Hedging Dilemma during Volatile Markets

Abstract

The case starts with a quote from Dr. Philippe Jorion about the inevitability of hedging at any point of time. The case gives a brief and recent background of the Indian economy and capital markets to elucidate a backdrop in which hedging can be implemented. Further, the hedging dilemma of Mr. Surya Pujari, working as a portfolio manager at Shri Bhagwan Dalal (SBD), a stock broking firm, is discussed.

During December 2014, all the departments of SBD shared a positive sentiment for the market owing to decreasing oil prices, easing of inflation, reduction in policy rate by the RBI, and the Modi effect. One imperative trading strategy emerged out of the brainstorming sessions, to which almost all departments agreed. The trading strategy was to go long in various assets during the first week of January with a holding period of approximately one month to take advantage of the “January Anomaly”. Analysts and researchers across the world have empirically confirmed the January Effect.

In consultation with the fundamental and technical equity research department team, Mr. Pujari purchased shares of DLF Ltd (DLF) and Infosys Ltd (Infosys) on January 2, 2015, with a holding period of approximately one month. However, the stock prices started to fall soon after the purchase. In just four days, at the end of day on January 6, 2015, the DLF shares fell by 4% and Infosys shares fell by 3%. On the evening of the same day, Mr. Pujari sought the advice of Mr. Nilesh Niharia, senior analyst in the derivative strategy department. Mr. Niharia suggested that because the shares were also trading in the derivatives market, the complete downside risk could be mitigated by taking an equal but opposite position in the derivatives market. Mr. Niharia suggested several alternatives to Mr. Pujari — first, achieve a perfect hedge by selling futures contract; second, insure the position completely by buying put options; and third, implement a collar. Further, he advised that the cost of shares purchases could be reduced by selling an equal number of call options.

However, Mr. Pujari was skeptical about achieving a perfect hedge by selling an equal number of futures or achieving complete insurance with an equal number of put options. He thought that if the minimum variance hedge ratio is considered, it will change the number of futures contracts required to hedge. Likewise, the number of put options required for insurance would change after the put option delta was taken into account. The same analogy of option delta held true for the collar and for selling call options. Further, Mr. Pujari was puzzled now as to which of the four alternates would be the best to implement.

Mr. Pujari was also faced with a philosophical question. In the process of risk mitigation, which involved the transfer of financial risk to another trader in the market, if that another trader also transferred the risk and if the chain of risk transfers continued, who would be the actual bearer of the financial risk?

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1 This Case is based on Field Research conducted by the Case Author.

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