

## US Insights

### JefData US Economic Activity Index: March 22, 2020

March 22, 2020

#### Key Takeaway

Jefferies introduces the JefData US Economic Activity Index, aggregating government and alternative data to better assess US economic activity. The index shows that the US is at 67% of normal activity. GTCOM's analysis of mainland China implies the country is operating at 75% of normal and troughed at 48%. Jefferies' data sets are as of Friday, March 20, or most recent available, and new editions will be published on Sundays.

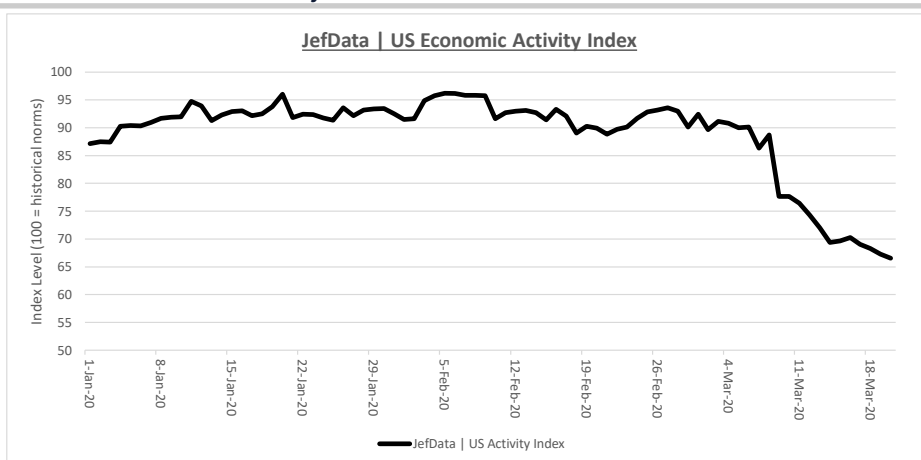
The JefData US Economic Activity Index includes: NYC MTA ridership, top three city traffic, US energy consumption, US flight activity, and job listings. Unsurprisingly, activity was largely unchanged through February but has since deteriorated materially. The current implied US Economic Activity is just 67% of normal. Notably: 1) public transportation was at 24% of normal; 2) traffic congestion was at ~65% of normal; 3) energy consumption remains at a 98% level; 4) flight activity is at just 83% and 5) hiring activity is ~80% of typical.

Excluded from the index, we also offer several other datasets that track: searches for unemployment insurance, news flow about unemployment, web traffic to grocery/food delivery & web conference sites, app traffic to those items, and retail store closures.

Using the Chinese New Year holiday as a benchmark, GTCOM offered a comparative analysis of how COVID-19 affected economic activity in mainland China. They found that: 1) public transportation fell to <10% of normal; 2) traffic congestion in major cities fell to ~70% (on aggregate) and 3) coal consumption for energy fell to about 55% of what is seasonally typical. In sum, economic activity in China bottomed in early Feb (at ~48%), but has since re-accelerated, inflecting in the first week of March.

While Jefferies' data sets are not the same as GTCOM's, nor are the economies truly comparable, the US Economic Activity Index offers a lens into where the US economy sits and how it is moving directionally. ~90% of underlying data is up to date as of 3/20.

#### JefData US Economic Activity Index

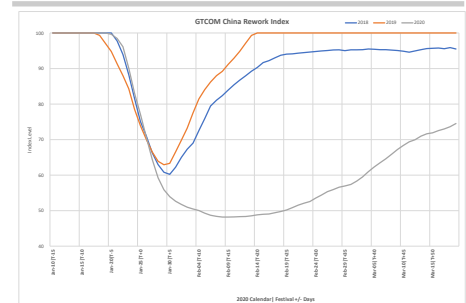


Source: Jefferies

EQUITY RESEARCH  
POWERED BY

**Jefdata.**

#### GTCOM China Rework Index



Source: GTCOM

Jefferies Equity Research \*

Equity Analyst

(888) JEFFERIES

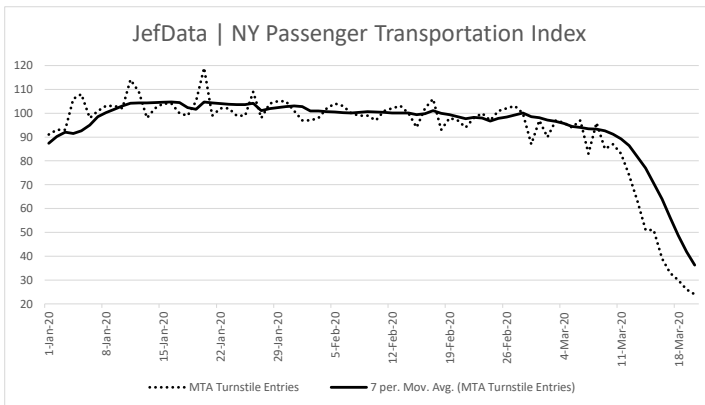
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^Prior trading day closing price unless otherwise noted.

