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 information)
  - 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

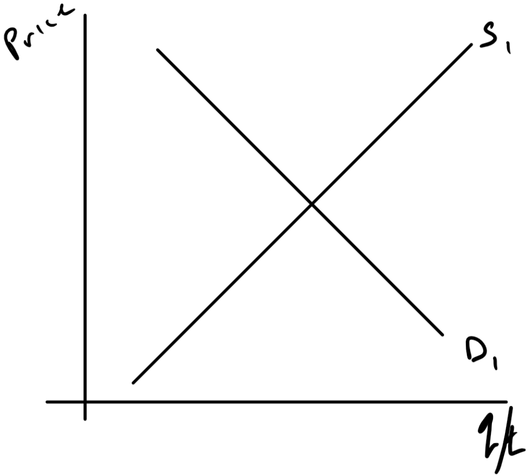

Figure 1:

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

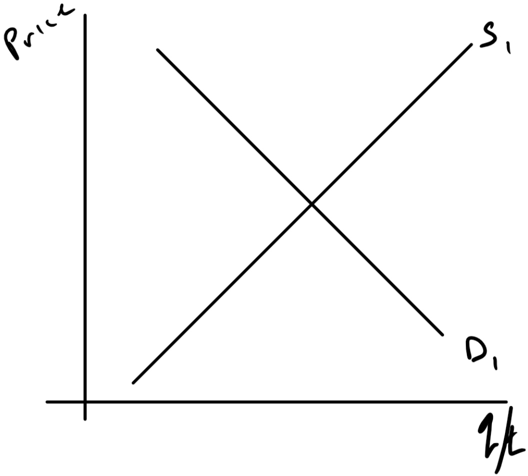

Figure 2:

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

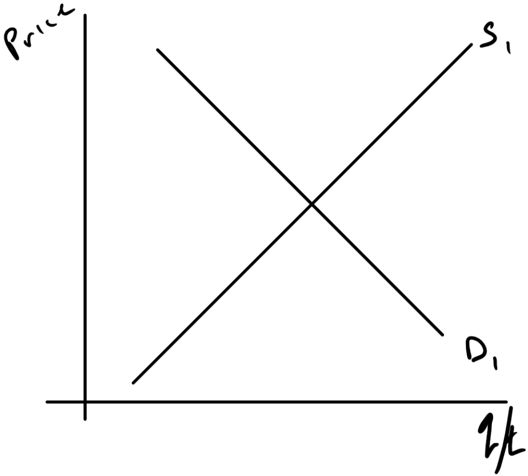

Figure 3:

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

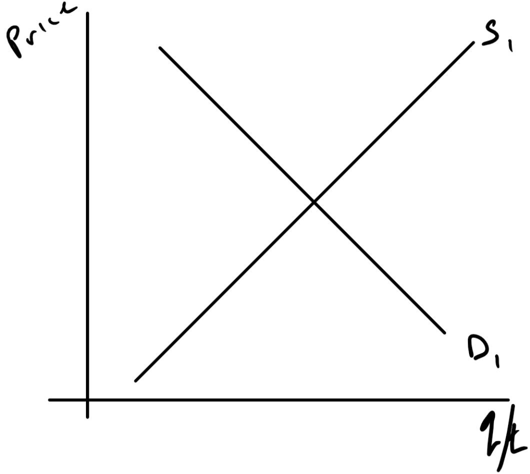

Figure 4:

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.