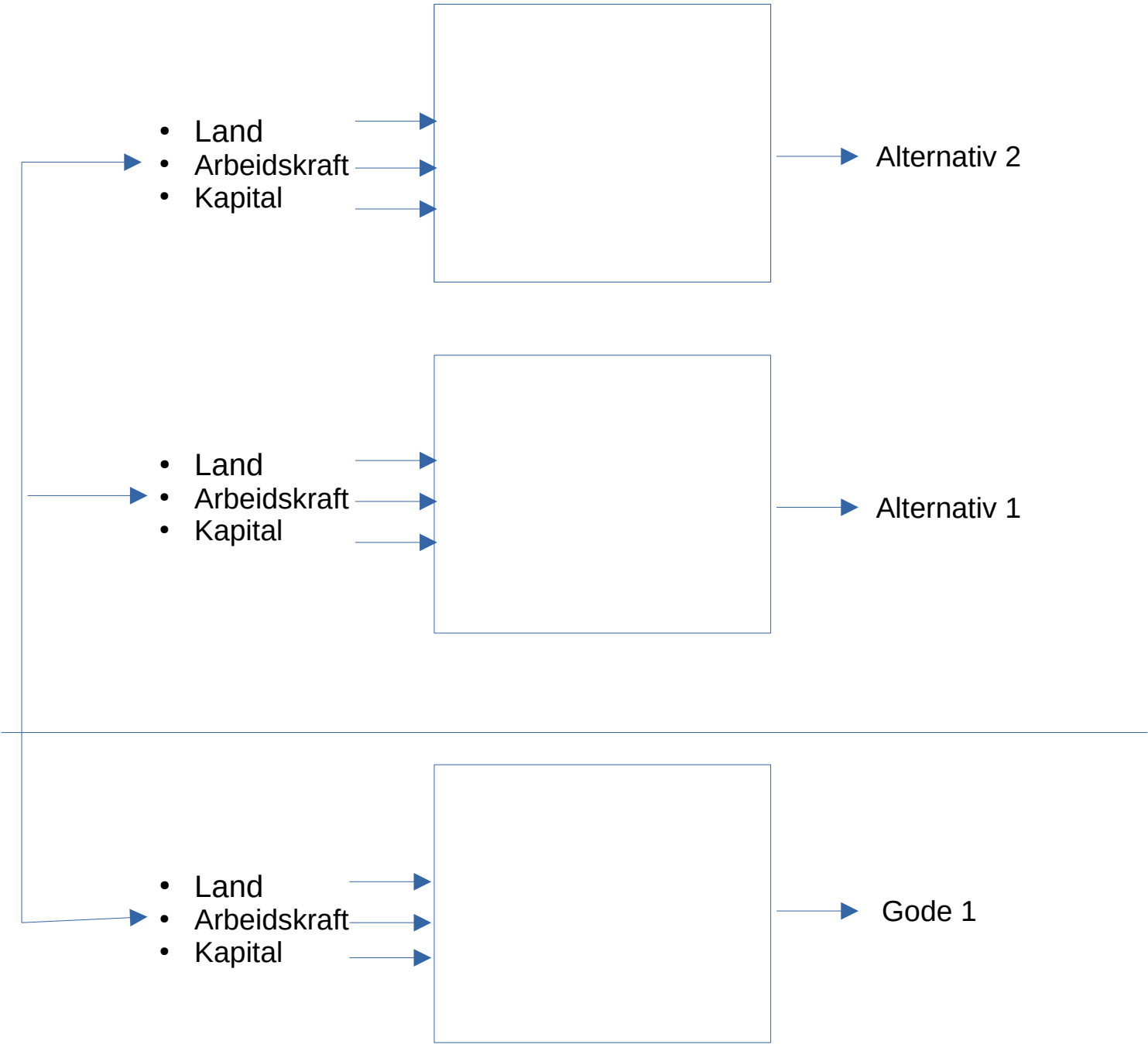
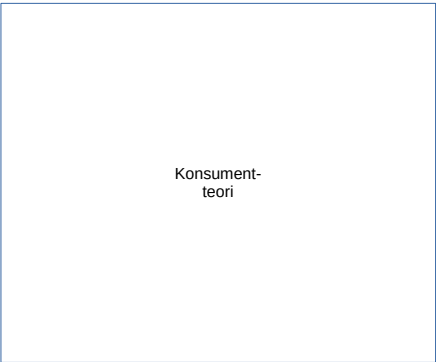


Alternativkostnad

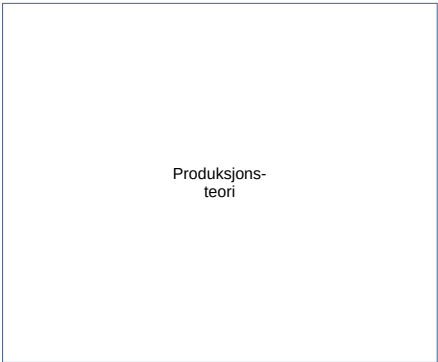


# Mikroøkonomi oppbygging

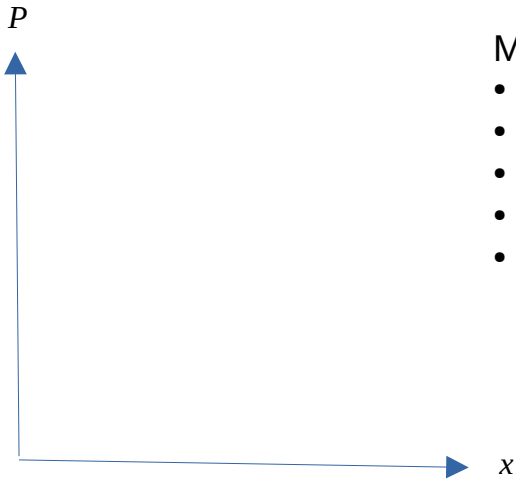
Behov



Ressurser

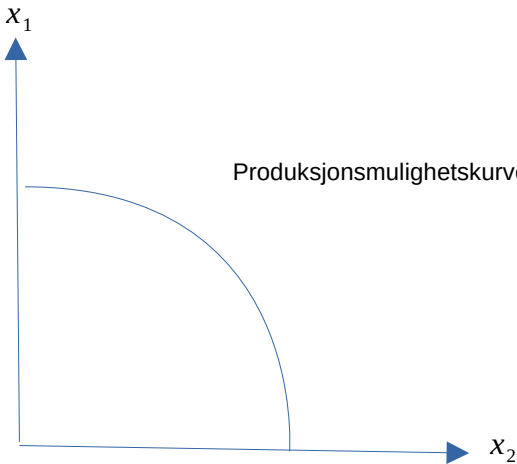


Partiell  
Likevekt  
(ett marked)