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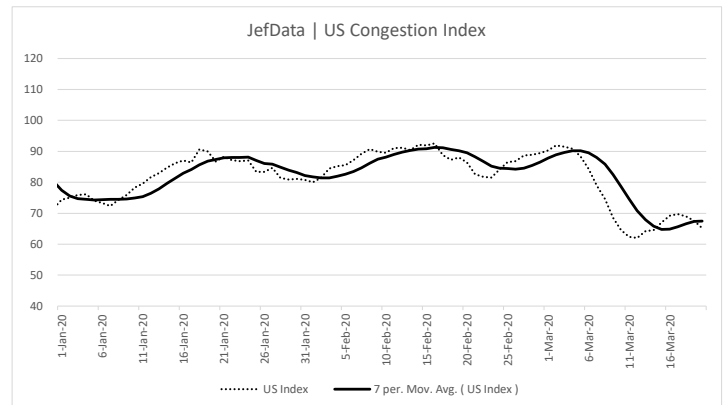
## NY Passenger Transportation Index



Source: NYC-MTA, Jefferies

Daily metro passenger turnstile entries including NYC subway, NJ PATH and NY light rail. 100 represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from the NYC-MTA.

## US Congestion Index

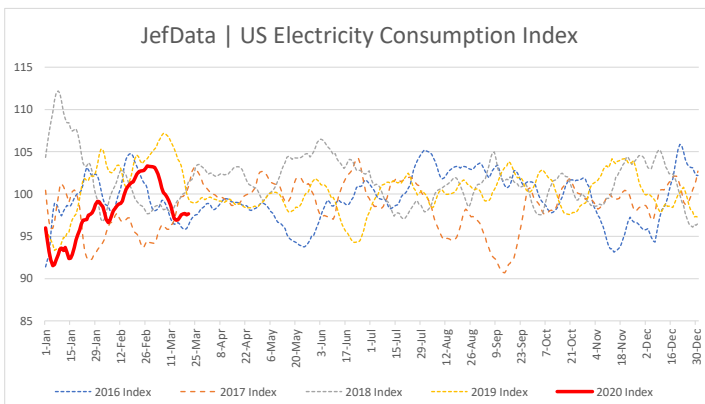


Source: Municipal Open Data portals, Jefferies

Aggregation of multiple daily traffic congestion datasets based on the most recent available data per source. 100 represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from multiple Municipal Open Data portals (data.cityofnewyork.us, data.cityofchicago.org, data.lacity.org).

\* NYC data as of 3/17; CHI data as of 3/20; LA data as of 3/14.

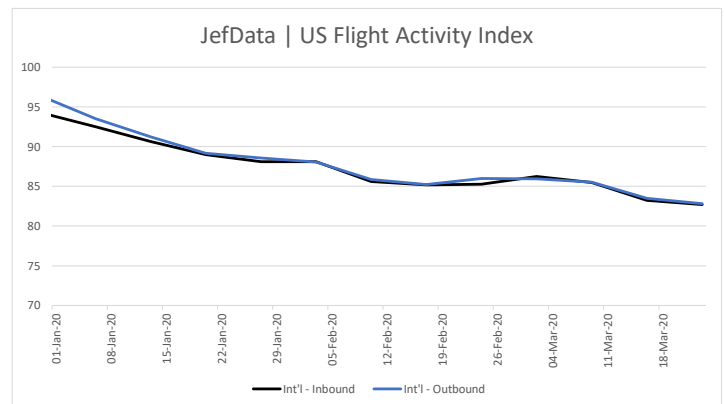
## US Electricity Consumption Index



Source: US EIA, Jefferies

Daily national electricity consumption. 100 represents 'normal' level based on seasonally adjusted values of observations from prior years. Aggregated and normalized by Jefferies and sourced from the US Energy Information Administration.

