ENERGY CHART BOOK

Natural gas and coal prices to fall further in 2020

- **Overview** – The easing of US-China trade tensions and the escalation of US-Iran geopolitical tensions has caused oil prices to surge in recent weeks. In contrast, the prices of natural gas and coal have slumped owing in part to ample supply of natural gas. Looking ahead, we think that a gradual pick-up in global economic growth will support all energy prices, but that the average prices of natural gas and coal will continue to decline in 2020 as natural gas supply continues to expand.

- **Crude Oil** – Prices rallied in December as the announcement of the US-China “Phase One” trade deal and deeper OPEC+ output cuts boosted investor risk appetite. This month’s US-Iran warmongering also provided a temporary lift to prices. That said, regardless of geopolitical events, we think that constrained supply and a pick-up in global economic growth will push oil prices even higher this year.

- **Natural Gas** – Prices plummeted across the board last month mainly because of oversupply. We expect this to remain a factor weighing on prices this year.

- **Coal** – Prices declined in December, in part because the fall in natural gas prices weighed on demand. We forecast even lower gas prices, subdued economic activity in major coal consumers and ongoing decarbonisation efforts in developed economies to push down average coal prices in 2020.

- **Forecast Summary**

![Chart 1: Price Performance (% Change, 29th November 2019 – 9th January 2019)](chart)

Sources: Refinitiv, Capital Economics
Energy

Crude Oil

- Oil prices rose sharply over the past month, in part because OPEC+’s decision to deepen output cuts and the announcement of a US-China “Phase One” trade deal boosted investor sentiment (2). Prices jumped even higher after the assassination of a top Iranian general by the US, but then pared some of their gains.

- If US-Iran tensions were to re-escalate, the price of Brent could rise to $150pb, especially if Iran attempts to block the Strait of Hormuz, a major shipping route for oil (3). However, the spike would probably be short-lived. Indeed, surges in the oil price due to geopolitical reasons tend to unwind quite quickly (4).

- But irrespective of geopolitical events, we think oil prices will rise this year as the market dips into a deficit (5). We expect OPEC+ supply to remain constrained and US production growth to slow (6). Meanwhile, oil consumption should stage a modest recovery as global economic growth gradually picks up (7).

Charts:

- Chart 2: Futures Positions in Brent & Brent Price
- Chart 3: Share of World Petroleum Supply Passing Through Major Shipping Chokepoints (%)
- Chart 4: Brent Crude Oil Price (US$ per Barrel)
- Chart 5: Global Oil Market Fundamentals (Mn. BpD)
- Chart 6: US Oil Production (Mn. BpD)
- Chart 7: Global Economic Growth & Oil Consumption

Sources: Refinitiv, OPEC, IEA, EIA, Capital Economics
Crude Oil (Continued)

- On the trade front, China’s crude oil net imports have soared recently as high refinery throughput (8) and government stock building (9) boosted demand. We expect this trend to continue this year and to offset the drag on consumption from weakening domestic activity.

- Meanwhile, US crude exports have increased in recent weeks (10) and we expect them to rise further this year. This, together with a stronger US economy should put additional downward pressure on crude stocks, which have recently fallen back in line with their five-year average (11).

- Meanwhile, US distillate stocks have been rising steadily (12), perhaps because refiners are anticipating stronger demand as a result of IMO 2020 regulations (effective since 1st January). The new rules require ships to use low-sulphur oil. We expect them to boost global crude demand by 0.9m bpd this year (13).
**Natural Gas**

- The price of US natural gas (Henry Hub) declined last month (14) owing in large part to high supply (15). We expect US output to rise even further over the coming year, but we forecast that average prices will fall only slightly since an increasing amount of US output will be exported in the form of LNG (16).

- Meanwhile, European natural gas prices (TTF) slumped in part due to high stocks (17). Russia and Ukraine also signed another gas transit agreement, which has eased concerns about a supply crunch in Europe. Nordstream II should become operational soon and this will increase European import capacity (18).

- Elsewhere, strong global LNG export growth (19) once again weighed on the price of spot Asian LNG. We anticipate that prices will rise a touch in the coming weeks in part because of elevated oil prices. However, we maintain our view that average prices will fall this year as the market remains oversupplied.

---

**Chart 14: Changes in Natural Gas Prices (%)**

**Chart 15: US Natural Gas Production (Bn. Cubic Metres per Day)**

**Chart 16: US LNG Exports & Export Capacity (Ann. Mn. Tonnes)**

**Chart 17: North-West Europe Natural Gas Storage (Twh)**

**Chart 18: Russia Gas Exports to EU & Pipeline Capacity Excluding Ukraine (Bn. Cubic Metres per Annum)**

Sources: Refinitiv, Bloomberg, EIA, Capital Economics

---

*CE Forecast*
Coal

- European coal prices dropped sharply in December, in part because of a renewed slump in the regional gas price (20) and the relatively mild winter weather. The ongoing decline in European coal consumption, especially in Germany (21), Europe’s top coal consumer (22), is also weighing on prices.

