**Consumption in thousand metric tons**

<table>
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</thead>
<tbody>
<tr>
<td>DR Congo</td>
<td>3,400</td>
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<td>3,400</td>
<td>3,400</td>
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</tr>
<tr>
<td>Australia</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Cuba</td>
<td>500</td>
<td>500</td>
<td>500</td>
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<tr>
<td>Philippines</td>
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<td>280</td>
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<td>280</td>
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<tr>
<td>Canada</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
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</tr>
<tr>
<td>Russia</td>
<td>250</td>
<td>250</td>
<td>250</td>
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</tr>
<tr>
<td>Madagascar</td>
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<td>140</td>
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<td>140</td>
</tr>
<tr>
<td>China</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>56</td>
<td>56</td>
<td>56</td>
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</tr>
</tbody>
</table>

The world’s 20 largest copper mines – half of which are in Chile and Peru alone – produce nearly 9 million metric tons of the precious metal a year, about 40% of the world’s total copper mine capacity.


The Democratic Republic of the Congo’s cobalt reserves account for nearly half of the world’s reserves of the metal.

Source: Statista.com as at June 11, 2019.

**Cobalt reserves worldwide as of 2018, by country (in metric tons)**

- DR Congo: 3,400,000
- Australia: 1,200,000
- Cuba: 500,000
- Philippines: 280,000
- Canada: 250,000
- Russia: 250,000
- Madagascar: 140,000
- China: 80,000
- Papua New Guinea: 56,000

Source: Statista.com as at June 11, 2019.
Trends such as the rise of electric vehicles (EVs) and the increase in demand for renewable energy, in which copper is a key conductor, are adding to global demand for copper. This widespread need is a potential income boon for the countries that mine it, like Chile (the world’s largest copper producing country), Peru, Mexico and Indonesia.

But copper is not the only metal feeling the effects of the green energy movement, many commodities are beneficiaries of the growing adoption of renewables and accompanying technological advancements. Metals such as nickel, lithium and cobalt are essential components in battery technologies. While mining in such commodities is global, emerging markets such as Russia, Argentina, China and the Democratic Republic of Congo, have a dominant position.

We believe there are select opportunities in commodities as a result, despite the current short-term uncertainty partly due to trade tensions and creeping investor wariness of a market downturn. However, on a longer term view as brown energy becomes more expensive and as green becomes an increasingly mainstream substitute, commodities linked to next-generation energy will likely experience a tail-wind in our view.

Matthew T. Jenkin, Rick R. Rosania and Kyle M. McDonough, Mellon, a BNY Mellon company
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