## US Flight Activity Index

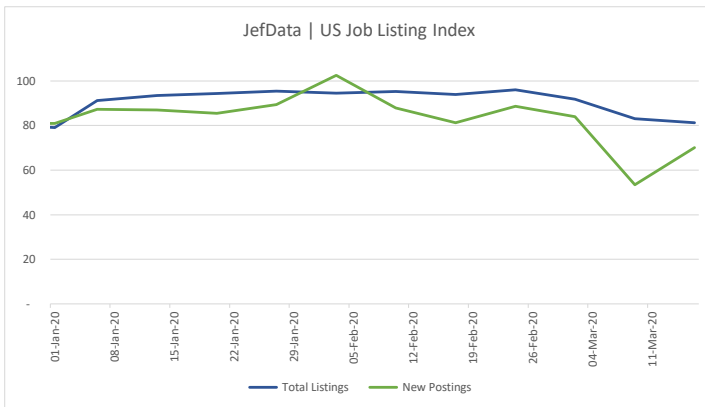


Source: Vertical Knowledge, Jefferies

Weekly active (non-cancelled) US flight volume for both domestic and international. 100 represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from Vertical Knowledge.

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## US Job Listing Index



Source: Thinknum, Jefferies

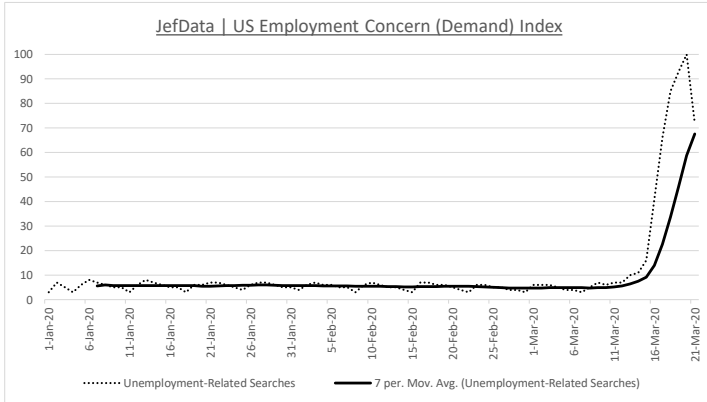
Weekly aggregation of a dynamic universe of ~150 national firms representing an average of ~150k job listings. 100 represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from Thinknum.

\*Latest data point is based on updated data from ~100 of our ~150 panel companies.

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## Additional US Economic Activity Data

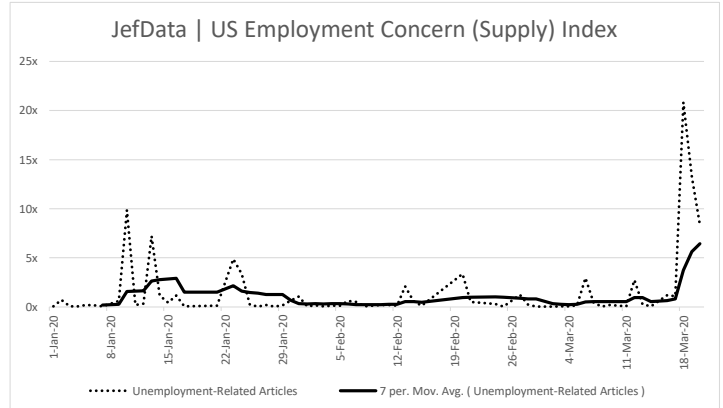
### US Employment Concern (Demand) Index



Source: Google Trends, Jefferies

Daily aggregation of multiple unemployment related search trends from the US. 100 represents the highest frequency of search from 2019. Aggregated and normalized by Jefferies and sourced from Google Trends.

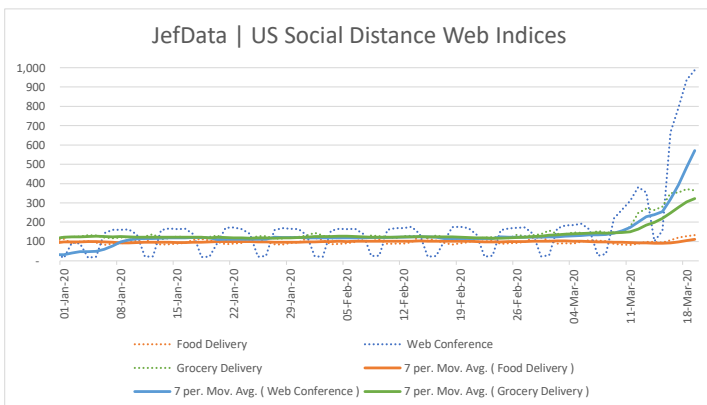
### US Employment Concern (Supply) Index



Source: RavenPack, Jefferies

Daily volume of negatively skewed unemployment related articles. 1x represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from RavenPack.

