

## ENERGY

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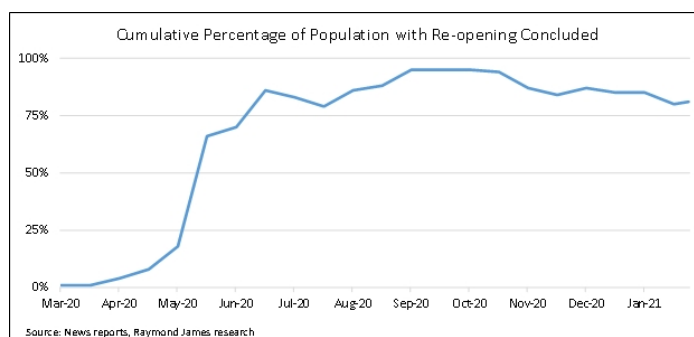
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INDUSTRY BRIEF

## Energy Stat: Global Reopening Likely Bottoming in January; Vaccine Timetables Shed Light on When "Normal" Can Resume

The oil market's backwardation — the March 2022 WTI contract is currently \$3/Bbl lower than the front-month contract - makes it easy to overlook the fact that 861 million people around the world are currently in lockdown. Recent weeks have shown that even China is not safe from lockdowns, and our global reopening tracker (with all the underlying data included in the appendix) is currently at the lowest level since August 2020. But, better days are ahead — and that emphatically applies to global oil demand, hence our [back-end-weighted oil price forecast for 2021](#). While lockdowns are far from over, **it is our contention that January marks the trough for economic reopening** - the first time in the past six months that we feel comfortable making such a prediction. Lockdown saturation in Europe, the continent that accounts for 55% of lockdowns by population, is a key reason why; and, even more importantly from a medium-term standpoint, there is rollout of vaccines. Today, in collaboration with Raymond James' biotech analyst who has closely followed [COVID vaccine development](#), we provide our latest thoughts on when things can return to, well, "normal", on a region-by-region basis. For the first time, **there is reasonable degree of visibility on the pace of vaccination**, at least in the major economies, and this — as we have been pointing out for the past six-plus months - represents the means whereby global oil demand can get back to pre-COVID levels in mid-2022.

**The global reopening tracker is ending January at 81%, the lowest level since August 2020. This equates to 861 million in lockdown, including 473 million in Europe.**

We have been writing about lockdowns since April 2020. For those readers who are interested in the historical evolution of our commentary, please refer to our monthly reports from [December](#), [November](#), [October](#), [September](#), and [August](#). As shown in the chart, the percentage of our tracker's aggregate population with reopening concluded (which we define as everything up to and including all retail and restaurants dine-in) declined from 85% at the time of our last reopening update in December to 81% currently, the lowest level since August 2020. There are currently 861 million people in lockdown.



The escalation of lockdowns over the past month is in the context of daily increases in worldwide COVID case count that have averaged a record 676,000 thus far in January. The U.S. and Europe each account for approximately one-third of the new cases. Europe is very much a mixed bag. The U.K.'s highly transmissible variant of the virus has led to the fastest rate of increase among the top ten countries by case count, with the U.K. recently becoming the fifth country to surpass the 3.0 million level. Ireland (not surprising given its open border with the U.K.), Spain, and Portugal are also very problematic, but case count increases in Europe **as a whole** have mostly stabilized since November.

While there is plenty of geographic diversity in the list of current lockdowns, Europe has been unquestionably the epicenter over the past 100 days. Of the aforementioned 861 million in lockdown, 55% are in Europe. Another way to frame what we might call Europe's lockdown saturation is the fact that of the 24 European countries in our tracker, 20 are in nationwide or partial lockdown. Simply put, given that European governments have shown a high propensity to resort to lockdowns - more so than in any other region — there is almost nothing else left to lock down! This is a key reason for why we think the worldwide total of lockdowns will subside after January, with February better than January, and March better than February. That said, some lockdowns will assuredly continue well into the spring months.

Lockdowns and Re-openings: Summary Population	
<b>Asia and the Pacific</b>	2,269,300,000
Of which: re-opening concluded	2,236,500,000
<b>Europe</b>	690,100,000
Of which: re-opening concluded	217,000,000
<b>U.S.</b>	321,800,000
Of which: re-opening concluded	226,600,000
<b>Americas ex-U.S.</b>	550,500,000
Of which: re-opening concluded	370,800,000
<b>Middle East and Africa</b>	636,300,000
Of which: re-opening concluded	555,700,000
<b>Total</b>	<b>4,468,000,000</b>
<b>Of which: re-opening concluded</b>	<b>3,606,600,000</b>

Source: News reports, Raymond James research

**Please read domestic and foreign disclosure/risk information beginning on page 14 and Analyst Certification on page 14.**

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All four of Western Europe's most populous countries and largest economies have been in lockdown since October/November 2020: Germany (84 million); France (67 million); the U.K. (66 million); and large parts of Italy (60 million); joined more recently by large parts of Spain (47 million). Outside Europe, the main contributors are large parts of Mexico (129 million); large parts of Algeria (44 million); large parts of California (40 million); large parts of Malaysia (33 million); large parts of New York State (19 million); large parts of Chile (19 million); Ontario, Canada (15 million); and Zimbabwe (15 million). We also note that numerous cities in China have been in lockdown over the past month — reaching close to 30 million people at one point — which underscores that even the country that ostensibly defeated COVID nearly a year ago is **not** immune from sudden outbreaks and resulting government measures.

The fact that the Northern Hemisphere is nearing the midpoint of winter, and warmer weather is around the corner for 90% of the world's population, is **not** the basis for our prediction that January marks the trough for economic reopening. Because of what is happening in the Southern Hemisphere — which is nearing the height of summer — it is abundantly clear that warm weather does **not** automatically equate to low infections. Brazil and South Africa — alongside the U.K., the two other countries that identified new virus variants over the past month — currently have case count increases at record levels, and so does Indonesia. Furthermore, there are earlier-stage outbreaks in relatively warm countries such as Zimbabwe and Namibia (neighbors of South Africa), Uruguay, Panama, and Malaysia.

**Now that actual shots are going into actual arms, the timing of vaccination is no longer a pure guess - though the path towards herd immunity and post-pandemic life will be long and difficult.**

As we did in November and December, we collaborated with our healthcare colleagues in writing this report. The stark reality is that it will take a long time before a sufficiently large proportion of the global population can get access to vaccines for "normal life" (however that is defined) to be restored — and "normal" very much includes transportation and travel patterns. It is impossible to forecast the trajectory of global oil demand in 2021 without a sense of how vaccination will proceed. Compared to a month ago, which the first vaccines were approved, there is substantially better visibility on the pace of vaccination.

As shown in the adjacent table, the U.K. and U.S. are currently the leaders among major economies (G20 countries) in vaccination doses per capita. Looking more broadly, Israel is the global leader on this metric. (These numbers are **not** equivalent to vaccine coverage — percentage of population that has been fully vaccinated — because most of the vaccines require two doses.) But rather than watching what can seem like a "horse race" between countries over who can do this faster, what we ought to be thinking about is when herd immunity can be achieved.

Herd immunity is usually defined as 70-80% vaccine coverage. The challenge of forecasting timing for herd immunity arises from the fact that it will depend on how many people **choose** to get a vaccine, which is an evolving situation. While it is impossible to precisely anticipate the preferences of individuals — opinion polling on this issue is rather unreliable — what is more clear-cut is when the current rationing-type system of prioritizing high-risk groups will be in the rearview mirror, i.e. when supply *per se* will no longer be a constraint. With this in mind, we have divided the world into four categories, and this analysis provides the background for our view that it will be mid-2022 before global oil demand can get back to 100 million bpd, where it was pre-COVID.

**Countries that can realistically reach herd immunity in 3Q21 (40% of pre-COVID oil demand).** In this category are most OECD countries - the U.S., Canada, and essentially all of Western Europe — as well as Russia. All of these countries have large-scale domestic vaccine manufacturing and/or plentiful access to imported vaccines, and vaccination is underway, though at greatly varying speeds.

**Countries that can realistically reach herd immunity in 4Q21 (12% of pre-COVID oil demand).** This category comprises those OECD countries where vaccination has not yet started, the main ones being Japan, South Korea, and Australia. They are approximately three months behind the rest of the OECD.

	Date of Initial Vaccination	Doses per 100 People as of 1/22/2021	Government Target for Vaccine Coverage	Oil Consumption in 2018 (Mbpd)
Argentina	12/29/2020	0.59		719
Australia	Mar-21		15% in early 2021	1,181
Brazil	1/16/2021	0.09	25% in first half of 2021	3,063
Canada	12/20/2020	1.96	Most by October 2021	2,525
China	12/31/2020	1.04		13,888
France	1/4/2021	1.26	EU: 70% by summer 2021	1,688
Germany	12/27/2020	1.67	EU: 70% by summer 2021	2,333
India	1/15/2021	0.08	25% by August 2021	4,765
Indonesia	1/13/2021		16% by May 2021	1,706
Italy	12/27/2020	2.12	EU: 70% by summer 2021	1,272
Japan	Feb-21			3,786
Mexico	12/24/2020	0.43		2,015
Russia	12/22/2020	0.69	30% in first half of 2021	3,562
Saudi Arabia	1/6/2021	0.85		3,079
South Africa	First half of 2021			674
South Korea	Feb-21			2,567
Turkey	1/13/2021	1.33	60% by summer 2021	958
U.K.	12/20/2020	8.01	21% by February 2021	1,608
U.S.	12/20/2020	5.30	30% by April 2021	20,512

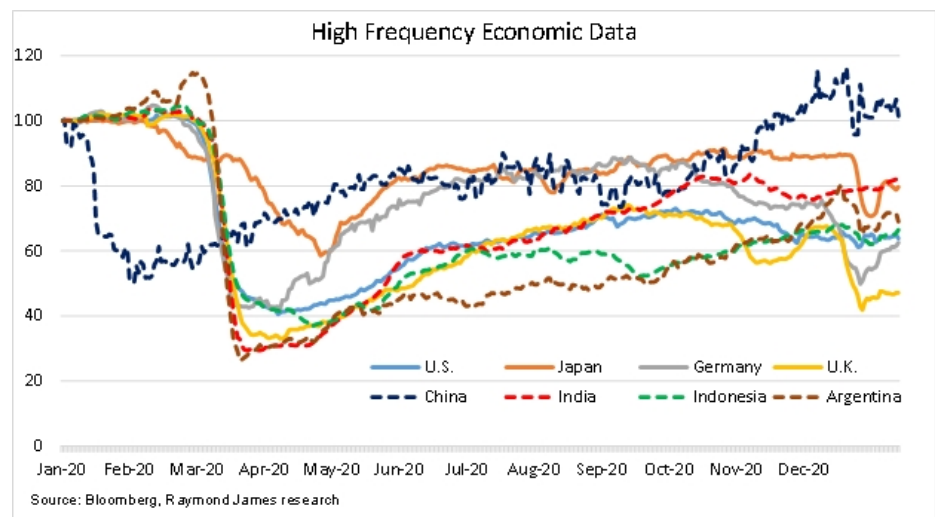
Source: Our World In Data, EIA, Raymond James research

**Countries that can realistically reach herd immunity in the first half of 2022 (40% of pre-COVID oil demand).** Other than Russia, non-OECD countries are unlikely to be able to reach herd immunity in 2021, though for different reasons. China has an extremely low level of COVID case count (well, at least based on official statistics). Thus, mass vaccination is **not** an urgent priority for the government, notwithstanding the localized outbreaks mentioned earlier. India, which is #2 globally in case count, even as new infections have fallen to seven-month lows, aims to move with greater speed, but that is counterbalanced by the scale of its population (especially in rural areas), along with generally limited healthcare system resources. In contrast to China and India, the middle-income countries of South America, Southeast Asia, and the Persian Gulf have slim vaccine manufacturing, but they have access to imports (albeit not to the extent of OECD countries).

