Timely Tracking Of The Impact From COVID-19

March 13th 2020
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1. Traditional Information & Data Is Not Timely Enough
How Will COVID-19 Impact Listed Companies In Q1 2020? If We Rely Solely On Traditional Sources We Won’t Know Until Early April

<table>
<thead>
<tr>
<th>TIME</th>
<th>COMPANY</th>
<th>EVENT</th>
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<td>4/28</td>
<td>HSBC Holdings plc</td>
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<td>Verizon Inc.</td>
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JetBlue abandons 2020 forecast amid virus outbreak

Published Mon, Mar 9 2020-10:08 AM EDT

JetBlue Airways on Monday withdrew its first-quarter and full-year earnings forecast and said it was considering voluntary time-off programs for employees, as the coronavirus outbreak wreaks havoc on the global travel industry.

JetBlue said it is adjusting schedules between March and early May due to falling demand, and is evaluating further flight cancellations as the situation around the epidemic develops. The company also said it was delaying some hiring and increasing the frequency with which it cleans aircraft.
Government Statistics Have A Time Lag Of 1 - 4 Months

Potential of Big Data

1. Big data to answer “new questions” and produce new indicators
2. Big data to bridge time-lags of official statistics and support the forecasting of existing indicators
3. Big data as an innovative data source in the production of official statistics

Source: IMF
2. Alternative Data Is Timely
Smart Clients (Including Hedge Funds, Private Equity, Corporates, Governments, Central Banks) Are Looking To Alternative Data For Timely Insights

How investors are using ‘alternative’ data to track China’s recovery from coronavirus

Published: Feb 28, 2020 9:40 a.m. ET

Traffic congestion, air pollution and box office revenues are ways investors are tracking China’s recovery.

The fund manager for Brandywine Global said an array of “alternative” datasets which offered frequent updates of how swiftly Chinese workers were returning to the factory floor painted a more dire picture of the world’s second largest economy. Based on such sources, hopes for China to see a V-shaped recovery — a sharp rebound of economic growth after a first-quarter slowdown — are going to be dashed, said market participants.

“One third are still getting back, one third is getting quarantined, and another third is at home because there’s no demand,” said Chen.

Investors have employed high-frequency data like traffic congestion and coal consumption that isn’t offered by government statistics agencies to get a pulse on China’s economy, as official data releases can take longer to be published.

“The official data lags, so when you have a situation like this, you have to turn to some alternative data sources to get a read on the ground,” said Alex Etra, senior strategist at Exante Data, in an interview with MarketWatch.

>>> Link to article
Investors hunt for alternative data to track coronavirus shock

Analytics companies mine figures on everything from traffic jams to food orders in China

Airline bookings, meanwhile, suggest that the viral outbreak has caused the biggest-ever reduction in activity by a single event, including Sars and September 11 2001, according to Eagle Alpha, a Dublin-based provider of alternative data. The airline industry has lost 10m seats to, from and within China.
What Is Alternative Data & How Timely Are The Datasets?

What is Alternative Data?

- **Alternative Data:** alternative data is non-traditional data that is used in the investment process (e.g. hedge funds, private equity firms) or to augment decision making (e.g. corporates, central banks).
- **Categories:** Eagle Alpha, established in 2012, was the first company to create a taxonomy of alternative data sources. Today there are 24 categories.
- **Datasets:** there are currently 1,200 in Eagle Alpha’s database from vendors across the world.

Frequency Of Datasets

- Daily: 59%.
- Weekly: 7%.
- Monthly: 15%.

- Numbers within each hexagon are the number of datasets for that category.
- Some datasets appear in multiple categories.
- ESG: Environmental, Social and Governance.
There Are Currently 49 Alternative Datasets In Our Database That Are Specifically Relevant To COVID-19. This Number Increases Every Week.
3. Use Cases & 14 Examples
Examples Of Questions That Our Clients Want Answers To

- China supply chain and logistics activity – is it coming back online? Are we seeing worker activity? Are car plants reopening? Are ports busy? How do I monitor?

- What happened to inventory build during logistics shut down?

- Is the Chinese consumer active again? Is spend moving from online (stay at home) to physical retail (leave the house)? How do I monitor?

- Is the China consumer getting back on flights/tourism? How do I monitor? Are they spending outside of China? How do I monitor?

