Managing through Market Disruption and Beyond: Approach for Telecom Carriers

KPMG perspectives on how to respond to the COVID-19 disruption

June 4, 2020
Executive Summary

**Telecom operators have outperformed** the S&P 500 since the onset of COVID-19. This was also true during the beginning of the 2008 financial recession, where subscriber growth, ARPU and churn trends actually improved. The recovery time post-recession, however, varied greatly among companies and it took more than 3 years for the most resilient to regain prior valuations.

**Network traffic volume is spiking**, with average increases of 20-25%, driven by increased home usage and video consumption. Demand is increasing across the board, during both business and leisure hours, for both voice (e.g., call durations and overall) and data (e.g., VPN, video games, streaming), with significant uplift in customer sentiments for big 4 wireless carriers.

**Sales growth may be challenging**, however, given large share of telco retail stores are closed, potential limitations in smartphone supply, and most subscribers being on fixed-price schemes (not charged by volume). In 2008, the lead telecom companies continued to grow through the recession, but at a rate slower than the years prior and past the recession.

**Financially, operators have healthier margins** going into 2020 than 2008, but are not as resilient in terms of cash and debt. Spend on both capex and advertising took a quick hit in 2008 (declined 5-15%) but rapidly recovered and then increased every year since. With publicly stated desires to continue to fund network/5G roll-out, there may be pressure to reduce other types of costs.

**Going forward, Telco’s need to** focus on ensuring network capacity/stability, while prioritizing capital spend across operational and strategic investments. Operators should continue to monitor cash flow and explore cost reductions, capital project delays, stock buybacks, and dividend policy.

Source: Yahoo Finance, CapitalIQ (company public financials), Analyst Reports, Statista, USTelecom, S&P Global, Company Websites, Reuters, KPMG Analysis
COVID-19 is rapidly transforming our world, disrupting markets and society

<table>
<thead>
<tr>
<th>Global COVID-19 Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>375,000+ fatalities to date</td>
</tr>
<tr>
<td>6,500,000+ infected globally</td>
</tr>
<tr>
<td>1,000,000,000+ in social distancing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>US GDP decline by 8.0% in 2020¹</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Societal Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest US job loss in history²</td>
</tr>
</tbody>
</table>

Note(s):
(1) Projections are dated as of June 4, 2020
(2) Projections are dated as of April 7, 2020
(3) Projections are dated as of April 14, 2020

Source(s):
Johns Hopkins (map), KPMG Economics, BEA, BLS, Macroeconomic Advisors by IHS Markit, Haver Analytics, Eichenbaum, et al, 2020, Federal Reserve Board (April 8, 2020)

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³ Largest US government stimulus³

<table>
<thead>
<tr>
<th>Fastest 20%+ drop in S&amp;P history</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Largest US government stimulus³</th>
</tr>
</thead>
</table>

• 20 million jobs lost in Q2 (2x 2008 Financial Crisis)
• 46% of US workers at risk
• Discretionary spending may fall by 75% in April

• $2.1 Trillion CARES act
• Fed Special Purpose Vehicles
• Fed purchasing, bonds, treasuries, and securities

Source(s):
Johns Hopkins (map), KPMG Economics, BEA, BLS, Macroeconomic Advisors by IHS Markit, Haver Analytics, Eichenbaum, et al, 2020, Federal Reserve Board (April 8, 2020)
Equity markets have fallen faster than any recent bear market, bringing unprecedented uncertainty.

### S&P 500 declines and recovery durations in recent bear markets

<table>
<thead>
<tr>
<th>Event</th>
<th>S&amp;P 500</th>
<th>Total Event Duration</th>
<th>Lowest US GDP YOY Growth % during Event</th>
<th>Peak Unemployment Rate (%) during Event Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 2/19/20 - ?</td>
<td>TBD</td>
<td>Ongoing</td>
<td>-8.0%¹</td>
<td>15</td>
</tr>
<tr>
<td>Financial Crisis 10/9/07-3/9/09</td>
<td>24 months</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Dot Com Bubble 3/24/00-10/9/02</td>
<td>1.4 yrs.</td>
<td>-57% - 5.5 yrs. -3%</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>'87 Crash 8/21/87 - 12/4/87</td>
<td>0.4 yrs.</td>
<td>-33% - 2 yrs. 4%</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Stagflation 11/28/80 - 8/12/82</td>
<td>1.7 yrs.</td>
<td>-27% - 2 yrs. -2%</td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