### US Social Distance Web Indices

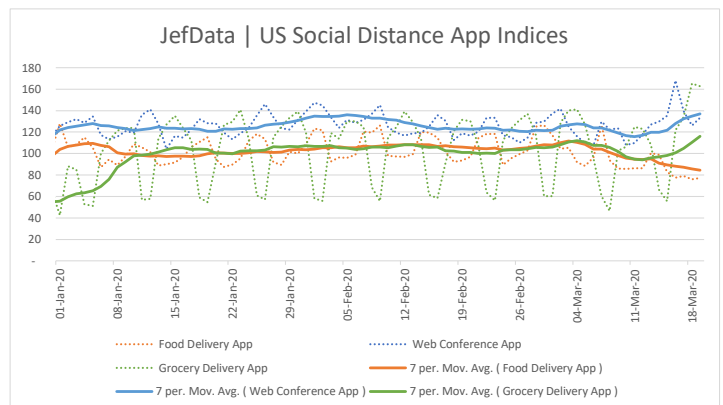


Source: SimilarWeb, Jefferies

Daily US web traffic to numerous sites within delivery (grocery and restaurant) and remote access services. 100 represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from SimilarWeb.

\*Data up to date as of 3/19

### US Social Distance App Indices



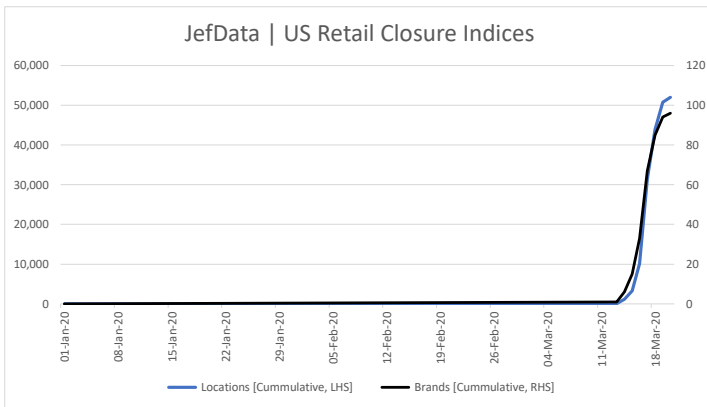
Source: SimilarWeb, Jefferies

Daily US web traffic to numerous apps within delivery (grocery and restaurant) and remote access services. 100 represents 'normal' level based on observations from 2019. Aggregated and normalized by Jefferies and sourced from SimilarWeb.

\*Data up to date as of 3/19

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## US Retail Store Closures Index

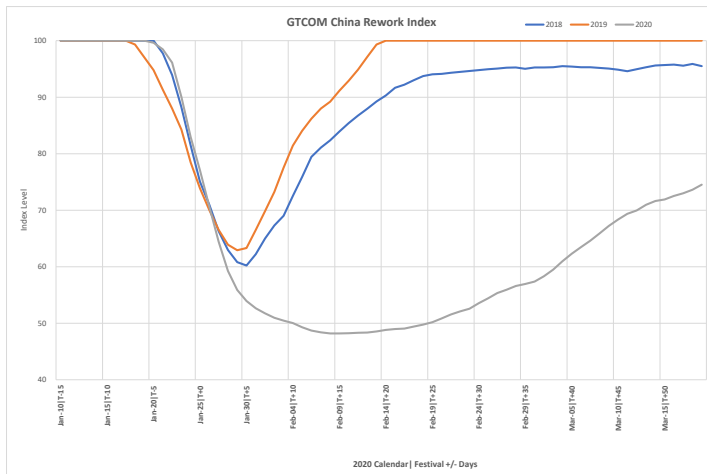


Source: Creditnell, Jefferies

Count of voluntary closures by retail locations and brands. Aggregated and normalized by Jefferies and sourced from Creditnell.