- How do I do all of the above for non-China? Are there signs hotel/cruise/airline bookings are recovering in non-China?
Case Study #1: Satellite Data – This Factory Index Is A Lead Indicator To China’s Monthly PMI
Case Study #2: Satellite Data – This Dataset Shows Copper Inventory Growth At Chinese Smelters
Case Study #3: Satellite Data – This Dataset Shows Inventory Build (Blue Line) & Finished Product Decline (Green Line) At A Copper Factory In Hubei Province
Case Study #4: Geo-location Data – This Dataset Measures The Footfall Of Hotel Guests By US, Schengen & Other
Case Study #5: Geo-location Data – This Dataset Shows A Decline Of Visits By Chinese Buyers To An Outlet Mall In The UK. Geo-Data Can Be Widely Applied e.g. Retailers, Amusement Parks etc.
Case Study #6: Geo-location Data – Casino Footfall Around Chinese NY And The Outbreak Of The Virus
Case Study #7 & 8: Supply Chain Data – These Two Vendors Have Excellent Product-Level Data On Imports / Exports

Intel Corporation – US laptop imports $

Under Armor – US imports in TEU
Case Study #9: Supply Chain Data – This Vendor Has A Wide Array Of Indices To Track Company Supply Chains
Case Study #10: Social Media Data – Zoom’s Share Of Conversation In The Online Conference Market Has Doubled In Recent Weeks

- Zoom’s share of conversation has more than doubled in recent weeks.
- Net sentiment toward both operators has fallen significantly in recent months, most notably for Skype.
- Cities where conversation of working from home has spiked most in March 2020 compared to prior 12 months.

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<tr>
<th>City</th>
<th>Mention Spike</th>
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<tr>
<td>San Francisco</td>
<td>25x</td>
</tr>
<tr>
<td>Seattle</td>
<td>23x</td>
</tr>
<tr>
<td>Washington</td>
<td>15x</td>
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<tr>
<td>Boston</td>
<td>15x</td>
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<tr>
<td>Portland</td>
<td>15x</td>
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Case Study #11: Employment Data – Active Job Listings For The S&P500 In The 3 Days To March 10th Are Down 2.6% From A Baseline Level Of Jan 2019 To Feb 2020, But Are Actually Up 3.4% vs. March 2019

Hotels, Resorts & Cruise Lines

Carnival Cruise Lines
Hilton Worldwide
Marriott International
Norwegian Cruise Line
Royal Caribbean Cruises Ltd.
Case Study #12: Employment Data – Chinese Job Listings In January 2020 Are Tracking Below 2019 Levels
Case Study #13: Airline Data – Tracking Bookings Data Provides A Good Read For Airlines But It Will Also Help Gauge The Recovery In Due Course

- Bookings made for departures from the USA to worldwide destinations by region*
  - Introduction of travel restrictions in China
  - Bookings made since 20 January
  - YoY % change
    - Asia Pacific: -98.1%
    - Europe: -31.9%
    - The Americas: -14.5%
    - Africa & Middle East: -22.6%
    - Total Global: -36.5%

* excluding domestic USA
Case Study #14: Airline Data – A Total Of 7,495 Flights Were Cancelled To And From Italy In The 12 Days From February 28th 2020
Next Week We Will Send You The First White Paper Regarding How Alternative Data Provides Timeline Insights Regarding COVID-19
4. Getting Access To Datasets Quickly
Ways To Compress The Onboarding Time For Buyers

**Screening**
- Vendors adopt the FISD standardized tearsheet.
- Quality data dictionary and sample readily available.

**Legal & Compliance**
- Vendors and buyers adopt the FISD standardized DDQ (dataset due diligence questionnaire).

**Trial**
- Vendors and buyers adopt Eagle Alpha’s standardized trial agreement (or the majority of it).
- Trial using static data because using live data takes longer.
- Shorten the evaluation period.

**Contract**
- Term: some vendors are willing to do 3 month terms to cover the critical period.
- Pricing: vendors are providing special offers related to the Coronavirus in order to develop relationships with new clients.

**Skip Trial By Taking Opt-Out**
- Term: Eagle Alpha recommends an annual license with a 3 month opt-out.

*Alternative Option: Eagle Alpha’s Rapid Response Model*

We have developed a rapid response model for bespoke project work that delivers insights on data within a 2 to 3 week period.
5. Six Ways Clients Are Engaging
Eagle Alpha
Clients Are Engaging Eagle Alpha In A Variety Of Ways To Obtain Timely Data

1. To discover and prioritize datasets for specific needs.
2. To conduct data quality testing of selected datasets.
3. To create dashboards e.g. an employment dataset to monitor hiring decline in the US.
4. To understand the legal & compliance aspects of Chinese data.
5. To do one-off bespoke projects e.g. track footfall of a retailer or amusement park.
6. To engage our team to do data analysis on an outsourced basis for the next 3 months.
Contact Us To Discuss Your Alternative Data Needs

enquiries@eaglealpha.com