- Looking ahead, we expect European coal demand and prices to decline steadily over the coming years. Indeed, the German government’s plan to exit electricity generation via coal completely by 2038 suggests that the substitution of coal with cleaner sources of power (23) will continue in the years ahead.

- Meanwhile, the price of Pacific coal fell a touch last month, despite relatively strong manufacturing activity in China (24). Rapid growth in Chinese coal production (25) is probably keeping a lid on prices. We forecast ample supply and a slowdown in the Chinese economy to dampen Pacific coal prices this year.
## Forecast Summary

### Table 1: Key Forecasts – End-period

<table>
<thead>
<tr>
<th></th>
<th>Latest (9th Jan.)</th>
<th>Q1 20</th>
<th>Q2 20</th>
<th>Q3 20</th>
<th>Q4 20</th>
<th>Q1 21</th>
<th>Q2 21</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude Oil (Brent, US$ per barrel)</td>
<td>66</td>
<td>65</td>
<td>68</td>
<td>70</td>
<td>75</td>
<td>75</td>
<td>76</td>
</tr>
<tr>
<td>Crude Oil (WTI, US$ per barrel)</td>
<td>60</td>
<td>60</td>
<td>64</td>
<td>67</td>
<td>72</td>
<td>72</td>
<td>73</td>
</tr>
<tr>
<td>US Natural Gas (US$ per mBtu)</td>
<td>2.12</td>
<td>2.30</td>
<td>2.10</td>
<td>2.40</td>
<td>3.00</td>
<td>2.80</td>
<td>2.90</td>
</tr>
<tr>
<td>LNG (Asian Spot, US$ per mBtu)</td>
<td>5.15</td>
<td>4.00</td>
<td>5.00</td>
<td>5.50</td>
<td>6.00</td>
<td>5.50</td>
<td>6.00</td>
</tr>
<tr>
<td>European Natural Gas (TTF, € per MWh)</td>
<td>11.93</td>
<td>13.50</td>
<td>12.50</td>
<td>14.00</td>
<td>15.00</td>
<td>15.00</td>
<td>14.50</td>
</tr>
<tr>
<td>Coal (Rotterdam, US$ per tonne)</td>
<td>53</td>
<td>50</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>54</td>
<td>48</td>
</tr>
<tr>
<td>Coal (Newcastle, US$ per tonne)</td>
<td>67</td>
<td>69</td>
<td>65</td>
<td>65</td>
<td>64</td>
<td>64</td>
<td>58</td>
</tr>
<tr>
<td><strong>Commodity Indices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P GSCI</td>
<td>431</td>
<td>435</td>
<td>450</td>
<td>465</td>
<td>485</td>
<td>485</td>
<td>495</td>
</tr>
<tr>
<td>S&amp;P GSCI Energy</td>
<td>203</td>
<td>205</td>
<td>215</td>
<td>225</td>
<td>245</td>
<td>245</td>
<td>245</td>
</tr>
<tr>
<td>Bloomberg</td>
<td>353</td>
<td>355</td>
<td>355</td>
<td>360</td>
<td>370</td>
<td>370</td>
<td>375</td>
</tr>
<tr>
<td><strong>Selected Other Commodities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper (US$ per tonne)</td>
<td>6,152</td>
<td>6,200</td>
<td>6,350</td>
<td>6,500</td>
<td>6,600</td>
<td>6,700</td>
<td>6,800</td>
</tr>
<tr>
<td>Gold (US$ per ounce)</td>
<td>1,548</td>
<td>1,500</td>
<td>1,450</td>
<td>1,450</td>
<td>1,400</td>
<td>1,400</td>
<td>1,375</td>
</tr>
<tr>
<td>Corn (USc per bushel)</td>
<td>387</td>
<td>390</td>
<td>395</td>
<td>405</td>
<td>410</td>
<td>410</td>
<td>415</td>
</tr>
<tr>
<td>Sugar (#11, USc per lb)</td>
<td>13.49</td>
<td>13.50</td>
<td>14.00</td>
<td>14.25</td>
<td>14.50</td>
<td>14.75</td>
<td>15.00</td>
</tr>
<tr>
<td>Wheat (USc per bushel)</td>
<td>557</td>
<td>550</td>
<td>500</td>
<td>475</td>
<td>450</td>
<td>435</td>
<td>440</td>
</tr>
</tbody>
</table>

Sources: Bloomberg, Refinitiv, Capital Economics

1 Standard & Poor’s Goldman Sachs Commodity Index 2 Bloomberg Commodity Index
Disclaimer: While every effort has been made to ensure that the data quoted and used for the research behind this document is reliable, there is no guarantee that it is correct, and Capital Economics Limited and its subsidiaries can accept no liability whatsoever in respect of any errors or omissions. This document is a piece of economic research and is not intended to constitute investment advice, nor to solicit dealing in securities or investments.

Distribution: Subscribers are free to make copies of our publications for their own use, and for the use of members of the subscribing team at their business location. No other form of copying or distribution of our publications is permitted without our explicit permission. This includes but is not limited to internal distribution to non-subscribing employees or teams.