Forecasting the future Aluminum price based on supply-demand model

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The economic crisis which happened in 2008 affected the price of raw materials to fluctuate. Even though the fluctuation has been settled down afterwards, there still remains uncertainty due to recent American economy. Since raw material price highly affects the nation's economy, we acknowledged the importance of forecasting an future prices of raw materials and we focused on aluminum. We tried this by separating the processes to primary aluminium and secondary aluminium. In this research, we first leached out a set of significant factors and gathered the necessary data related to the factors. Then, we connected the factors to each other and established relationships between them. Based on those relationships, a model was constructed to find the future price. Our model has been calibrated for the past five-years-data and tested for forecasting the price of the next year. We used a modeling tool to run the simulations for scenarios made by possible future changes in demand or supply related variables. Finally, our results will be compared with the actual prices of aluminium to verify their validity. This research would help companies to avoid potential risks to preclude unnecessary losses. Furthermore, it will act as a milestone to future researches on forecasting raw material prices.