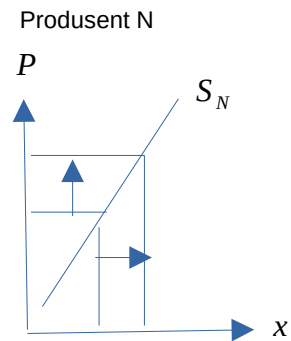
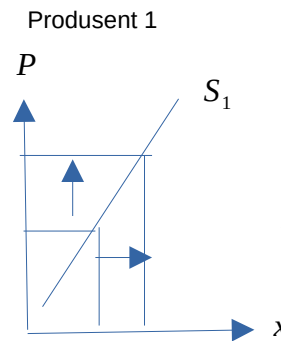
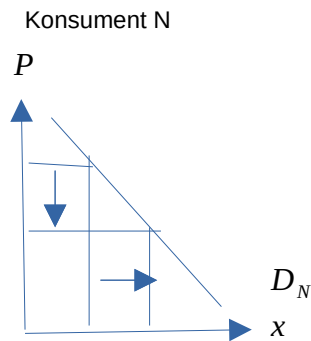
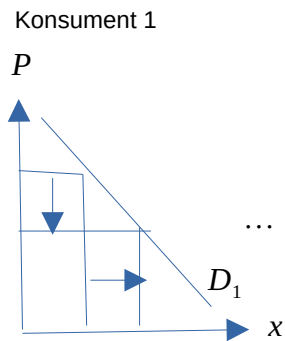


- Markedsformer:
- Fullkommen konkurranse
  - Monopol
  - Monopolistisk konkurranse
  - (Kartell, duopol, oligopol)
  - Prisdiskriminering

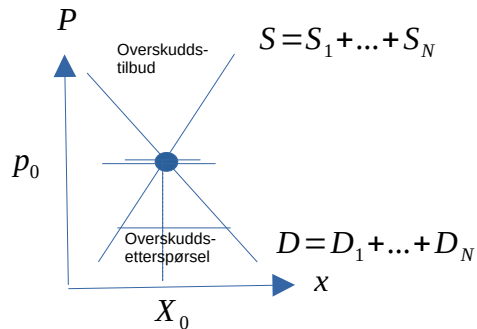
Generell  
Likevekt  
(mange  
markeder)



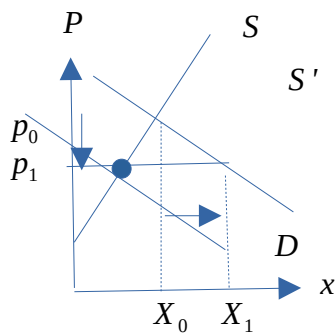
# Oversikt: Markedet for fullkommen konkurranse



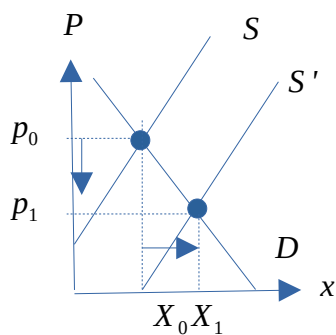
Fullkommen konkurranse



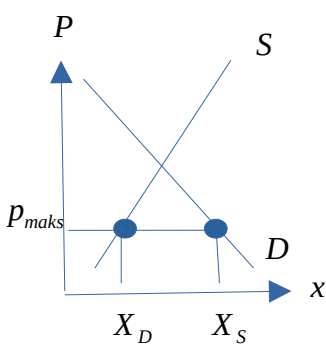
Skiftanalyse (slak etterspørselskurve)



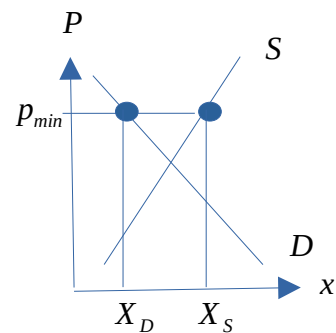
Skiftanalyse (bratt etterspørselskurve)



Maksimalpris

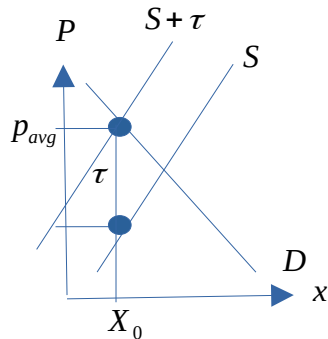


Minstepris



Avgift

Fullkommen konkurranse



Myndighetene

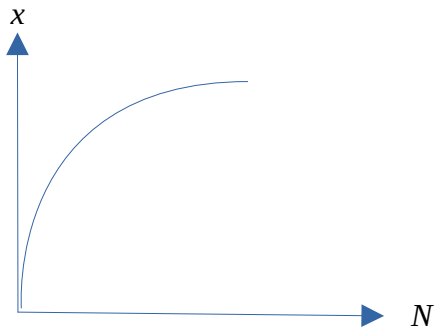
Produktfunktjonen

- N
- K

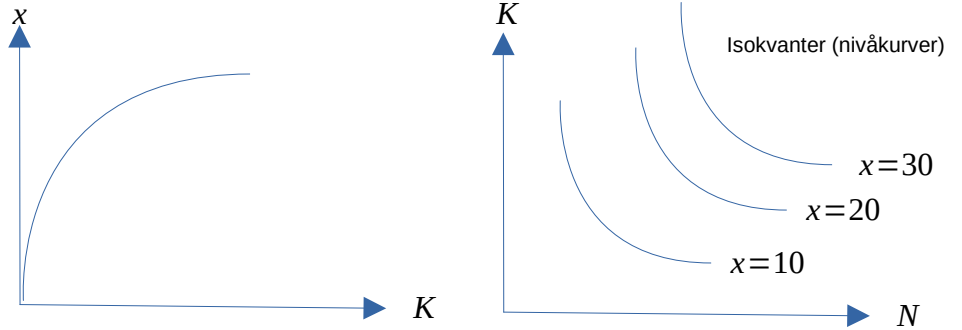


# Produksjonsteori: Produksjon

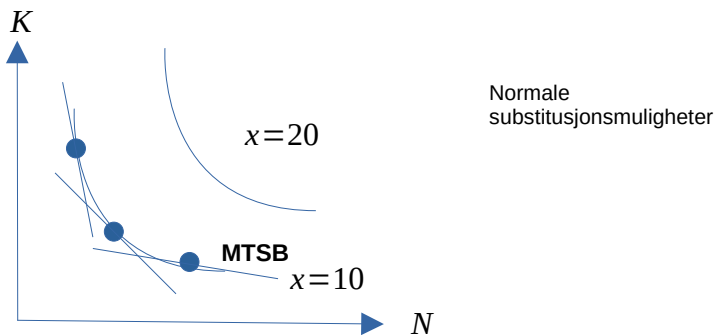
## Produktfunksjonen på kort sikt - arbeidskraft