Note(s):  
1. Forecasts are inherently time sensitive and projections are dated as of June 4, 2020;  
2. Dashed line for COVID-19 represents a higher-end estimate from Federal Reserve Bank of St Louis on March 24

Source(s):  

---

**How companies recover from this disruption will depend on:**

1. **Industry Sector:** Your relative business exposure to different sub-sectors with varying degree of impact from COVID-19
2. **Starting Point:** The strength of your ingoing position -- both financial and competitive -- relative to peers
3. **Execution:** How you execute your recovery game plan – both speed and depth/breadth of your transformation
Commentary:

- To date April 2020, the telecom industry has generally followed the trend of the market
- Analysts believe that telecom stock generally outperforms the market due to their resilience as an industry

Analysts see Telecom as a relative “safe haven” and sector cash flows are anticipated to be “relatively resilient in the short-term” due to demand for mobile and broadband data, and recurring revenues.

HOW HAVE TELECOM STOCKS BEEN IMPACTED BY RECENT EVENTS?

U.S. Telecom stock price & S&P Index change since start of COVID-19 disruption

Carriers have seen increase in demand and traffic mix shifts across the board

**Observations:**
- Operators are seeing COVID-19-driven data/traffic demand increases
- Increases are occurring across both traditional business and leisure hours
- Social distancing and self-isolation are increasing specific application usage and access

**Considerations:**
- Managing shifts in network demand to meet today’s needs
- Planning on how to meet customer needs for extended periods of time
- Meeting new customer demand profiles in recovery

### Week over week data usage increase on Verizon’s network in the United States in March 2020 (1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Verizon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total voice usage</td>
<td>25%</td>
</tr>
<tr>
<td>VPN traffic</td>
<td>25%</td>
</tr>
<tr>
<td>Web traffic</td>
<td>22%</td>
</tr>
<tr>
<td>Call durations</td>
<td>15%</td>
</tr>
<tr>
<td>Wireless voice usage</td>
<td>10%</td>
</tr>
</tbody>
</table>

### Increase in customer traffic on T-Mobile’s network in the United States in March 2020 (2)

<table>
<thead>
<tr>
<th>Category</th>
<th>T-Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMS messaging</td>
<td>77%</td>
</tr>
<tr>
<td>Video game traffic</td>
<td>45%</td>
</tr>
<tr>
<td>Mobile hotspot usage</td>
<td>38%</td>
</tr>
<tr>
<td>SMS messaging</td>
<td>26%</td>
</tr>
<tr>
<td>Call durations</td>
<td>17%</td>
</tr>
</tbody>
</table>

### Comparison of avg. daily fixed broadband consumption per user in the United States in January and March 2020 (in GB)

<table>
<thead>
<tr>
<th>Category</th>
<th>January 2020</th>
<th>March 11-18, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscribers’ average usage (9am to 5pm)</td>
<td>4.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Subscribers’ average usage (6pm to 11pm)</td>
<td>5.0</td>
<td>5.9</td>
</tr>
<tr>
<td>Overall daily average usage</td>
<td>12.2</td>
<td>15.5</td>
</tr>
</tbody>
</table>

### Data usage increase on AT&T’s network in the United States in March 2020 (3)

<table>
<thead>
<tr>
<th>Category</th>
<th>AT&amp;T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wi-Fi voice usage</td>
<td>76%</td>
</tr>
<tr>
<td>Home voice usage</td>
<td>65%</td>
</tr>
<tr>
<td>Wireless voice usage</td>
<td>33%</td>
</tr>
<tr>
<td>Core network traffic</td>
<td>19%</td>
</tr>
</tbody>
</table>

Notes: (1) Period between Thursday March 12, 2020 and Thursday, March 19, 2020; (2) Represents two week period ended March 24, 2020; (3) Comparison of activity on Sunday, March 29, 2020 to an average Sunday; (4) Comparison of activity on Sunday, March 29, 2020 to same day previous month; (5) Includes business, home broadband, and wireless usage; Source: Statista, Telecom Ramblings, Amsterdam Internet Exchange, Bloomberg, OpenVault, Fierce Wireless
Customer sentiment towards telecom carriers has changed significantly

Carriers are offering customers relief in multiple forms in reaction to the COVID-19 disruption

