

## Market Structures: Key

Consider the market for Kangaroo Jerky:

Table 1: Market for Kangaroo Jerky

Units	Marginal Utility	Marginal Cost
1	20	1
2	15	2
3	12	2
4	10	2
5	8	3
6	4	4
7	-3	5

1. The price is four and the quantity is six.
2. We can calculate producer and consumer surplus for each price (marginal utility). For example, if the monopolist charges 15, they will sell two units:

Table 2: Market for Kangaroo Jerky

Units	Marginal Utility	Marginal Cost	Total Revenue	Total Var. Cost	Producer Surplus
1	20	1	20	1	19
2	15	2	30	3	27
3	12	2	36	5	31
4	10	2	40	7	33
5	8	3	40	10	30
6	4	4	24	14	10
7	-3	5	-21	19	-40

The monopolist charges a price of 10, sells four units, and earns producer surplus equal to 33.

3. In the case of monopoly, consumer surplus is total utility is 57 (the sum of the marginal utilities for the first four units), while consumers pay 40 for those units. Consumer surplus is thus 17. The sum of consumer and producer surplus is 50.

Now consider perfect competition where the quantity is six. Producer surplus, see the table, is 10. Consumers obtain total utility equal to 69. They pay 24 for the jerky, leaving a consumer surplus of 45. Consumer plus producer surplus is 55.

Deadweight loss is thus 5.

4. Yes. Suppose, for example, that there is a negative externality to kangaroo jerky that, if correct, would make four the efficient quantity. If so, then monopoly could perfectly offset this externality and make everything nice and efficient.

5. The key difference is that, under monopsony, the monopsonist sets price equal to marginal cost instead of marginal utility. If, for example, they choose a quantity of two, then the price is also two.

Table 3: Market for Kangaroo Jerky

Units	Marginal Utility	Marginal Cost	Total Utility	PxQ	Producer Surplus
1	20	1	20	1	19
2	15	2	35	4	31
3	12	2	47	6	41
4	10	2	57	8	49
5	8	3	65	15	50
6	4	4	69	24	45
7	-3	5	66	35	31

The monopsonist thus chooses a quantity of five and a price of three. This yields consumer surplus of 50.

6. Producers obtain revenue equal to 15. Their total variable costs are ten. Producer surplus is thus 5. The sum of producer and consumer surplus is thus 55, just as in perfect competition. There is no deadweight loss. This is an unusual result that happens because, under perfect competition, the sixth unit doesn't actually benefit either consumer or producers.

7. You are not seriously suggesting that Sir Elton John would exploit monopsony power? Shame on you for even thinking that.

8. There must be a barrier to entry preventing new firms from entering the market and undercutting the monopolist. Perhaps the monopolist has a secret recipe that makes their jerky impossible to replicate.

9. In both cases, the agent uses their market power to restrict quantity in order to obtain a price that is more favorable to them. Output that otherwise would have provided consumer and producer surplus is thus not created.

10. This would usually fall under the banner of antitrust regulation. A government could pursue litigation in order to break the monopolist into smaller firms.
11. The price and quantity would revert to the levels under perfect competition (see #1).
12. If it is not, then the market will exhibit monopolistic competition instead of perfect competition.
13. False. Think of monopoly as an extreme where one firm has all the market power. Think of perfect competition where all firms have no market power. Oligopoly is the wide space between the two where firms have partial, not complete, market power.
14. False. Perfect competition is an ideal. In reality, almost all firms have at least a little market power and almost all goods are at least a little heterogeneous.
15. There are a number of factors. First, is the number of firms. If there are only two, they are more likely to exercise market power than if there are ten. Second is how often firms. They are more likely to act like monopolists if it is a repeated game rather than a one-time game. Finally, the easier it is for new firms to enter, the less likely firms are to exploit market power.
16. False. Neither displays barriers to entry. The difference is that monopolistic competition involves differentiated goods while perfect competition does not.