



JUNE 2, 2020

FROM DUSK TO DAWN

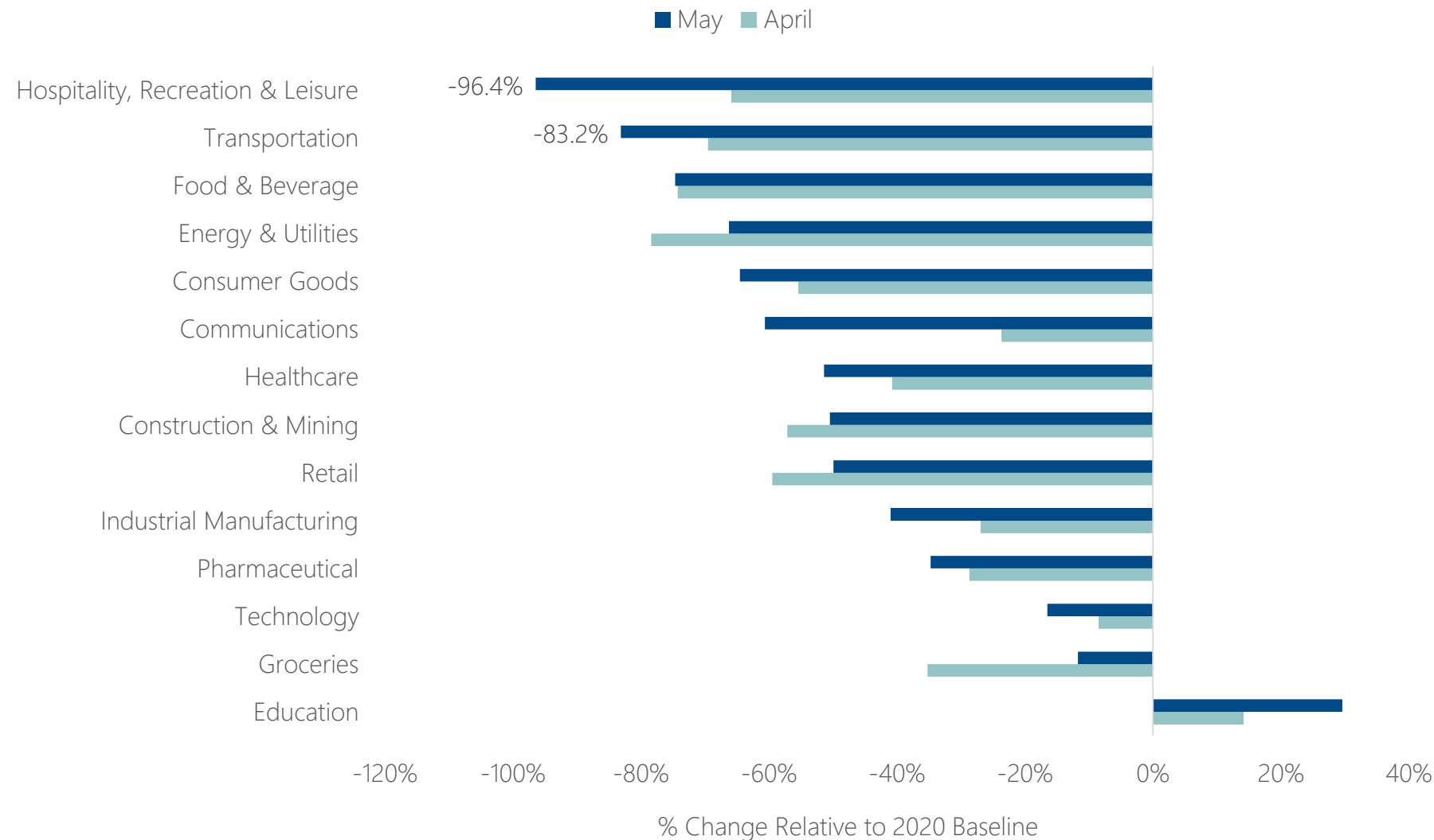
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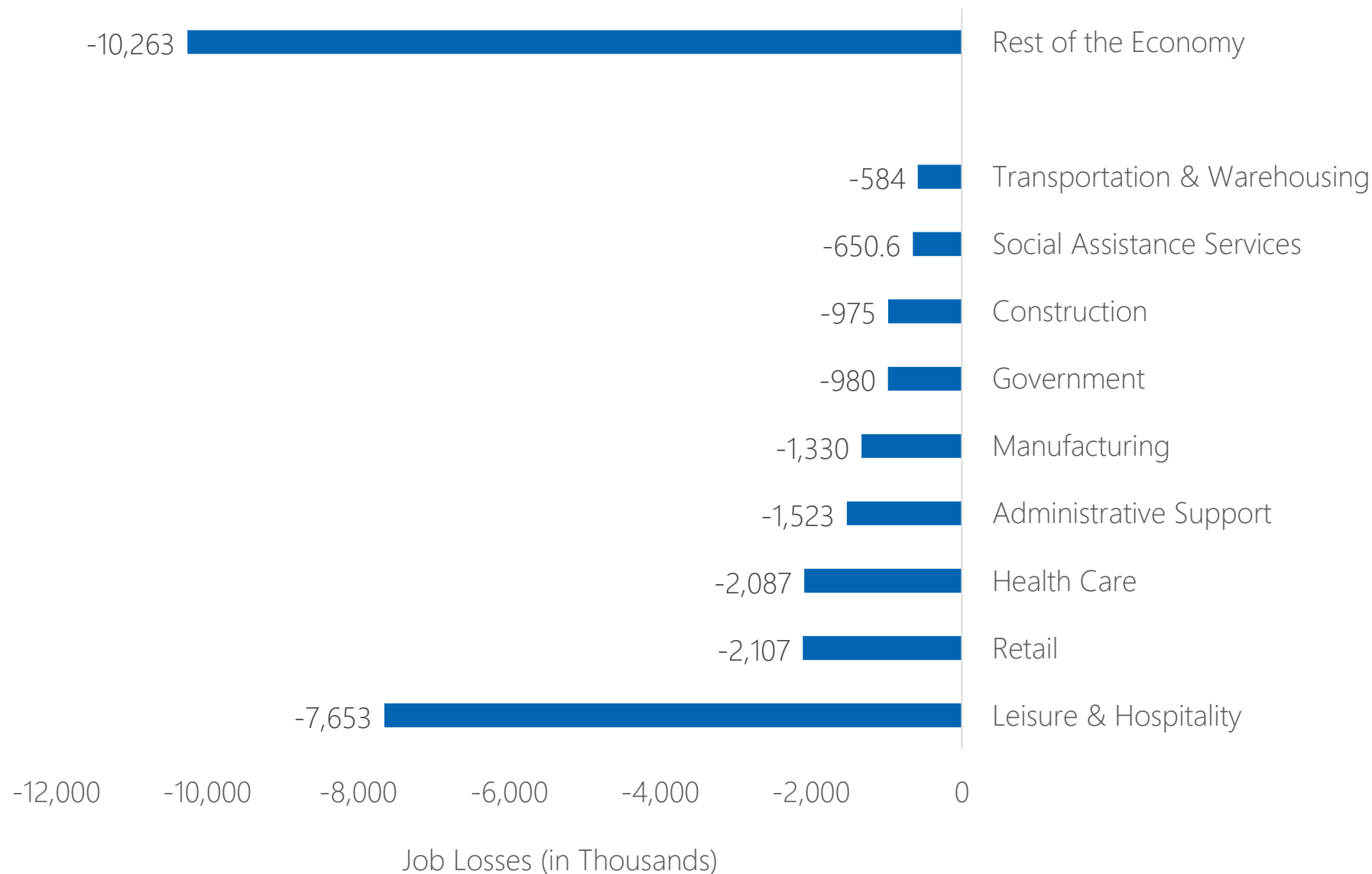
The Largest Economic Shock in Over 300 Years

Percentage Change in Revenue Expectations & Hiring Intensions



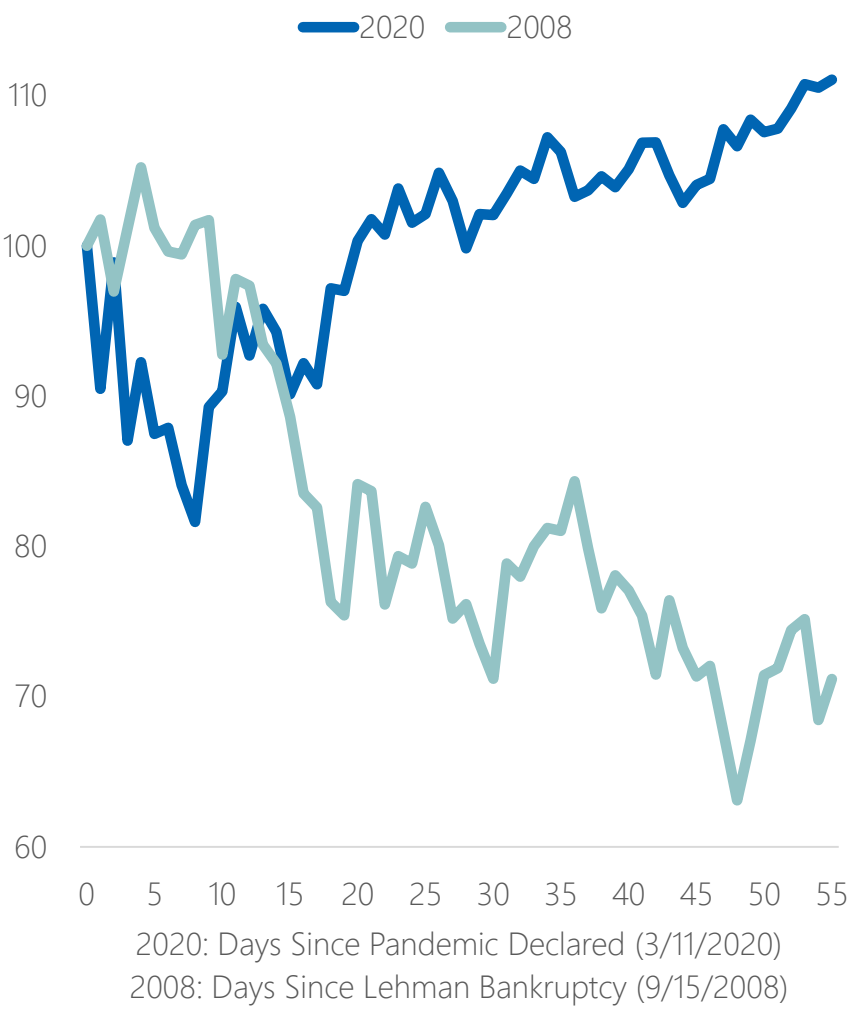
Source: Carlyle Analysis of Portfolio Company Data, April 2020. There is no guarantee any trends will continue.

Much Broader Impact than Initially Believed; the Hardest Hit Sectors Only Account for Half of Job Losses Recorded in April

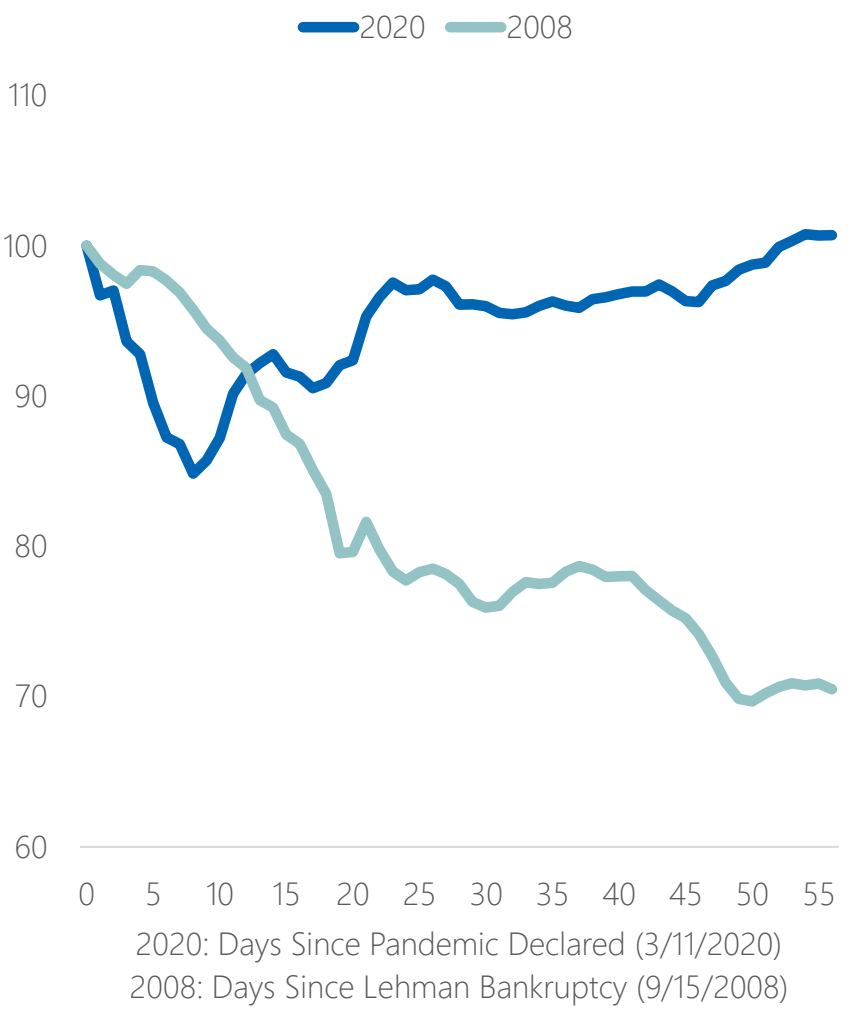


Market Performance a Sharp Contrast to the 2008 Crisis as Policy Support Has Come Swiftly and Substantially This Time Around

