The Economy in the Days of COVID-19

NARI - Webinar
April 1, 2020

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Armada Corporate Intelligence
It DOES Exist!
What Do We Know This Minute?

• In truth – we really don’t know much as the situation alters every day to some extent.
  – Market collapsed almost completely and globally but has been volatile.
  – Supply chains have been shattered – especially those that originated in Asia.
  – Government has mandated shutdowns of any venue that would attract crowds – events, restaurants etc.
  – Central banks have lowered rates to zero and are engaged in bond buying and any other mechanism that would allow money to enter the economy.
  – Congress has acted at last with a two trillion dollar package. Some priority given to public health.
  – Some nations have seen the peak – they think. China. South Korea, Singapore.
The Varying Impact of the Coronavirus

Distribution of COVID-19 cases, by current status*

<table>
<thead>
<tr>
<th>Country</th>
<th>Deaths</th>
<th>Unresolved</th>
<th>Recoveries</th>
<th>Total number of COVID-19 cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainland China</td>
<td>3.8%</td>
<td>39.8%</td>
<td>56.4%</td>
<td>80,026</td>
</tr>
<tr>
<td>South Korea</td>
<td>0.6%</td>
<td>98.7%</td>
<td>0.7%</td>
<td>4,212</td>
</tr>
<tr>
<td>Italy</td>
<td>2.0%</td>
<td>93.1%</td>
<td>4.9%</td>
<td>1,694</td>
</tr>
<tr>
<td>Iran</td>
<td>5.5%</td>
<td>76.6%</td>
<td>17.9%</td>
<td>978</td>
</tr>
<tr>
<td>Japan</td>
<td>2.3%</td>
<td>85.2%</td>
<td>12.5%</td>
<td>256</td>
</tr>
</tbody>
</table>

* Countries with the most confirmed cases. As of Mar 2, 2020 at 9am CET
Source: Johns Hopkins University
Peak is Now in US and Europe

Exponential growth
China’s outbreak has come to a halt and South Korea has flattened its curve, but COVID-19 case numbers are still rising rapidly in many Western countries.
How Does This Compare?

Fatality rate (log scale)

100%
50%
20%
10%
5%
2%
1%

MERS
Bird flu
Ebola
SARS
Smallpox
Spanish flu
New coronavirus
Most estimates put the fatality rate below 3%, and the number of transmissions between 2 and 4.

Average number of people infected by each sick person

0
1
2
3
4
5
10
15

2009 flu
Common cold
Polio
Chickenpox

Measles

Note: Average case-fatality rates and transmission numbers are shown. Estimates of case-fatality rates can vary, and numbers for the new coronavirus are preliminary estimates.
More Obvious in China Itself
Shift Away from Epicenter

Most COVID-19 Cases Are Outside of China
The number of COVID-19 cases in countries other than China has surpassed the number of cases inside China, and is rising fast.

Source: Johns Hopkins University
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Death Toll High in Elderly but Infection Hits Young as Well

### Age Distribution of Hospitalization

**Percentage of Cases**

<table>
<thead>
<tr>
<th>Age Range</th>
<th>COVID-19</th>
<th>Flu</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 and older</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-64 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Consumers are Worried

In general, how **concerned are you about the spread** of Coronavirus to your community?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very concerned</td>
<td>31.65%</td>
</tr>
<tr>
<td>Concerned</td>
<td>39.91%</td>
</tr>
<tr>
<td>Neither concerned...</td>
<td>17.48%</td>
</tr>
<tr>
<td>Unconcerned</td>
<td>7.84%</td>
</tr>
<tr>
<td>Very unconcerned</td>
<td>3.12%</td>
</tr>
</tbody>
</table>
Quite the Market Hit

The impact of coronavirus on stock markets since the start of the outbreak

January - February - March - April

Nikkei: -16.4%
Dow Jones: -21.9%
FTSE 100: -26.6%

Source: Bloomberg, 27 March 2020, 13:00 GMT
Still Not the Worst We Have Been Through

FIVE WORST WEEKS SINCE 1983: FTSE 100

- Black Monday - Oct 1987: -22.0%
- Financial Crisis - Oct 2008: -21.0%
- Covid-19 - Feb 2020: -11.1%
- Financial Crisis - Nov 2008: -10.7%
- Euro Crisis - Aug 2011: -9.8%

