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Questions about Corporate Hedging – Glencore 2016

This case asks you to debate the question of whether firms should hedge the risks of their operations with derivatives. First consider the question from the perspective of finance theory. Then consider the case of the policy of Glencore for hedging its exposure to coal price risk during 2016.

- **Question 1.** Suppose there are two mining companies, A and B, with identical operations (the same production costs for coal and the same physical assets). At the end of the year, both firms will sell 10,000 tons of coal and pay their profits to shareholders. Let the stock prices for the two firms be S_A and S_B. The firms have no debt and have 1 million shares outstanding. Company A hedges its revenue by selling 10,000 tons forward for price F. Company B does no hedging. Show that if $S_A > S_B$ then there is an arbitrage opportunity. Hence it is impossible for Company A to create value for its shareholders by its risk management policy. Going beyond this simple example, explain the economic logic behind this conclusion.

- **Question 2.** Under what conditions might the argument in Question 1 **not** apply? In other words, are there situations in which firms can create value by hedging in derivatives, even if the derivatives are correctly and fairly priced? (If you can think of several possibilities, list them all.) What conditions are necessary for your argument to work?

- **Question 3.** Read the articles on Compass from RISK, Bloomberg, and the Financial Times concerning Glencore's losses in 2016. You may also want to research background on the company's business operations and corporate policies. (Remember to cite all your sources.) Decide whether your arguments in Question 2 apply to Glencore. Even if Question 2 does not apply, does the logic of Question 1 imply that it is *wrong* to hedge? What do you think the company would say to justify its hedging policy for coal?

- **Question 4.** According to the RISK article, Glencore was hedging by selling call options rather than selling forwards or buying put options. Again referring to your answer to Question 2, do the arguments in favor of corporate hedging suggest any circumstances in which selling calls might be the optimal policy?