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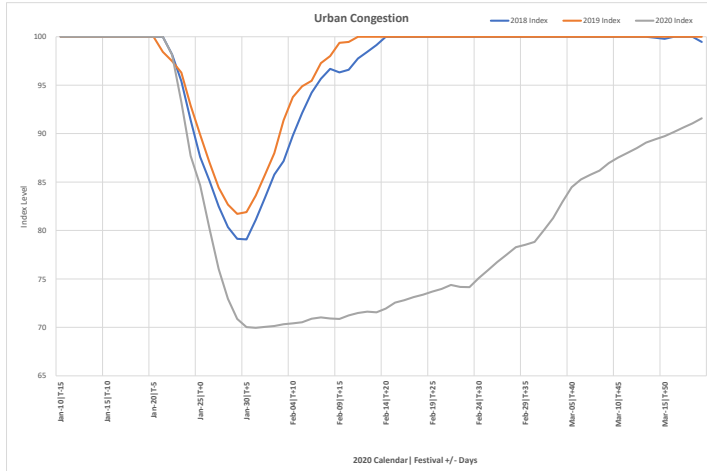
## GTCOM China's Rework Index



Source: GTCOM

An aggregation of GTCOMs Coal Consumption, Urban Consumption and Metro Passenger Transport Indices weighted. 100 represents 'normal' level based on observations prior to CNY each calendar year and t=0 represents the start of CNY.

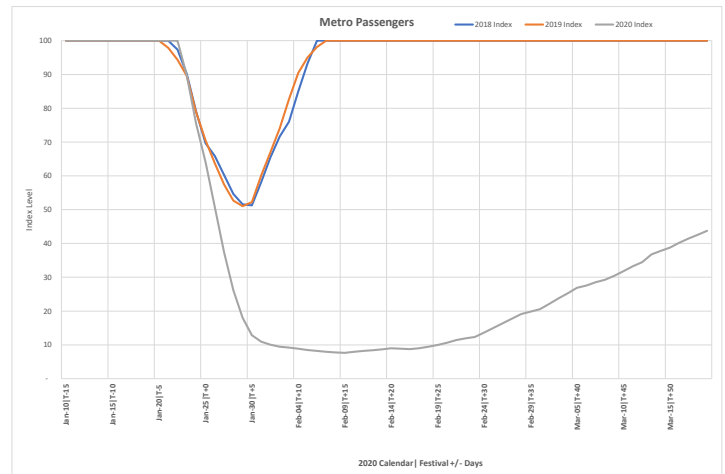
## Urban Congestion Index (China)



Source: GTCOM, AutoNavi

Daily traffic congestion from 41 of the largest cities with a DAU base covering ~33% of vehicles of China. 100 represents 'normal' level based on observations prior to CNY each calendar year and t=0 represents the start of CNY. Aggregated by GTCOM and sourced from AutoNavi.

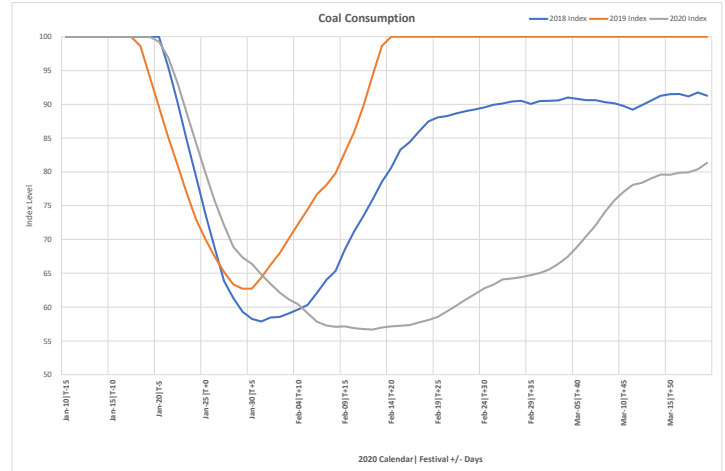
## Metro Passenger Trans. Index (China)



Source: GTCOM

Daily subway passenger ridership within Tier-1/Tier-2 cities. 100 represents 'normal' level based on observations prior to CNY each calendar year and t=0 represents the start of CNY. Aggregated by GTCOM and sourced from transport agency official Weibo accounts.

## Coal Consumption Index (China)



Source: GTCOM

Daily coal consumption of six major power production groups representing approximately ~45% of the total Chinese electricity production. 100 represents 'normal' level based on observations prior to CNY each calendar year and t=0 represents the start of CNY. Aggregated by GTCOM and sourced from the power groups directly.

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Recommendation Published	March 22, 2020 , 18:12 ET.
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Distribution of Ratings						
			IB Serv./Past12 Mos.		JIL Mkt Serv./Past12 Mos.	
	Count	Percent	Count	Percent	Count	Percent
<b>BUY</b>	1271	53.61%	113	8.89%	10	0.79%
<b>HOLD</b>	941	39.69%	34	3.61%	4	0.43%
<b>UNDERPERFORM</b>	159	6.71%	1	0.63%	0	0.00%

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