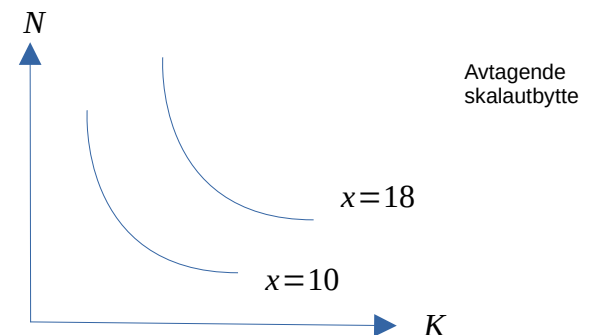
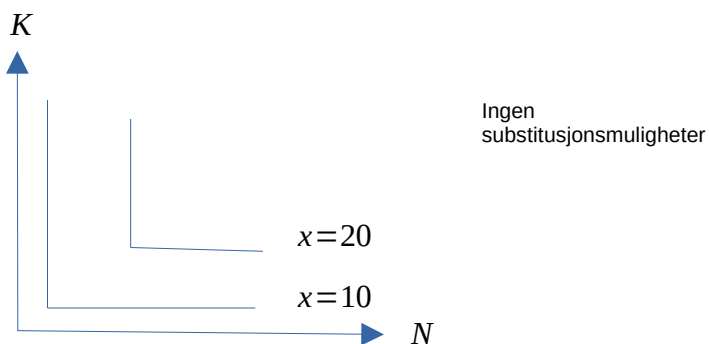
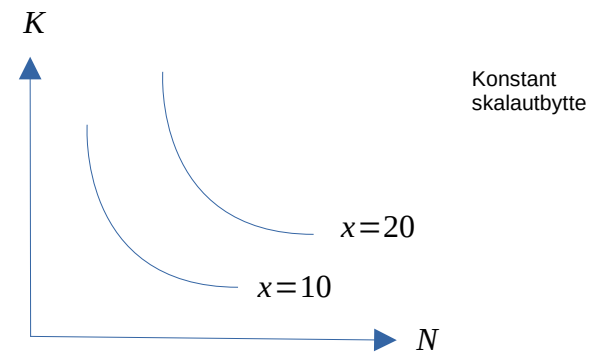
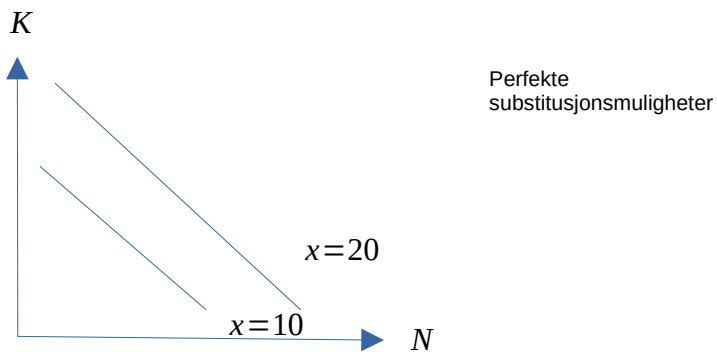
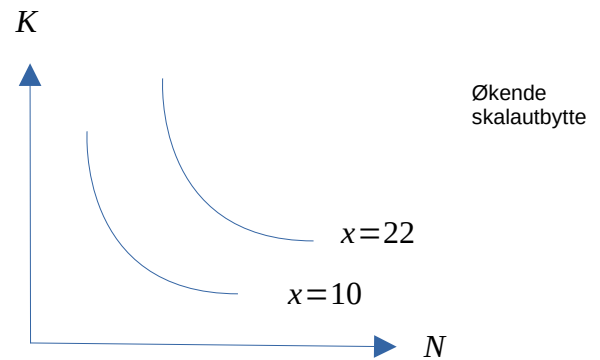
## Produktfunksjonen på lang sikt



## Tekniske substitusjonsmuligheter

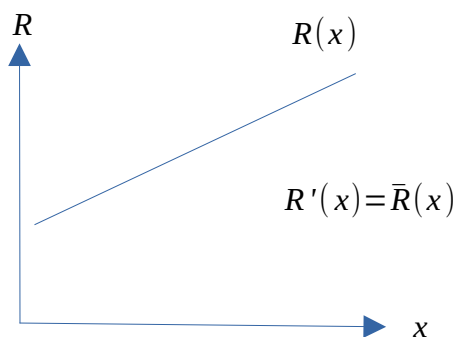


## Skalaegenskaper

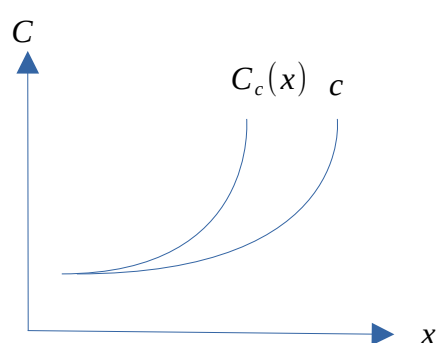


# Produksjonsteori: Inntekter og kostnader

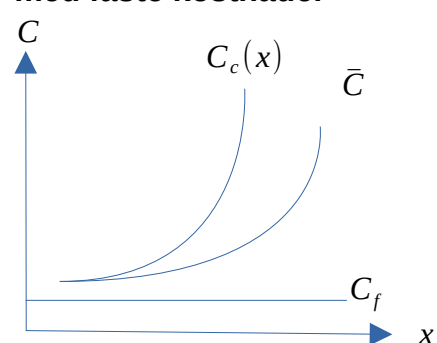
**Inntekter**



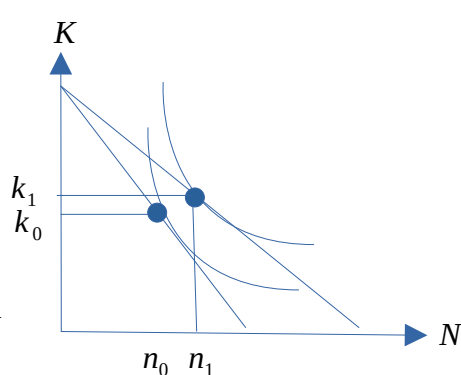
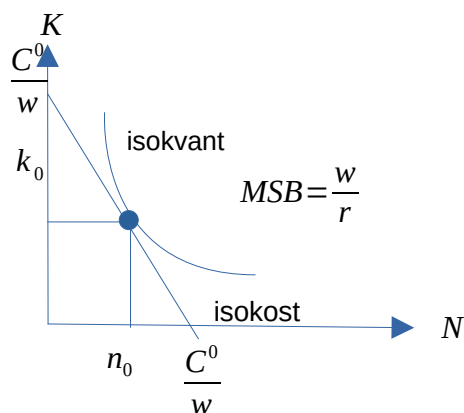
**Kostnader uten faste kostnader**