S&P 500 Index



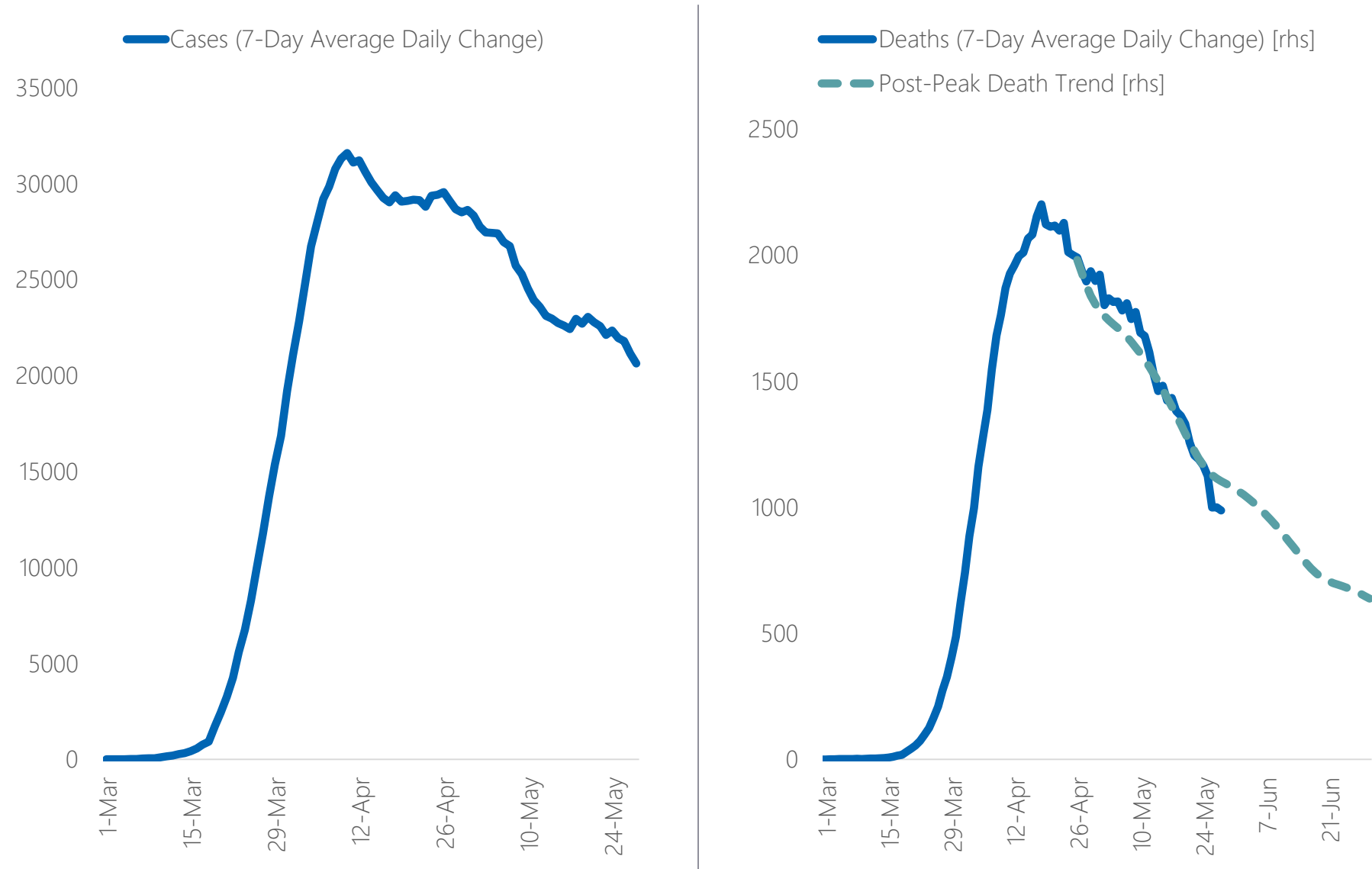
Speculative Grade Credit



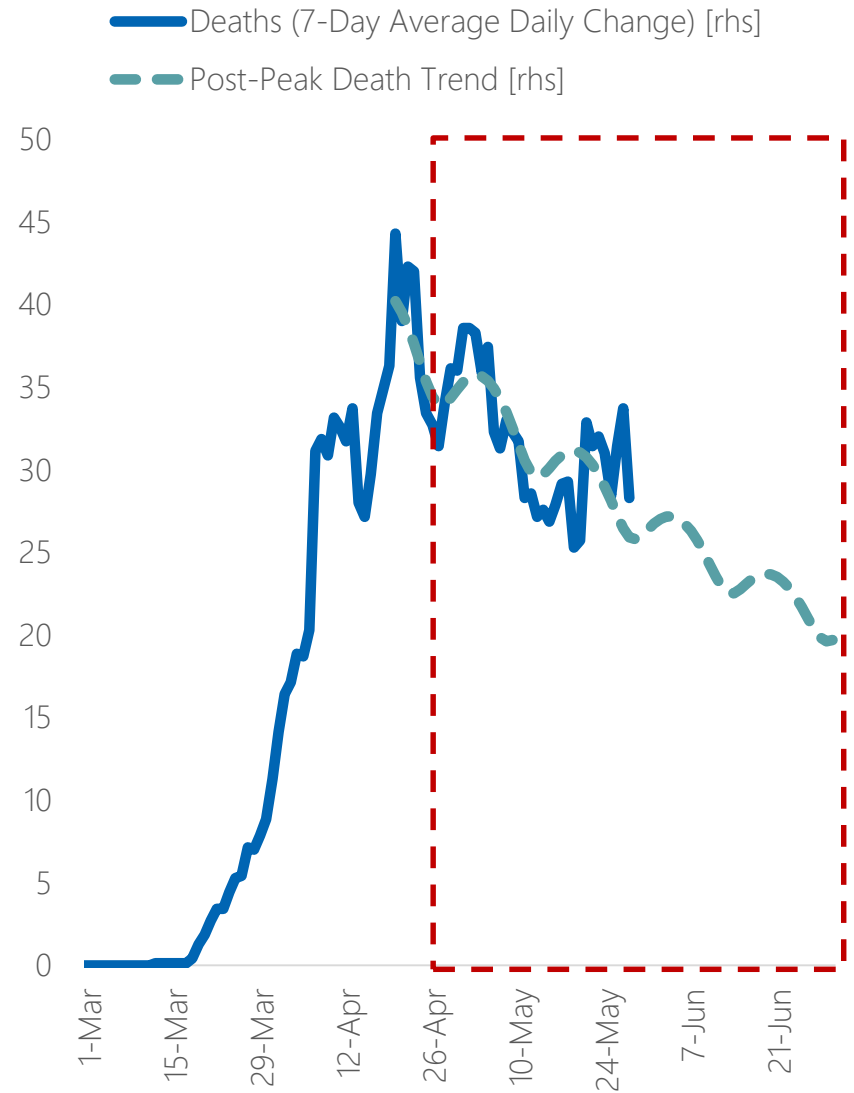
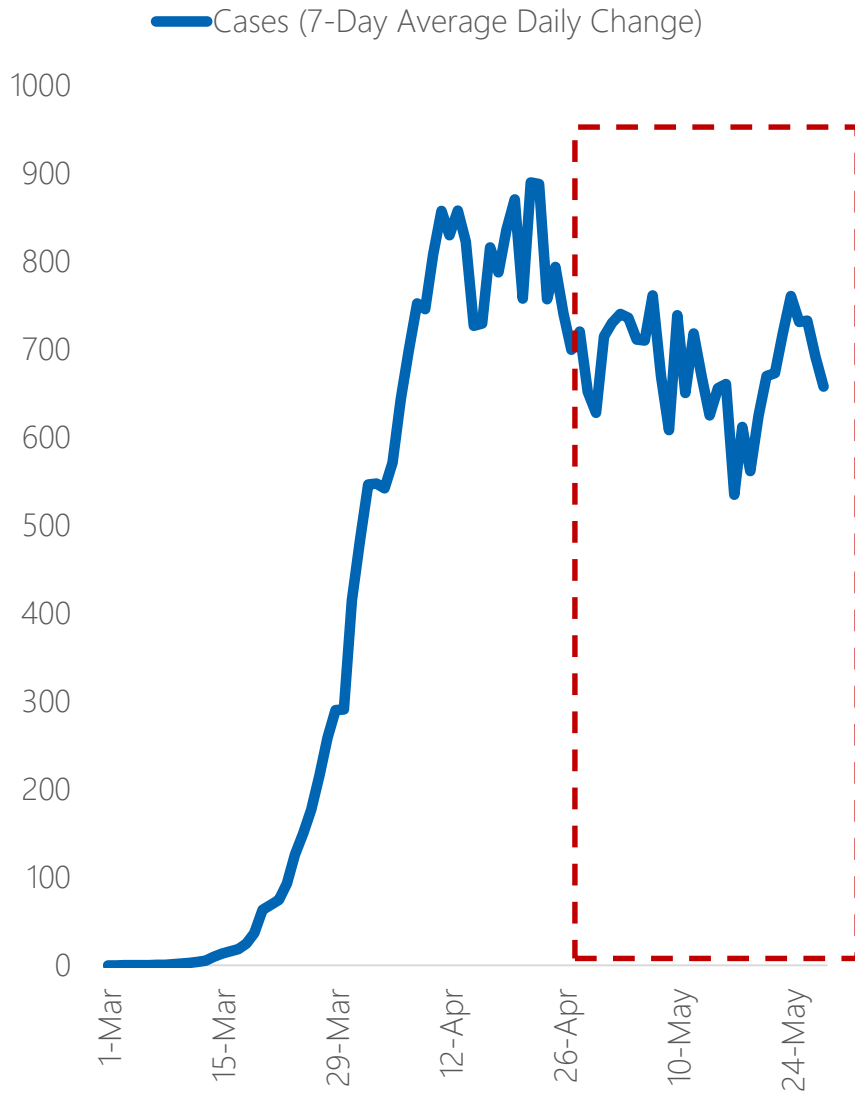
Reasons for the Disconnect

- (1) Health Data
- (2) Monetary & Fiscal Policy Support
- (3) Optimism About Reopening

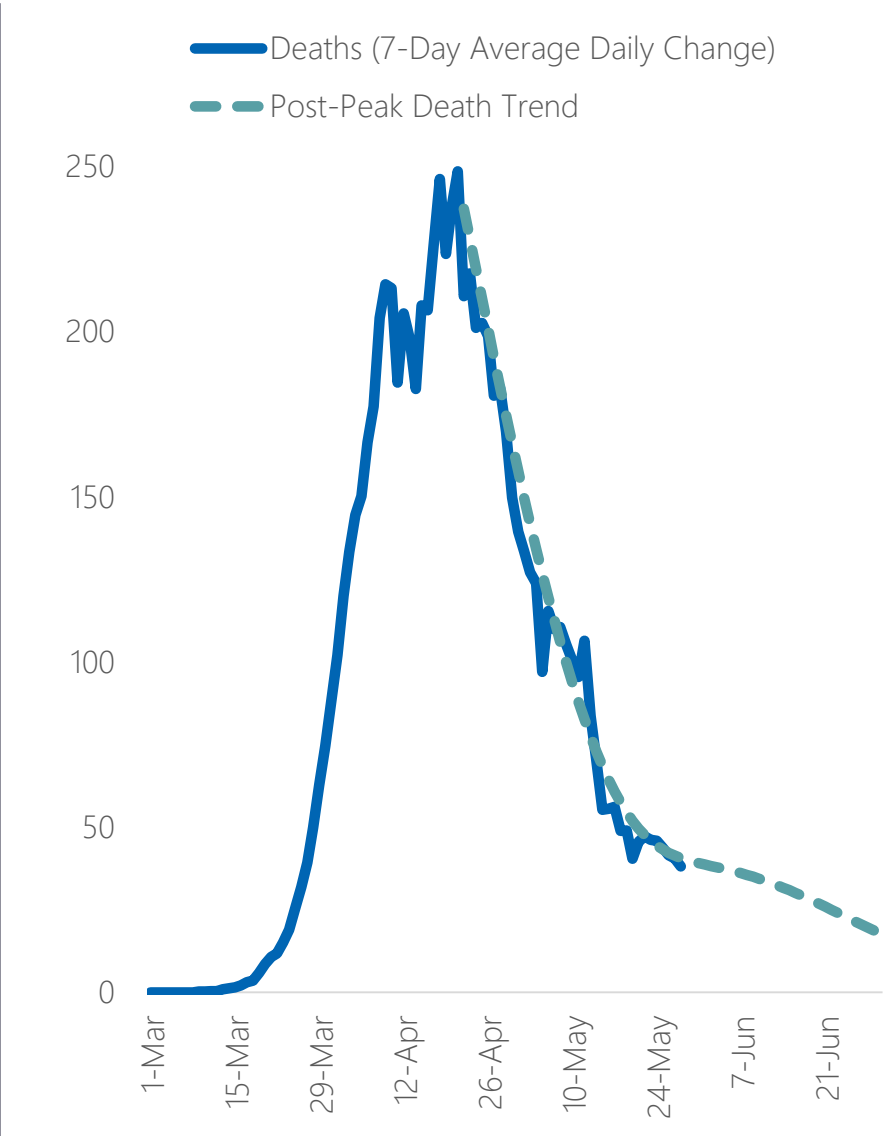
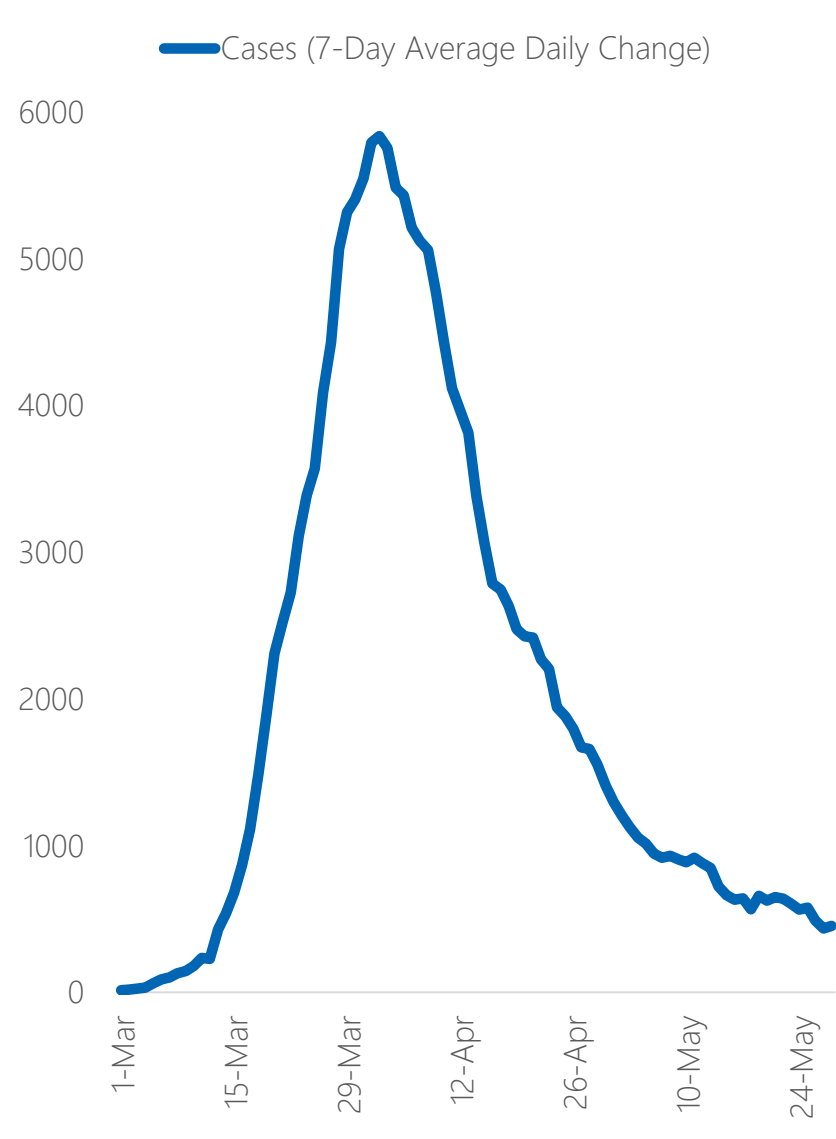
An Encouraging Trend in COVID Cases in the U.S....



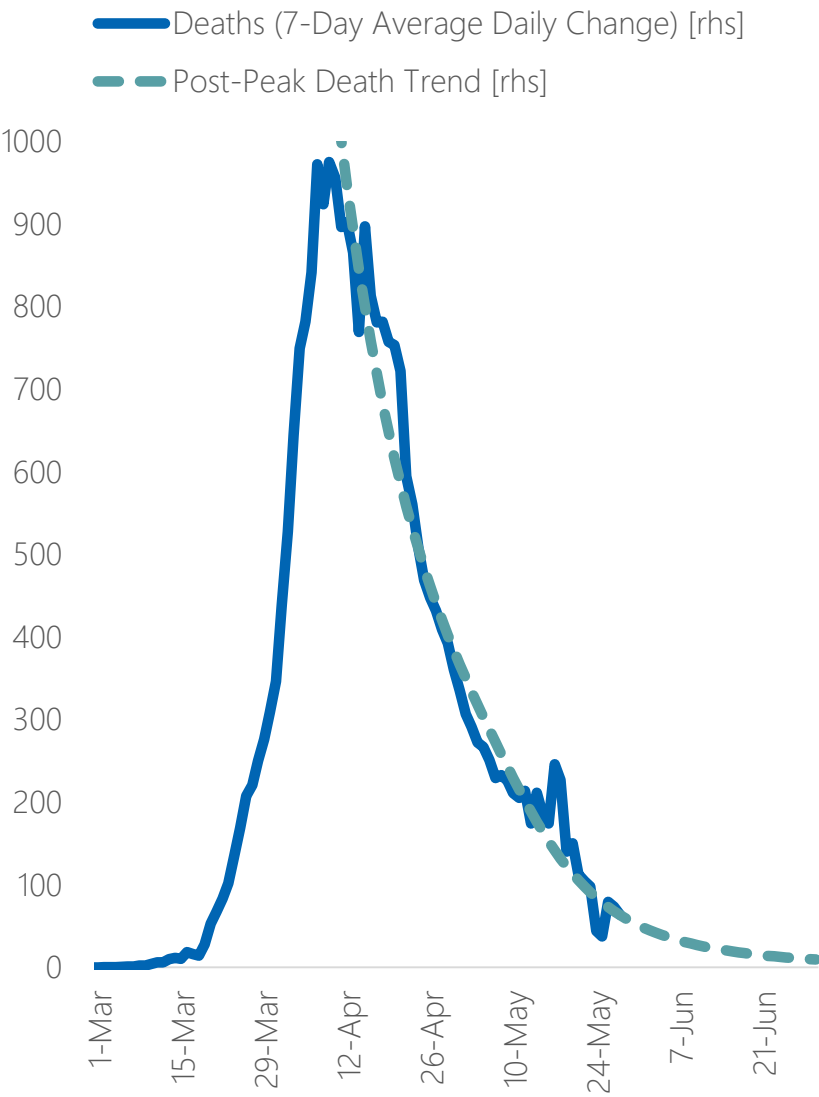
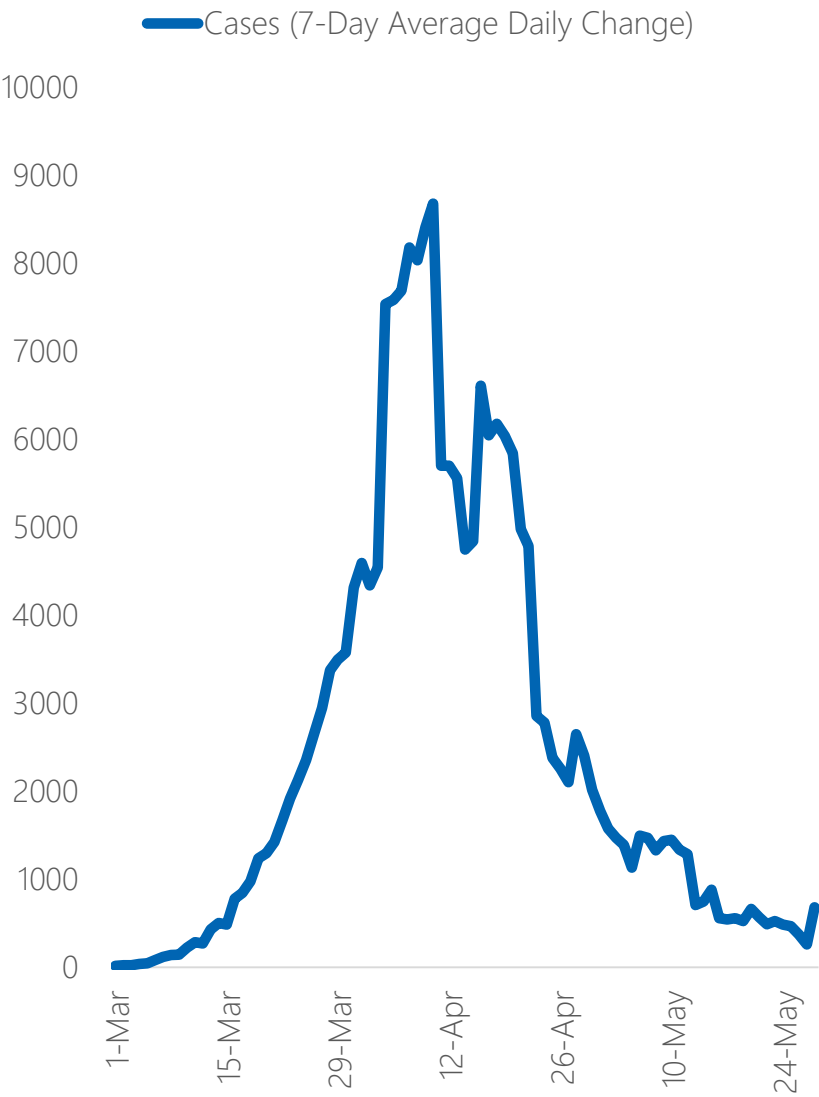
...has Also Persisted in Places Like Georgia After Restrictions Were Lifted