**All other countries (8% of pre-COVID oil demand).** The greatest challenge will be faced by those developing countries that lack domestic vaccine manufacturing as well as the funding for imports on a normal commercial basis, making them reliant on the COVAX consortium (which we wrote about in December) or other non-profit sources. According to the World Health Organization, only 25 people (yes, literally) in the entire grouping of countries classified as low-income were vaccinated as of mid-January. The African Union has ordered 270 million doses, which covers just over 10% of the continent's population. Despite the large population base of this category, economic strength is low, and thus oil demand is modest.

**Counterintuitively, traffic data shows improvement from December to January, though it remains to be seen how durable this will be.**

As have done in previous reopening updates, let's take a look at Bloomberg's high frequency economic data, which aggregates a wide range of metrics, such as credit/debit card use, economic releases, and road traffic. Despite lockdowns escalating from December to January, the data actually shows improvement in most geographies, with an especially strong rebound in Germany. China remains the only major economy that has surpassed the pre-pandemic baseline, followed rather distantly by India and Japan.



Vis-a-vis traffic specifically, all regions except the U.S. improved from December to January, with Europe improving the most. That said, continental and even national generalizations are of limited use: traffic remains very much a mixed bag as we look city by city. The general pattern is that traffic recovery tends to be the strongest in places where COVID metrics have been less problematic, all else being equal, though it is by no means the only factor. For example, Mumbai, Jakarta, and Jeddah are 10-20% below the historical average; whereas Johannesburg is broadly in line with the historical average, and Moscow is actually above average.

Traffic Congestion vs. Average in Cities with Current or Former Lockdowns					
	30-Apr-20	25-Jun-20	24-Sep-20	30-Dec-20	21-Jan-21
<b>Asia and the Pacific</b>					
Regional Median	-28%	-25%	-18%	-7%	-6%
Busiest Traffic vs. Average	Sydney	Auckland	Wuhan	Kuala Lumpur	Manila
Weakest Traffic vs. Average	Manila	Mumbai	Manila	Jakarta	Bangkok
<b>Europe</b>					
Regional Median	-16%	-5%	-4%	-11%	-4%
Busiest Traffic vs. Average	Copenhagen	Kyiv	Vienna	Kyiv	Moscow
Weakest Traffic vs. Average	Moscow	London	Moscow	Bucharest	Dublin
<b>U.S.</b>					
Regional Median	-9%	-8%	-8%	-6%	-6%
Busiest Traffic vs. Average	Richmond	Providence	Richmond	Milwaukee	Louisville
Weakest Traffic vs. Average	New York City	Los Angeles	Los Angeles	Los Angeles	New York City
<b>Americas ex-U.S.</b>					
Regional Median	-29%	-25%	-20%	-14%	-11%
Busiest Traffic vs. Average	Calgary	Calgary	Calgary	Calgary	Montreal
Weakest Traffic vs. Average	Bogota	Lima	Lima	Sao Paulo	Bogota
<b>Middle East and Africa</b>					
Regional Median	-21%	-16%	-19%	-13%	-12%
Busiest Traffic vs. Average	Ankara	Johannesburg	Johannesburg	Ankara	Johannesburg
Weakest Traffic vs. Average	Riyadh	Riyadh	Tel Aviv	Tel Aviv	Tel Aviv

Source: TomTom, Raymond James research

## Appendix: Lockdowns, Economic Reopenings, and Traffic Data for 92 Countries

To clarify, we use the term lockdown as shorthand for mandatory closures of all or most non-essential businesses, whether or not the jurisdiction imposed a stay-at-home order. Our tracker's focus is on businesses, **not** schools/universities or government agencies. We define conclusion of reopening as everything up to and including all retail stores and restaurant dining rooms, for at least a substantial portion of any given jurisdiction. The "up to" part encompasses the economy's low-personal-contact sectors: for example, ground transport, construction, manufacturing, professional services, certain types of retail, and outdoor seating at restaurants. There are phases even beyond what our tracker includes — particularly entertainment venues such as bars, theaters/cinemas, stadiums, and convention centers — but our focus is on the extent to which ordinary, day-to-day economic life is allowed to function normally. We are **not** including relatively minor business restrictions such as mandatory closing times or capacity limits in our tracker - our focus is on measures with substantial impact on the economy. Also **not** included are very brief lockdowns (three days or less), commonly implemented over weekends. The full dataset in Excel format is available upon request.



COVID Lockdowns (Non-Essential Business Closures) and Re-openings in Asia and the Pacific																
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	24-Apr	28-May	25-Jun	Traffic Congestion vs. Average							
						30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan				
Wuhan, China	11,100,000	23-Jan-20	8-Apr-20	April 8: ground transport, all businesses	8-Apr-20	-16%	-11%	-4%	-7%	-5%	-3%	-7%	-6%	-1%	0%	
Rest of Hubei, China	48,100,000	Various	25-Mar-20	March 25: ground transport, all businesses	25-Mar-20											
Luzon, Philippines	57,500,000	17-Mar-20	1-May-20	May 1: construction, manufacturing, offices, most retail, restaurants to-go (most provinces); May 16: construction, manufacturing, offices, most retail, restaurants to-go (all other provinces), all retail (most provinces); June 1: all retail (all other provinces); June 2: restaurants dine-in (most provinces); June 15: restaurants dine-in (all other provinces); July 15 to 29: reversal of earlier reopening for restaurants dine-in (Navotas); August 4 to 18: reversal of earlier reopening (Manila and four provinces)	19-Aug-20	-77%	-71%	-51%	-43%	-49%	-53%	-43%	-35%	-17%	6%	
				May 4: all businesses except some entertainment venues; September 29 to November 23: reversal of earlier reopening (parts of Lahad Datu, Tawau, Kunak, and Semporna); October 7 to November 23: reversal of earlier reopening (parts of Kota Kinabalu, Penampang, and Putatan); January 13 to 21: reversal of earlier reopening (eight out of 16 regions); January 22 to February 3: reversal of earlier reopening (15 out of 16 regions)		-43%	-31%	-25%	-20%	-16%	-15%	-33%	-25%	1%	-8%	
Malaysia	32,800,000	18-Mar-20	4-May-20	April 20: construction, manufacturing, auto sales; May 11: retail, hair salons; May 18: restaurants; July 5 to August 16: reversal of earlier reopening	17-Aug-20											
Kazakhstan	18,800,000	Various	20-Apr-20	April 20: export industries (varies by province); May 11: all businesses except restaurants and entertainment venues; May 26: restaurants; October 4 to 29: reversal of earlier reopening (parts of Western Province); October 30 to November 8: reversal of earlier reopening (all of Western Province); November 9: reversal of earlier reopening (parts of Western Province)	9-Nov-20											
Sri Lanka	21,400,000	20-Mar-20	20-Apr-20	April 27: non-essential medical offices; May 11: outdoor seating at restaurants (South Australia); May 13: outdoor recreation (Victoria), May 15: restaurants (New South Wales); May 16: restaurants, hair salons (Queensland); May 18: restaurants (Western Australia, Tasmania); May 22: restaurants (South Australia); June 1: restaurants (Victoria); June 30 to July 8: reversal of earlier reopening (parts of Melbourne); July 9 to October 27: reversal of earlier reopening (all of Melbourne); August 6 to September 16: reversal of earlier reopening for restaurants dine-in and outdoor seating (Victoria outside Melbourne); December 19 to 23: reversal of earlier reopening for restaurants dine-in and outdoor seating (Sydney's Northern Beaches)	1-Jun-20	1%	-3%	-5%	-6%	-6%	-7%	-8%	-5%	-7%	-6%	
Australia	25,400,000	23-Mar-20	27-Apr-20	April 15: farming, construction, export industries; May 9: some retail; May 18: all retail, by a ruling of the federal supreme court; June 1: hair salons (Punjab); June 8: outdoor seating at restaurants (Punjab); June 23: restaurants dine-in (Punjab); July 28 to August 9: reversal of earlier reopening (Punjab); November 10 to January 31: reversal of earlier reopening (parts of six cities in Punjab); November 21 to January 28: reversal of earlier reopening (parts of Karachi); November 22 to December 5: reversal of earlier reopening (Azad Kashmir); November 23 to December 14: reversal of earlier reopening (parts of Hyderabad); December 1 to 29: reversal of earlier reopening (parts of Peshawar)	10-Aug-20											
Pakistan	220,200,000	24-Mar-20	15-Apr-20	May 10: financial institutions; June 12: ground transport, construction, manufacturing, offices, some retail, restaurants to-go; July 22: all businesses except restaurants dine-in and some entertainment venues; July 30: restaurants dine-in; August 11 to September 16: reversal of earlier reopening for restaurants dine-in and outdoor seating; August 20 to September 9: reversal of earlier reopening (Kathmandu Valley)	17-Sep-20											
Nepal	28,100,000	24-Mar-20	10-May-20	April 20: ground transport, farming (varies by state / city); April 25: smaller retail (varies by state / city); May 4: some manufacturing, more retail (varies by state / city); May 18: restaurants to-go (varies by state / city); June 8: all businesses except some entertainment venues (varies by state / city); July 16 to September 6: reversal of earlier reopening (Bihar); July 23 to August 31: reversal of earlier reopening (Manipur); July 27 to August 4: reversal of earlier reopening (Tripura); August 12 to 31: reversal of earlier reopening (Andaman and Nicobar Islands); August 27 to September 4: reversal of earlier reopening (Barak Valley); August 30 to September 6: reversal of earlier reopening (Kota); September 21 to 28: reversal of earlier reopening (ten districts of Chhattisgarh); October 26 to November 8: reversal of earlier reopening (Aizwal); December 1 to 31: reversal of earlier reopening (parts of Rajasthan)	8-Jun-20	-70%	-71%	-56%	-44%	-43%	-35%	-25%	-33%	-31%	-16%	
India	1,326,100,000	25-Mar-20	20-Apr-20	April 28: forestry, construction, manufacturing; May 14: offices, retail, restaurants; August 12 to 30: reversal of earlier reopening (Auckland)	31-Aug-20	-17%	-2%	-3%	-3%	-10%	-5%	-2%	2%	-7%	2%	
New Zealand	5,000,000	26-Mar-20	28-Apr-20	April 26: textile/apparel manufacturing; May 10: all manufacturing, retail; May 31: ground transport, offices, restaurants; June 15 to August 3: reversal of earlier reopening (parts of several cities)	31-May-20											
Bangladesh	164,300,000	26-Mar-20	26-Apr-20	May 3: outdoor recreation, smaller retail, some restaurants (varies by province); May 17: all businesses except some entertainment venues; December 20 to January 2: reversal of earlier reopening (Samut Sakhon)	17-May-20	-40%	-22%	-15%	-14%	-14%	-18%	-9%	-12%	-38%	-25%	
Thailand	69,800,000	26-Mar-20	3-May-20	May 4: all businesses except some entertainment venues	4-May-20											
Laos	7,300,000	30-Mar-20	4-May-20	April 16: all businesses except some entertainment venues (most provinces); April 23: all other provinces, except part of Hanoi	23-Apr-20											
Vietnam	97,100,000	1-Apr-20	16-Apr-20	April 25: professional services, some retail; June 15: all retail, restaurants (varies by region); July 10 to August 19: reversal of earlier reopening; August 20 to September 4: reversal of earlier reopening for restaurants dine-in	5-Sep-20											
Uzbekistan	33,500,000	1-Apr-20	25-Apr-20	May 5: acupuncture clinics; May 12: laundries; June 2: manufacturing, professional services, some retail, hair salons; June 19: all retail, restaurants	19-Jun-20	-31%	-29%	-25%	-20%	-20%	-20%	-18%	-15%	10%	-2%	
Singapore	5,800,000	7-Apr-20	5-May-20	June 8: ground transport, manufacturing, offices, restaurants, some retail; June 15: all retail; September 14 to October 11: reversal of earlier reopening for restaurants dine-in and outdoor seating	12-Oct-20	-29%	-59%	-42%	-36%	-34%	-47%	-31%	-30%	-39%	-12%	
Jakarta, Indonesia	10,100,000	10-Apr-20	8-Jun-20	June 8: manufacturing, offices (varies by region); June 15: retail, restaurants (varies by region); December 19 to January 1: reversal of earlier reopening (parts of Depok)	15-Jun-20											
West Java, Indonesia	49,300,000	6-May-20	9-Jun-20	June 3: ground transport, all businesses	3-Jun-20											
Shulan, China	700,000	10-May-20	3-Jun-20	July 10: ground transport, all businesses	10-Jul-20											
Anxin County, China	500,000	28-Jun-20	10-Jul-20	August 24: some retail; September 2: all businesses	2-Sep-20											
Urumqi, China	3,500,000	17-Jul-20	24-Aug-20	August 12: all businesses	12-Aug-20											
Port Moresby, Papua New Guinea	400,000	28-Jul-20	12-Aug-20	September 21: all businesses except some entertainment venues	21-Sep-20											
Ruilu, China	200,000	15-Sep-20	21-Sep-20	October 12: construction, manufacturing; December 27: all businesses (except in parts of three townships)	27-Dec-20											
Yangon Region, Myanmar	7,400,000	21-Sep-20	12-Oct-20	January 19: all businesses	19-Jan-21											
Shijiazhuang, China	11,000,000	9-Jan-21	19-Jan-21	January 16: all businesses	16-Jan-21											
Xingtai, China	7,900,000	9-Jan-21	16-Jan-21	January 24: all businesses	24-Jan-21											
Wangkui County, China	500,000	11-Jan-21	24-Jan-21	January 18: all businesses	18-Jan-21											
Langfang, China	4,400,000	12-Jan-21	18-Jan-21	January 25: all businesses	25-Jan-21											
Gongzhuling, China	1,100,000	18-Jan-21	25-Jan-21													
Total	2,269,300,000															
Of which: re-opening concluded	2,236,500,000															
Of which: without any re-opening	0															