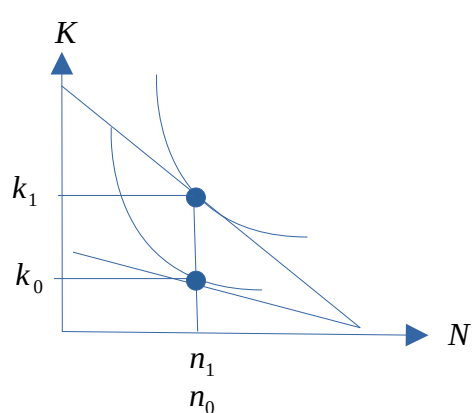
**Kostnader med faste kostnader**



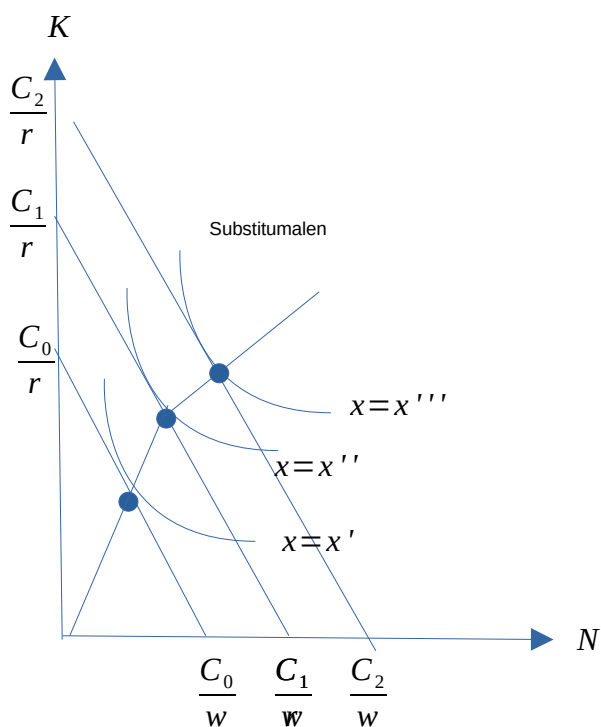
**Kostnadsminimering (lang sikt) - Billigere arbeidskraft**



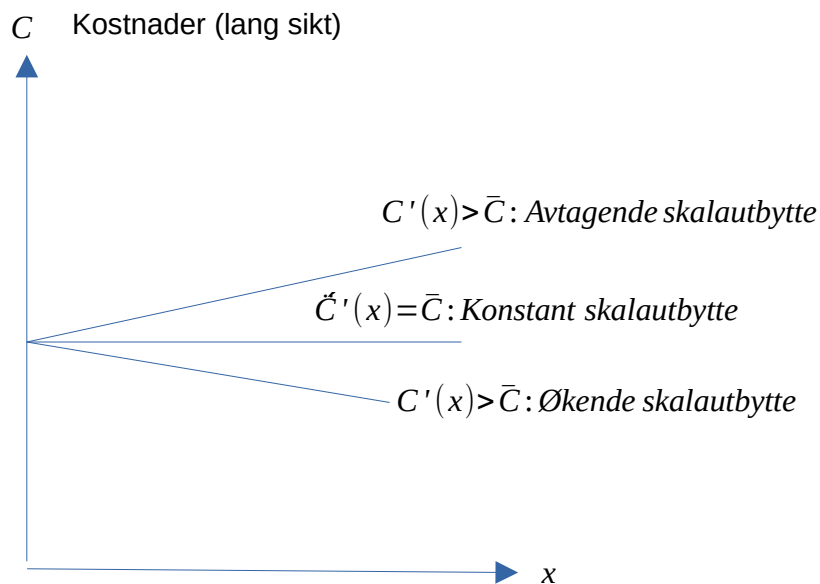
**- Billigere kapital**



**Kostnadsminimering For et gitt budsjett**

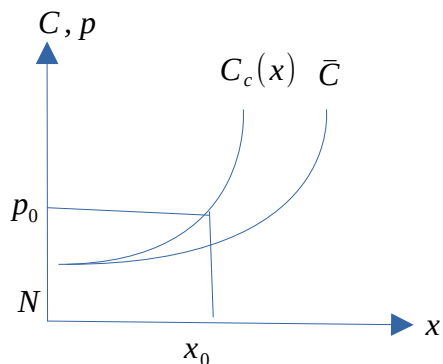


**Kostnadsfunksjonen for ulike antagelser om skalaufbytte**

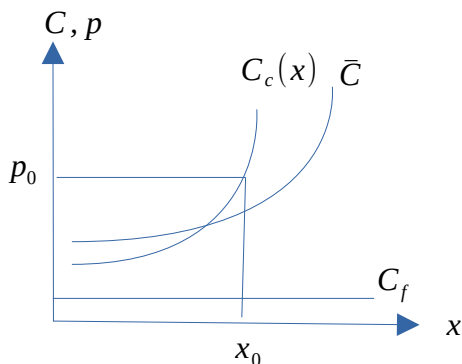


# Produksjonsteori: Produsentens økonomiske adferd i gode- og arbeidsmarkedet

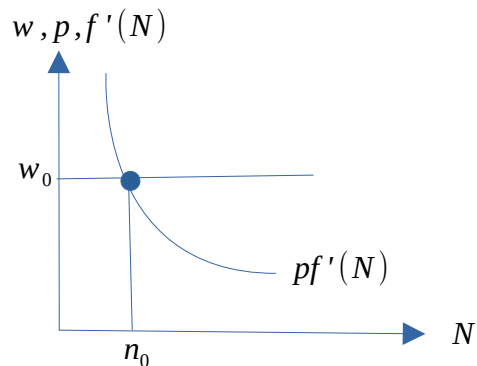
## Produksjon (kort sikt) uten faste kostnader



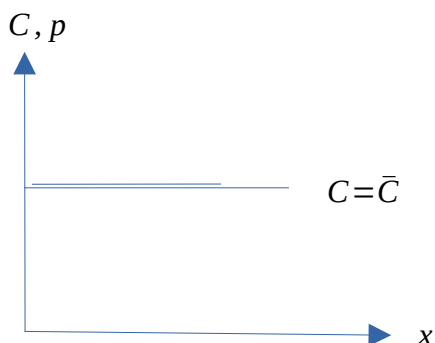
## Produksjon (kort sikt) med faste kostnader



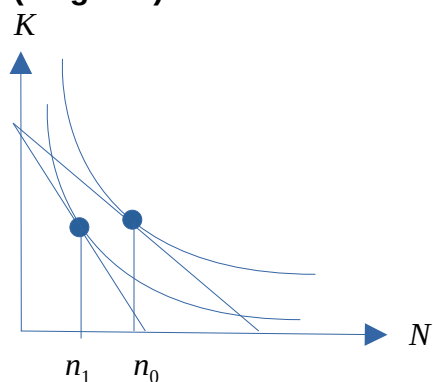
## Bruk av arbeidskraft (kort sikt)