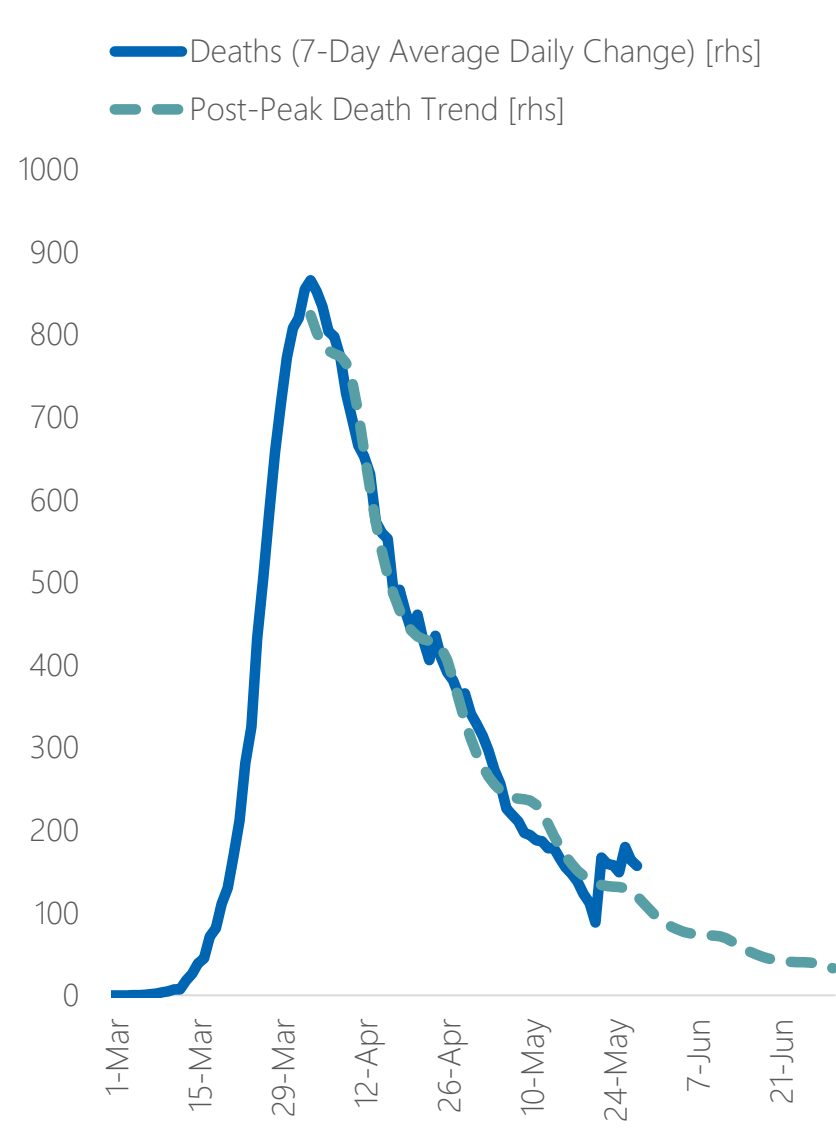
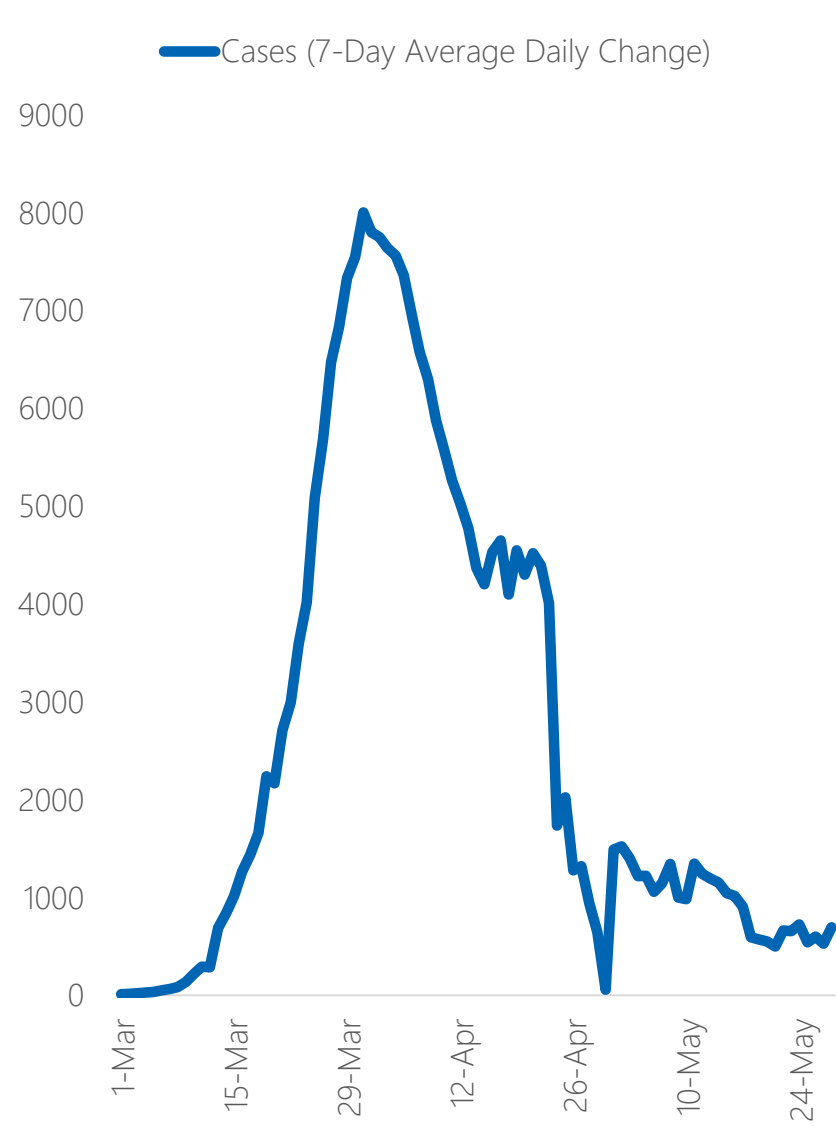
Germany



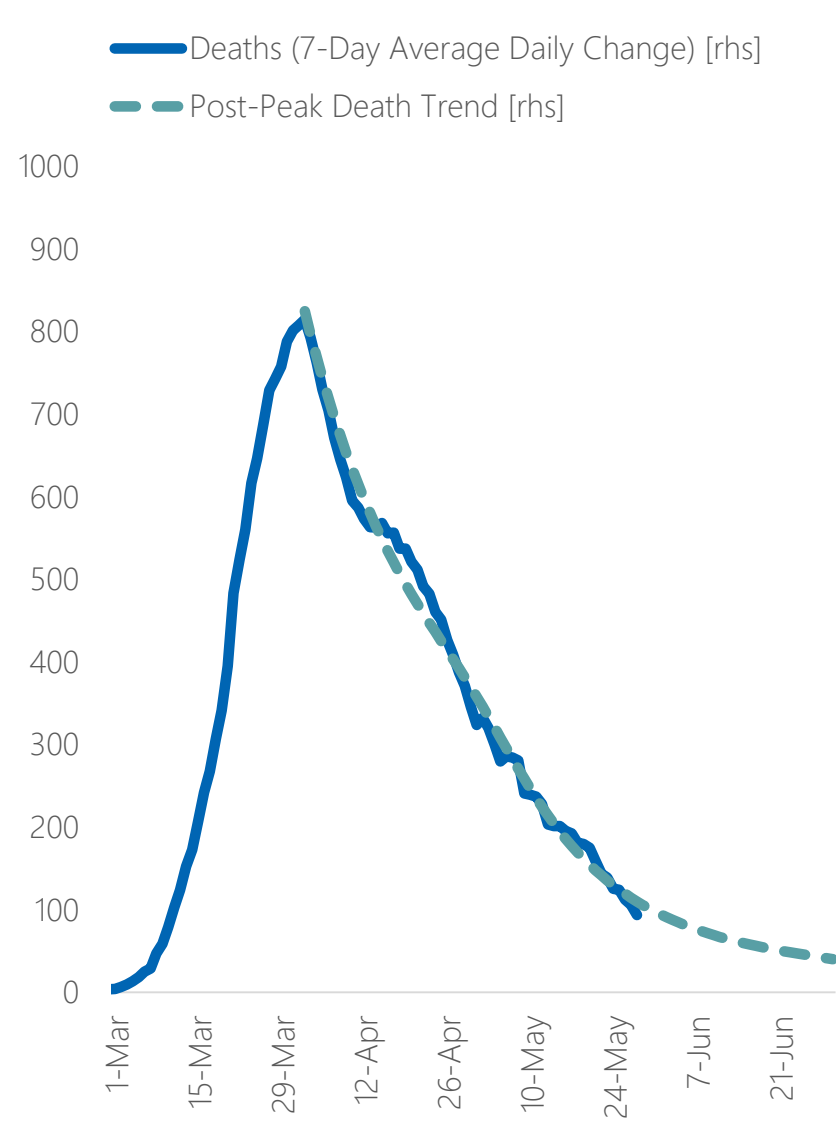
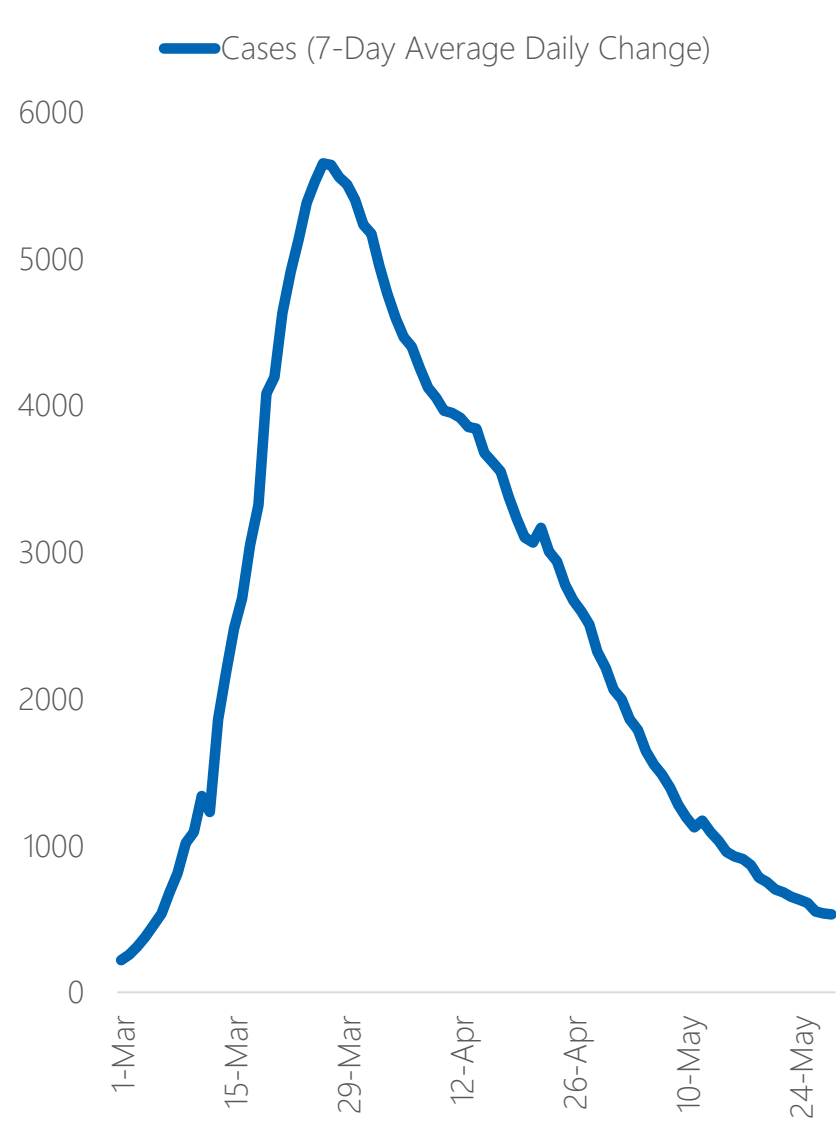
France



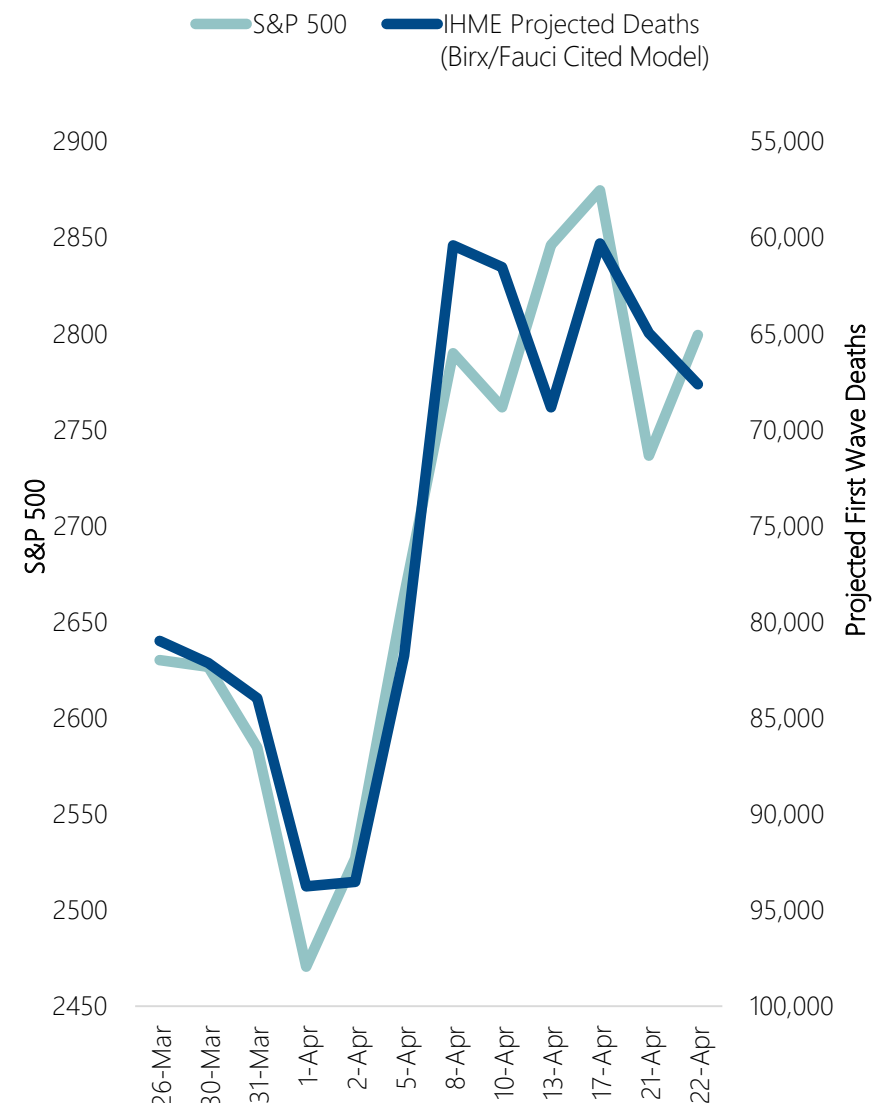
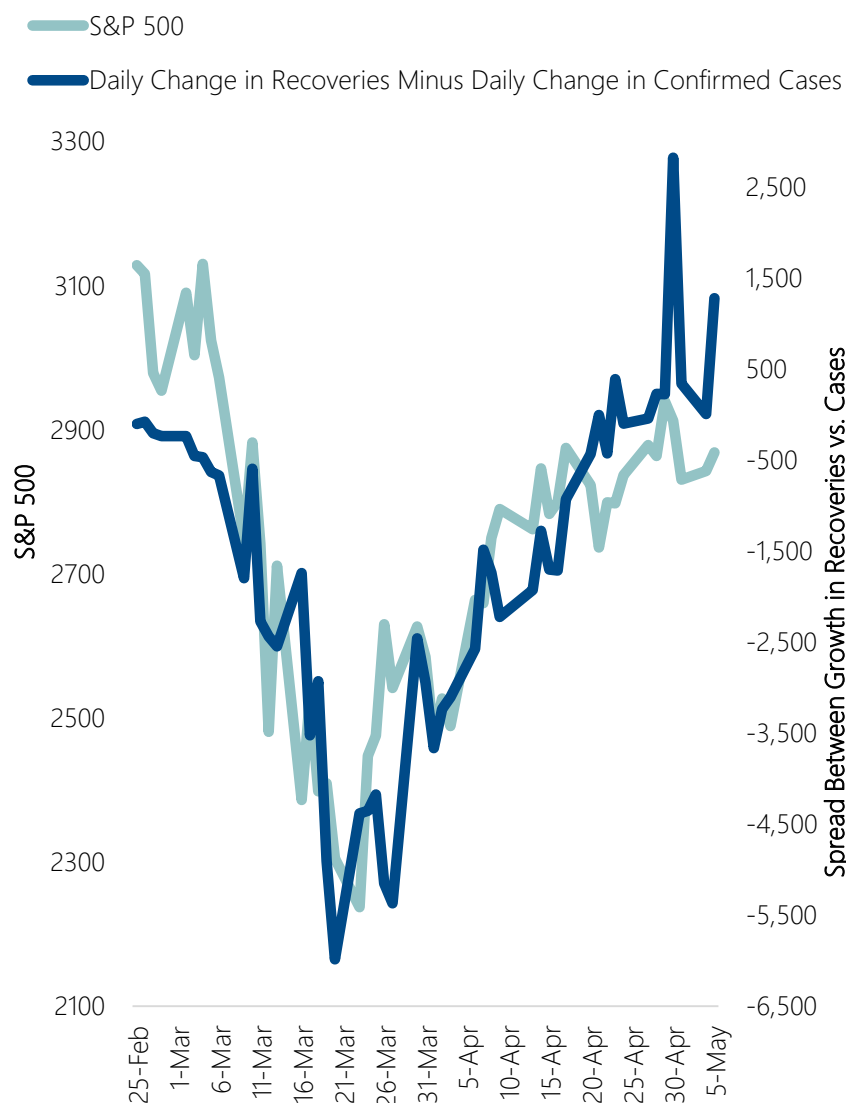
Spain



