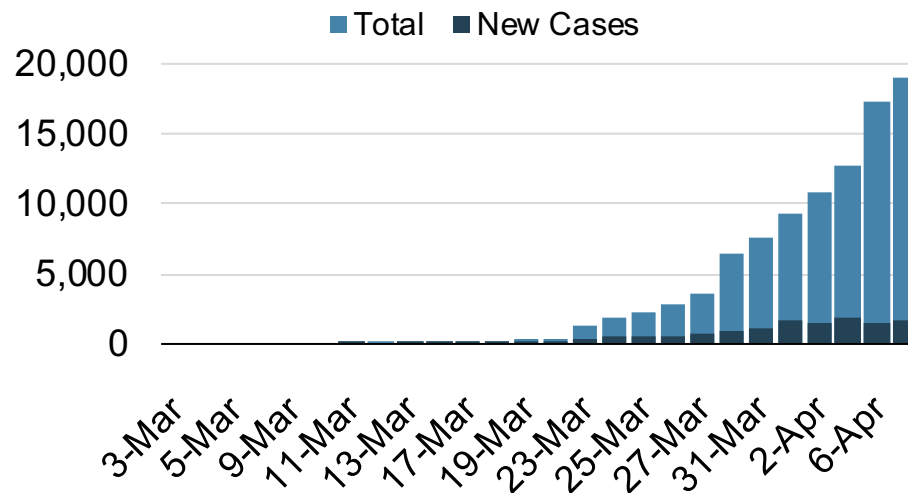
Florida



Louisiana



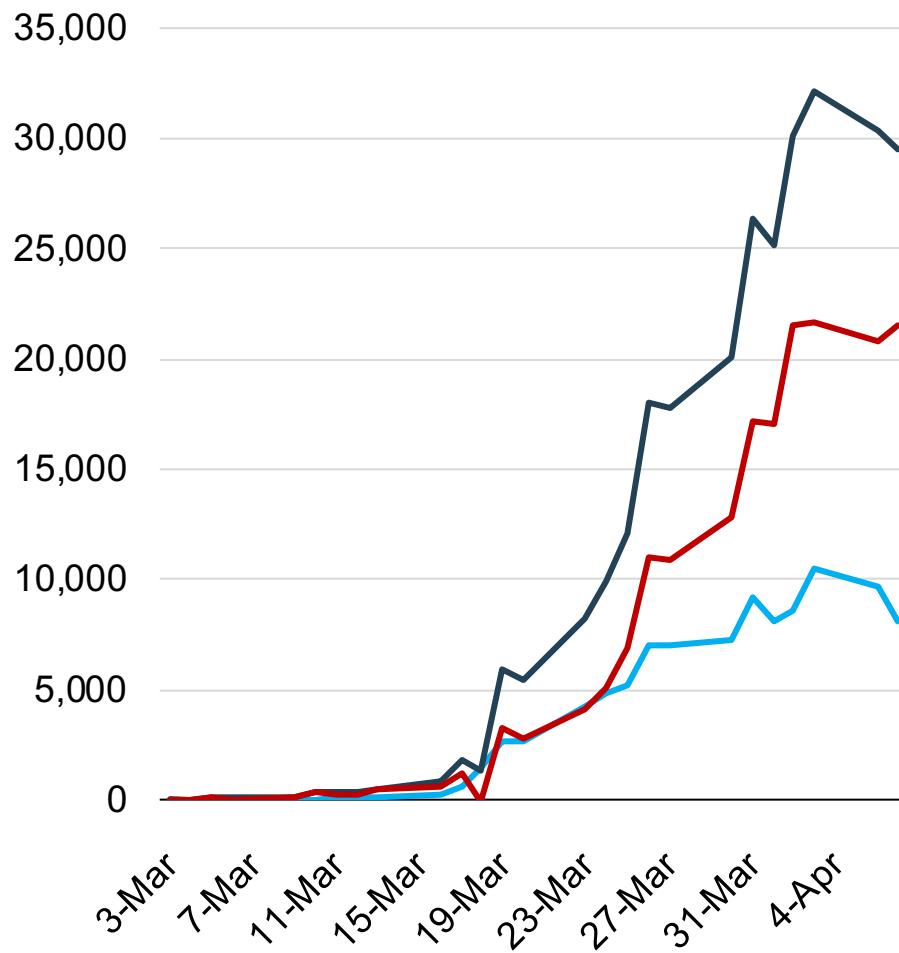
Michigan



COVID-19 Case Count Updates

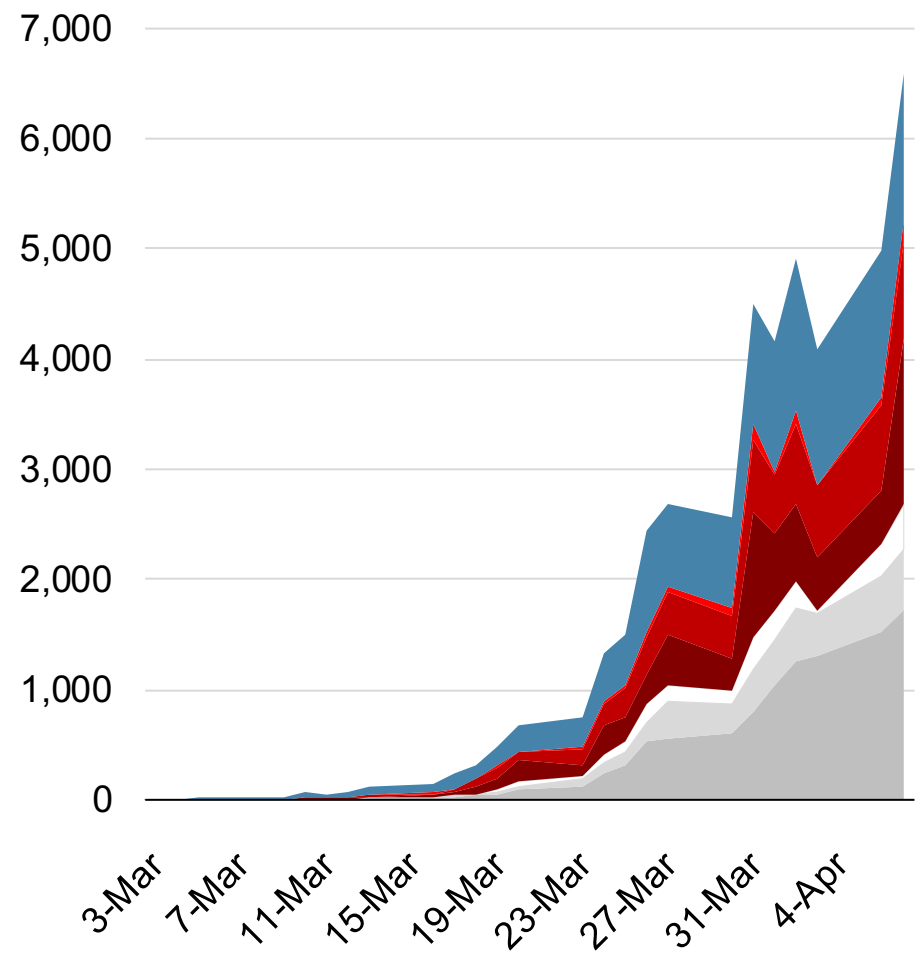
Confirmed New Cases

— New York — US — US exc. New York



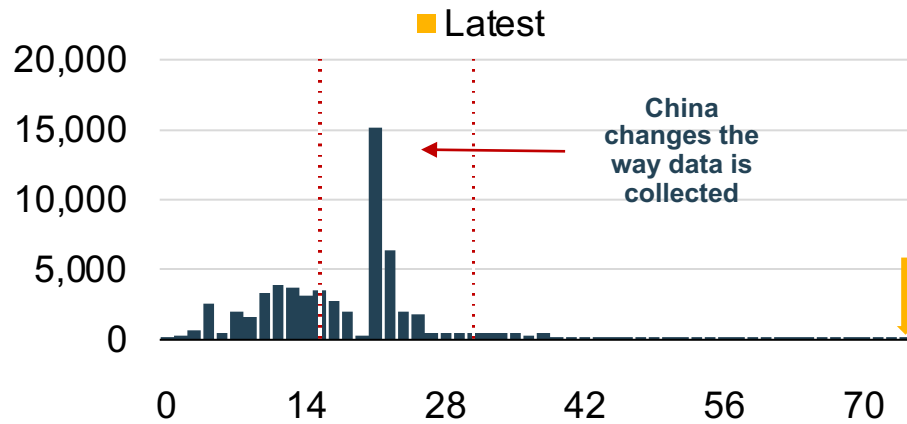
Confirmed New Cases

■ Pennsylvania ■ Indiana ■ Missouri
 ■ Georgia ■ Texas ■ Kentucky
 ■ California

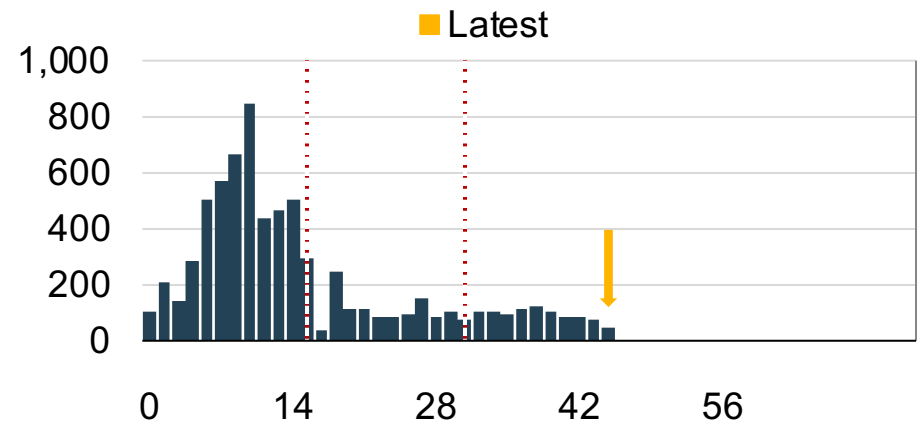


COVID-19 Case Count Updates

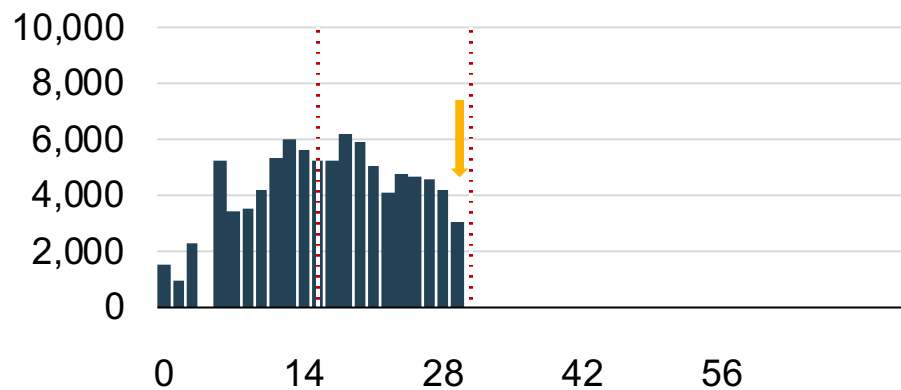
China, Daily New Cases (Jan 23 = 0)



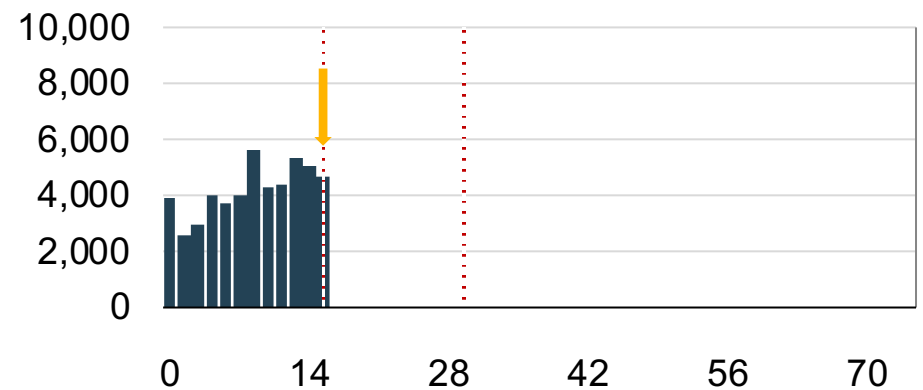
South Korea, Daily New Cases (Feb 21 = 0)



Italy, Daily New Cases (Mar 9 = 0)



New York City, Daily New Cases (Mar 22 = 0)



Biographies



Ronald Temple, CFA

*Managing Director, Co-Head of Multi-Asset and Head of US Equity
Lazard Asset Management LLC (New York)*

Ronald Temple is a Managing Director and Co-Head of Multi-Asset and Head of US Equity. In this role, Ron is responsible for overseeing the firm's multi-asset and US equity strategies as well as several global equity strategies. He is also a Portfolio Manager/Analyst on various US and global equity teams. He joined Lazard in 2001 with ten years of global experience including fixed-income derivative trading, risk management, corporate finance and corporate strategy in roles at Deutsche Bank AG, Bank of America NT & SA and Fleet Financial Group in London, New York, Singapore, San Francisco, and Boston. Ron has an MPP from Harvard University and graduated magna cum laude with a BA in Economics & Public Policy from Duke University. He is a member of the Council on Foreign Relations, the Economic Club of New York, Duke University's Graduate School Board of Visitors (Chair), Duke University's Talent Identification Program Advisory Board, and the New York Society of Security Analysts (NYSSA). He also served as a trustee of the Link Community School in Newark, New Jersey, from 2006-2014, as a member of the Trinity Board of Visitors at Duke University from 2006-2012 and a member of the Financial Accounting Standards Advisory Council from 2013 to 2015.

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