National Association for Business Economists
COVID-19 Impact on Manufacturing and Supply Chains

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Covid-19 upends the outlook

- Commodity markets are now pricing in a downturn on a global scale similar to what we have seen in China through Q1.
- Volatility is at the same level as seen in the financial panic of 2008.
- The recovery looks ‘U’ shaped rather than a more hopeful ‘V’.
- How much lower could prices go?
  - Commodity prices are down 18% since mid-January.
  - But the downside is still substantial; prices are still more than 20% above their last cyclical low in 2015/16.
  - Real prices also indicate a substantial downside remains.
  - Supply-side reactions have done nothing to stem price corrections to date.
Disruption to supply chains has been significant already

Manufacturing PMI, Delivery Times, inverted scale

Higher number plots lower and means faster delivery times

Manufacturing PMI, Production

Source: IHS Markit © 2020 IHS
Labour supply is holding back production levels despite many manufacturers being able to resume work

<table>
<thead>
<tr>
<th>Top 5 Sectors For Capacity Utilisation</th>
<th>Work resumption rate (%)</th>
<th>Worker return rate (%)</th>
<th>Capacity utilization rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler and power equipment</td>
<td>96</td>
<td>86</td>
<td>72</td>
</tr>
<tr>
<td>Ferrous metals</td>
<td>81.7</td>
<td>83.5</td>
<td>71.3</td>
</tr>
<tr>
<td>Paper and packaging</td>
<td>73.3</td>
<td>73.3</td>
<td>68.3</td>
</tr>
<tr>
<td>Chemical products</td>
<td>84</td>
<td>75.6</td>
<td>66.8</td>
</tr>
<tr>
<td>Aerospace</td>
<td>80</td>
<td>55</td>
<td>75</td>
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<tr>
<td>Computer equipment</td>
<td>47.5</td>
<td>37.5</td>
<td>25</td>
</tr>
<tr>
<td>Vehicles and spare parts</td>
<td>59.3</td>
<td>53.6</td>
<td>36.4</td>
</tr>
<tr>
<td>Cement and glass</td>
<td>60</td>
<td>55</td>
<td>38.3</td>
</tr>
<tr>
<td>Electrical equipment</td>
<td>65</td>
<td>48</td>
<td>44.5</td>
</tr>
<tr>
<td>Industrial machinery and equipment</td>
<td>72</td>
<td>52</td>
<td>52</td>
</tr>
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Source: Survey of China Enterprise Confederation: Top 500 manufacturing enterprises © 2020 IHS Markit
Commodity prices have fallen 18% since mid-January, but are still collectively more than 20% above 2015/16 lows.

Commodity prices have already seen a large correction – but still have room to fall.

Source: IHS Markit © 2020 IHS
How bad will it get?

Brent crude oil price outlook

- Feb. base case
- Recovery & reconciliation
- March base case
- Prolonged demand decline

Source: IHS Markit

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Any signs of a bottom?

Sources: London Metal Exchange, Shanghai Futures Exchange