Italy



Markets Highly Sensitized to Public Health Developments as a Sign of Reopening



Source: Carlyle Analysis; Bloomberg; University of Washington, IHME, Bloomberg.

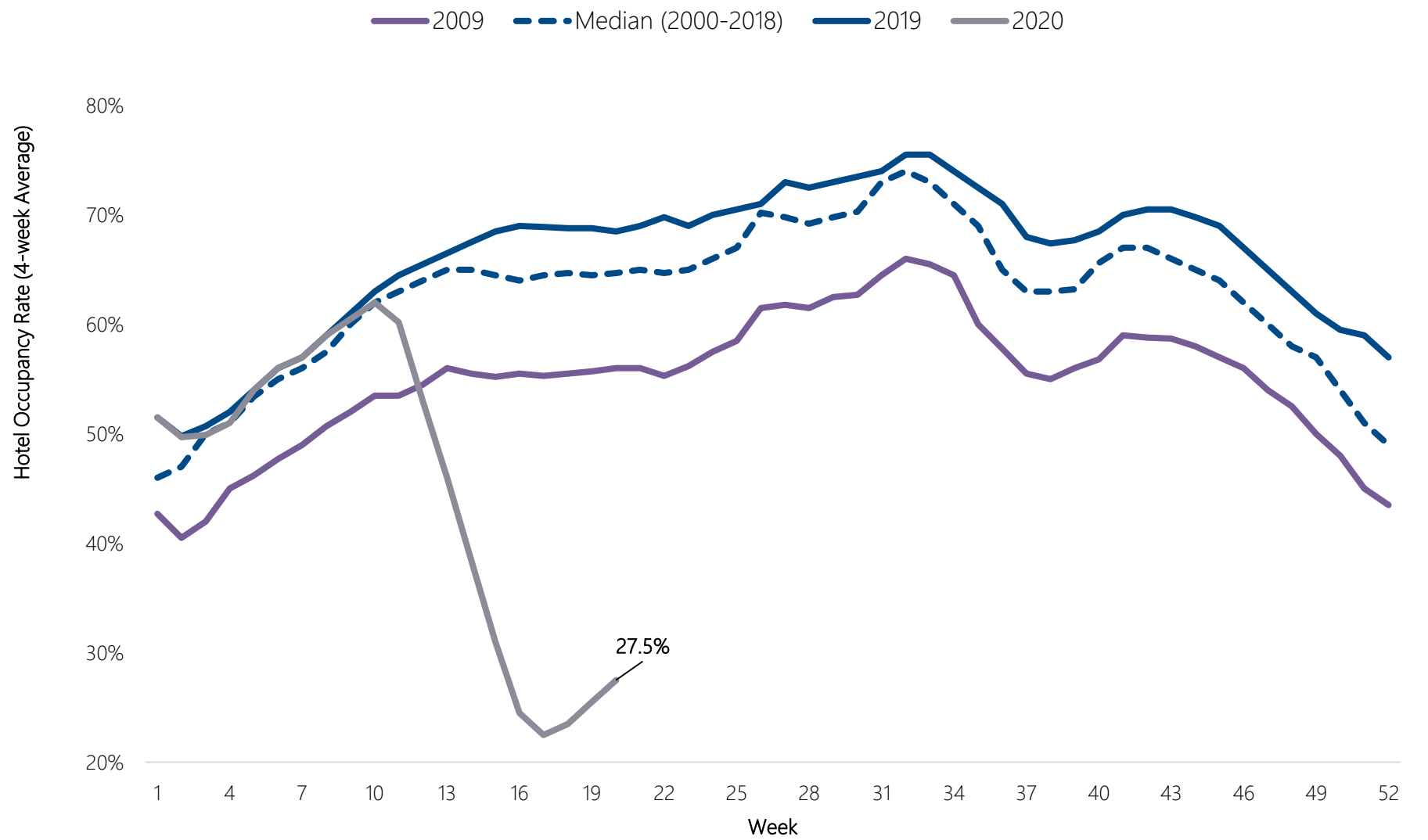
Exponential Loss Function – Economic Costs Rise Nonlinearly with Time

1. Collapse in Revenues
2. Working Capital Deficits in Household & Business Sector
3. Contraction in Employment/Capex
4. Debt Overhang - Personal Bankruptcies & Business Failures
5. Balance Sheet Repair/Increased Precautionary Savings
6. Deterioration in Government Finances Inhibits Additional Policy Response

Cumulative Economic Cost

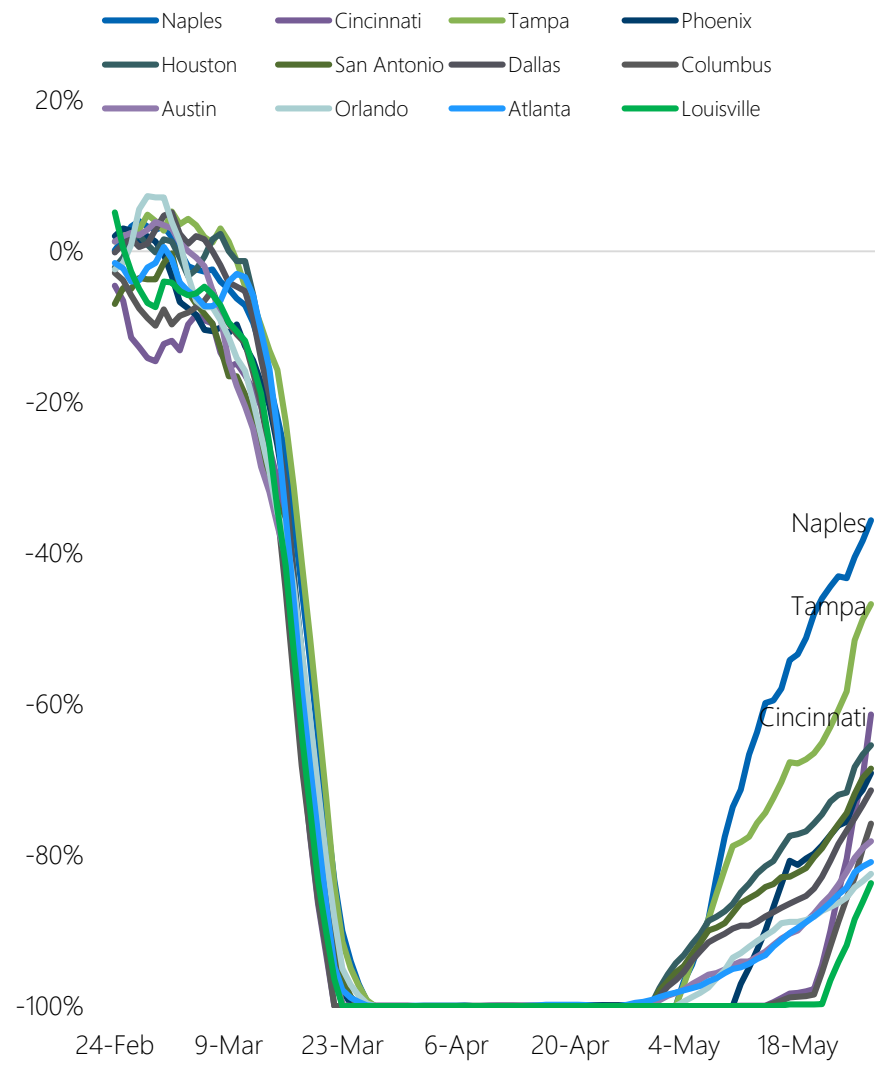
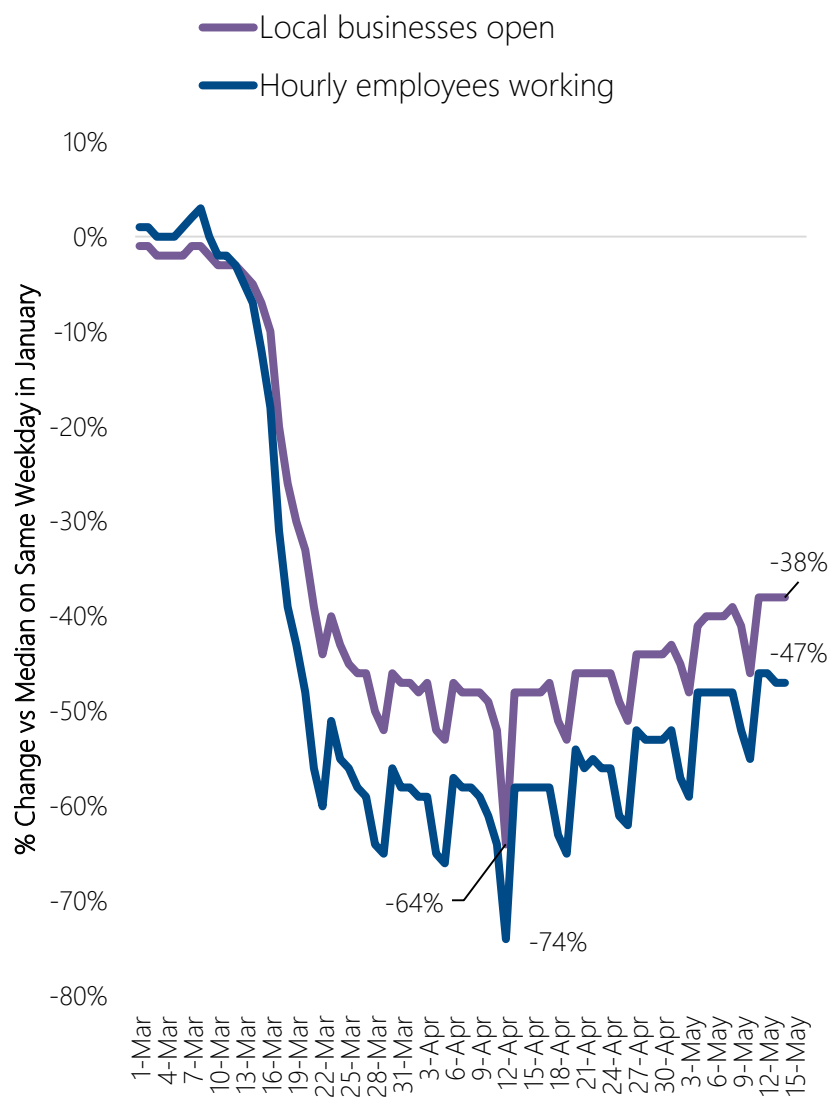
Length of Lockdown

Hotel Occupancy Rates Remain Well Below Historical Troughs, but Appear to Have Bottomed in April

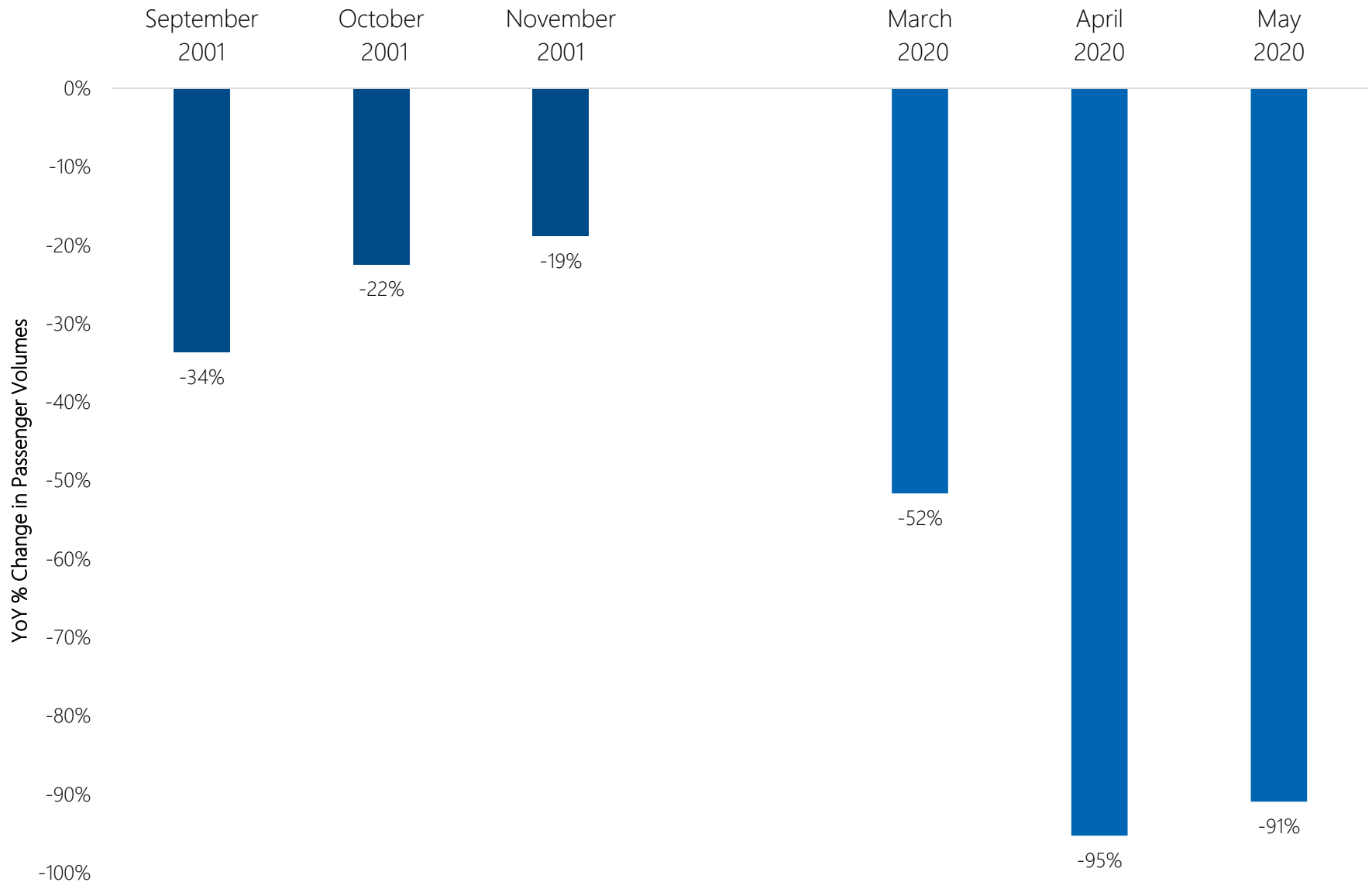


Source: STR, American Bankruptcy Institute.