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening

COVID Lockdowns (Non-Essential Business Closures) and Re-openings in Europe - Part 1															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	Traffic Congestion vs. Average									
						24-Apr	28-May	25-Jun	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
Italy	60,300,000	12-Mar-20	14-Apr-20	April 14: forestry, bookstores; April 27: construction, export industries; May 4: other manufacturing; May 8: retail; May 18: restaurants, hair salons; November 5 to 28: reversal of earlier reopening (four out of 20 regions); reversal of earlier reopening for restaurants dine-in and outdoor seating (five regions); November 11 to 28: reversal of earlier reopening for restaurants dine-in and outdoor seating (five regions); November 15 to 28: reversal of earlier reopening (two regions); reversal of earlier reopening for restaurants dine-in and outdoor seating (three regions); November 18 to 28: reversal of earlier reopening (one region); November 29 to December 23: reversal of earlier reopening (five regions); reversal of earlier reopening for restaurants dine-in and outdoor seating (nine regions); December 24 to January 10: reversal of earlier reopening for restaurants dine-in and outdoor seating; January 11 to 16: reversal of earlier reopening for restaurants dine-in and outdoor seating (five regions); January 17 to 31: reversal of earlier reopening (three regions); reversal of earlier reopening for restaurants dine-in and outdoor seating (nine regions) April 20: non-essential medical offices, hair salons; May 11: retail; May 18: restaurants; November 6 to 26: reversal of earlier reopening for restaurants dine-in and outdoor seating (parts of North Jutland); December 11 to 16: reversal of earlier reopening for restaurants dine-in and outdoor seating (69 cities); December 17 to February 7: reversal of earlier reopening May 4: outdoor recreation; May 18: retail; June 1: restaurants; November 27 to January 30: reversal of earlier reopening May 4: retail; May 18: restaurants, hair salons; October 24 to November 6: reversal of earlier reopening for restaurants dine-in and outdoor seating; November 7 to 27: reversal of earlier reopening; November 28 to December 27: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 28 to January 31: reversal of earlier reopening	-22%	-10%	-7%	-10%	-19%	3%	-9%	-6%	8%	2%	
Denmark	5,800,000	13-Mar-20	20-Apr-20	reversal of earlier reopening	-2%	1%	2%	1%	4%	1%	2%	2%	0%	-4%	
Bulgaria	6,900,000	13-Mar-20	4-May-20	May 4: retail; May 18: restaurants, hair salons; October 24 to November 6: reversal of earlier reopening for restaurants dine-in and outdoor seating; November 7 to 27: reversal of earlier reopening; November 28 to December 27: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 28 to January 31: reversal of earlier reopening											
Poland	37,800,000	14-Mar-20	4-May-20												
Albania	2,900,000	14-Mar-20	20-Apr-20	April 20: farming, fishing, mining, food processing, some retail; May 11: all retail, hair salons; May 18: outdoor seating at restaurants; September 28: restaurants dine-in <i>For brevity, data prior to November is omitted</i> ; November 4 to December 6: reversal of earlier reopening (Asturias); November 6 to December 3: reversal of earlier reopening (Castile and Leon); November 6 to December 3: reversal of earlier reopening for restaurants dine-in and outdoor seating (most of Galicia); November 7 to 20: reversal of earlier reopening for restaurants dine-in and outdoor seating (Murcia); November 26 to December 16: reversal of earlier reopening for restaurants dine-in (Navarre); January 7 to February 6: reversal of earlier reopening for some retail (Catalonia); January 7 to 13: reversal of earlier reopening (most of Extremadura); January 13 to 26: reversal of earlier reopening (Castile and Leon); January 12 to 26: reversal of earlier reopening (Mallorca); January 21 to February 3: reversal of earlier reopening for restaurants dine-in and outdoor seating (Valencia); January 21 to February 3: reversal of earlier reopening for restaurants dine-in (most of Galicia); January 23 to February 6: reversal of earlier reopening for restaurants dine-in (Navarre)	28-Sep-20										
Spain	46,700,000	15-Mar-20	13-Apr-20	May 11: hair salons; June 1: restaurants; October 14 to December 14: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 15 to February 7: reversal of earlier reopening	-12%	-10%	-5%	-6%	-10%	-4%	-4%	0%	2%	7%	
Netherlands	17,100,000	15-Mar-20	11-May-20	April 14: hardware stores, smaller retail; May 2: all businesses except restaurants; May 15: restaurants; November 3 to 16: reversal of earlier reopening for restaurants dine-in and outdoor seating; November 17 to December 6: reversal of earlier reopening; December 7 to 25: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 26 to February 7: reversal of earlier reopening April 20: craft shops, auto sales, farmers' markets; April 27: smaller retail; May 8: all retail; May 11: outdoor seating at restaurants, hair salons; May 25: restaurants dine-in; October 14 to 21: reversal of earlier reopening for restaurants dine-in and outdoor seating; October 22 to December 2: reversal of earlier reopening; December 18 to 26: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 27 to February 14: reversal of earlier reopening	-16%	4%	3%	9%	4%	6%	8%	-8%	-11%	-7%	
Austria	8,900,000	16-Mar-20	14-Apr-20	April 20: auto sales, smaller retail; May 4: hair salons; May 11: all retail; May 18: restaurants (varies by state); October 20 to November 1: reversal of earlier reopening for restaurants dine-in and outdoor seating (Berchtesgadener Land); October 27 to November 1: reversal of earlier reopening for restaurants dine-in and outdoor seating (Rottal-Inn); November 2 to December 15: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 16 to February 14: reversal of earlier reopening	-6%	-1%	1%	1%	-5%	2%	-2%	-5%	-15%	-5%	
Czech Republic	10,600,000	16-Mar-20	20-Apr-20	April 20: auto sales, smaller retail; May 4: hair salons; May 11: all retail; May 18: restaurants (varies by state); October 20 to November 1: reversal of earlier reopening for restaurants dine-in and outdoor seating (Berchtesgadener Land); October 27 to November 1: reversal of earlier reopening for restaurants dine-in and outdoor seating (Rottal-Inn); November 2 to December 15: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 16 to February 14: reversal of earlier reopening	-7%	8%	5%	4%	3%	1%	3%	1%	-6%	-3%	
Germany	83,700,000	16-Mar-20	20-Apr-20	April 27: hardware stores, hair salons; May 11: all retail, restaurants; November 2 to December 9: reversal of earlier reopening (Geneva); November 5 to December 9: reversal of earlier reopening for restaurants dine-in and outdoor seating (Neuchatel); December 22 to January 17: reversal of earlier reopening for restaurants dine-in and outdoor seating; January 18 to February 28: reversal of earlier reopening April 22: smaller retail, restaurants to-go; May 6: most retail, outdoor seating at restaurants, hair salons; May 20: all retail, restaurants dine-in; October 15 to December 10: reversal of earlier reopening for restaurants dine-in; December 11 to 20: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 21 to February 7: reversal of earlier reopening	-13%	0%	9%	3%	2%	-1%	-5%	-1%	-9%	-3%	
Switzerland	8,600,000	16-Mar-20	27-Apr-20	May 11: all businesses except restaurants and some entertainment venues; June 2: restaurants dine-in (outside Ile-de-France), outdoor seating at restaurants (Ile-de-France); June 15: restaurants dine-in (Ile-de-France); September 27 to October 4: reversal of earlier reopening for restaurants dine-in and outdoor seating (Marseille, Aix-en-Provence, and Guadeloupe); October 30 to November 27: reversal of earlier reopening; November 28 to February 14: reversal of earlier reopening for restaurants dine-in and outdoor seating	-34%	-18%	-10%	-10%	-20%	-9%	24%	-23%	-15%	-5%	
Slovakia	5,500,000	16-Mar-20	22-Apr-20	May 11: professional services, retail, outdoor seating at restaurants, hair salons (varies by province); May 22: all businesses except some entertainment venues (varies by province); August 17 to 23: reversal of earlier reopening (eight locations); August 24 to 30: reversal of earlier reopening (14 locations); August 31 to September 6: reversal of earlier reopening (21 locations); September 7 to 13: reversal of earlier reopening (29 locations); September 14 to 20: reversal of earlier reopening (37 locations); September 21 to 27: reversal of earlier reopening (14 locations); September 28 to October 18: reversal of earlier reopening (two locations); October 19 to 25: reversal of earlier reopening (68 locations); October 26 to November 1: reversal of earlier reopening (100 locations); November 2 to 8: reversal of earlier reopening (112 locations); November 9 to 15: reversal of earlier reopening (199 locations); January 8 to 24: reversal of earlier reopening											
France	67,000,000	17-Mar-20	11-May-20	April 18: home improvement stores; May 4: manufacturing; May 11: all retail; June 8: restaurants; October 19 to November 1: reversal of earlier reopening for restaurants dine-in and outdoor seating; November 2 to 30: reversal of earlier reopening; December 1 to February 12: reversal of earlier reopening for restaurants dine-in and outdoor seating	-27%	-14%	0%	-14%	-5%	-3%	-6%	-16%	-19%	-3%	
Ukraine	41,900,000	17-Mar-20	11-May-20		25-Jan-21	-29%	-13%	17%	-9%	2%	-12%	-2%	-14%	39%	-14%
Belgium	11,600,000	18-Mar-20	18-Apr-20												
Source: News reports. TomTom. Raymond James research															
Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening															

