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Trade and Investment Strategy
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ASSIGNMENT 3

Question 1 *(7 points)*

Goldmines is a (fictitious) company on the Toronto Stock exchange, and at 1:00PM the contents of its limit order book are 100 buy orders at $85; 50 buy orders at $70; 30 sell orders at $105 and 40 sell orders at $110. Then the electronic "ticker tape" shows that at:

1:05PM	Buy orders for 20 at $95.00 submitted.
1:10PM	Sell orders for 100 at $100.00 submitted.
1:12PM	Market sell orders for 10 at $95.00 submitted.
1:15PM	Buy orders for 50 at $85.00 withdrawn.
1:20PM	Market sell orders for 10 at $95.00.
1:40PM	Sell orders for 20 at $110.00 withdrawn.
1:50PM	Buy orders for 40 at up to $110.00 submitted.

At 2:00PM Goldmines announces a major discovery doubling the size of its reserves, a complaint is registered with the Canadian SEC, and trading in Goldmines is temporarily suspended:

a. Graphically show what the limit order book looks like at 2:00PM.
b. Graphically show how the bid ask spread evolved from 1:00PM until 2:00PM.
c. What was the volume of transactions between 1:00PM and 2:00PM and at what price did each transaction occur?
d. Why might trading have been suspended?

Question 2 *(8 points)*

On a tour of the NYSE a visitor complains to a specialist that he never executes his orders, and the specialist responds that the limit buy orders of the visitor are too low and his limit sell orders are too high:

a. Using illustrations, demonstrate the argument that the specialist is making.
b. Suppose the specialist is front running. Show how the visitor would have gained from trading and the specialist was (illegally) able to expropriate those gains from visitor.
c. Supposing front running were legalized, how would the specialist set prices? To answer this question, suppose there is an upward sloping supply curve for securities, a downward sloping demand curve for them. Suppose the intersection is the market price and quantity. Now show what happens if the specialist drives a wedge between the price seller gets and the price the buyer pays. Use diagrams if they are helpful.
d. Using your answer to the previous part, explain what would happen if the rules against front running were not fully enforced. Is there are going to be more trade or less?