More Local Businesses & Retail Open in More U.S. States

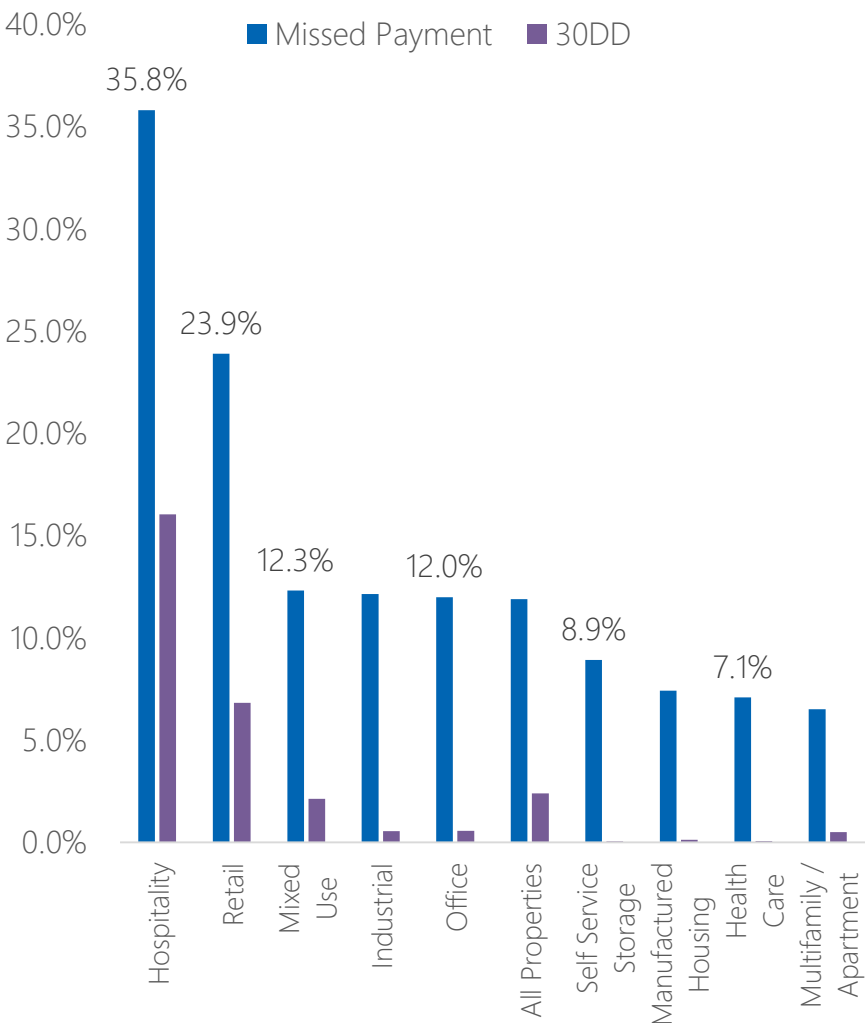


Despite Month-over-Month Improvements, Airline Passenger Volumes Remain 91% below Year-Ago Levels

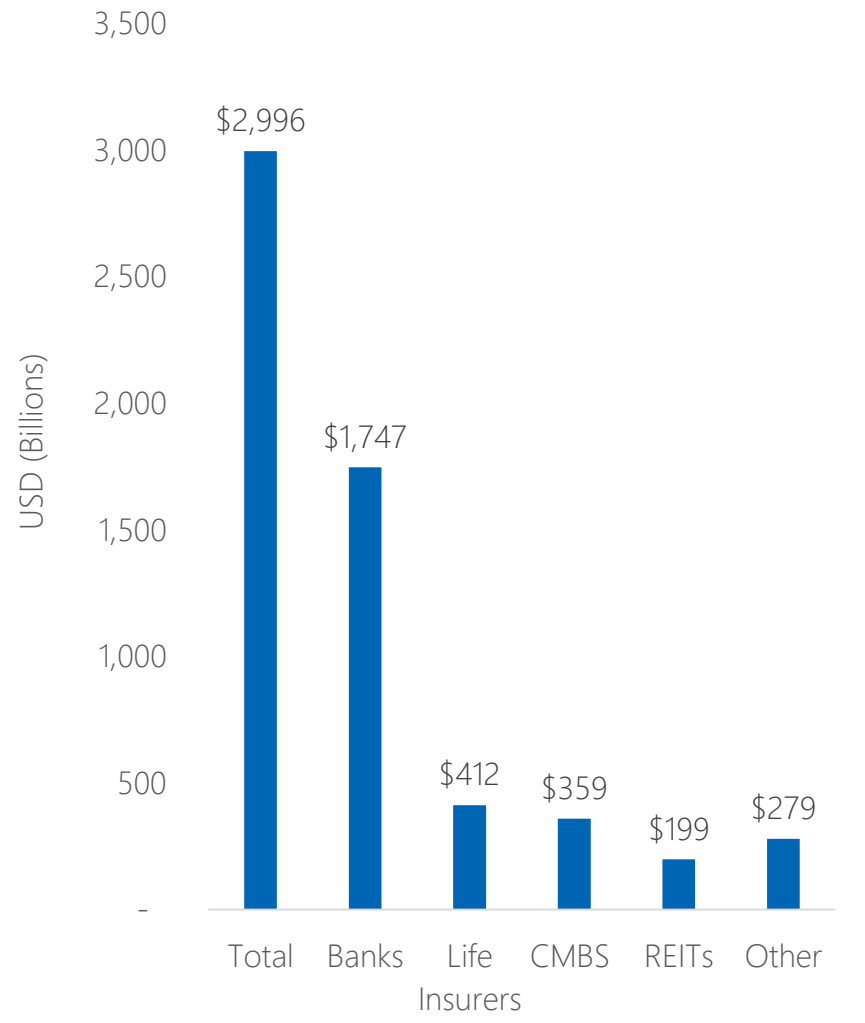


Commercial Real Estate Loans Likely to Experience Elevated Default Rates

Missed CRE Mortgage Payments by Sector



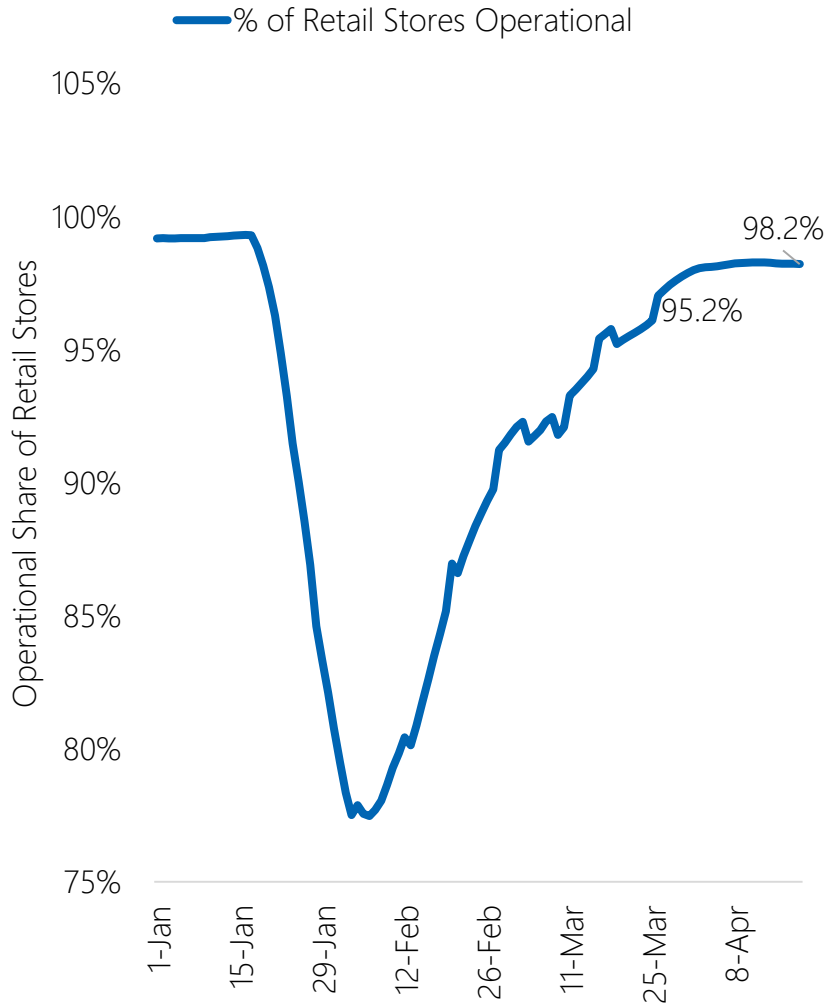
Holders of Commercial Mortgages



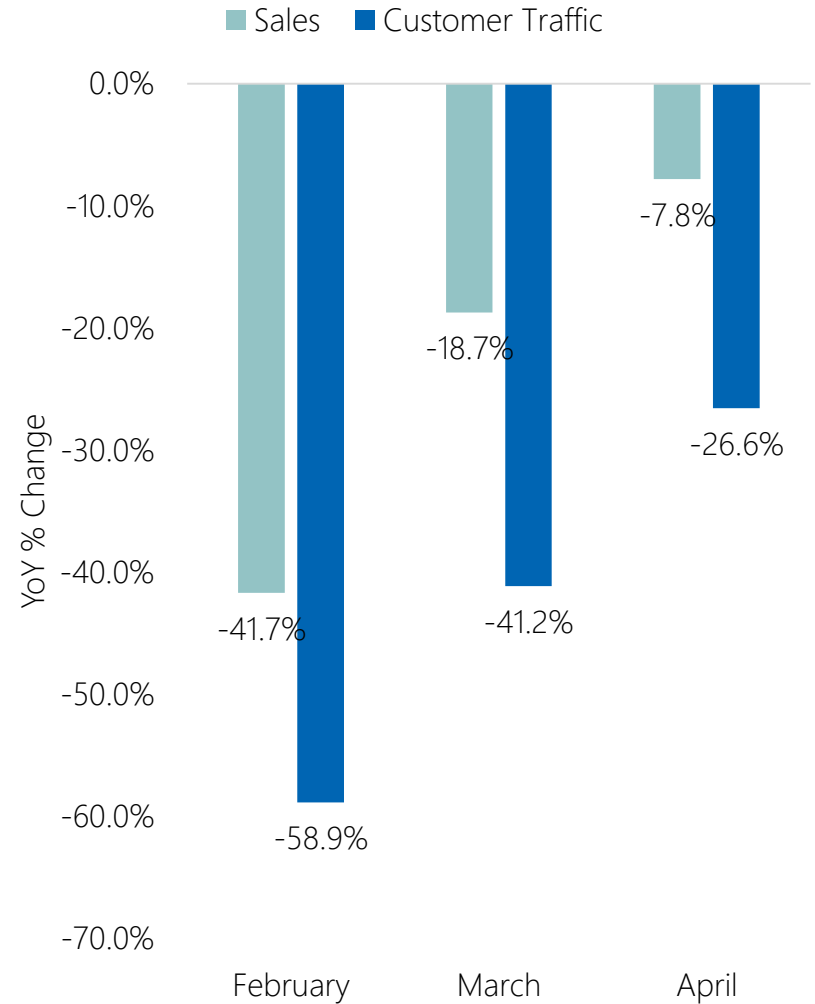
Source: Bloomberg; Federal Reserve Board, May 2020. There is no guarantee any trends will continue.

Data from China Suggest that Consumer Demand Remains Soft...