SOURCE: SKY/BLOOMBERG
Fed has Acted Before

US: Emergency Fed rate cuts

- Tech bubble (Mar 2001)
- Weak economy (Apr 2001)
- 9/11 (Sep 2001)
- Subprime mortgage crisis (Aug 2007)
- Stock market crash (Jan 2008)
- Lehman (Oct 2008)
- Coronavirus (Mar 2020)

Source: Oxford Economics/Haver Analytics
CMI Looks Stressed

Combined Index Monthly Change
(seasonally adjusted)

Index

Mar '19  Apr '19  May '19  Jun '19  Jul '19  Aug '19  Sep '19  Oct '19  Nov '19  Dec '19  Jan '20  Feb '20  Mar '20
 +/-  -1.3  0.5  1.6  -0.7  -1.6  1.8  -1.2  0.5  0.9  -0.9  1.8  -0.3  -7.2
Key Points in Latest CMI

- Most dramatic decline has been in the favorable factors.
- Sales have all but vanished.
- Slow pays are the first to show strain in the unfavorable categories.
- There has not been time for the other unfavorable categories to show reaction but they will...
Current Impact

Economic growth in 2020, %

- World
- China
- Netherlands
- Spain
- US
- UK
- France
- Eurozone
- Germany
- Japan
- Italy

- No COVID-19
- Base case (with COVID-19)
- Risk scenario: pandemic
Bail Out of the Century

• $1200 checks for those making under $75,000
• Expanded unemployment
• $377 billion in loans to small business
• $500 billion in loans for large business – government takes equity stake
• $100 billion to hospitals
• No stock buybacks, no money for administration connected business
• Help tied to employment
Which Sectors at Highest Risk?

**Immune deficiency**

**Covid-19 risk to manufacturing**

<table>
<thead>
<tr>
<th>Medium risk</th>
<th>Low risk</th>
<th>Number of alternative sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Automotive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharma</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>High tech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High risk</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**Inventory buffer, days of supply**

Sources: Llamasoft; Goldman Sachs Global Investment Research

**Share prices, December 31st 2019=100**

- First covid-19 death announced
- S&P 500 index
- US firms with high China sales exposure

The Economist
Map 1

Sunbelt tourist destinations and energy metros stand to be most affected
Share of metro employment in high risk industries, 2019

NOTE: BUBBLE SIZE REFLECTS NUMBER OF JOBS IN HIGH RISK INDUSTRIES.


Metropolitan Policy Program
at BROOKINGS
**Impact**

**China Slowdown**
- Weaker Demand For Goods & Commodities
- Supply Chain Disruption
- Reduced Outbound Tourism Spend

**Localised Outbreaks**
- Work Stoppages & Travel Restrictions
- Falling Sentiment & Consumption
- Weaker Earnings & Reduced Capex

**Financial Stress**
- Equity Sell Off & Negative Wealth Effect
- Tightening Financial Conditions
- Downside Pressure On Currencies
Supply Chain Impact Already Clear

Coronavirus Expected to Impact Tech Industry Shipments

Estimated impact of the COVID-19 outbreak on global tech shipments in Q1 2020

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Impact (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVs</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Video Game Consoles</td>
<td>-10.1%</td>
</tr>
<tr>
<td>Smartphones</td>
<td>-10.4%</td>
</tr>
<tr>
<td>Smart Speakers</td>
<td>-12.1%</td>
</tr>
<tr>
<td>Notebooks</td>
<td>-12.3%</td>
</tr>
<tr>
<td>Smartwatches</td>
<td>-16.0%</td>
</tr>
</tbody>
</table>

* smartphone forecast refers to production volume instead of shipments
Source: TrendForce
Why Situation in China Matters

China exports as % of total

Australia, Taiwan, New Zealand, South Korea, Japan, Vietnam, Indonesia, Malaysia, Philippines, Singapore
“V” or “U” or “L”?

**Economic Shock: 3 Scenarios**

A V-shaped scenario depicts a classic economic shock, where growth eventually rebounds. In a U-shaped scenario, there is some permanent loss of output after the initial shock. An L-shaped scenario signals real structural damage, with a significant impact on growth.

- **V** is the most likely – a hard but short lived reaction
- **U** is nearly as hard but has more of a lingering impact
- **L** is not very likely but is most threatening – lasts well into the next year
What Leads to the “Good” Outcome?

