

Ch 4: Price and Quantity Controls

What are we talking about

- ▶ Price Ceilings and Floors

- ▶ *Legal* minimum or maximum price
- ▶ Minimum wage (Legal Min)
- ▶ Rent control (Legal Max)

- ▶ Quantity Ceilings and Floors

- ▶ Legal minimum and maximum purchase or sale
- ▶ Tricky because it can be per purchase or in aggregate.
 - ▶ Minimum purchase or sale (Auto Insurance)
 - ▶ Maximum purchase quantity (See local ganja store for example)

A few warnings

- ▶ This is about messing with well functioning, perfectly competitive markets.
- ▶ You generally don't want to touch those.

But ...

We Should if they are not

- ▶ Markets that are non-competitive in some way
 - ▶ Low skill - low wage labor, minimum wage laws (Economists are split on this but evidence is coming in)
 - ▶ Labor markets in general (There may be few buyers and buyers may have more income)
 - ▶ Monopoly power, internet service etc.
- ▶ When there are externalities
 - ▶ Pollution, congestion and the like, but other mechanisms often work better
 - ▶ Common resource like fishing. Again, different approaches may be better.

We Do mess with markets for other reasons

- ▶ Critical industry (Argument currently in use for auto tariffs and price floors on milk)
- ▶ Infant industry (Just let it grow so we don't have to import)
- ▶ Protect the poor (Cheap food)
- ▶ Ensure quality (UK had a minimum price of gin)

Why We Care in Macro?

- ▶ We do this on vast scales.
 - ▶ Quotas on large industries (autos, oil)
 - ▶ Tariffs
- ▶ The vast scales don't restrict themselves to a single industry they have macro, unemployment, growth, and inflation, effects.

Warnings

- ▶ The analysis that follows assumes that we are constraining well functioning markets.
- ▶ You can improve the functioning of *some* markets with constraints, but not all.
- ▶ The constraints break prices ability to allocate, so other non-price allocation mechanisms, like discrimination, kick in.

Price Ceiling

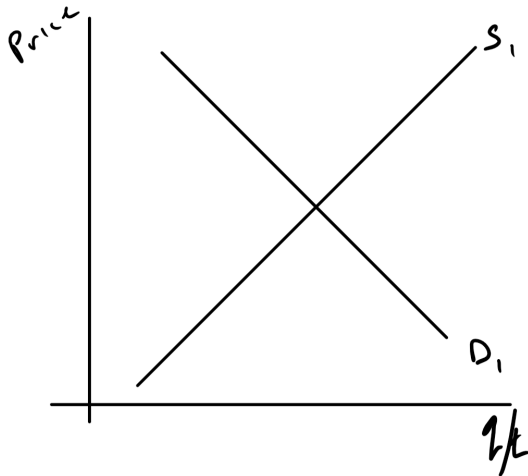


Figure 1:

Summary of Price Ceiling

- ▶ Quantity demanded is larger than quantity supplied – a shortage.
- ▶ The usual equilibrium mechanism, bidding up price, can't work.
- ▶ Those that can buy at the low price get a lot of benefits.
- ▶ Those that can't end up either:
 - ▶ Not getting the goods
 - ▶ Buying a close substitute
 - ▶ Waiting for a non-price allocation mechanism to kick in.

Real Example: Rent Control

Anne was trying to move to Berkeley and I tried to help.

- ▶ Many don't get to buy
- ▶ Some get imperfect substitutes – Oakland.
- ▶ Information becomes valuable, since prices no longer transmit information
- ▶ Discrimination
- ▶ Queues
- ▶ Connections to other markets arise
- ▶ Administrative Allocation
- ▶ Lottery

Price Floor

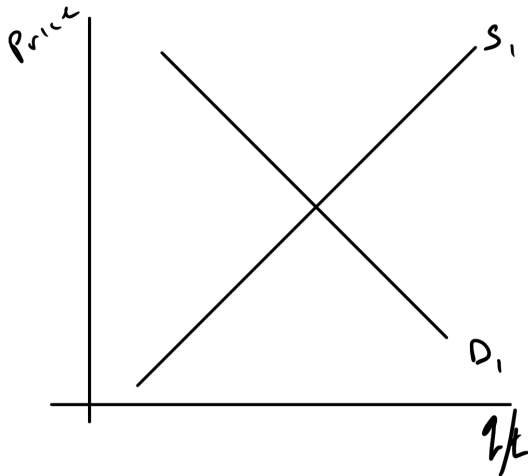


Figure 2:

Summary of Price Floor

- ▶ Quantity Supplied is larger than quantity demanded – a surplus.
- ▶ The usual equilibrium mechanism, bidding down price, can't work.
- ▶ Those that can sell at the high price get a lot of benefits.
- ▶ Those that can't end up either:
 - ▶ Not selling
 - ▶ Selling a close substitute
 - ▶ Waiting for a non-price allocation mechanism to kick in.

Real Example: Airlines before Deregulation

- ▶ Many don't get to sell
- ▶ Some get imperfect substitutes – Bus and car.
- ▶ Information becomes valuable, since prices no longer transmit information
- ▶ Discrimination
- ▶ Queues
- ▶ Connections to other markets arise
- ▶ Administrative Allocation
- ▶ Lottery

Quantity Floor

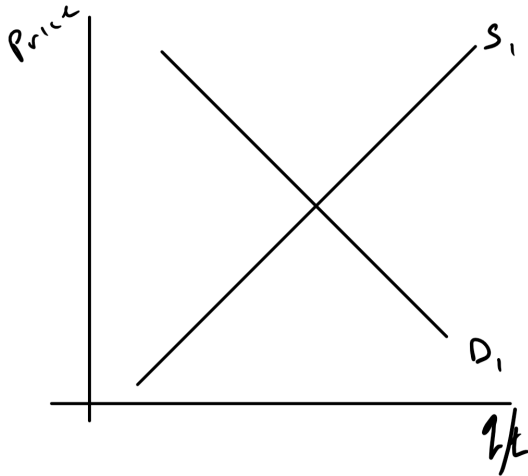


Figure 3:

Summary of Quantity Floor

- ▶ Price could be high or low depending on who is constrained, who must buy or sell.
 - ▶ If buyers must buy, price is high
 - ▶ If sellers must sell, price is low

In short, the unconstrained party, buyer or seller, bids the price up or down.

Quantity Ceiling

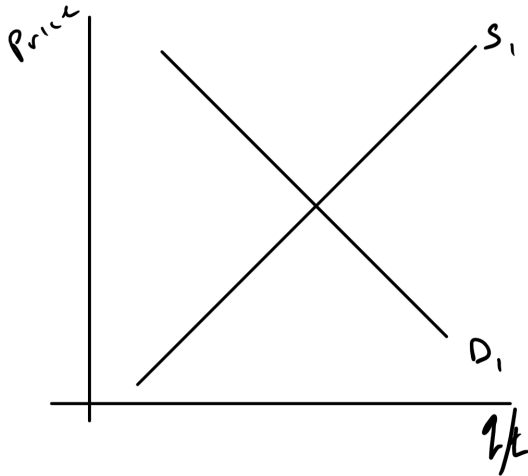


Figure 4:

Summary of Quantity Ceiling

- ▶ Again, price could be high or low depending on who is constrained, who has limits.
 - ▶ If buyers are limited, price is low
 - ▶ If sellers are limited, price is high

Again, the unconstrained party, buyer or seller, bids the price up or down.