- Waive late fees during coronavirus outbreak for the next 60 days
- Offer unlimited data for 60 days with an extra 20GB of mobile hotspot
- No termination of service on businesses that fall behind on their bills
- An additional 15GB of data added to plan for no additional charge
- Wireless data service at no cost for 60 days for qualified school plans activating new lines for tablets, 4G LTE laptops, and hotspot devices
- Students enrolled in the digital learning program also get 20GB of data per month for 60 days

Customers are responding positively shown by increases in net sentiment¹ for large wireless and wireline/cable operators

Net Sentiment Analysis, Pre COVID-19 and During COVID-19

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Pre COVID-19</th>
<th>During COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless Telecom</td>
<td>23%</td>
<td>72%</td>
</tr>
<tr>
<td>Wireline/Cable</td>
<td>-18%</td>
<td>-14%</td>
</tr>
<tr>
<td>Low Cost Wireless</td>
<td>-29%</td>
<td>-29%</td>
</tr>
</tbody>
</table>


\[
\frac{\text{Positives} - \text{Negatives}}{\text{Positives} + \text{Negatives}} \times 100.
\]

Source: KPMG Analysis; Social Media Analytics Tool

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HOW HAVE TELECOM COMPANIES PERFORMED AND SUBSEQUENTLY RECOVERED DURING PRIOR PERIODS OF DISRUPTION?

Telecom sector revenue and EBITDA proved resilient through the 2008 recession

**U.S. Big 4 Telco Revenue ($B), Margin, and Growth ('03 – ’19)**

Commentary:

- Revenues across the big 4 carriers grew 14% from 2004 through 2008 heading into the recession
- Revenue growth slowed to 2% through the recession and inched up to 4% for the next 10 years
- EBITDA margins peaked for the group around 34% in 2008 during the recession, dipped to a low of 27% in 2014, and grew back to 34% in 2019
- Big 4 carriers were able to manage EBITDA margins through the recession, saw a gradual decline for about 6 years, before turning margins back to pre-recession levels in 2019

Note: (1) Revenue includes all company revenues and is not exclusively wireless revenue. Margins are also across the all business lines and offerings for the companies.

Source: CapIQ; Revenues are aggregated AT&T, Verizon, Sprint, and T-Mobile annual revenue; EBITDA is the average EBITDA margin across those four companies.

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Financial strength of Big 4 carriers entering 2020 as compared to 2008

**Telecom Provider EBITDA Margin (1)**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Four</td>
<td>23%</td>
<td>32%</td>
</tr>
</tbody>
</table>

**Telecom Provider Quick Ratio (2)**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Four</td>
<td>0.62</td>
<td>0.58</td>
</tr>
</tbody>
</table>

**Telecom Provider Debt/EBITDA Ratio (3)**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Four</td>
<td>2.5</td>
<td>2.7</td>
</tr>
</tbody>
</table>

**Observations:**

- Big Four Telecom providers have improved EBITDA margins, increasing from 23% to 32% compared to 2008.
- Quick ratio industry benchmark is 1.5 (broader US telecommunications)\(^4\), representing short-term liquidity.
- Debt/EBITDA is indicative of longer-term solvency.
- Higher levels of outstanding debt may impede ability to issue new debt instruments or increase the costs associated with doing so.
- In lieu of obtaining additional financing, providers may rely on excess cash flow from operating activities, which is controllable through CapEx and dividend policy.

**Notes:**

1. EBITDA Margin = EBITDA / Revenue;
2. Quick Ratio = (Cash & Cash equivalents + AR + ST investments) / Current Liabilities;
3. Debt/EBITDA Ratio = (ST Debt + LT Debt) / EBTIDA;
4. Industry median of 71 US telecom companies using CapIQ.

Sources: Company Financial Statements, Yahoo! Finance, CapIQ.
HISTORICALLY, WHAT HAS BEEN THE BEST POST-RECESSION RESPONSE STRATEGY?