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening

COVID Lockdowns (Non-Essential Business Closures) and Re-openings in Europe - Part 2															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	Traffic Congestion vs. Average									
						24-Apr	28-May	25-Jun	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
Portugal	10,200,000	19-Mar-20	4-May-20	May 4: smaller retail, hair salons; May 18: all retail, restaurants; January 15 to 29: reversal of earlier reopening		-18%	-13%	-11%	-10%	-5%	-7%	-9%	-8%	-9%	-7%
Serbia	7,000,000	20-Mar-20	21-Apr-20	April 21: smaller retail; April 27: all retail, hair salons; May 4: ground transport, restaurants	4-May-20										
				For brevity, data prior to October is omitted; October 5 to 15: reversal of earlier reopening for restaurants dine-in (Derry and Strabane); October 9 to November 1: reversal of earlier reopening for restaurants dine-in and outdoor seating (five regions of Scotland); October 16 to November 26: reversal of earlier reopening for restaurants dine-in and outdoor seating (Northern Ireland); October 23 to November 8: reversal of earlier reopening (Wales); November 5 to December 1: reversal of earlier reopening (England); November 20 to December 11: reversal of earlier reopening (11 regions of Scotland); November 27 to December 10: reversal of earlier reopening (Northern Ireland); December 2 to 19: reversal of earlier reopening for restaurants dine-in and outdoor seating (21 regions of England); December 20 to 25: reversal of earlier reopening (11 regions of England), reversal of earlier reopening for restaurants dine-in and outdoor seating (20 regions of England); December 20 to January 28: reversal of earlier reopening (Wales); December 26 to February 5: reversal of earlier reopening (Northern Ireland); December 26 to January 4: reversal of earlier reopening (mainland Scotland); December 26 to 30: reversal of earlier reopening (15 regions of England), reversal of earlier reopening for restaurants dine-in and outdoor seating (28 regions of England); December 31 to January 4: reversal of earlier reopening (37 regions of England), reversal of earlier reopening for restaurants dine-in and outdoor seating (18 regions of England); January 5 to February 14: reversal of earlier reopening (Scotland); January 5 to February 14: reversal of earlier reopening (England)											
U.K.	66,400,000	23-Mar-20	11-May-20	May 4: smaller retail, hair salons; May 11: all retail; May 25: restaurants; October 16 to November 2: reversal of earlier reopening for restaurants dine-in and outdoor seating (Kozani); October 29 to November 2: reversal of earlier reopening for restaurants dine-in and outdoor seating (Ioannina and Serres); October 30 to November 2: reversal of earlier reopening for restaurants dine-in and outdoor seating (Thessaloniki, Larissa, and Rodopi); November 3 to 6: reversal of earlier reopening for restaurants dine-in and outdoor seating (northern Greece and Attica); November 7 to January 17: reversal of earlier reopening; January 18: reversal of earlier reopening for restaurants dine-in and outdoor seating		-32%	-20%	-15%	-9%	-6%	-8%	1%	-17%	-18%	-14%
Greece	10,500,000	23-Mar-20	4-May-20	May 4: construction, smaller retail; May 21: all businesses; November 12 to 29: reversal of earlier reopening (Limassol and Paphos); December 11 to January 31: reversal of earlier reopening		-34%	-9%	-8%	-16%	-25%	-4%	-6%	-31%	-7%	2%
Cyprus	900,000	24-Mar-20	4-May-20	May 15: some retail, hair salons; June 1: outdoor seating at restaurants; June 15: all retail; September 1: restaurants dine-in; October 7 to 14: reversal of earlier reopening for restaurants dine-in (Bucharest and parts of four provinces); October 22 to November 4: reversal of earlier reopening for restaurants dine-in (255 locations); November 5 to 11: reversal of earlier reopening for restaurants dine-in (Bucharest and ten provinces); November 12 to 18: reversal of earlier reopening for restaurants dine-in (Bucharest and 20 provinces); November 19 to 25: reversal of earlier reopening for restaurants dine-in (Bucharest and 22 provinces); November 26 to December 2: reversal of earlier reopening for restaurants dine-in (Bucharest and 26 provinces); December 3 to 9: reversal of earlier reopening for restaurants dine-in (Bucharest and 21 provinces); December 10 to 16: reversal of earlier reopening for restaurants dine-in (Bucharest and 17 provinces); December 17 to 23: reversal of earlier reopening for restaurants dine-in (Bucharest and 13 provinces); December 24 to 30: reversal of earlier reopening for restaurants dine-in (Bucharest and seven provinces); December 31 to January 6: reversal of earlier reopening for restaurants dine-in (Bucharest and five provinces); January 7 to 20: reversal of earlier reopening for restaurants dine-in (Bucharest and three provinces); January 21 to 27: reversal of earlier reopening for restaurants dine-in (three provinces)											
Romania	19,300,000	25-Mar-20	15-May-20	May 18: outdoor recreation, construction, some retail; June 8: more retail; June 15: all retail; June 29: restaurants; July 6: hair salons; August 8 to 21: reversal of earlier reopening for restaurants dine-in (Kildare, Laois, and Offaly counties); August 22 to 31: reversal of earlier reopening for restaurants dine-in (Kildare County); September 19 to October 21: reversal of earlier reopening for restaurants dine-in (Dublin); October 6 to 21: reversal of earlier reopening for restaurants dine-in (outside Dublin); October 22 to November 30: reversal of earlier reopening; December 1 to 3: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 24 to 31: reversal of earlier reopening for restaurants dine-in and outdoor seating; January 1 to 30: reversal of earlier reopening	24-Dec-20	-46%	-18%	-10%	-19%	-20%	-9%	-17%	-18%	-26%	-5%
Ireland	4,900,000	28-Mar-20	18-May-20	May 4: retail, outdoor seating at restaurants (outside Budapest); May 18: retail, outdoor seating at restaurants (Budapest), all businesses (outside Budapest); May 29: restaurants dine-in (Budapest); November 11 to January 31: reversal of earlier reopening for restaurants dine-in and outdoor seating		-31%	-21%	-10%	-13%	-7%	-14%	-17%	-14%	-14%	-17%
Hungary	9,700,000	28-Mar-20	4-May-20	April 13: farmers' markets, auto sales, some other businesses (varies by province); May 12: all businesses (varies by province); June 1: retail (Moscow); June 9: hair salons (Moscow); June 16: professional services, outdoor seating at restaurants (Moscow); June 23: restaurants dine-in (Moscow); November 16 to 30: reversal of earlier reopening (Buryatia); December 30 to January 3: reversal of earlier reopening for restaurants dine-in (St. Petersburg)		-17%	2%	6%	-1%	1%	-11%	-10%	-10%	-14%	-3%
Russia	145,900,000	30-Mar-20	13-Apr-20		23-Jun-20	-64%	-48%	-14%	-25%	-13%	-15%	-19%	-25%	-11%	20%
Total	690,100,000														
Of which: re-opening concluded	217,000,000														
Of which: without any re-opening	0														

