

Market Demand

Market demand is the sum of individual demands:

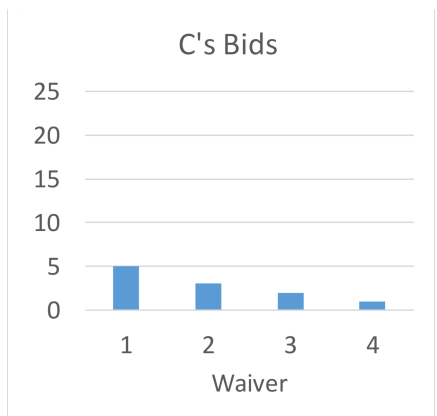
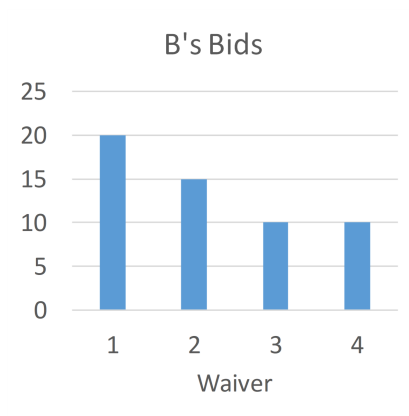
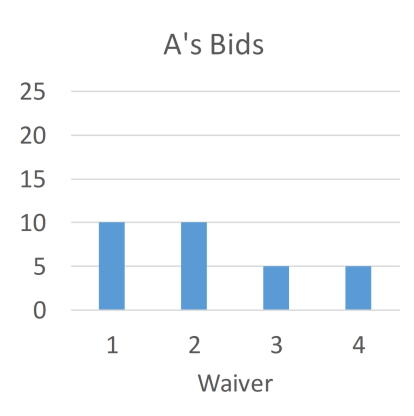
$$Q_M^D = \sum_i^N Q_i^D(P)$$

⚠ Sum of **Qs**, not WTPs ⚠

Computing for three people: A, B and C:

Individual WTP data:

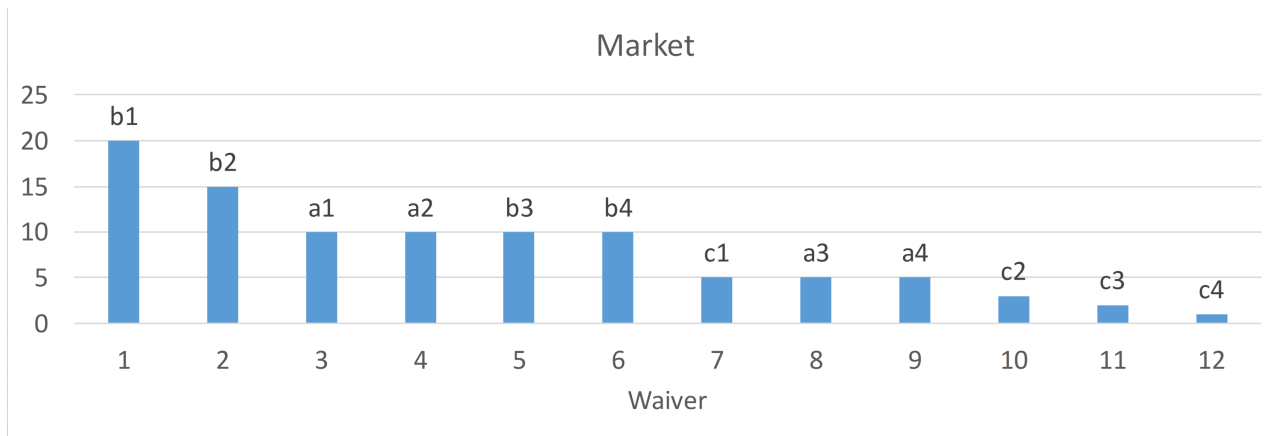
Waiver	WTP_A	WTP_B	WTP_C
1	10	20	5
2	10	15	3
3	5	10	2
4	5	10	1



Market demand:

- As before, start with high prices and sweep down
- Count (sum) individual waivers demanded at each price

In effect, lists bids from **highest to lowest**:



Height of curve at given Q is WTP:

$$WTP_M(Q_i) = \text{WTP by the buyer of unit } Q_i$$

Examples:

- Waiver 2 (b2) has $WTP_M(2) = 15$
- Waiver 6 (b4) has $WTP_M(6) = 10$

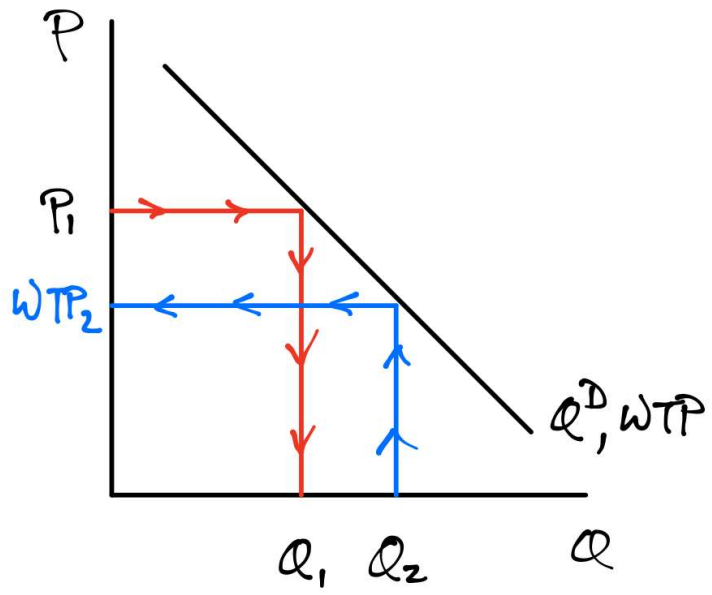
Width of curve at a given P is demand:

$$Q_M^D(P) = \text{total quantity demanded at a given } P$$

Examples:

- At $P = 12$, $Q_M^D = 2$
- At $P = 9$, $Q_M^D = 6$

Abstract, stylized WTP and demand curve:



Red:

From P_1 can infer Q_1

Blue:

From Q_2 can infer WTP_2