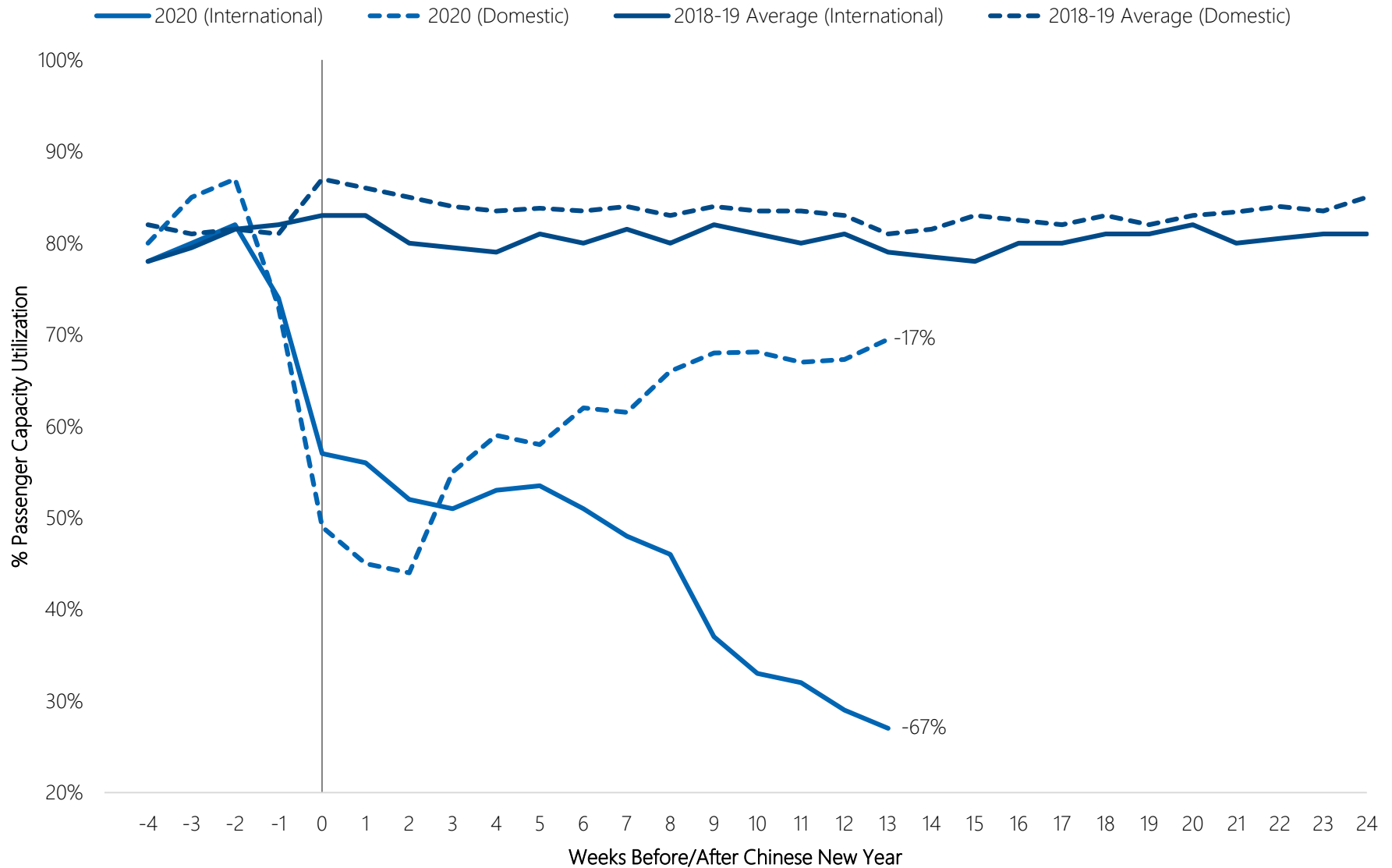
Chinese Retail Locations in Operation



Chinese Same-Store Sales & Traffic

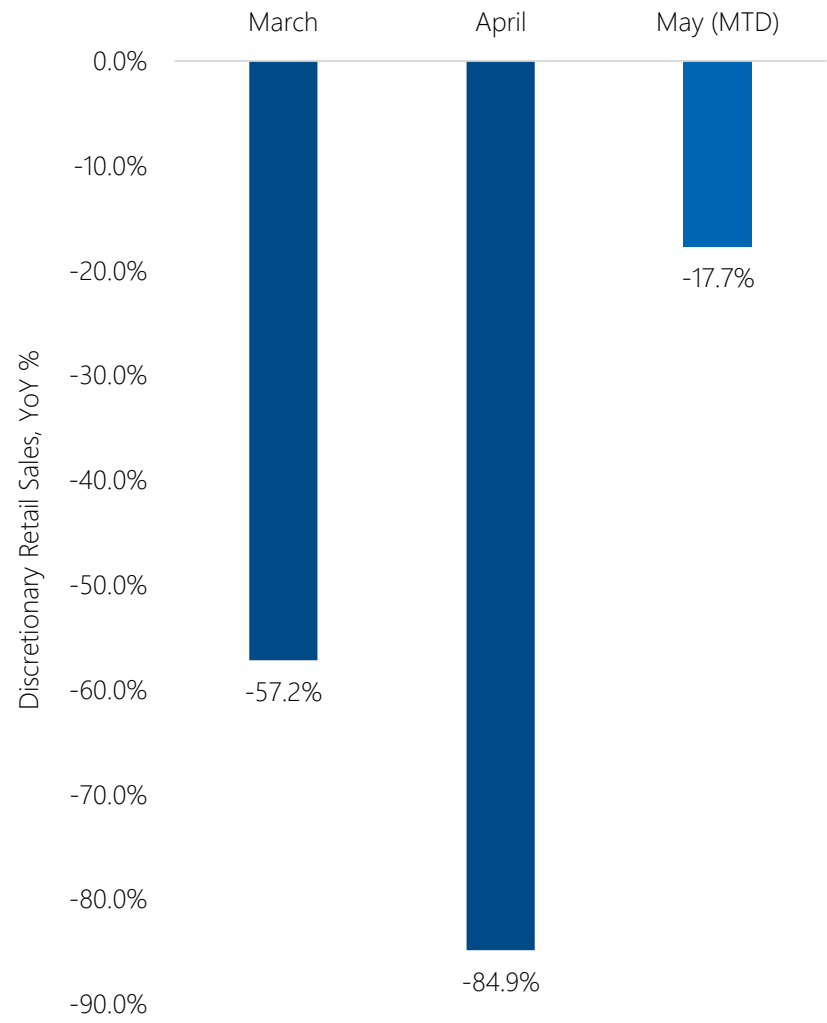


...As Consumers Tend to Remain Home to Avoid Crowds, Transit & Airports

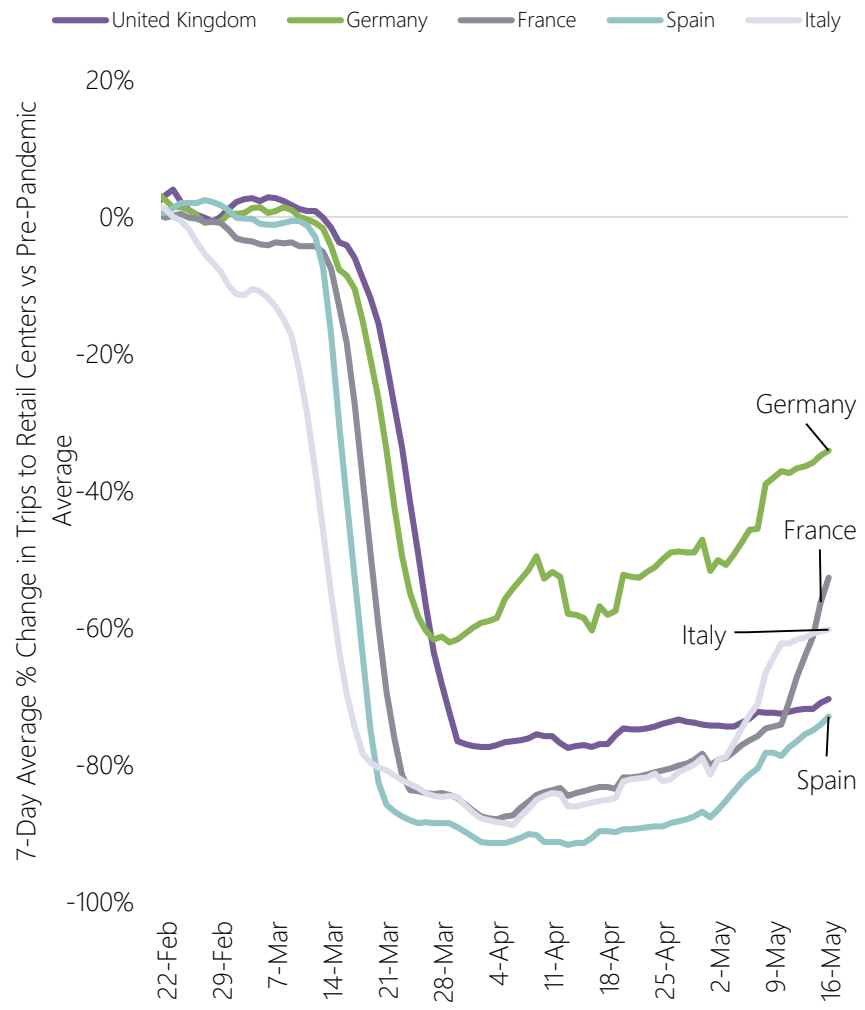


Similar Data from Europe in May

European Same-Store Sales



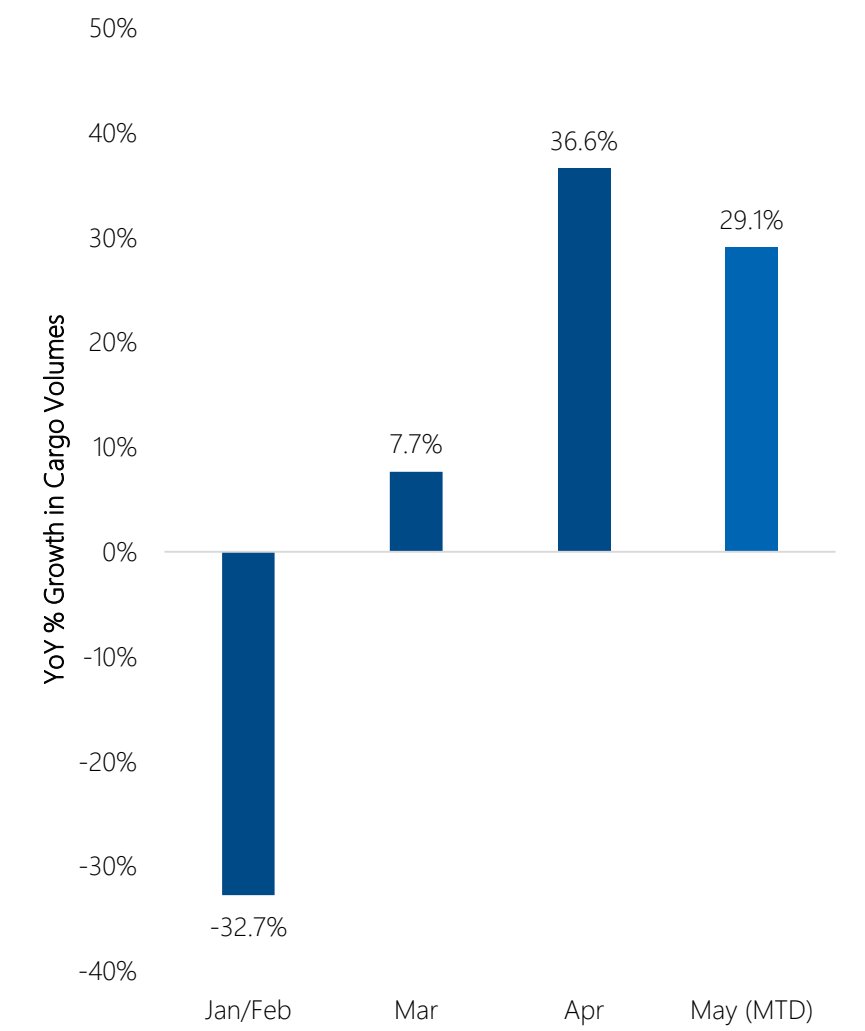
European Retail Foot Traffic



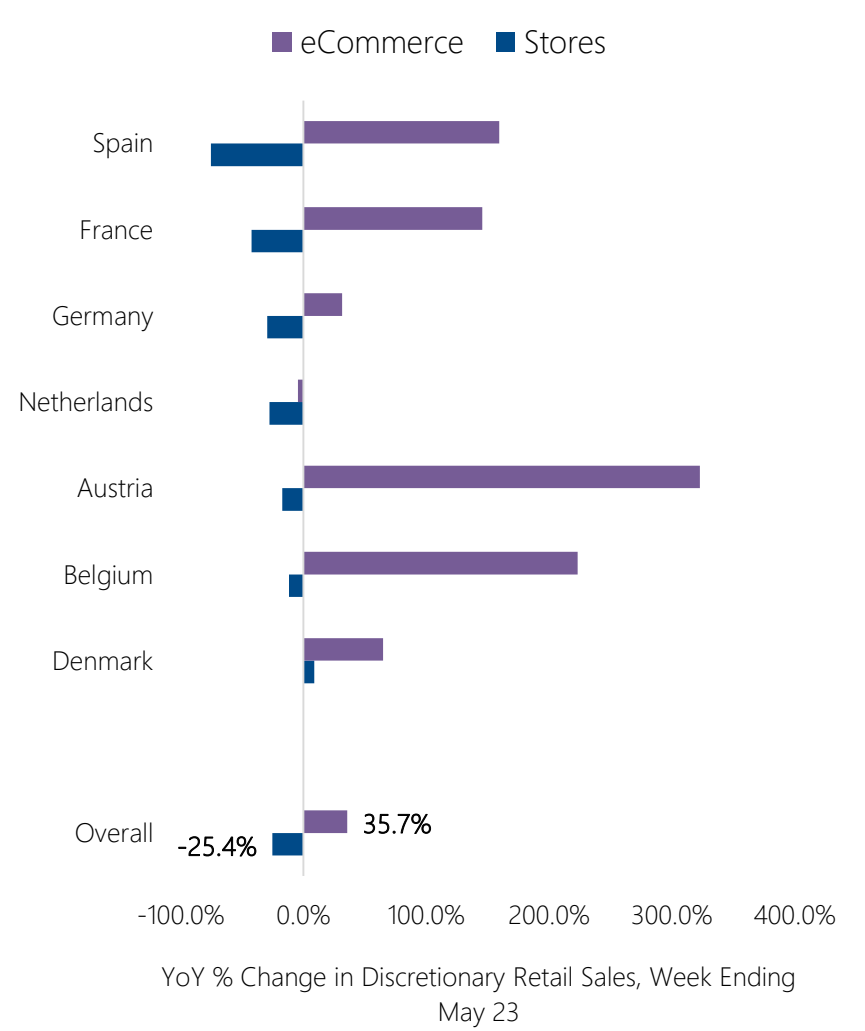
Source: Bloomberg; Federal Reserve Board, May 2020. There is no guarantee any trends will continue.

Logistics, Deliver & E-Commerce Growth Offsetting Bricks & Mortar Weakness

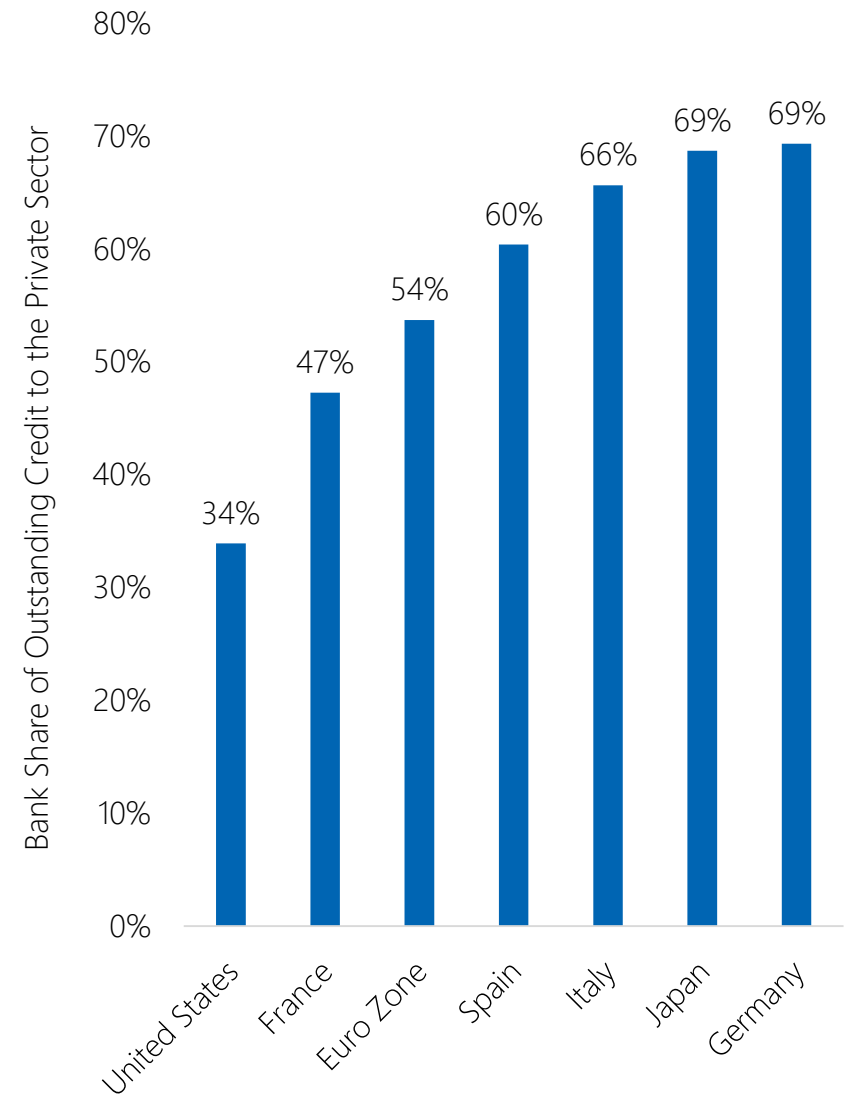
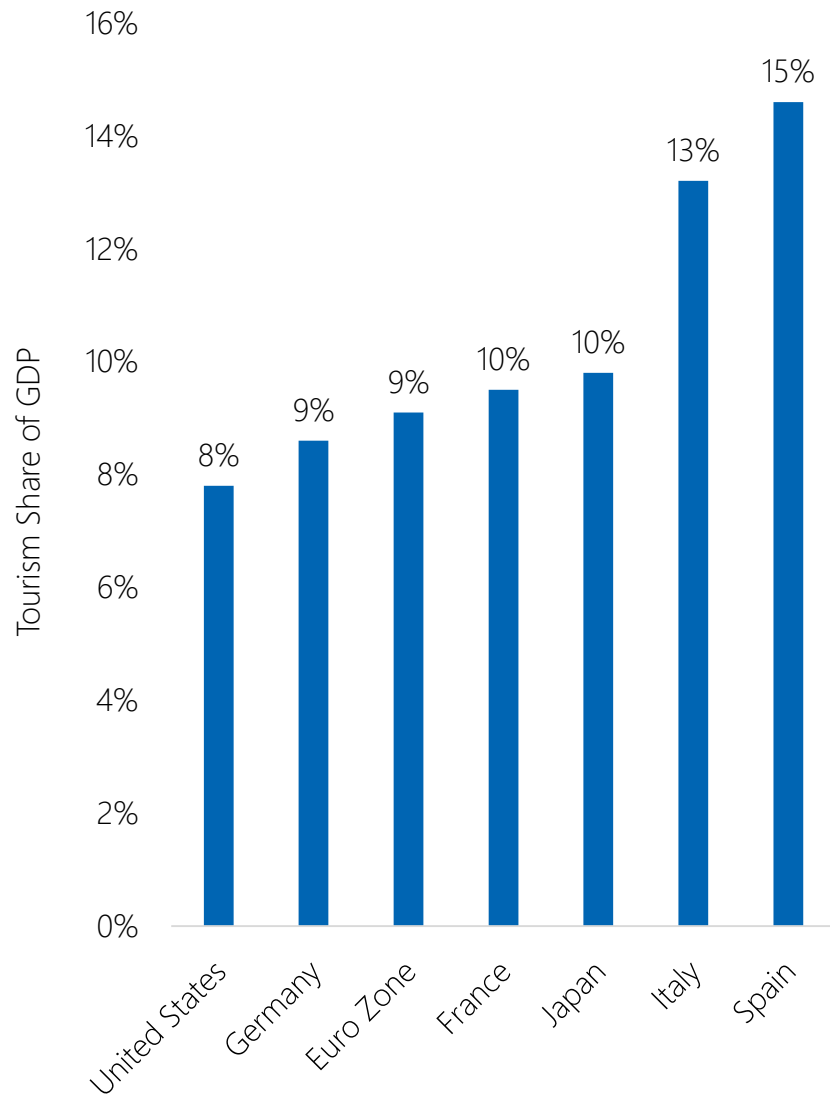
Chinese Cargo Throughput Volumes



