

# Seeing the Invisible Hand (發現看不見的手)

1. Was the card you received red or black? What was the card number and dollar amount? Did you make a trade? Earn or lose money? What was your net profit? 你抽到紅牌還是黑牌? 牌面數字或金額是多少? 買賣有成交嗎? 賺了還是虧了? 淨得多少好處或利潤呢?

Round (回合)	1	2	3	4
Color (牌面顏色)	R(紅)、B(黑)	R(紅)、B(黑)	R(紅)、B(黑)	R(紅)、B(黑)
Num. (牌面數字)				
Dollar (牌面金額)				
Price (成交價格)				
Earn/Lose (盈虧)	E(賺)、L(賠)	E(賺)、L(賠)	E(賺)、L(賠)	E(賺)、L(賠)
Profit (好處/利潤)				

2. What is the supply-demand model? How is this classroom experiment related to it? 你聽過「供需模型」嗎? 這個課堂實驗跟供需模型有何關係?
3. How is your reservation price related to the card you received? When the price is \$X, how many buyers and sellers want to trade? 在找尋交易機會時, 你能夠接受的「價格底限」跟抽到的牌有什麼關係呢? 當價格被設定在 X 元時, 買賣雙方各有多少人願意交易呢?
4. What is the maximum number of trade possible here? 範例中可能成交的最大數量是多少?
5. Is it always good to have more transactions? How do we define good? 成交量是否愈多愈好? 怎麼訂出「好」的標準?
6. Calculate the total amount of blessing from OMG. 請計算老天鵝的總賜福量。

Round (回合)	Ideal (理想值)	1	3
Total Amount of Blessing (總賜福量)			
Market Efficiency (市場效率)	100%	%	%

7. Does (each) transaction price affect the total amount of blessing? Why or why not? 總賜福量會不會受到 (各筆交易的) 成交價格所影響? 為什麼?
8. How does the supply-demand model predict transaction prices? What is equilibrium price and quantity? What does equilibrium mean? 供需理論如何預測成交價格? 你有聽說過均衡價格與均衡數量嗎? 「均衡」二字代表什麼意義呢?
9. Does the theory predict data well? 理論的預測能力如何?
10. What is the difference between the two trading rules, free-form bargaining and continuous double auction? Does this lead to different outcomes? Why or why not? 「自由交易」與「喊價競標」這兩種交易制度有哪些不同之處? 會產生不一樣的遊戲結果嗎? 為什麼?

For Additional Discussion: (討論問題)

11. Write down a product that you have money to buy and are willing to pay the highest prices. 請寫下你有能力購買且願意為它付出最高價的商品。
12. Do people all enjoy the same product? Are rich people willing to pay more for every product? 每個人都會喜歡一樣的東西嗎? 有錢人一定會願意對所有事物都付出高價嗎?
13. Is it good to let those who can afford and are willing to pay a high price acquire the product? Why or why not? 讓願意且能夠付出高價的人買到商品是好事嗎? 為什麼?
14. Is it good to let firms who have the highest cost to provide the product? Why or why not? 讓高成本的廠商來提供商品是好事嗎? 為什麼?
15. What happens if we allocate products first come, first serve, or have the government do it? 如果採用排隊 (先佔先贏) 或委由官方安排的方式來分配每一項商品, 會出現什麼樣的結果?
16. What on earth is the invisible hand? 到底什麼是看不見的手?