History suggests that companies executing a balanced response may outperform their competitors post-recession on sales and EBITDA growth

Post-recession leaders in sales and profit growth (three-year post-recession compound annual growth rate)

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
<th>EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>6.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Prevention</td>
<td>6.3%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Promotion</td>
<td>7.9%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Pragmatic</td>
<td>9.4%</td>
<td>9%</td>
</tr>
<tr>
<td>Progressive</td>
<td>13.0%</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

Companies that rely solely on cutting the workforce have only an 11% probability of achieving breakaway performance after a downturn

Nitin Nohria, Dean, Harvard Business School

Companies differ significantly in how they deal with recessions
- **Prevention-focused** – make primarily defensive moves and are more concerned with avoiding losses and minimizing downside risks
- **Promotion-focused** – invest more in offensive moves that provide upside benefits than their peers do
- **Pragmatists** – combine defensive and offensive moves
- **Progressives** – deploy the optimal combination of defense and offense

In the past, progressive companies have significantly outperformed the others through the right mix of actions
- Cutting costs mainly by improving operational efficiency rather than reducing the number of employees relative to peers
- Developing new business opportunities by making significantly greater investments than their rivals in R&D and marketing
- Investing in assets such as a plant and machinery

Source: “Roaring out of Recession”, Gulati, Nohria, and Wohlgemuth, HBR, 2010
Response planning should address 3 distinct stages, that may overlap

**Resilience**
- Rapid mobilization and stress testing
  - Safeguard employees/assets
  - Assess impact to revenue/payments
  - Protect customers and manage churn
  - Control use of cash
  - Stress test the business

**Recovery**
- Improve performance under new conditions
  - Adapt go-to-market to customer/partner needs & conditions
  - Take steps to reduce cost as appropriate
  - Manage working capital and debt
  - Re-prioritize capital investments
  - Evolve risk and compliance controls

**New Reality**
- Capture value from pervasive changes
  - Shift talent/capital towards growth
  - Adapt offers to new sources of demand
  - Innovate new capabilities and solutions
  - Enter adjacent markets to capture additional value
  - Take advantage of M&A opportunities

Continuous Demand Forecasting and Scenario Planning
## Telecom companies recovery plan actions address 5 major areas

<table>
<thead>
<tr>
<th>Customer</th>
<th>Cost</th>
<th>Capital</th>
<th>Cash</th>
<th>Compliance &amp; Risk</th>
</tr>
</thead>
</table>
| ▪ Assessing demand patterns to satisfy peaks and adjust network plans for lasting demand changes  
  ▪ Modeling churn risk scenarios across customer base to protect the base and plan for contingencies  
  ▪ Determining policies for payment terms, overage charges, and fee collection vs. customer sentiment | ▪ Evaluating network demand changes and adjusting spend, increasing focus on network grooming  
  ▪ Quantifying S&M cost reduction levers and potential impacts for discretionary marketing / retail closures  
  ▪ Analyzing organization structures and demand shifts to identify under/over allocations, misaligned spans | ▪ Reprioritizing CapEx portfolio to support new “at-home” remote traffic patterns and consumption needs  
  ▪ Identifying projects within capital budget which can be deferred to free up near-term cash flow  
  ▪ Rationalizing capital projects and assets, identifying options for divesture or ramp down | ▪ Analyzing how quickly cash would run out under various scenarios (e.g., 20% drop in revenue)  
  ▪ Conducting post COVID-19 scenario modeling to stress test business scenarios and liquidity  
  ▪ Considering policy changes for cash management (e.g., suspend stock buybacks/dividends, debt issuance) | ▪ Taking steps to continue to comply with risk / regulatory / reporting requirements in a timely manner  
  ▪ Modifying internal audit processes, tools, and operations to remain effective in a remote work environment |
Recovery actions should consider key telecom business drivers

**Wireless subscriber growth continued through the 2008 recession and beyond**

- **Pre-recession**: Subscribers were growing at a steady rate.
- **During the recession**: Subscriber growth increased, partially fueled by the release of the first iPhones in 2007/2008.
- **Post-recession**: Subscribers continued to grow but at a slower rate than pre-recession.

**ARPU decreased across carriers before and during recession but rebounded post-recession**

- **Going into the recession**, ARPU was declining.
- **Through the recession**, ARPU continued to decline at a slightly slower pace.
- **Post-recession**, ARPU growth increased considerably, and continued to grow from 2012.

**Churn declined during the recession and remained at similar levels through 2012**

- **Pre-recession churn** was higher, with some spikes in activity.
- **During the recession**, churn was fairly stable and even improved.
- **Post-recession**, churn continued at the same stable pace until 2012.

Notes:
1. 2008 Recession from December 2007 to June 2009
2. User total is cumulative period across all four carriers; percentage reflects total churn relative to major telecom’s postpaid subscriber bases.