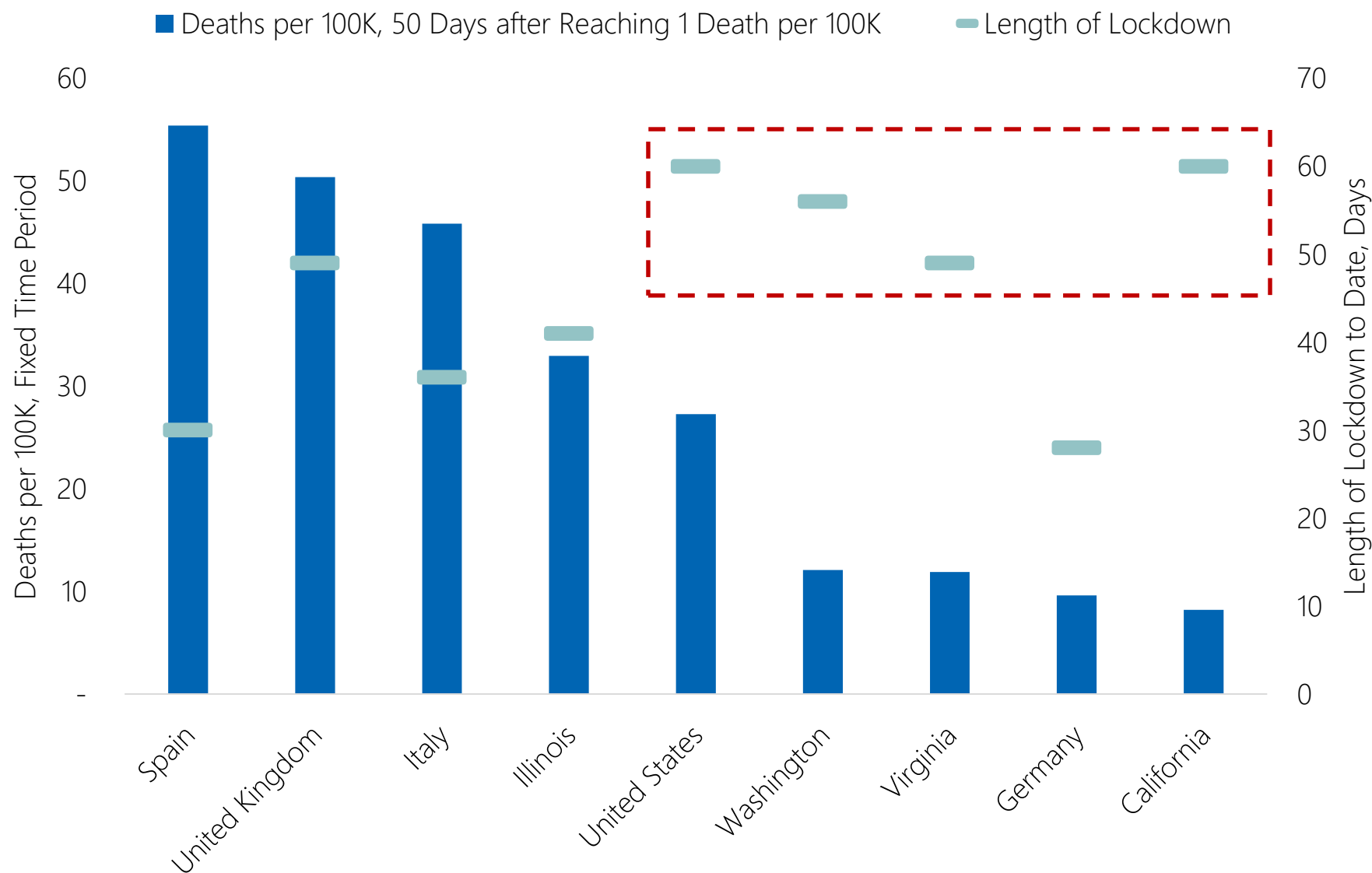
European Retail Sales Growth



A Canceled Summer Season Would Prove Especially Devastating for Southern Europe and Its Banks



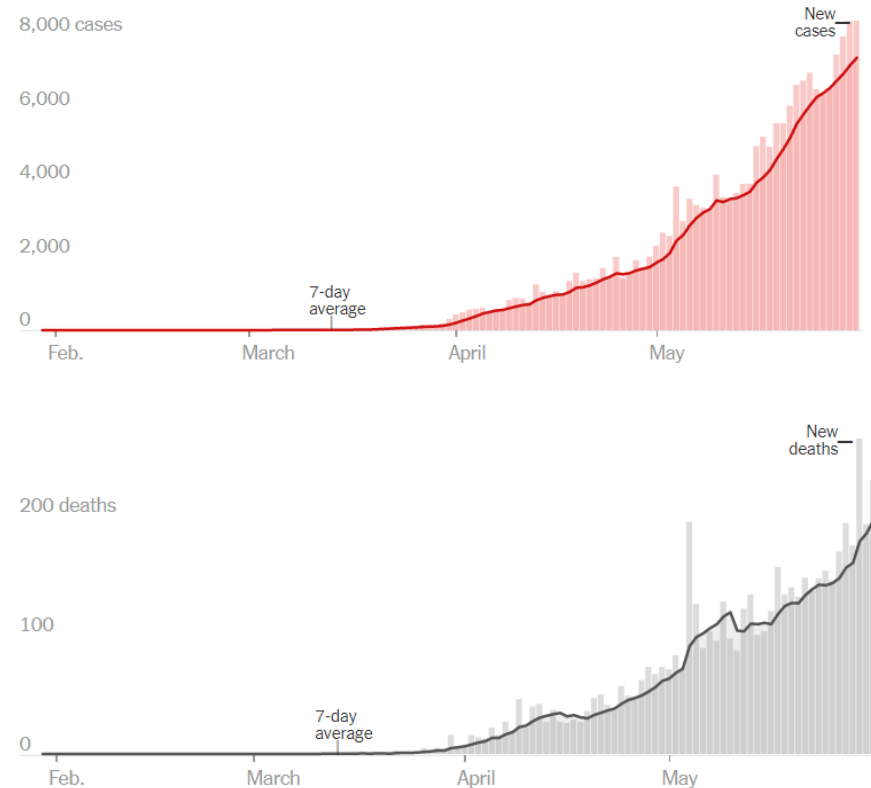
No Clear Relationship Between Lockdowns & Scale of Epidemic



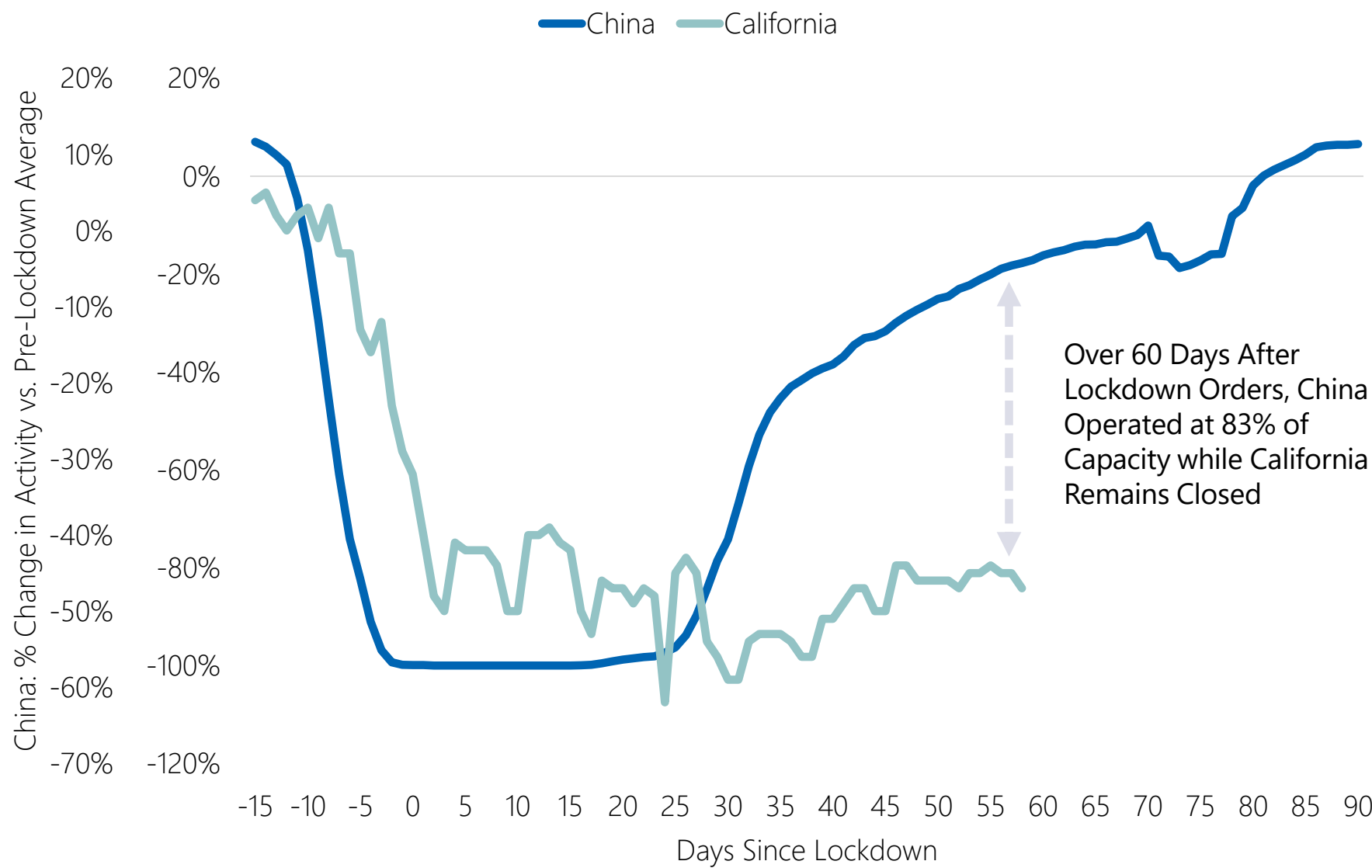
Source: Carlyle Analysis of Bloomberg Data; U.S. Chamber of Commerce, May 2020. There is no guarantee any trends will continue.

India – Continued Growth in Cases, But Low Death Rate & Much Higher Economic Costs from Lockdowns

	▼ CASES	PER 100,000	DEATHS	PER 100,000
Maharashtra	67,655	60	2,286	2
Tamil Nadu	22,333	31	173	<1
Delhi	19,844	118	473	3
Gujarat	16,779	28	1,038	2
Rajasthan	8,831	13	194	<1
Madhya Pradesh	8,089	11	350	<1
Uttar Pradesh	7,823	4	213	<1
West Bengal	5,501	6	317	<1
Bihar	3,815	4	21	<1
Andhra Pradesh	3,679	7	62	<1



Reopening in the U.S. Hasn't Occurred as Fast in Many Large U.S. States & Counties

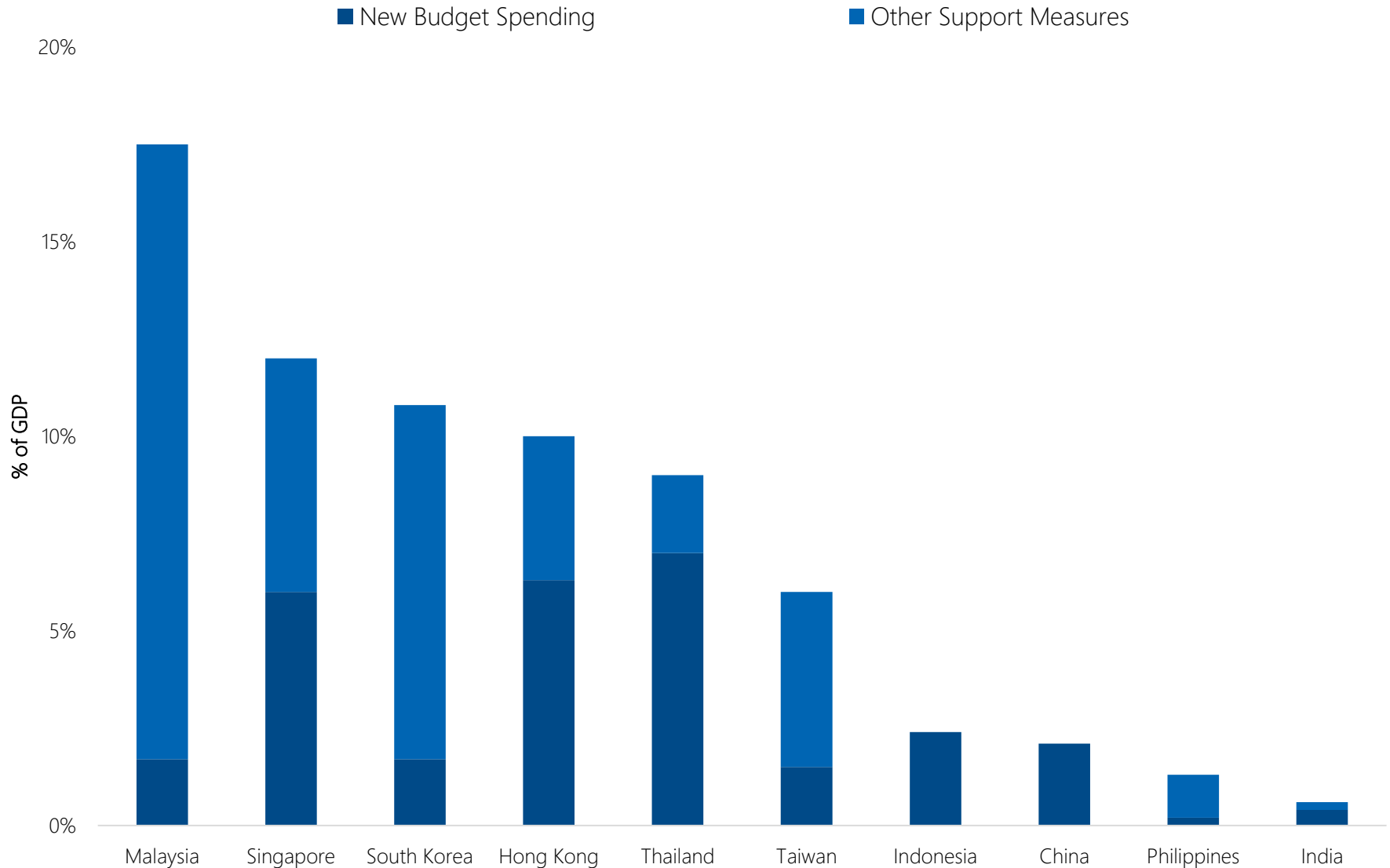


Wage Subsidy and Short-Time Work Programs Are Keeping over 20% of Labor Force Employed Across Many Major Economies, Especially Europe

Country	Protection Program	Policy Description	Official Unemployment Rate*	Estimated % of Labor Force Supported
Australia	JobKeeper Program	Employers that meet a revenue decline threshold since March 1 are eligible for reimbursement of fortnightly payments of \$1,500 per employee.	6.2%	36.4%
Canada	Wage Subsidy	Covers up to 75% of the wages of workers who would have otherwise lost their jobs, up to a total of \$847/week. Now extended through the end of June. Workers are kept on companies' payrolls.	13.0%	9.1%
France	Chômage Partiel	The state pays all or most of the salaries of unneeded workers on behalf of their employers to stave off bankruptcies and protect jobs.	8.4%	39.9%
Germany	Kurzarbeit/Short-Time Working	Businesses facing a temporary and unavoidable shortfall of orders due to a crisis can apply for the government to subsidize workers' salaries while activity is reduced or put on hold. Typically covers 60% of lost net wages, which rises to 67% for people with children. Through October, the program is allowing people who are receiving the wage support to take up additional work in "systemically relevant" occupations without any financial disadvantage.	3.5%	23.3%
Ireland	Temporary Wage Subsidy	Pays up to 85% of employees' take-home pay up to a maximum of €410 a week, and is designed to keep workers on their employers' books. The money is paid through employers, who must apply on behalf of their staff. Employers have the option to top workers' wage subsidy payment up to near their full normal take-home pay.	5.4% - 28.2%	18.3%
Italy	Cura Italia	Government established Funds will cover 80% of the total remuneration that would have been payable to an employee for hours not worked as a consequence of the Covid-19 crisis, subject to limits based on employee salaries.	8.4%	29.6%
Japan	Expanded Business-Subsidy Program	If an employer keeps a worker on the payroll at full pay, the government will cover 94% of the cost, up to about \$77 a day. Now includes part-time workers.	2.5%	N/A
Netherlands	Temporary Emergency Measure Bridging for Work Retention (NOW)	Businesses that expect a loss of turnover (at least 20%) can apply to the UWV for a salary contribution for a period of three months (maximum 90% of the wage bill, depending on the loss of turnover). UWV will provide an advance of 80% of the requested contribution.	3.4%	N/A
Spain	Expedientes de Regulacion de Empleo Temporales (ERTE)	Companies triggering ERTE are exempted from 75% of employer social contributions and up to 100% for companies with less than 50 employees. The payments to workers put on partial unemployment scheme are based on the normal unemployment insurance benefit scheme based on 70% of previous earnings. The unemployment benefit is at minimum 502 euros a month.	14.4%	17.4%
United Kingdom	Coronavirus Job Retention Scheme (CJRS)	The government will reimburse employers for 80% of 'usual monthly pay' (up to a cap of £2,500 per month per employee). Extended through October.	3.9%	29.0%
United States	1) Unemployment Insurance 2) PPP 3) Workshare/Reduced Hours	1) Expanded eligibility to now include furloughs. State-level benefits plus up to additional \$600/week from federal government through July. 2) Job-retention program covers payrolls through June and is mostly limited to small businesses with up to 500 employees. Small businesses must apply to banks for government loans, which will be forgiven if they maintain their workforce, and then wait for approval. 3) Small, state-run programs that help businesses cut costs while retaining staff. They allow companies to reduce worker hours and employees to collect prorated unemployment benefits to help offset lost wages, avoiding full layoffs.	14.7%	23.0% (PPP)