## Produksjon (lang sikt), med konstant skalautbytte



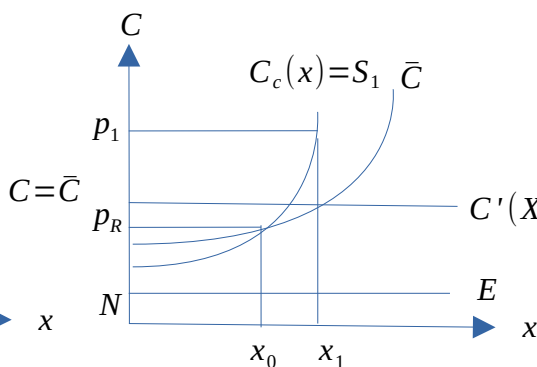
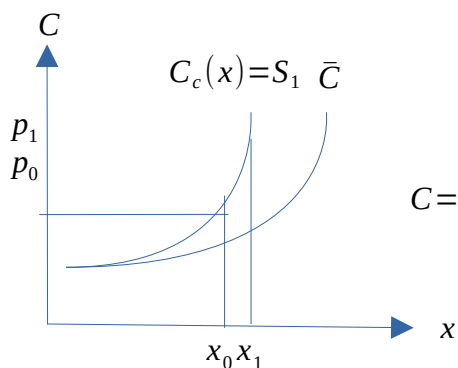
## Bruk av arbeidskraft (lang sikt)



## Tilbudsfunksjonen fra en produsent (kort og lang sikt)

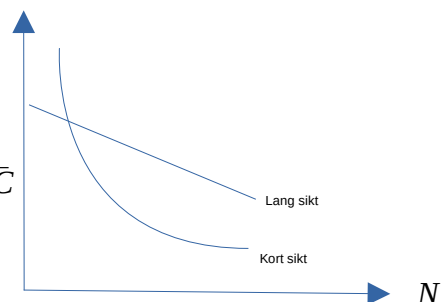
Uten faste kostnader

Med faste kostnader



## Etterspørselsfunksjonen etter arbeidskraft fra en produsent (kort og lang sikt)

$w, p, f'(N)$



# Konsumentteori: Konsumentens valg

Konsumenter: Gruppe av individer med samme preferanser

1. ⊙ *Determinitet*

Har at  
Entener  $A < B$   
eller  $B < A$   
eller  $A \sim B$

2. ⊙ *Ikke metning*

3. ⊙ *Transitivitet*

Gitt at  $B < A$   
og  $C < B$   
 $\rightarrow C < A$

De tre aksiomene gir oss:

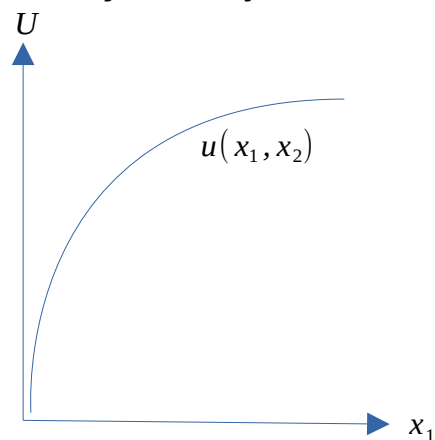
$$U = u(x_1, x_2)$$

Hvor vi antar at:

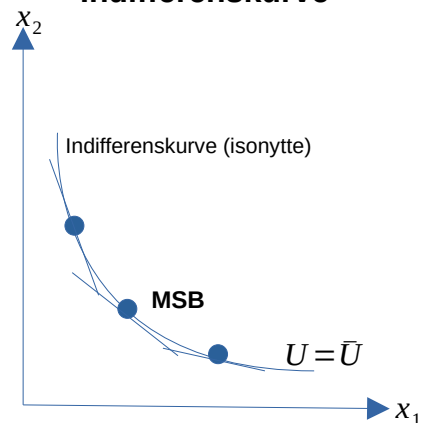
$$u'(x_1) > 0, u''(x_1) < 0$$

$$u'(x_2) > 0, u''(x_2) < 0$$

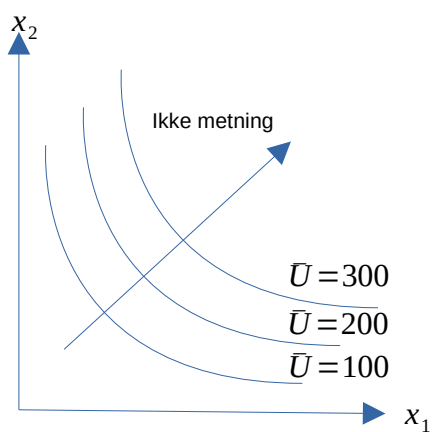
## Nyttefunksjonen



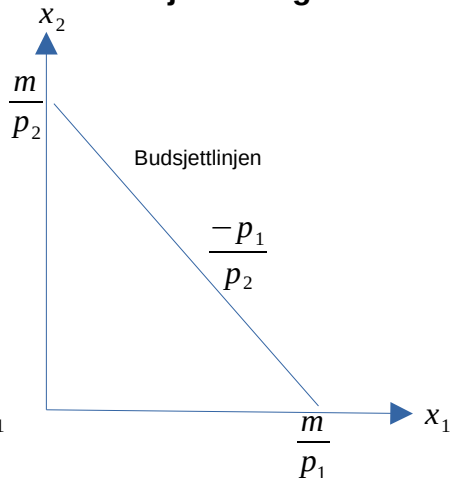
## Indifferenskurve



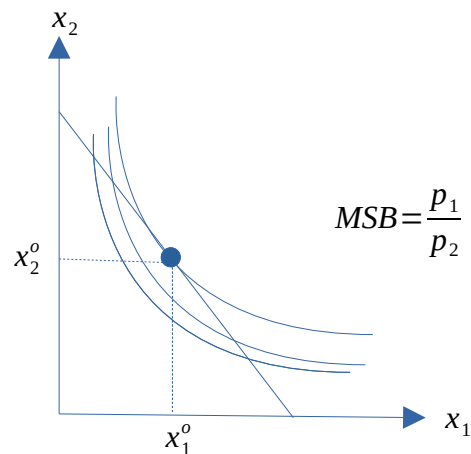
## Indifferenskart



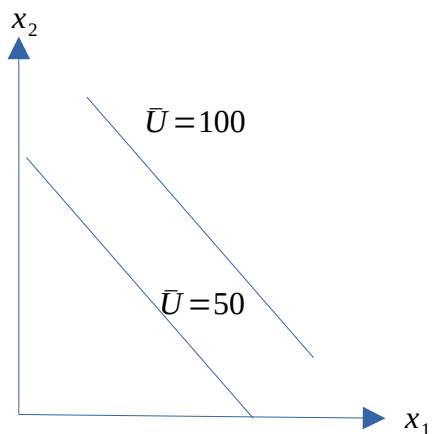
## Budsjettbetingelsen



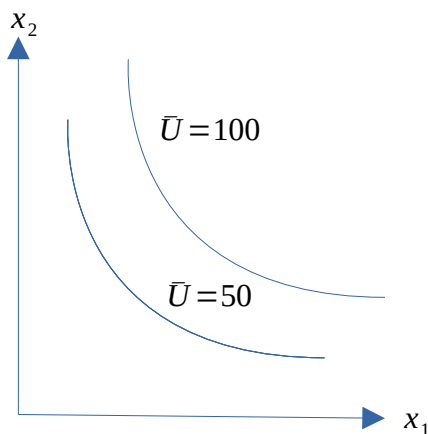
## Optimal tilpasning



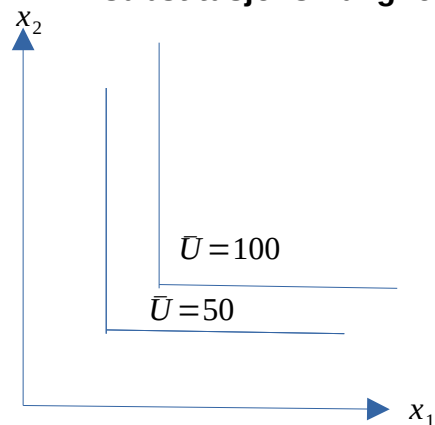
## Perfekte substitusjonsmuligheter



## Vanlige substitusjonsmuligheter



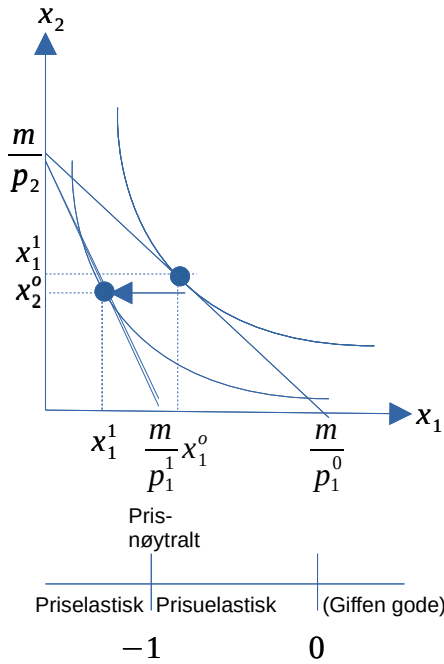
## Ingen substitusjonsmuligheter



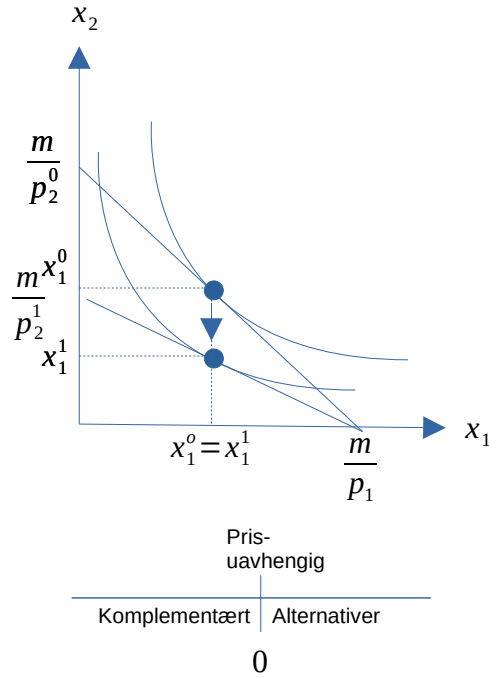


# Konsumentteori: Konsumentens økonomiske adferd i gode- og arbeidsmarkedet

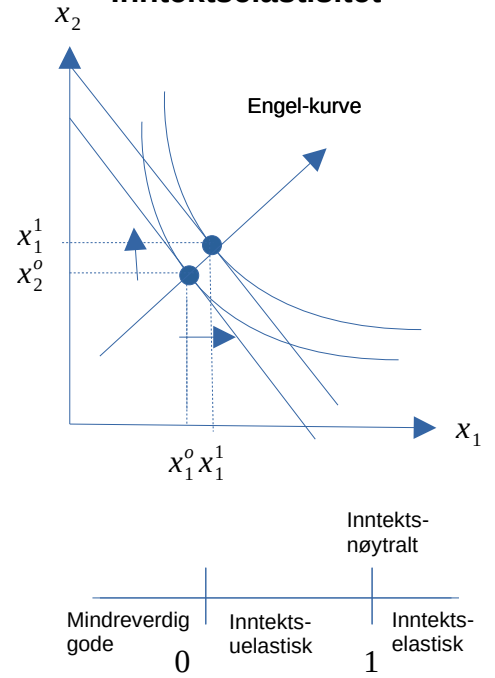
## Egenpriselasitet



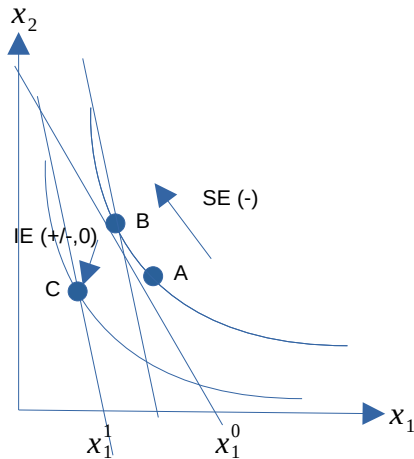
## Krysspriselasitet



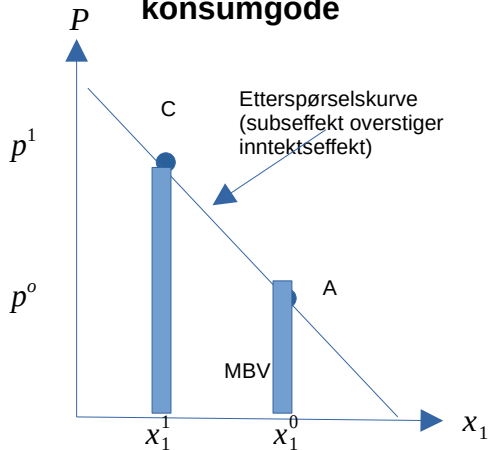
## Inntektselasitet



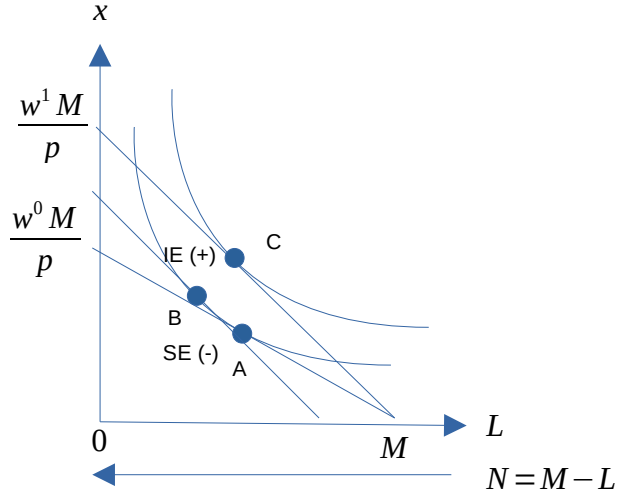
## Utleddning av etterspørselskurven for gode 1