Source: S&P Global, Company Financials, Statista, Reuters
Survey findings suggest customer demand for upgrades and comfort with alternative retail channels other than stores

### Preliminary Survey Findings for Wireless and Fixed Broadband Customers

**Desire to Upgrade**

<table>
<thead>
<tr>
<th></th>
<th>Very Unlikely</th>
<th>Unlikely</th>
<th>Likely</th>
<th>Very Likely</th>
<th>I have already upgraded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless</td>
<td>17%</td>
<td>30%</td>
<td>33%</td>
<td>19%</td>
<td>1%</td>
</tr>
<tr>
<td>Fixed Broadband</td>
<td>13%</td>
<td>44%</td>
<td>30%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Combined</td>
<td>15%</td>
<td>37%</td>
<td>31%</td>
<td>16%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Comfort with Alternative Channel if Retail Store is Closed**

<table>
<thead>
<tr>
<th></th>
<th>Very Uncomfortable</th>
<th>Uncomfortable</th>
<th>Comfortable</th>
<th>Very Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents</td>
<td>2%</td>
<td>15%</td>
<td>37%</td>
<td>46%</td>
</tr>
</tbody>
</table>

**Observations:**

- Almost half of survey respondents are looking to upgrade their services due to increased needs driven by COVID-19.
- Respondents indicated a greater interest in upgrading Wireless compared to Fixed Broadband to meet their needs (53% to 43%, resp.).
- Customers are already starting to upgrade due to COVID-19.

**Customer Prompt:** How likely are you to consider upgrading to (5G for your Wireless services / fixed Broadband speed and bandwidth) to meet your needs as a result of the COVID-19 outbreak?

**Customer Prompt:** If your local retail store is closed, how comfortable would you be interacting via online portal / call center to complete a transaction normally coordinated through a retail store (e.g. new phone, contract change, switch provider)?

**Observations:**

- 83% of customers are comfortable interacting with service providers through non-traditional channels such as call centers or online portals, which may indicate increased use of digital channels going forward.

Notes: Results based on data sourced through a survey of 269 respondents, sourced external by a third-party and from KPMG professionals in April 2020.

Sources: KPMG research and analysis.
Survey findings also suggest developing plans to address customers likely to reduce costs through contract alterations and/or switching providers

Preliminary Survey Findings for Wireless and Fixed Broadband Customers¹

**Desire to Make Adjustments to Wireless Contract**

<table>
<thead>
<tr>
<th>Probability</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>32%</td>
</tr>
<tr>
<td>Likely</td>
<td>34%</td>
</tr>
<tr>
<td>Very Likely</td>
<td>20%</td>
</tr>
<tr>
<td>Very Likely</td>
<td>13%</td>
</tr>
</tbody>
</table>

**Customer Prompt:** How likely are you to seek adjustments / price reductions to your current wireless service contract in response to the COVID-19 outbreak?

**Desire to Switch Wireless Providers**

<table>
<thead>
<tr>
<th>Probability</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>39%</td>
</tr>
<tr>
<td>Likely</td>
<td>31%</td>
</tr>
<tr>
<td>Very Likely</td>
<td>20%</td>
</tr>
<tr>
<td>Very Likely</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Customer Prompt:** How likely are you to switch wireless providers in order to reduce overall cost?

**Combination of Adjustments and Switching Providers**

<table>
<thead>
<tr>
<th>Probability</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Unlikely</td>
<td>47%</td>
</tr>
<tr>
<td>Unlikely</td>
<td>35%</td>
</tr>
<tr>
<td>Likely</td>
<td>12%</td>
</tr>
<tr>
<td>Very Likely</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Observations:**

- 1/3rd of respondents responded they are likely or very likely to seek cost reduction changes through alterations to their existing wireless service contracts
- 30% of customers indicated they are likely or very likely to consider switching providers to reduce their overall wireless service costs
- 17% of customers responded they were both likely to reduce their plans and to switch providers to reduce costs because of COVID-19; this combination indicates a higher risk of churning than other reduction and switching respondents
- Comparing this to monthly wireless industry churn rates² ranging from 1.59% to 1.73%, there may be an impact on subscriber churn from COVID-19

Notes: (1) Results based on data sourced through a survey of 269 respondents, sourced external by a third-party and from KPMG professionals in April 2020. (2) S&P Global Market Intelligence November 2019

Sources: KPMG research and analysis, S&P Global
Recession planning should consider CapEx investments, which dipped briefly during the 2008 recession but have been on the rise since.