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening



COVID Lockdowns (Non-Essential Business Closures) and Re-openings in the U.S. - Part 1															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	Traffic Congestion vs. Average									
						24-Apr	28-May	25-Jun	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
				April 13: hardware stores, auto repair; May 4: finance, real estate; May 11: construction, manufacturing; May 26: most retail, restaurants, hair salons; June 8: all retail											
Puerto Rico	3,200,000	15-Mar-20	13-Apr-20		8-Jun-20										
				For brevity, data prior to October is omitted; October 6 to 12: reversal of earlier reopening for restaurants dine-in (16 counties); October 13 to 19: reversal of earlier reopening for restaurants dine-in (ten counties); October 20 to 26: reversal of earlier reopening for restaurants dine-in (12 counties); October 27 to November 3: reversal of earlier reopening for restaurants dine-in (ten counties); November 4 to 9: reversal of earlier reopening for restaurants dine-in (11 counties); November 10 to 16: reversal of earlier reopening for restaurants dine-in (14 counties); November 17 to 23: reversal of earlier reopening for restaurants dine-in (41 counties); November 24 to 30: reversal of earlier reopening for restaurants dine-in (44 counties); November 26 to December 6: reversal of earlier reopening for outdoor seating at restaurants (Los Angeles County); December 1 to 7: reversal of earlier reopening for restaurants dine-in (52 counties); December 6: reversal of earlier reopening for restaurants dine-in and outdoor seating (San Francisco Bay region); December 7: reversal of earlier reopening for restaurants dine-in and outdoor seating (Southern California and San Joaquin Valley); December 11 to January 11: reversal of earlier reopening for restaurants dine-in and outdoor seating (Sacramento region); January 12: reversal of earlier reopening for restaurants dine-in (Sacramento region)											
California	39,500,000	19-Mar-20	8-May-20	May 1: outdoor recreation, garden centers, retail to-go; May 29: manufacturing, offices, all retail, hair salons, outdoor seating at restaurants (outside Chicago); June 3: Chicago; June 26: restaurants dine-in; October 3: reversal of earlier reopening for restaurants dine-in (Region 1); October 22: reversal of earlier reopening for restaurants dine-in (Region 5); October 23: reversal of earlier reopening for restaurants dine-in (Regions 7 and 8); October 28: reversal of earlier reopening for restaurants dine-in (Regions 4 and 10); October 30: reversal of earlier reopening for restaurants dine-in (Chicago); November 2 to January 17: reversal of earlier reopening for restaurants dine-in (Region 6); November 20: reversal of earlier reopening for restaurants dine-in; January 18: reversal of earlier reopening for restaurants dine-in (six out of 11 regions)		-31%	-26%	-23%	-23%	-24%	-23%	-20%	-33%	-21%	-10%
Illinois	12,400,000	21-Mar-20	1-May-20			-22%	-18%	-11%	-12%	-13%	-13%	-15%	-25%	-14%	-7%
				April 18: marinas; May 18: construction, retail to-go; May 20: auto sales; May 22: all outdoor recreation; June 15: most retail, outdoor seating at restaurants; June 22: hair salons; June 29: all retail; September 4: restaurants dine-in											
New Jersey	8,900,000	21-Mar-20	18-Apr-20		4-Sep-20										
				April 18: marinas; May 15: landscaping (statewide), construction, manufacturing, retail to-go (five out of ten regions); May 19: Western NY; May 20: Capital Region; May 26: Mid-Hudson Region; May 27: Long Island; May 29: offices, most retail, hair salons (five regions); June 2: Western NY; June 3: Capital Region; June 4: outdoor seating at restaurants (seven regions); June 8: construction, manufacturing, retail to-go (New York City); June 10: offices, most retail, hair salons, outdoor seating at restaurants (Long Island); June 12: restaurants dine-in (five regions); June 16: restaurants dine-in (Western NY); June 17: restaurants dine-in (Capital Region); June 22: offices, most retail, hair salons, outdoor seating at restaurants (New York City); June 23: restaurants dine-in (Mid-Hudson); June 24: restaurants dine-in (Long Island); July 10: all retail (nine regions); September 9: all retail (New York City); September 30: restaurants dine-in (New York City); October 8 to November 6: reversal of earlier reopening (parts of New York City and nearby counties); November 25 to January 13: reversal of earlier reopening for restaurants dine-in (parts of Onondaga County and Monroe County); November 25 to December 13: reversal of earlier reopening for restaurants dine-in (parts of New York City); December 14: reversal of earlier reopening for restaurants dine-in (all of New York City)		-31%	-24%	-17%	-17%	-11%	-16%	-11%	-32%	-15%	-11%
New York	19,500,000	22-Mar-20	18-Apr-20	May 1: retail to-go, outdoor seating at restaurants; May 15: all businesses except some entertainment venues											
Louisiana	4,600,000	23-Mar-20	1-May-20	May 5: outdoor recreation, landscaping, some construction, auto sales, retail to-go; May 11: all construction, manufacturing, all retail, restaurants, hair salons (eight out of 39 counties); May 18: two more counties; May 22: four more counties; May 25: seven more counties; June 1: all businesses except some entertainment venues (varies by county); November 18 to January 24: reversal of earlier reopening for restaurants dine-in	15-May-20	-15%	-10%	-10%	-10%	-10%	-11%	15%	-20%	-5%	-9%
Washington State	7,600,000	23-Mar-20	5-May-20			-20%	-14%	-10%	-10%	-9%	-9%	-12%	-22%	-12%	-6%
Connecticut	3,600,000	23-Mar-20	18-Apr-20	April 18: marinas; May 20: offices, retail, outdoor seating at restaurants; June 1: hair salons; June 20: restaurants dine-in	20-Jun-20	-10%	-5%	-3%	-3%	-5%	-4%	4%	-10%	-3%	-3%
				May 1: outdoor recreation, retail to-go (30 out of 33 counties); May 16: offices, all retail (30 counties), retail to-go (McKinley, San Juan, and Cibola counties); May 27: outdoor seating at restaurants (30 counties); June 1: restaurants dine-in, hair salons (30 counties); July 13 to August 28: reversal of earlier reopening for restaurants dine-in; November 16 to December 1: reversal of earlier reopening; December 2 to 15: reversal of earlier reopening for restaurants dine-in (32 counties); December 16 to 29: reversal of earlier reopening for restaurants dine-in; December 30 to January 12: reversal of earlier reopening for restaurants dine-in (32 counties); January 13 to 26: reversal of earlier reopening for restaurants dine-in (31 counties)											
New Mexico	2,100,000	24-Mar-20	1-May-20	May 5: outdoor recreation; May 15: all businesses except some entertainment venues (31 out of 36 counties); May 22: Marion and Polk counties; May 23: Clackamas County; June 1: Washington County; July 31 to August 21: reversal of earlier reopening (Umatilla County); November 18 to December 2: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 3 to 17: reversal of earlier reopening for restaurants dine-in (25 counties); December 18 to 31: reversal of earlier reopening for restaurants dine-in (29 counties); January 1 to 14: reversal of earlier reopening for restaurants dine-in (24 counties); January 15 to 28: reversal of earlier reopening for restaurants dine-in (26 counties)		-11%	-7%	-6%	-6%	-7%	-8%	-5%	-15%	-6%	-3%
Oregon	4,200,000	24-Mar-20	5-May-20			-20%	-12%	-13%	-13%	-14%	-8%	-15%	-22%	-13%	-5%
Source: News reports, TomTom, Raymond James research				Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening											

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening

COVID Lockdowns (Non-Essential Business Closures) and Re-openings in the U.S. - Part 2																		
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	24-Apr	28-May	25-Jun	Traffic	Congestion	vs. Average	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
West Virginia	1,800,000	24-Mar-20	30-Apr-20	April 30: non-essential medical offices; May 4: smaller retail, outdoor seating at restaurants, hair salons; May 21: all retail, restaurants dine-in April 24: landscaping, retail to-go; May 11: manufacturing; May 22: offices, all retail, restaurants (two out of eight regions); May 26: auto sales, all retail; June 8: restaurants; November 18 to January 31: reversal of earlier reopening for restaurants dine-in	21-May-20													
Michigan	9,900,000	24-Mar-20	24-Apr-20	May 4: construction, manufacturing, offices; May 12: retail, restaurants to-go; May 15: hair salons; May 21: restaurants dine-in	21-May-20	-11%	-8%	-4%	-4%	-5%	-6%	-6%	-14%	-7%	-5%			
Ohio	11,700,000	24-Mar-20	4-May-20	May 8: retail to-go, hair salons; May 15: farmers' markets; May 20: all retail; June 1: all businesses except some entertainment venues	21-May-20	-9%	-5%	-3%	-3%	-5%	-5%	-1%	-14%	-4%	-4%			
Delaware	1,000,000	24-Mar-20	8-May-20	May 7: golf; May 18: construction, manufacturing; May 25: offices (outside Boston), retail to-go, hair salons (statewide); June 1: offices (Boston); June 8: all retail, outdoor seating at restaurants; June 22: restaurants dine-in	1-Jun-20													
Massachusetts	6,900,000	24-Mar-20	7-May-20	May 4: retail (89 out of 92 counties); May 11: Lake and Marion counties; May 18: Cass County; restaurants, hair salons follow one week after retail	22-Jun-20	-17%	-12%	-7%	-8%	-8%	-9%	-6%	-18%	-7%	-6%			
Indiana	6,700,000	25-Mar-20	4-May-20	April 24: landscaping, construction, retail to-go; April 29: auto repair, car washes; May 11: all retail; May 13: state-level restrictions lifted by a ruling of the state supreme court, but city/county restrictions remain in place	25-May-20	-6%	-3%	-3%	0%	-3%	-4%	-4%	-10%	-4%	-4%			
Wisconsin	5,800,000	25-Mar-20	24-Apr-20	May 1: florists; May 7: auto sales (statewide), retail (three out of five counties); May 15: retail (Oahu); May 22: construction, manufacturing, hair salons (Kauai); May 25: hair salons (Maui); May 29: hair salons (Oahu); June 1: restaurants, hair salons (Hawaii County); June 5: restaurants (Oahu); August 27 to September 23: reversal of earlier reopening (Oahu)	13-May-20	-7%	-5%	-3%	-2%	-3%	-4%	-4%	-10%	-1%	-2%			
Hawaii	1,400,000	25-Mar-20	1-May-20	April 20: some construction, professional services; April 27: some manufacturing, some retail; May 7: some outdoor recreation; May 11: all construction, all manufacturing; May 22: all outdoor recreation, outdoor seating at restaurants; May 29: hair salons; June 8: restaurants dine-in (varies by city)	24-Sep-20	-19%	-11%	-12%	-12%	-15%	-13%	-10%	-38%	-3%	-8%			
Vermont	600,000	25-Mar-20	20-Apr-20	April 15: retail, restaurants to-go; May 16: restaurants dine-in	8-Jun-20													
Idaho	1,800,000	25-Mar-20	15-Apr-20	April 27: retail to-go; May 1: all retail, hair salons (varies by county); May 4: offices (varies by county); May 14: restaurants (varies by county); November 20 to 26: reversal of earlier reopening for restaurants dine-in (20 out of 64 counties); November 27 to December 3: reversal of earlier reopening for restaurants dine-in (22 counties); December 4 to 10: reversal of earlier reopening for restaurants dine-in (30 counties); December 11 to 17: reversal of earlier reopening for restaurants dine-in (33 counties); December 18 to 31: reversal of earlier reopening for restaurants dine-in (34 counties); January 1 to 3: reversal of earlier reopening for restaurants dine-in (33 counties)	16-May-20	-14%	-5%	-8%	-8%	-7%	-9%	-6%	-22%	-9%	-7%			
Colorado	5,800,000	26-Mar-20	27-Apr-20	April 27: non-essential medical offices; May 11: construction, manufacturing, auto sales; May 20: retail; May 22: restaurants dine-in; May 25: hair salons; November 20 to December 13: reversal of earlier reopening for restaurants dine-in	4-Jan-21	-13%	-10%	-9%	-9%	-10%	-11%	-7%	-18%	-11%	-6%			
Kentucky	4,500,000	26-Mar-20	27-Apr-20	April 24: Farmers' markets; May 1: retail, restaurants (77 out of 99 counties); May 8: retail (all other counties); May 15: all businesses except some entertainment venues	14-Dec-20	-5%	-6%	-4%	-5%	-5%	-7%	-6%	-16%	-2%	2%			
Iowa	3,200,000	27-Mar-20	24-Apr-20	May 4: campgrounds; May 11: retail, hair salons; May 18: outdoor seating at restaurants; June 15: restaurants dine-in	15-May-20													
New Hampshire	1,400,000	28-Mar-20	4-May-20	May 9: retail; May 18: outdoor seating at restaurants; June 1: restaurants dine-in, hair salons	15-Jun-20													
Rhode Island	1,100,000	28-Mar-20	9-May-20	April 18: outdoor recreation; April 27: forestry, mining, construction, manufacturing; May 4: retail to-go; May 18: all retail; June 1: outdoor seating at restaurants, hair salons; June 10: restaurants dine-in; November 21 to December 18: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 19 to January 10: reversal of earlier reopening for restaurants dine-in	1-Jun-20	-13%	-5%	3%	-2%	-5%	-5%	-2%	-13%	-2%	-6%			
Minnesota	5,600,000	28-Mar-20	18-Apr-20	April 24: retail, restaurants, hair salons; August 3 to 30: reversal of earlier reopening for restaurants dine-in (Anchorage); December 1 to 31: reversal of earlier reopening for restaurants dine-in (Anchorage)	11-Jan-21	-10%	-5%	-4%	-4%	-4%	-6%	-6%	-12%	-1%	-4%			
Alaska	700,000	28-Mar-20	24-Apr-20	April 27: retail, hair salons; May 4: restaurants	1-Jan-21													
Montana	1,100,000	28-Mar-20	27-Apr-20	May 4: restaurants dine-in (varies by city / county); May 18: all businesses except some entertainment venues (varies by city / county)	4-May-20													
Kansas	2,900,000	30-Mar-20	4-May-20	May 8: retail; May 22: restaurants, hair salons (varies by city / county)	18-May-20													
North Carolina	10,500,000	30-Mar-20	8-May-20		22-May-20	-12%	-10%	-8%	-7%	-8%	-8%	-8%	-16%	-6%	-7%			
Source: News reports, TomTom, Raymond James research			Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening															