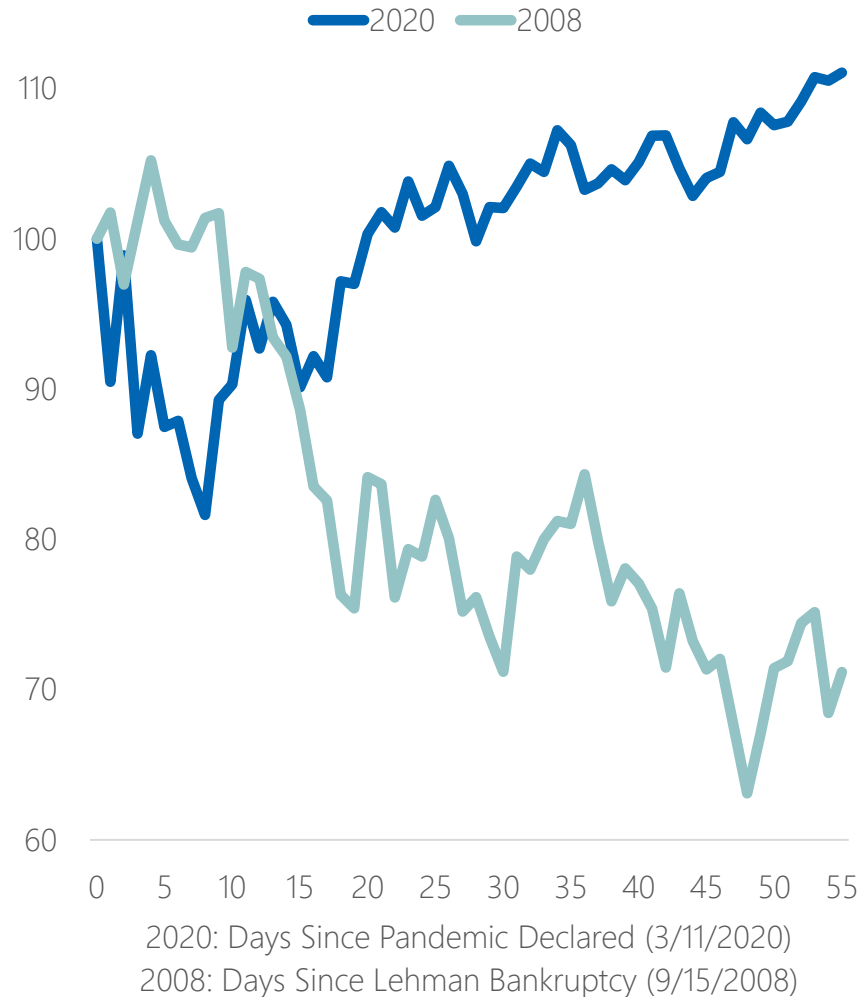
*Most recently reported figure.
Source: Carlyle, National Governments

China's Recovery has been Organic & Could Accelerate on New Stimulus Measures

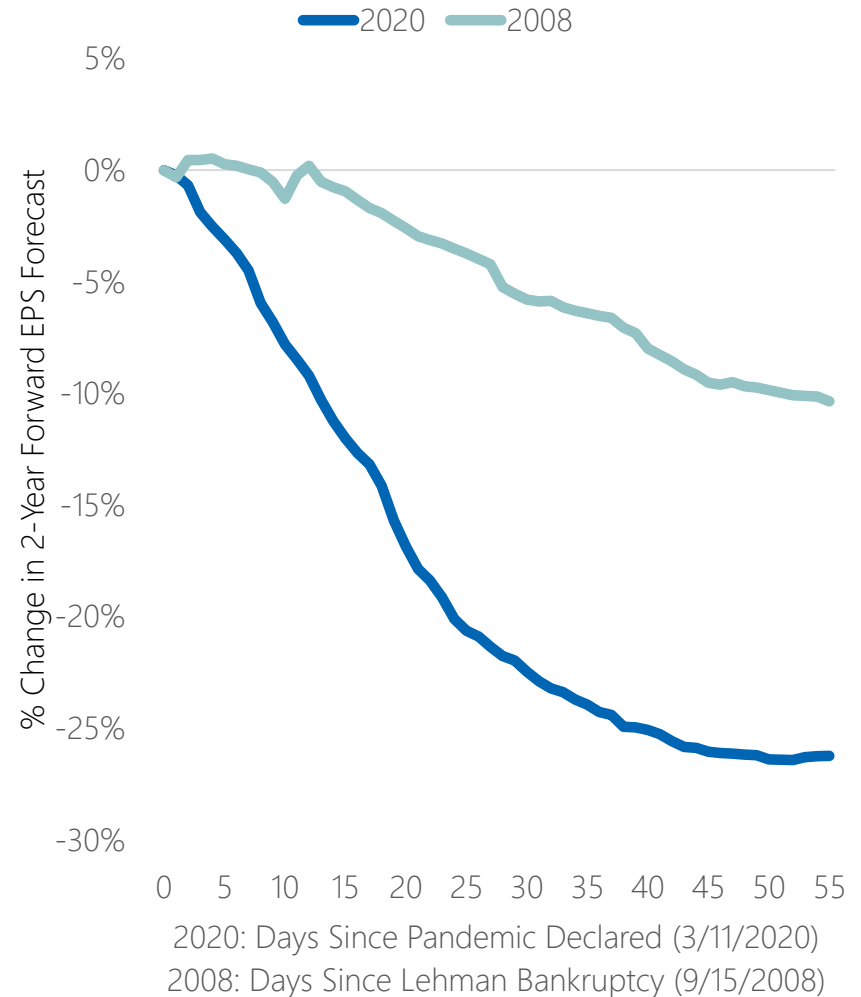


Stocks Have Returned 55% More than 2008 Despite Downward Earnings Revisions that are 2.6x Larger

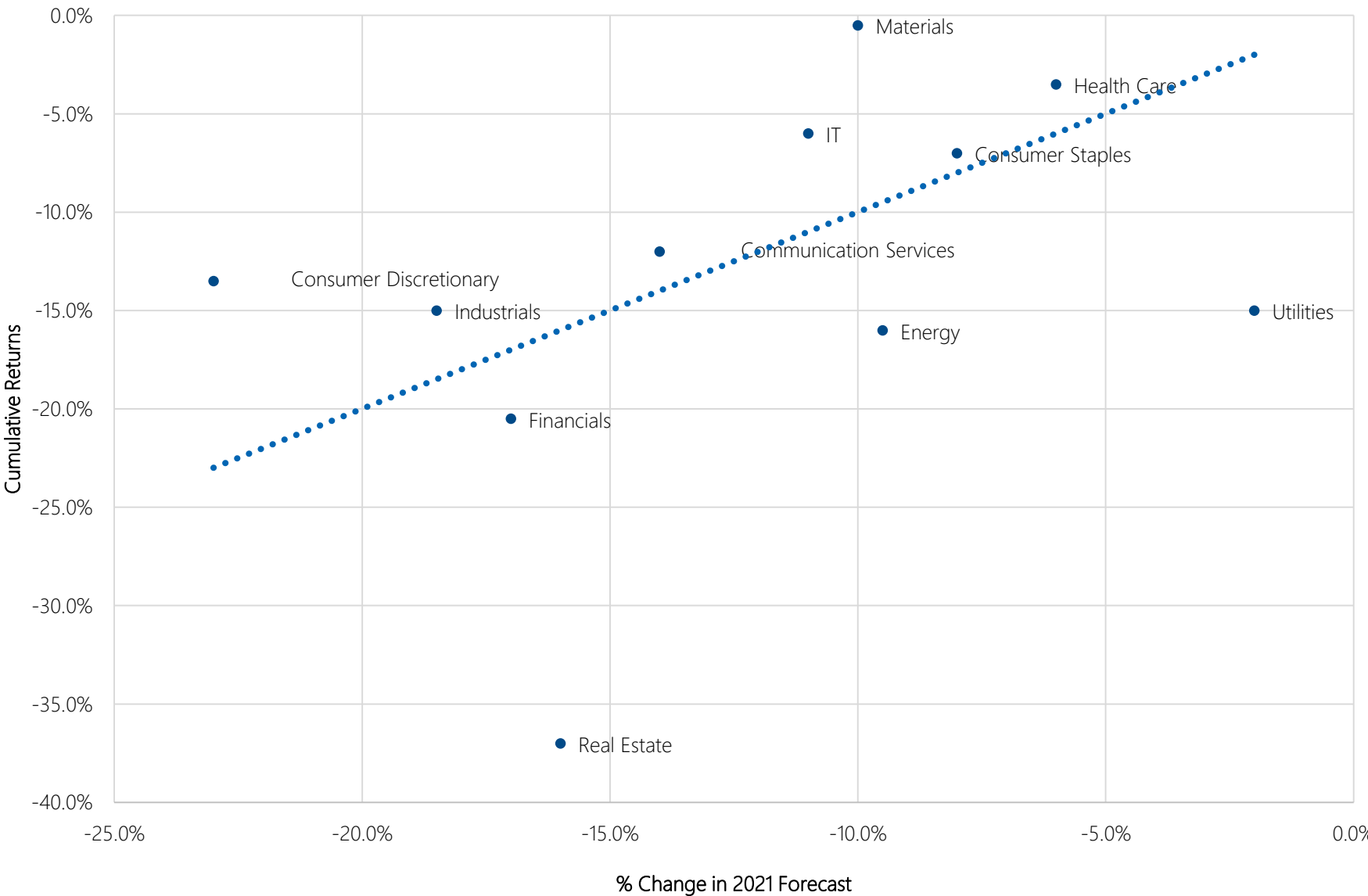
S&P 500 Returns



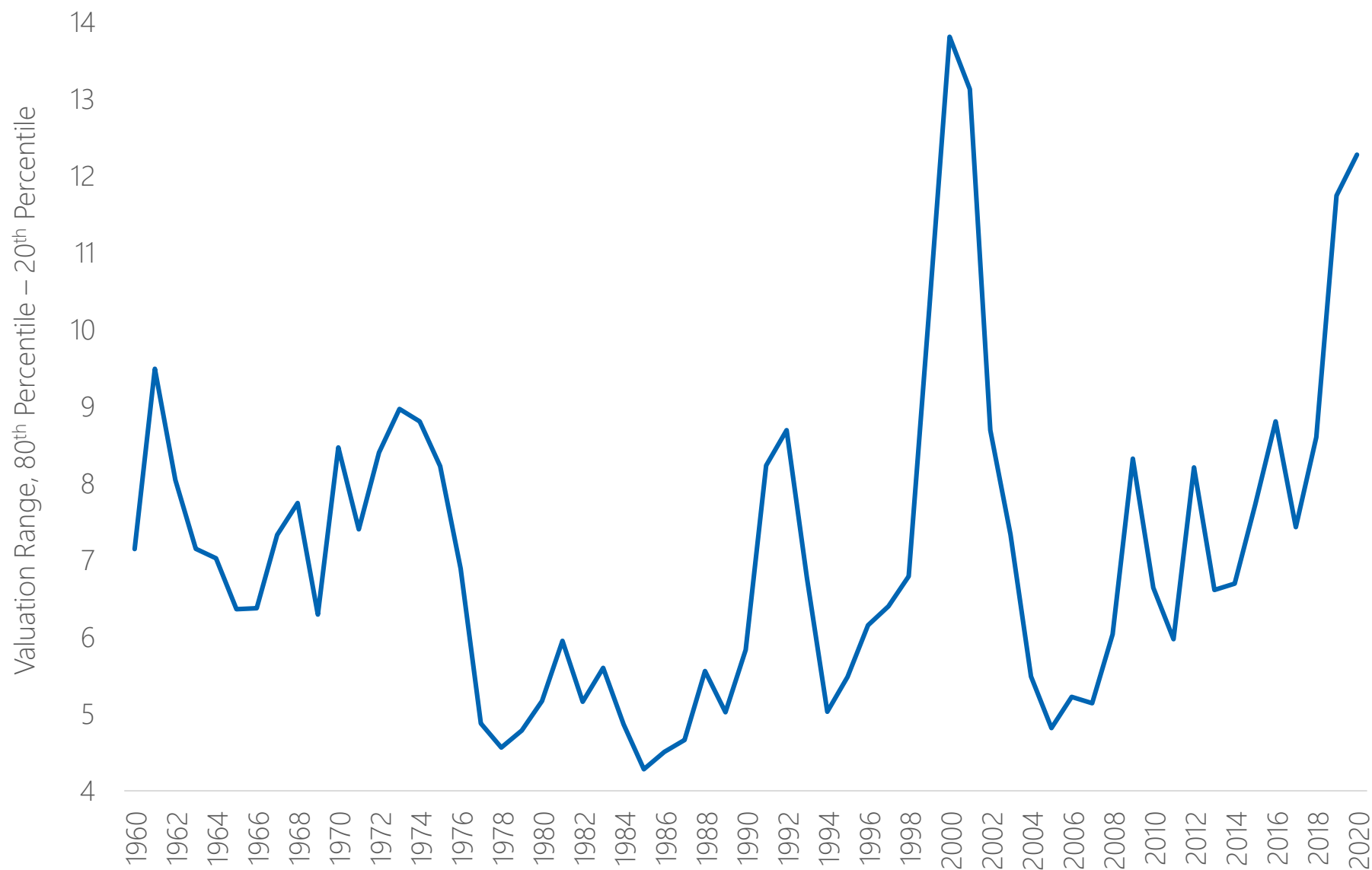
S&P 500 2-Year Forward EPS Forecasts



But Averages Can Be Misleading...

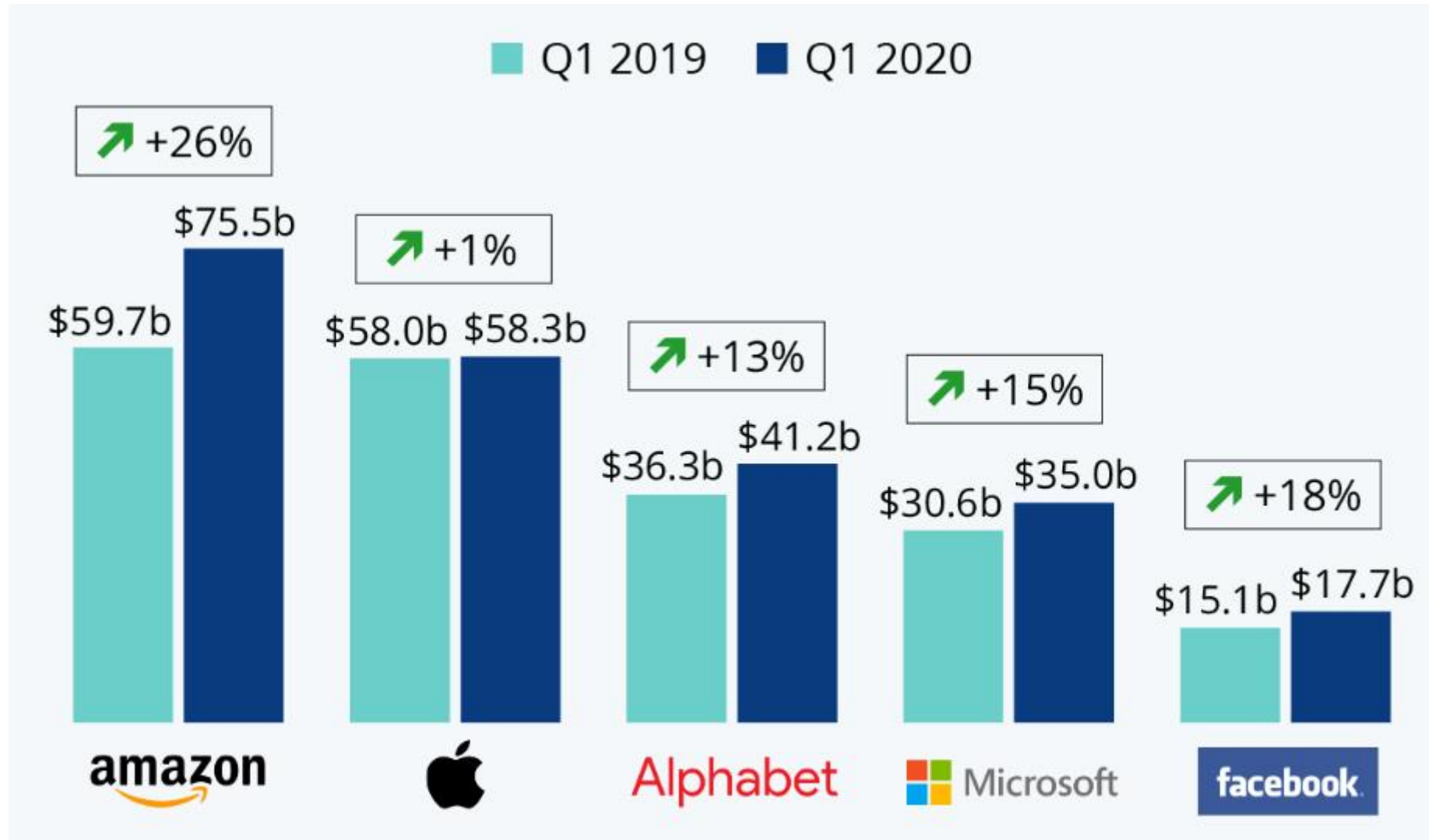


Dispersion in Valuations Nears All-Time High



Source: Carlyle Analysis of CRSP Data.

Many Tech Companies' Revenues Growth Through Crisis



Bottom Line...

1. Reopening the economy is not a luxury but an imperative.

"If You Don't Make Stuff, There Is No Stuff" - Elon Musk, May 8, 2020

2. Data from Asia & Europe suggest that the economy can rebound sharply when states fully reopen, but a full recovery looks highly unlikely this year.
3. The "experiences economy" accounts for 12% of GDP and its recovery looks to be slower & depends on (1) feelings of personal safety; (2) nature of safety regulations imposed on venues, carriers, etc.
4. Many businesses & industries are growing through the crisis and these idiosyncratic growth drivers & persistently lower interest rates will provide a boost to returns

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