CapEx investment has been relatively consistent since 2008 recession, with Big 4 telecoms indicating it will stay the same or increase.

### Annual Big 4 CapEx ($b)

- **Pre-recession**, CapEx was growing significantly.
- CapEx spend dipped **12%** briefly in 2008 to 2009.
- CapEx returned to pre-recessional levels in **4 years**.
- Over the last 10 years, CapEx has continued to grow at a **4% CAGR**.
- Forward looking Capex plans need to consider:
  - Increased pressure on the network due to remote connectivity.
  - Changing user demand creating shifts in build requirements.
  - Physical build-out may be complicated by workforce and supply chain disruption.

**Source:** CapIQ, Reuters, Argus

However, telecom providers may need to re-prioritize their investment spend in light of constraints and changing demands.

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- CapEx spend dipped **12%** briefly in 2008 to 2009.
- CapEx returned to pre-recessional levels in **4 years**.
- Over the last 10 years, CapEx has continued to grow at a **4% CAGR**.
- Forward looking Capex plans need to consider:
  - Increased pressure on the network due to remote connectivity.
  - Changing user demand creating shifts in build requirements.
  - Physical build-out may be complicated by workforce and supply chain disruption.
### Telecom companies must also consider implications of the New Reality

#### New Reality Trends

<table>
<thead>
<tr>
<th>Investment</th>
<th>Major providers maintaining capital plans or increasing spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>5G Deployment</td>
<td>Operational constraints (supply-chain, distribution, workforce) may instigate risk of slowdown</td>
</tr>
<tr>
<td>Retail Stores</td>
<td>Stores closures impact sales, call center capacity, and online critically</td>
</tr>
<tr>
<td>Customers</td>
<td>FCC’s Keep Americans Connected customer credits, late fee waivers</td>
</tr>
<tr>
<td>Network Availability</td>
<td>Network usage is increasing and shifting the demand curve</td>
</tr>
<tr>
<td>Spend Rationalization</td>
<td>Providers are less liquid than in 2008, and will need address</td>
</tr>
</tbody>
</table>

#### Key Questions for Telecom Companies

- How to re-prioritize capital portfolio to meet demand changes and build-out constraints?
- How do you reassess build plans based on demand changes, new constraints, new priority use cases?
- How to address current net adds/upgrades and a potential ongoing shift to online/call center sales?
- How do we model impact of delayed/default payments and plan working capital contingencies?
- How do you reassess build plans based on demand changes, new constraints, new priority use cases?
- Should we adjust stock buybacks, capex and dividends? What Opex areas should we consider?

### COVID-19 Disruption

- Disruption
- New Reality Trends
- Key Questions for Telecom Companies

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*WHAT NEW REALITY TRENDS WILL IMPACT TELCO COMPANIES?*

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HOW SHOULD SCENARIO PLANNING EVOLVE ACROSS THE RESPONSE STAGES?

Continuous scenario planning identifies appropriate actions throughout the disruption and recovery – with depth and frequency evolving by stage

Iterative Process Steps & Outputs

1. Gather existing and updated inputs
2. Develop/refine views on cause and effect between uncertainties and potential drivers
3. Define/refine 2-5 plausible future outcomes with boundary conditions formed by extrapolating key dimensions of uncertainties out to their extremes
4. Create/refine potential response to scenarios
5. Identify/refine no-regrets performance improvement actions and assets to protect
Our firm brings leading capabilities to assist you in your response and recovery


**Industry depth**
- Deep experience in all areas of telecom including working with companies on all aspects of strategy, transformation and M&A transactions
- Team with senior management and operational experience at leading companies
- Delivered $1B+ in value creation across the value chain both in transformations and transactions

**Integrated teaming approach**
- Operational specialists across business functions such as finance, IT, HR, tax, compliance, sourcing and operations
- Seamless orchestration of organization-wide activities, initiatives and transformations
- Designed and structured to execute as one cohesive advisor

**Advanced analytics capabilities**
- Leading analytics and data science experience leveraged in nearly every project to help analyze granular data and identify insights at ‘deal speed’
- Industry-tailored proprietary tools to accelerate data ingestion and virtually eliminate set-up costs
- Leading cloud based platforms including the KPMG Signals Repository for machine learning models

**Speed to value creation**
- Alignment of improvement activities with your key value drivers
- Rapid identification of critical factors and operating levers that impact organizational performance
- Actionable roadmap for integrated performance improvement and value creation planning and execution
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