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening

COVID Lockdowns (Non-Essential Business Closures) and Re-openings in the U.S. - Part 3															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	24-Apr	28-May	25-Jun	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
				May 7: outdoor recreation; May 15: some manufacturing, some retail, hair salons (varies by city / county); May 29: outdoor seating at restaurants (varies by city / county); June 5: all manufacturing, professional services, more retail (varies by city / county); June 12: restaurants dine-in (varies by city / county); June 19: all retail (varies by city / county); July 24 to August 7: reversal of earlier reopening for restaurants dine-in (Baltimore); December 11 to January 21: reversal of earlier reopening for restaurants dine-in and outdoor seating (Baltimore); December 15: reversal of earlier reopening for restaurants dine-in (Montgomery County); December 16 to January 29: reversal of earlier reopening for restaurants dine-in (Prince George's County)	22-Jan-21	-14%	-8%	-7%	-7%	-7%	-8%	0%	-16%	-6%	-4%
Maryland	6,000,000	30-Mar-20	7-May-20												
				May 15: retail, outdoor seating at restaurants, hair salons (all except Northern Virginia, Richmond, and Accomack County); May 29: entire state; June 5: restaurants dine-in (all except Northern Virginia and Richmond); June 12: entire state	12-Jun-20	-7%	-2%	-5%	-4%	-4%	-3%	3%	-11%	-4%	-4%
Virginia	8,500,000	30-Mar-20	15-May-20												
Salt Lake County, UT	1,200,000	30-Mar-20	1-May-20	May 1: restaurants dine-in, hair salons	1-May-20	-7%	-6%	-8%	-7%	-7%	-8%	-7%	-16%	-7%	-6%
Arizona	7,400,000	31-Mar-20	4-May-20	May 4: retail to-go; May 8: all retail, hair salons; May 11: restaurants	11-May-20	-8%	-7%	-8%	-8%	-8%	-7%	-4%	-13%	-5%	-4%
				May 29: retail to-go, outdoor seating at restaurants, hair salons; June 22: all retail, restaurants dine-in; December 23 to January 21: reversal of earlier reopening for restaurants dine-in											
Washington, DC	700,000	1-Apr-20	29-May-20		22-Jan-21	-20%	-17%	-14%	-14%	-13%	-14%	-11%	-22%	-8%	-8%
				May 1: construction; May 8: manufacturing, retail (24 out of 67 counties); May 15: manufacturing, retail (13 more counties); May 22: manufacturing, retail (12 more counties); May 29: manufacturing, retail (eight more counties), all businesses (18 counties); June 5: manufacturing, retail (all other counties), outdoor seating at restaurants (33 counties), all businesses (16 more counties); June 12: all businesses (12 more counties); June 19: all businesses (eight more counties); June 26: all businesses (11 more counties); July 3 to 9: reversal of earlier reopening for restaurants dine-in and outdoor seating (Allegheny County); July 10 to 17: reversal of earlier reopening for restaurants dine-in (Allegheny County); September 8: restaurants dine-in (Philadelphia); November 20 to December 11: reversal of earlier reopening for restaurants dine-in (Philadelphia); December 12 to January 3: reversal of earlier reopening for restaurants dine-in											
Pennsylvania	12,800,000	1-Apr-20	1-May-20	May 1: outdoor recreation, retail to-go; May 9: all retail, restaurants, hair salons; June 4: casinos	4-Jan-21	-19%	-15%	-12%	-11%	-12%	-9%	-9%	-21%	-11%	-11%
Nevada	3,100,000	1-Apr-20	1-May-20		9-May-20	-10%	-11%	-12%	-13%	-13%	-13%	-9%	-18%	-13%	-9%
Oklahoma	4,000,000	1-Apr-20	24-Apr-20	April 24: retail, hair salons; May 1: restaurants	1-May-20	-8%	-5%	-5%	-6%	-5%	-6%	7%	-15%	-6%	-4%
				May 1: outdoor recreation, non-essential medical offices, auto sales, hair salons; May 11: retail (12 out of 16 counties); May 18: restaurants (12 out of 16 counties); June 1: retail (all other counties), outdoor seating at restaurants (three counties), restaurants dine-in (Penobscot County); June 17: restaurants dine-in (all other counties)											
Maine	1,300,000	2-Apr-20	1-May-20		17-Jun-20										
Texas	29,000,000	2-Apr-20	24-Apr-20	April 24: retail to-go; May 1: all retail, restaurants; May 8: hair salons; October 30 to November 12: reversal of earlier reopening (El Paso County)	1-May-20	-16%	-13%	-14%	-14%	-18%	-14%	-12%	-20%	-5%	-2%
				April 27: restaurants (89 out of 95 counties); April 29: retail (89 out of 95 counties); May 6: hair salons (89 out of 95 counties); May 11: retail, restaurants (Davidson County); May 25: hair salons (Davidson County)											
Tennessee	6,800,000	2-Apr-20	27-Apr-20	April 29: outdoor recreation; May 4: retail, restaurants (64 out of 67 counties); May 11: Palm Beach County; May 18: Miami-Dade and Broward counties; July 9 to August 30: reversal of earlier reopening for restaurants dine-in (Miami-Dade County)	11-May-20	-18%	-11%	-11%	-12%	-11%	-13%	-13%	-22%	-9%	-7%
Florida	21,500,000	3-Apr-20	29-Apr-20		18-May-20	-18%	-14%	-16%	-17%	-17%	-14%	-11%	-23%	-12%	-9%
Georgia	10,600,000	3-Apr-20	24-Apr-20	April 24: hair salons; April 27: restaurants	27-Apr-20	-18%	-9%	-13%	-12%	-12%	-6%	-4%	-22%	-7%	-5%
				April 17: retail to-go; April 27: all retail, restaurants to-go; May 7: restaurants dine-in; May 11: hair salons	7-May-20										
Mississippi	3,000,000	3-Apr-20	17-Apr-20												
Alabama	4,900,000	4-Apr-20	30-Apr-20	April 30: retail; May 11: all businesses except some entertainment venues	11-May-20										
				May 4: all businesses (varies by city / county); November 17 to January 3: reversal of earlier reopening for restaurants dine-in (St. Louis County)											
Missouri	6,100,000	6-Apr-20	4-May-20	April 20: retail; May 4: outdoor seating at restaurants; May 11: restaurants dine-in;	4-May-20	-4%	1%	1%	-3%	-2%	-3%	-3%	-10%	-2%	-1%
South Carolina	4,900,000	7-Apr-20	20-Apr-20	May 18: hair salons	11-May-20	-9%	-2%	-4%	-5%	-4%	-5%	-5%	-14%	-3%	-3%
Total	321,800,000														
Of which: re-opening concluded	226,600,000														
Of which: without any re-opening	0														
Source: News reports, TomTom, Raymond James research				Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening											



