Cobalt’s Recent Foray into the Spotlight

Since 2016, the price of cobalt, a metal used to produce lithium-ion batteries, has nearly quadrupled, far exceeding the trend in other components of these batteries, such as nickel and lithium. These gains coincide with the growing number of electric vehicles (EVs) on the market and the expectation that growth will continue, as discussed in our recent Perspective.

The substantial surge in cobalt prices is owed to the metal’s specific uses and production. On the one hand, demand for cobalt increased significantly with higher EV production, which requires around 10 kg of cobalt per vehicle, roughly 1,000 times the content of Apple phones. This metal’s role as a stabilizer means that about half of its consumption is dedicated to battery production.

On the other hand, cobalt production is limited because the metal is mainly extracted during nickel and copper production. Investment decisions therefore also depend on the price of those two metals. Moreover, cobalt is concentrated in the Democratic Republic of the Congo (DRC), a politically and economically unstable country that currently accounts for approximately 50% of the world’s reserves and 60% of production. The deplorable working conditions in the country’s mines discourage some companies from investing in them. Coupled with this instability is China’s strong presence in the supply chain. China has invested heavily in the mines, and in 2017 accounted for over 80% of global refined cobalt production. The DRC’s introduction of a new tax on mining company profits and increase of cobalt royalties from 2% to 10% at the beginning of the year also helped drive up the price.

**IMPLICATIONS**

The rapid acceleration in cobalt prices should spark two reactions that might cool the market. The higher the price of cobalt, the greater the incentive for mining companies to increase their production. New projects were announced recently, but the effects of these investments are not likely to be felt until 2019 at the earliest. Conversely, the scarcity of cobalt and the uncertainty associated with its concentration in the DRC could prompt EV manufacturers to reduce the cobalt content in their batteries. Tesla has already managed to use a smaller proportion of cobalt and wants to eventually do away with it altogether. The fact remains that cobalt is still a vital battery component for which no substitute has been found yet. Besides, some EV manufacturers are trying to secure their supply by buying shares in mining projects, some of which are in Quebec. Nevertheless, this does not imply that Quebec’s mining activity will change radically in the short term. The price of cobalt should therefore remain high until at least the end of the year. Moreover, the DRC’s instability, the dismal working conditions in Congolese mines and China’s weight in the supply chain are upside risks.

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