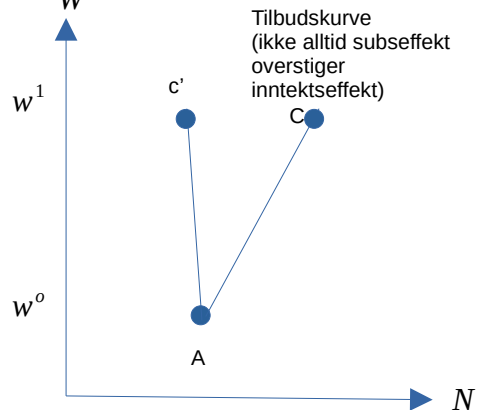
## Etterspørsel av konsumgode



## Utleddning av tilbudskurven for arbeidskraft



## Tilbudet av arbeidskraft



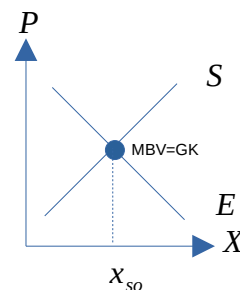
# Fullkommen konkurranse

PLANLEGGING

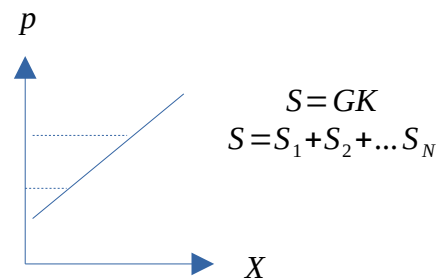
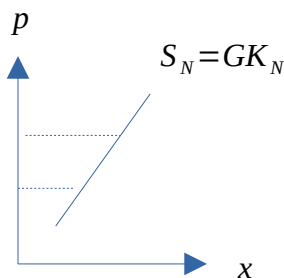
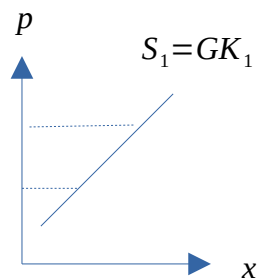
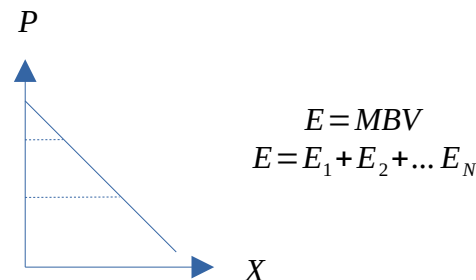
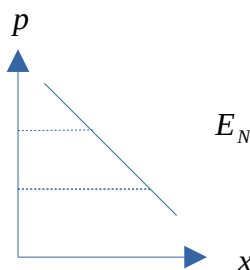
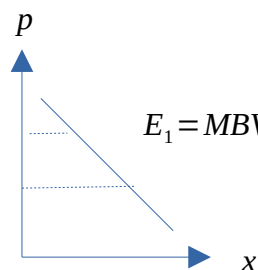
Produsent  
 $GK = C'_v(X)$   
 $VK = C_v(X)$

Konsument  
 $MBV = B'(X)$   
 $B = B(X)$   
 $PO(X) = PX - C_v(X)$   $KO(X) = B(X) - PX$

Sosial planelegger  
 Velferd =  $SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX)$   
 Maks SO mhp.  $X$   
 $P - C'_v(X) + B'(X) - P = 0$   
 $C'_v(X) = B'(X)$   
 $MBV = GK$

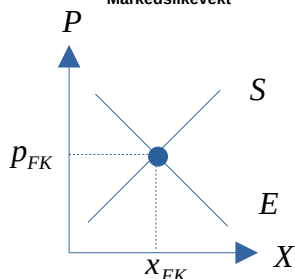


AGGREGERING



MARKEDDET

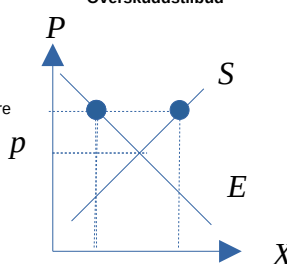
Markedslikevekt



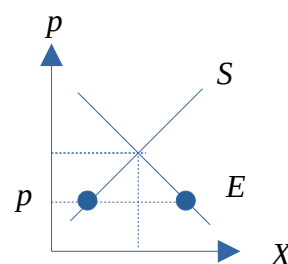
FORUTSETNINGER BAK FULKOMMEN KONKURRANSE

- 1) Mange aktører på både tilbuds- og etterspørselssiden
- 2) Prisen blir bestemt i et samspill mellom tilbydere og etterspørere
- 3) Homogene varer
- 4) Rasjonelle aktører: Maks nytte og profitt
- 5) Bruker all relevant informasjon
- 6) Ingen transaksjonskostnader

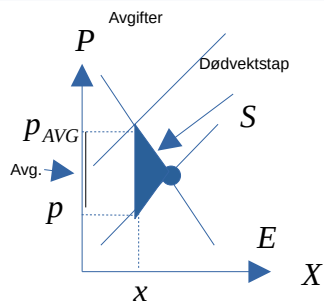
Overskuddstilbud



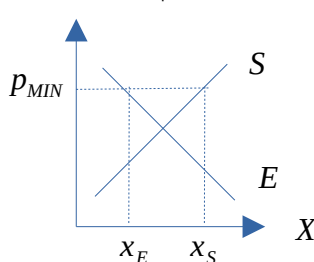
Overskuddsetterspørsel



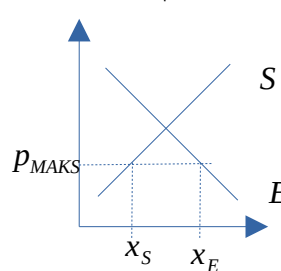
PRISREGULERING



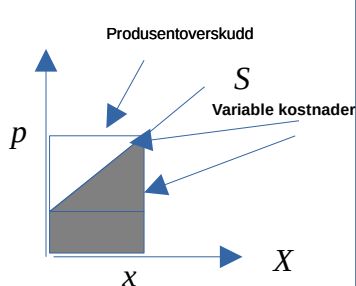
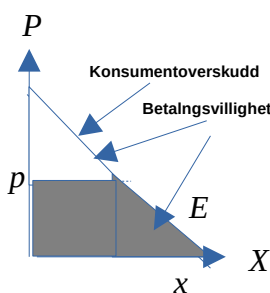
Minstepris



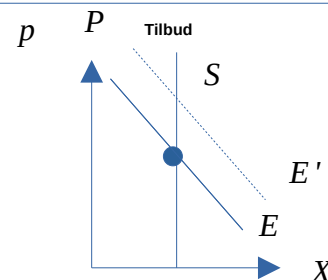
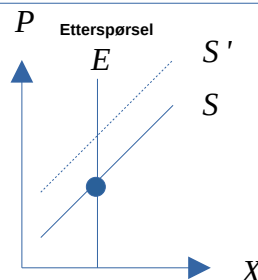
Makspris