COVID Lockdowns (Non-Essential Business Closures) and Re-openings in the Americas, ex-U.S. - Part 1															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	Traffic Congestion vs. Average									
						24-Apr	28-May	25-Jun	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
Peru	32,200,000	16-Mar-20	2-May-20	May 2: mining; May 18: some manufacturing, some construction, restaurants to-go; May 25: non-essential medical offices, hair salons; June 4: all construction, all manufacturing, professional services, some retail (varies by province); June 22: all retail (varies by province); July 1: restaurants dine-in (varies by province) June 8: all businesses except some entertainment venues; June 21 to July 28: reversal of earlier reopening (Central District); June 28 to July 28: reversal of earlier reopening (San Pedro Sula); July 13 to July 28: reversal of earlier reopening (7 out of 18 provinces)	1-Jul-20	-55%	-52%	-38%	-28%	-28%	-28%	-26%	-22%	-11%	-13%
Honduras	9,300,000	16-Mar-20	8-Jun-20	May 4: ground transport, retail (varies by province); June 3: restaurants (varies by province)	29-Jul-20										
Ecuador	17,600,000	16-Mar-20	4-May-20	June 1: construction, manufacturing, offices, retail, hair salons (four out of ten regions); June 19: one more region, ground transport (statewide); July 1: restaurants (Belem); July 2: construction, manufacturing, offices, retail, hair salons (one more region); July 9: two more regions	3-Jun-20										
Para, Brazil	8,600,000	16-Mar-20	1-Jun-20	June 1 to 7: construction, some manufacturing, non-essential medical offices, banks, some retail, hair salons (varies by state); June 15 to 21: initial list of sectors, more retail (varies by state); June 29 to July 5: previous list of sectors (varies by state); July 13 to 19: previous list of sectors (Caracas and 12 out of 23 states), previous list of sectors, most manufacturing, most retail, restaurants to-go (10 states); July 15 to 19: reversal of earlier reopening (Caracas and Miranda State); July 27 to August 2: construction, some manufacturing, non-essential medical offices, banks, some retail, hair salons (nine states), same plus most manufacturing, most retail, restaurants to-go (seven states); August 10 to 16: construction, some manufacturing, non-essential medical offices, banks, some retail, hair salons (Caracas and six states), same plus most manufacturing, most retail, restaurants to-go (17 states); August 24 to 30: construction, some manufacturing, non-essential medical offices, banks, some retail, hair salons (Caracas and two states), same plus most manufacturing, most retail, restaurants to-go (21 states); September 7 to 13: construction, most manufacturing, non-essential medical offices, banks, most retail,restaurants to-go, hair salons; September 21 to 27: previous list of sectors; October 5 to 11: previous list of sectors; October 19 to 25: all businesses except some entertainment venues; November 2 to 8: all businesses except some entertainment venues; November 16 to 22: all businesses except some entertainment venues; November 30: all businesses except some entertainment venues; January 4 to 10: reversal of earlier reopening; January 18 to 24: reversal of earlier reopening	9-Jul-20										
Venezuela	28,500,000	17-Mar-20	1-Jun-20	April 13: some retail, restaurants; April 22: all retail	25-Jan-21										
Santa Catarina, Brazil	6,800,000	17-Mar-20	13-Apr-20	April 13: construction; June 9: retail (except Rivera); June 29: restaurants	22-Apr-20										
Uruguay	3,500,000	18-Mar-20	13-Apr-20	May 20: ground transport, smaller retail; June 3: all retail; July 1: restaurants	29-Jun-20										
Dominican Republic	10,800,000	19-Mar-20	20-May-20	For brevity, data prior to December is omitted; December 3: restaurants dine-in (one location); December 3: reversal of earlier reopening for outdoor seating at restaurants (two locations); December 5: reversal of earlier reopening for outdoor seating at restaurants (four locations), restaurants dine-in (four locations); December 7: outdoor seating at restaurants (three locations); December 10: reversal of earlier reopening for outdoor seating at restaurants (Santiago Region and one location); December 12: reversal of earlier reopening for outdoor seating at restaurants (seven locations), restaurants dine-in (four locations); December 14: outdoor seating at restaurants (three locations); December 17: restaurants dine-in (Atacama Region); December 19: reversal of earlier reopening for outdoor seating at restaurants (three locations); December 21: outdoor seating at restaurants (ten locations); December 23: reversal of earlier reopening for outdoor seating at restaurants (ten locations); December 23: restaurants dine-in (four locations); December 30: reversal of earlier reopening for outdoor seating at restaurants (three locations); January 4: reversal of earlier reopening for outdoor seating at restaurants (ten locations); January 4: outdoor seating at restaurants (24 locations); January 9: reversal of earlier reopening for restaurants dine-in (five locations); January 11: outdoor seating at restaurants (two locations); January 14: reversal of earlier reopening for outdoor seating at restaurants (25 locations); January 14: outdoor seating at restaurants (Coquimbo Region and most of Atacama Region); January 16: reversal of earlier reopening for outdoor seating at restaurants (two locations), restaurants dine-in (one location); January 18: outdoor seating at restaurants (one location); January 23: reversal of earlier reopening for outdoor seating at restaurants (11 locations); January 25: outdoor seating at restaurants (three locations)	1-Jul-20										
Chile	19,100,000	19-Mar-20	1-May-20	April 13: banks, auto repair (nationwide); for other businesses, restrictions apply in all cities of 500,000+, varying elsewhere by province; May 11: manufacturing; May 12: some retail, restaurants to-go (Buenos Aires); June 8: more retail (Buenos Aires); July 1 to 21: reversal of earlier reopening (Buenos Aires); July 29: hair salons (Buenos Aires); August 3: most retail (Buenos Aires); August 15 to 30: reversal of earlier reopening (Tartagal, La Rioja, Chamental, Santiago del Estero, and La Banda); August 29 to September 7: reversal of earlier reopening (Mar del Plata); August 31: outdoor seating at restaurants (Buenos Aires); September 4 to 10: reversal of earlier reopening (San Luis); September 4 to 13: reversal of earlier reopening (Catamarca); September 5 to 18: reversal of earlier reopening (Rosario, San Lorenzo, General López, Caseros, and Constitución); September 9 to 15: reversal of earlier reopening (City of Salta); September 12 to 25: reversal of earlier reopening (Rio Cuarto); September 18 to 22: reversal of earlier reopening (most of Catamarca); September 21 to October 11: reversal of earlier reopening (most of Salta); September 27 to October 4: reversal of earlier reopening (Ushuaia); October 9 to 24: reversal of earlier reopening (Chaco); October 13 to 25: reversal of earlier reopening (San Miguel de Tucumán); October 26: restaurants dine-in (Buenos Aires); November 2: all retail (Buenos Aires)											
Argentina	44,900,000	20-Mar-20	13-Apr-20	May 4: some construction, manufacturing; May 25: all construction, offices, smaller retail; June 15: all retail, restaurants (varies by province); July 30 to August 14: reversal of earlier reopening for restaurants dine-in and outdoor seating (Alto Parana)	2-Nov-20	-26%	-19%	-18%	-18%	-17%	-18%	-8%	-12%	-8%	-9%
Paraguay	7,100,000	20-Mar-20	4-May-20	June 1: construction, manufacturing, non-essential medical offices; June 8: retail (City of Fortaleza); June 22: retail (Fortaleza Region), restaurants (City of Fortaleza); July 6: retail (Central and East regions), restaurants (Fortaleza Region)	15-Jun-20										
Ceara, Brazil	9,100,000	20-Mar-20	1-Jun-20	May 7: some retail, professional services (four out of 14 regions); May 28: some retail, professional services (two more regions), all retail, hair salons (two regions); July 23: some retail, professional services (one more region), all retail, hair salons (one more region); August 8: all retail, hair salons (five more regions)	6-Jul-20										
Minas Gerais, Brazil	21,200,000	20-Mar-20	7-May-20	June 2: retail; June 8: professional services; June 12: outdoor seating at restaurants; June 15: hair salons; June 22: restaurants dine-in; July 23 to August 3: reversal of earlier reopening (Grand Bahama); August 4 to September 7: reversal of earlier reopening (most islands); September 8 to November 8: reversal of earlier reopening (New Providence); November 9: reversal of earlier reopening for restaurants dine-in (New Providence)	8-Aug-20										
Bahamas	400,000	20-Mar-20	2-Jun-20												

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening

COVID Lockdowns (Non-Essential Business Closures) and Re-openings in the Americas, ex-U.S. - Part 2															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	Traffic Congestion vs. Average									
						24-Apr	28-May	25-Jun	30-Jul	27-Aug	24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
Rio de Janeiro State, Brazil	17,300,000	21-Mar-20	2-Jun-20	June 2: some retail (City of Rio de Janeiro); June 11: more retail (City of Rio de Janeiro); June 16: all retail (City of Rio de Janeiro); July 2: restaurants (City of Rio de Janeiro)	2-Jul-20										
Maranhao, Brazil	7,100,000	21-Mar-20	25-May-20	May 25: small family-owned businesses; June 1: non-essential medical offices, construction, manufacturing, professional services, most retail, restaurants to-go, hair salons; June 15: all retail; June 27: restaurants dine-in	27-Jun-20										
Bolivia	11,600,000	22-Mar-20	11-May-20	May 11: mining, construction, manufacturing; June 1: all businesses (varies by province)	1-Jun-20										
El Salvador	6,500,000	22-Mar-20	16-Jun-20	June 16: construction, some manufacturing, hair salons; August 24: all businesses, by a ruling of the constitutional court	24-Aug-20										
Guatemala	17,900,000	22-Mar-20	4-May-20	May 4: some retail; July 27: all businesses except some entertainment venues	27-Jul-20										
Colombia	50,700,000	24-Mar-20	28-Apr-20	April 28: ground transport, construction, manufacturing (varies by city); May 11: retail (varies by city); June 1: hair salons (varies by city); July 9: restaurants dine-in (varies by city); July 13 to August 26: reversal of earlier reopening (parts of Bogota); August 27: restaurants dine-in (Bogota); January 5 to 27: reversal of earlier reopening (parts of Bogota)	27-Aug-20	-75%	-47%	-36%	-38%	-34%	-28%	-18%	-7%	-12%	-21%
Sao Paulo State, Brazil	45,900,000	24-Mar-20	1-Jun-20	June 1: offices, retail (10 out of 23 regions); June 11: offices, retail (City of Sao Paulo); June 29: offices, retail (two more regions); July 6: restaurants (City of Sao Paulo); July 13: offices, retail (five more regions), restaurants (four more regions); July 27: offices, retail (two more regions), restaurants (one more region); August 8: restaurants (nine more regions)	8-Aug-20	-37%	-39%	-34%	-32%	-28%	-27%	-22%	-21%	-31%	-8%
Panama	4,100,000	25-Mar-20	13-May-20	May 13: fishing, some professional services; June 1: some construction, manufacturing; July 27: all construction, all professional services, auto sales (three out of ten provinces); August 17: all construction, auto sales, retail to-go, hair salons; September 7: some retail; September 28: all professional services, all retail, restaurants; December 24 to 27: reversal of earlier reopening; December 31 to January 3: reversal of earlier reopening; January 4 to 31: reversal of earlier reopening (Panama and Panama Oeste provinces); February 1 to 14: reversal of earlier reopening for restaurants dine-in and outdoor seating (Panama and Panama Oeste provinces)											
Quebec, Canada	8,500,000	25-Mar-20	20-Apr-20	April 20: residential construction; May 4: most retail (outside Montreal); May 11: all construction, manufacturing; May 25: most retail (Montreal); June 1: all retail (outside Montreal); June 15: restaurants (outside Montreal); June 22: restaurants (Montreal); October 1 to October 22: reversal of earlier reopening for restaurants dine-in and outdoor seating (Montreal, Quebec City, and Chaudière-Appalaches); October 23 to November 19: reversal of earlier reopening for restaurants dine-in and outdoor seating (Montreal, Quebec City, and five regions); November 20 to January 8: reversal of earlier reopening for restaurants dine-in and outdoor seating (Montreal, Quebec City, and seven regions); January 9 to February 7: reversal of earlier reopening	8-Jun-20	-27%	-17%	-5%	-12%	-5%	-10%	-10%	-7%	-18%	2%
Saskatchewan, Canada	1,200,000	26-Mar-20	4-May-20	May 4: non-essential medical offices; May 19: retail, hair salons; June 8: restaurants											
Alberta, Canada	4,400,000	27-Mar-20	2-May-20	May 2: some outdoor recreation; May 4: non-essential medical offices; May 14: retail (entire province), restaurants, hair salons (all except Calgary and Brooks); May 25: Calgary and Brooks; December 13: reversal of earlier reopening for restaurants dine-in and outdoor seating		-11%	-8%	-4%	-5%	-5%	-6%	-5%	-7%	-7%	-5%
Mexico	128,600,000	30-Mar-20	18-May-20	May 18: mining, construction, auto manufacturing (nationwide); all businesses (269 out of 2,448 municipalities); June 1: all businesses (varies by state); June 18: some retail (Mexico City); July 1: restaurants (Mexico City); July 3: hair salons (Mexico City); July 6: all retail (Mexico City); October 26 to December 6: reversal of earlier reopening (Chihuahua); November 9 to December 6: reversal of earlier reopening (Durango); December 7 to 20: reversal of earlier reopening (Baja California and Zacatecas); December 19 to January 3: reversal of earlier reopening (Mexico City, State of Mexico, and Baja California); January 4 to 17: reversal of earlier reopening (Mexico City, State of Mexico, Baja California, Guanajuato, and Morelos); January 18 to 31: reversal of earlier reopening (Mexico City, State of Mexico, Morelos, Tlaxcala, Querétaro, Hidalgo, Guanajuato, Jalisco, Coahuila, and Nuevo León)		-40%	-41%	-32%	-24%	-23%	-22%	-15%	-16%	-25%	-14%
Trinidad and Tobago	1,400,000	30-Mar-20	12-May-20	May 12: some manufacturing, restaurants to-go; May 21: construction, all manufacturing, some retail; June 1: professional services, all retail; June 8: hair salons; June 22: restaurants dine-in; August 17 to November 8: reversal of earlier reopening for restaurants dine-in and outdoor seating	9-Nov-20										
Barbados	300,000	3-Apr-20	15-Apr-20	April 15: fish markets, hardware stores, banks; April 20: computer stores to-go; May 4: construction, most retail; May 18: all retail, restaurants to-go, hair salons; June 1: restaurants dine-in	1-Jun-20										
Ontario, Canada	14,600,000	5-Apr-20	4-May-20	May 4: landscaping, some construction, auto sales, car washes; May 11: retail to-go; May 16: outdoor recreation; May 19: most retail; June 12: all retail, outdoor seating at restaurants, hair salons (24 out of 34 regions); June 19: seven more regions; June 24: Toronto and Peel; July 17: all businesses except some entertainment venues (24 out of 34 regions); July 24: seven more regions; July 31: Toronto and Peel; October 10 to November 6: reversal of earlier reopening for restaurants dine-in (Toronto, Ottawa, and Peel); November 7 to 22: reversal of earlier reopening for restaurants dine-in (Toronto); November 23 to December 25: reversal of earlier reopening (Toronto and Peel); December 14 to 25: reversal of earlier reopening (Windsor-Essex and York); December 26 to February 10: reversal of earlier reopening		-26%	-21%	-16%	-10%	-12%	-14%	-15%	-17%	-12%	
Cuba	11,300,000	11-Apr-20	18-Jun-20	June 18: some ground transport, all businesses except some entertainment venues (13 out of 15 provinces); July 3: Havana; August 8 to October 1: reversal of earlier reopening (Havana)	18-Jun-20										
Total	550,500,000														
Of which: re-opening concluded	370,800,000														
Of which: without any re-opening	0														
Source: News reports, TomTom, Raymond James research				Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in, shading denotes reversal of earlier re-opening											

