Risk Management Strategies for Mr. B and ABC Ltd.

# Situation 1: Mr. B's Stock Investment

## Tree for Call Option:

1. \*\*Bullish Scenario (Company's Results Above Expectation):\*\*  
 - Market Price: Rs. 105 - Rs. 110  
 - Mr. B lets the call option expire as the market price is above the strike price of Rs. 100.  
 - Expected payoff: Rs. 0 (Option premium paid for call option)  
  
2. \*\*Bearish Scenario (Company's Results Sub-par):\*\*  
 - Market Price: Rs. 90 - Rs. 95  
 - Mr. B exercises the call option, buying the stock at the strike price of Rs. 100.  
 - Expected payoff: [(Market Price - Strike Price) - Option Premium] = [(Rs. 90 - Rs. 100) - Rs. 3] = Rs. -13

## Tree for Put Option:

1. \*\*Bullish Scenario (Company's Results Above Expectation):\*\*  
 - Market Price: Rs. 105 - Rs. 110  
 - Mr. B lets the put option expire as the market price is above the strike price of Rs. 100.  
 - Expected payoff: Rs. 0 (Option premium paid for put option)  
  
2. \*\*Bearish Scenario (Company's Results Sub-par):\*\*  
 - Market Price: Rs. 90 - Rs. 95  
 - Mr. B exercises the put option, selling the stock at the strike price of Rs. 100.  
 - Expected payoff: [(Strike Price - Market Price) - Option Premium] = [(Rs. 100 - Rs. 90) - Rs. 3] = Rs. 7

## Summary:

For both call and put options, Mr. B should only exercise the option when the market price is against his position (sub-par results). The call option helps him limit losses in a bearish scenario, while the put option allows him to lock in profits in the same scenario. If the results are above expectations, he should let both options expire, incurring only the initial premium cost.

# Situation 2: ABC Ltd's Currency Risk Mitigation

## Points of Currency Exposure:

1. \*\*Day 1 (Order Placement):\*\*  
 - Exposure: Initial 30% payment in Yuan exposes ABC Ltd. to exchange rate fluctuations.  
 - Mitigation: Use forward contracts to lock in the exchange rate for the initial payment.  
  
2. \*\*Day 30 (Loading Cargo):\*\*  
 - Exposure: The remaining 70% payment in Yuan faces exchange rate risk.  
 - Mitigation: Continue using forward contracts to hedge against currency fluctuations.  
  
3. \*\*Day 45 - 50 (Advance Payment from US and EU Customers):\*\*  
 - Exposure: 10% advance payments received in Dollars and Euros, subject to currency risk until goods are delivered.  
 - Mitigation: Use currency futures or options to hedge against potential adverse movements.  
  
4. \*\*Day 60 (Goods Received in India):\*\*  
 - Exposure: The company now holds inventory, and any change in Yuan value affects the inventory's valuation.  
 - Mitigation: Utilize currency options to hedge against adverse valuation changes.  
  
5. \*\*Day 90 (Goods Shipped):\*\*  
 - Exposure: The remaining 90% payment from EU customers is pending, exposing ABC Ltd. to Euro fluctuations.  
 - Mitigation: Use currency futures or options to hedge against Euro volatility.  
  
6. \*\*Day 135 - 180 (Goods Delivered in Europe and the US):\*\*  
 - Exposure: Final 90% payments received in Euros and Dollars, respectively, are subject to currency risk.  
 - Mitigation: Continue using currency futures or options to hedge against currency fluctuations.

## Summary:

ABC Ltd. can use a combination of forward contracts, currency futures, and currency options at different stages of the business cycle to mitigate currency risk. Forward contracts provide a fixed exchange rate for future payments. Currency futures help in locking in exchange rates for future transactions. Currency options offer flexibility, allowing the company to choose whether to exercise the option based on market conditions.

## Conclusion:

Both Mr. B and ABC Ltd. can use financial instruments strategically to manage and mitigate risks associated with their respective investments and business operations. It's crucial for investors and businesses to carefully assess their risk tolerance and exposure at various stages to implement effective risk management strategies.