• Virus threat fades within the next five to eight weeks due to factors such as warmer weather and enforced isolation.
• Consumers react strongly to the “all clear” and resume their normal activities very quickly.
• Government leaves liquidity measures in place for an extended period of time – low rates, tax breaks, increased spending, bailing out most damaged sectors.
• Virus also fades in key US markets such as Europe, China, Japan, South Korea. At the same time it doesn’t ramp up in other regions of the world.
• Infrastructure in the US manages to keep pace with demand.
What Leads to “Bad” Outcome?

- Virus doesn’t fade as quickly as hoped and is not as sensitive to temperature as flu. People refuse to take the issue seriously and keep spreading it.
- Consumers remain cautious after the “all clear” and it takes a while to return to normal.
- Government measures end quickly and Fed decides to ease rates back up as soon as the markets show any life.
- Virus keeps spreading in Europe and elsewhere and starts to show up in places where it has not been a big problem before.
- Infrastructure breaks down as Internet and other communication centers are overwhelmed. Health care system can’t keep up with onslaught of cases.
What Leads to “Ugly” Outcome?

- Virus can’t seem to be managed and begins to morph and adjust. No vaccine or cure in sight.
- Panic takes control as business starts massive layoffs and thousands of small operations fall into bankruptcy.
- Government is unable to offer any financial remedy and resorts to extreme measures to cope with the virus. Law enforcement is overwhelmed as are hospitals.
- Entire world shuts down and global recession deepens to a point of no return for many nations.
- THE GOOD NEWS IS THIS IS THE LEAST LIKELY OUTCOME – NO MORE THAN 10%
Amazing – There Are Other Things Happening

- Oil War – Russia and Saudi Arabia seize their opportunity.
- Brexit – the real negotiations have started and they are not going well.
- Trade wars – they are still taking place – between the US and China, Japan and South Korea, US and Europe, US and USMCA partners.
- Trade breaks still coming back to haunt – Buying beef from Brazil, tariff reductions for India, exemptions on tariffs for select industries
- Locust infestations wiping out crops in South Asia and parts of Africa
- Reactions to the slower Chinese economy that manifested even before the virus issue.
Oil War on Top of COVID 19 Crisis

Brent Oil Price

Jan 11, China state media announced first known death from Covid-19

March 9, failure of OPEC+ negotiations

Source: Bloomberg, L.P.
How Likely is 2021 Forecast Now?

Where Is the World Economy Headed?

Global GDP growth forecasts by major international organizations (in %)

- IMF
  - Jan 2020: 2.9
  - Nov 2019: 3.3
  - 2020: 3.4

- OECD
  - Nov 2019: 2.9
  - 2020: 2.9
  - 2021: 3.0

- World Bank
  - Jan 2020: 2.4
  - 2020: 2.5
  - 2021: 2.6

- UN
  - Jan 2020: 2.3
  - 2020: 2.5
  - 2021: 2.7

Sources: IMF, OECD, World Bank, UN
Slim but Persistent Hopes

2020 Forecast Still Looks Achievable Even as US Growth Slows

US Annual GDP Growth (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>'13</td>
<td>1.8%</td>
</tr>
<tr>
<td>'14</td>
<td>2.5%</td>
</tr>
<tr>
<td>'15</td>
<td>2.9%</td>
</tr>
<tr>
<td>'16</td>
<td>1.6%</td>
</tr>
<tr>
<td>'17</td>
<td>2.4%</td>
</tr>
<tr>
<td>'18</td>
<td>2.9%</td>
</tr>
<tr>
<td>'19</td>
<td>2.3%</td>
</tr>
<tr>
<td>'20E</td>
<td>1.75%</td>
</tr>
</tbody>
</table>

Source: LPL Research, Bloomberg, 2/26/20

Estimate reflects LPL Research forecast
GDP = Gross Domestic Product
Changing Definition of Value

Day 1 without Casinos
You KNOW You Want More

- chris.kuehl@armadaci.com
- (816) 304-3017

- Business Intelligence Brief – published every Monday, Wednesday and Friday. It’s FREE!

- Black Owl Report – published every Tuesday, Wednesday and Friday. One month free trial at no cost and no obligation

“Lesson 1: Don’t spend more than you earn.
Lesson 2: Don’t spend more than you earn.
Lesson 3: Don’t spend more than you earn.
Lesson 4: Don’t spend more than you earn.
Lesson 5: Don’t spend more than you earn.”