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening

COVID Lockdowns (Non-Essential Business Closures) and Re-openings in the Middle East and Africa															
	Population	Start Date	Re-opening Begins	Key Steps in Economic Re-opening	Re-opening Concludes	24-Apr	28-May	25-Jun	Traffic 30-Jul	Congestion 27-Aug	vs. Average 24-Sep	29-Oct	26-Nov	30-Dec	21-Jan
Turkey	84,200,000	17-Mar-20	11-May-20	May 11: retail, hair salons; June 1: restaurants; December 31 to January 3: reversal of earlier reopening April 28: foreign exchange firms, some retail; May 19: professional services, auto sales, more retail, restaurants to-go; June 10: most retail; June 24: all retail; August 18: restaurants dine-in	4-Jan-21	-17%	-7%	-7%	-1%	-7%	-10%	-11%	-9%	-2%	-7%
Oman	4,800,000	18-Mar-20	28-Apr-20	April 27: some manufacturing, some retail; May 4: restaurants, hair salons; May 11: auto sales; May 14 to 17: reversal of earlier reopening; June 1: all retail; July 30 to August 3: reversal of earlier reopening; August 6 to 10: reversal of earlier reopening; August 21 to 27: reversal of earlier reopening; October 4 to 11: reversal of earlier reopening (111 locations); October 12 to 18: reversal of earlier reopening (169 locations); October 19 to 25: reversal of earlier reopening (79 locations); October 26 to November 1: reversal of earlier reopening (63 locations); November 2 to 8: reversal of earlier reopening (115 locations); November 14 to 29: reversal of earlier reopening; January 7 to February 7: reversal of earlier reopening	18-Aug-20										
Lebanon	6,800,000	18-Mar-20	27-Apr-20	May 10: farmers' markets (varies by province); May 29: restaurants to-go; June 11: manufacturing, retail (nationwide), ground transport, hair salons (varies by province); June 24: all businesses except some entertainment venues (most provinces); December 23 to January 13: reversal of earlier reopening for restaurants dine-in and outdoor seating (Casablanca, Tangier, Marrakesh, and Agadir)	24-Jun-20										
Morocco	36,800,000	20-Mar-20	10-May-20	April 17: some retail; April 27: ground transport, construction, restaurants to-go, hair salons; May 22 to 24: reversal of earlier reopening; June 7: restaurants dine-in; September 17 to 30: reversal of earlier reopening	1-Oct-20										
Jordan	10,200,000	21-Mar-20	17-Apr-20	May 4: ground transport, construction, food industry; May 11: some retail; May 26: manufacturing, restaurants to-go; June 4: restaurants dine-in; October 9 to 18: reversal of earlier reopening for restaurants dine-in (Tunis); January 14 to 17: reversal of earlier reopening; January 18 to 24: reversal of earlier reopening for restaurants dine-in	25-Jan-21										
Tunisia	11,800,000	22-Mar-20	4-May-20	May 4: ground transport, construction, manufacturing, retail, restaurants; January 19 to February 2: reversal of earlier reopening (Kigali)	4-May-20										
Rwanda	12,900,000	22-Mar-20	4-May-20	April 26: some retail, hair salons; May 4 to June 6: reversal of earlier reopening; June 7: construction; June 14: ground transport, more retail; August 15: restaurants; November 17 to December 1: reversal of earlier reopening for restaurants dine-in and outdoor seating (32 out of 48 provinces); December 2 to 31: reversal of earlier reopening for restaurants dine-in and outdoor seating (34 provinces); January 1 to 30: reversal of earlier reopening for restaurants dine-in and outdoor seating (29 provinces)											
Algeria	43,700,000	23-Mar-20	26-Apr-20	April 20: all businesses; July 6 to 26: reversal of earlier reopening	27-Jul-20										
Antananarivo, Madagascar	1,600,000	23-Mar-20	20-Apr-20	April 16: mining; May 1: forestry, some manufacturing, professional services; June 1: all manufacturing, all retail, restaurants to-go; June 29: restaurants dine-in	29-Jun-20	-16%	-8%	-5%	-5%	0%	-7%	-4%	2%	-9%	-2%
South Africa	58,800,000	26-Mar-20	16-Apr-20	May 27: open markets, restaurants to-go; June 10: some retail, hair salons											
Kaduna State, Nigeria	6,100,000	26-Mar-20	27-May-20	April 17: open markets; May 5: retail, hair salons; June 2: restaurants	2-Jun-20										
Namibia	2,500,000	27-Mar-20	17-Apr-20	April 26: manufacturing; May 26: all businesses except some construction; June 8: all construction	26-May-20										
Angola	32,700,000	27-Mar-20	26-Apr-20	April 8: money transfer agencies; May 4: manufacturing, offices; June 12: open markets; July 1: restaurants; January 5 to February 3: reversal of earlier reopening											
Zimbabwe	14,800,000	30-Mar-20	8-Apr-20	April 20: all businesses	20-Apr-20										
Accra, Ghana	2,000,000	30-Mar-20	20-Apr-20	April 20: all businesses	20-Apr-20										
Kumasi, Ghana	1,500,000	30-Mar-20	20-Apr-20	May 4: offices, retail, restaurants to-go; August 14: restaurants dine-in	14-Aug-20										
Lagos State, Nigeria	17,600,000	31-Mar-20	4-May-20	April 19: some retail; April 26: more retail, restaurants to-go, hair salons; May 7: all retail; May 27: restaurants dine-in; July 10 to 17: reversal of earlier reopening (parts of five cities); September 18 to December 8: reversal of earlier reopening; December 9 to 26: reversal of earlier reopening for restaurants dine-in and outdoor seating; December 27 to January 30: reversal of earlier reopening		-39%	-17%	-15%	-27%	-12%	-29%	-18%	-6%	-27%	-19%
Israel	9,200,000	31-Mar-20	19-Apr-20	May 6: professional services, some retail, restaurants to-go; May 27: manufacturing, most retail, restaurants	27-May-20										
Uganda	45,500,000	1-Apr-20	6-May-20	May 31: retail; June 21: restaurants	21-Jun-20										
Mecca, Saudi Arabia	2,000,000	2-Apr-20	31-May-20	April 29: retail; May 31: restaurants; June 21: all businesses	31-May-20										
Medina, Saudi Arabia	1,500,000	2-Apr-20	29-Apr-20	May 8: all businesses except tobacco and liquor stores; May 21: all businesses	21-May-20										
Botswana	2,300,000	2-Apr-20	8-May-20	April 26: ground transport, retail, restaurants	26-Apr-20	-5%	-20%	-17%	-21%	-12%	-16%	-21%	-14%	-11%	-9%
Dubai, UAE	3,400,000	4-Apr-20	26-Apr-20	April 11: manufacturing, some retail (outside Tehran); April 18: manufacturing, some retail (Tehran); April 20: all retail; May 26: restaurants; November 21 to December 4: reversal of earlier reopening (160 cities); December 5 to 18: reversal of earlier reopening (64 cities); December 19 to January 1: reversal of earlier reopening (12 cities)	5-Dec-20										
Iran	83,800,000	4-Apr-20	11-Apr-20	April 29: retail; May 31: restaurants; June 21: all businesses	31-May-20	-4%	-25%	-23%	-25%	-19%	-25%	-19%	-19%	-18%	-17%
Riyadh, Saudi Arabia	7,700,000	6-Apr-20	29-Apr-20	April 29: retail; May 31: restaurants; June 6 to 19: reversal of earlier reopening; June 21: all businesses	21-Jun-20	0%	-21%	-21%	-21%	-18%	-21%	-19%	3%	-15%	-15%
Jeddah, Saudi Arabia	4,000,000	6-Apr-20	29-Apr-20	June 7: banks; July 8: all businesses	8-Jul-20										
Khartoum State, Sudan	7,700,000	18-Apr-20	7-Jun-20	May 10: ground transport, retail, restaurants	10-May-20										
South Sudan	11,200,000	28-Apr-20	10-May-20	May 31: manufacturing, some retail, restaurants to-go (varies by region); June 2: banks (varies by region); June 30: all retail (varies by region); August 18: restaurants dine-in, hair salons	18-Aug-20										
Kuwait	4,300,000	10-May-20	31-May-20	June 15: some retail; July 1: all retail, restaurants	1-Jul-20										
Qatar	2,800,000	19-May-20	15-Jun-20	May 30: ground transport, retail; June 27: restaurants	27-Jun-20										
Egypt	102,100,000	24-May-20	30-May-20												
Total	636,300,000														
Of which: re-opening concluded	555,700,000														
Of which: without any re-opening	0														

Source: News reports, TomTom, Raymond James research

Note: Conclusion of re-opening is defined as everything up to and including all retail and restaurants dine-in; shading denotes reversal of earlier re-opening



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