OVERSKUDD



UELASTISK



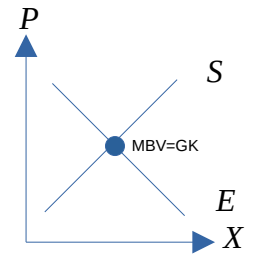
# Monopol

PLANLEGGING

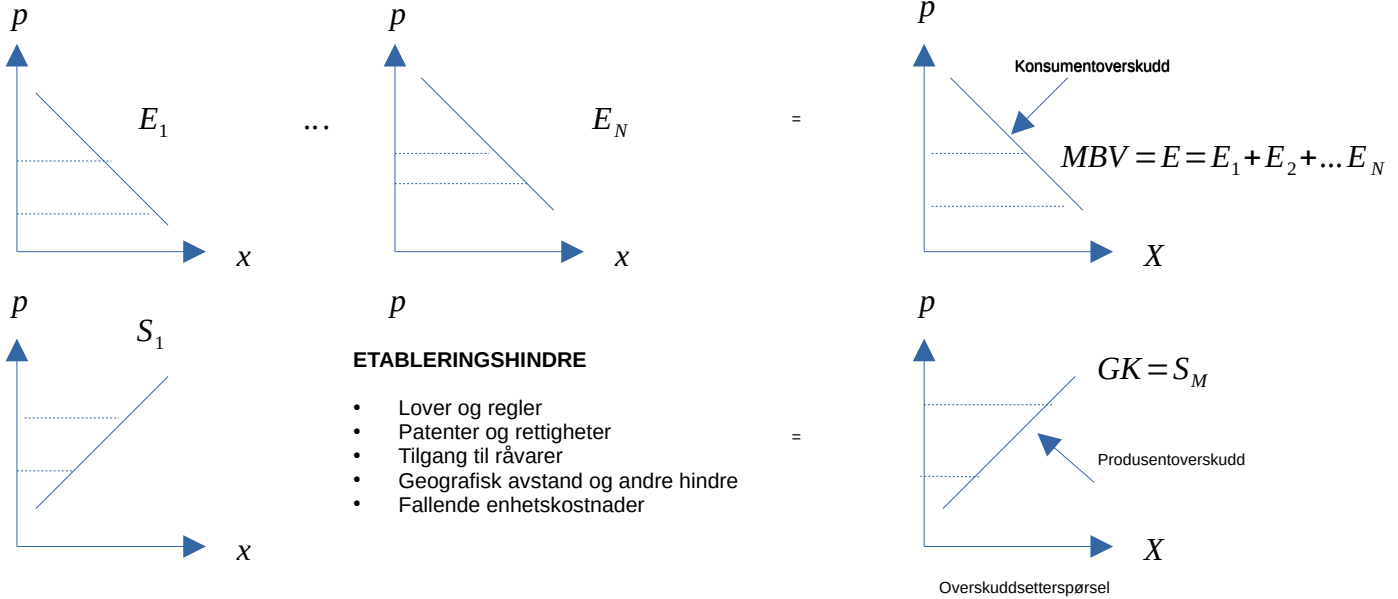
**Produsent**  
 $GK = C'_v(X)$   
 $VK = C_v(X)$   
 $PO(X) = PX - C_v(X)$

**Konsument**  
 $MBV = B'(X)$   
 $B = B(X)$   
 $KO(X) = B(X) - PX$

**Sosial planelegger**  
 $Velferd = SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX)$   
**Maks SO mhp. X**  
 $P - C'_v(x) + B'(X) - P = 0$   
 $C'_v(x) = B'(X)$   
 $MBV = GK$



AGGREGERING



INTUISJON

## OPTIMAL TILPASNING

- Finne det produksjonsnivået som gir maksimal fortjeneste
- $R'(x)$  Endring i inntekt ved å produsere én enhet mer
  - Høyere omsetning (+)
  - Tidligere enheter blir solgt til en lavere pri
- $C'(x)$  Endring i kostnad ved å produsere en enhet mer

## FORMELT

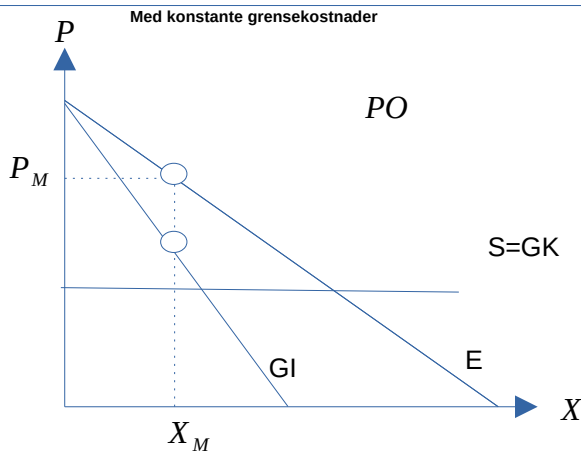
$R'(X) > C'(X)$   
 $R'(X) < C'(X)$   
 $R'(X_M) = C'(X_M)$

Lønner seg å øke produksjonen

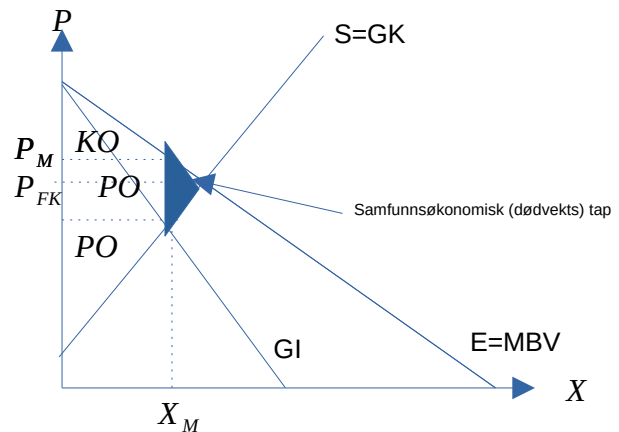
Lønner seg å redusere produksjonen

Optimal produksjon

GRAFISK



## Med stigende grensekostnader (mer deltajert figur)



SAMMENL.

## Fra fullkommen konkurranse til monopol

- Redusert SO (dødvectstap)
- Omfordeling
  - Fra Konsument(KO)
  - Til Produsent (PO)

# Ufullkommen konkurranse: Monopolistisk konkurranse

PLANLEGGER

*Produsent*  
 $GK = C'_v(X)$

$VK = C_v(X)$

$PO(X) = PX - C_v(X)$

*Konsument*  
 $MBV = B'(X)$

$B = B(X)$

$KO(X) = B(X) - PX$

*Sosial planelegger*

$Velferd = SO = PO + KO$

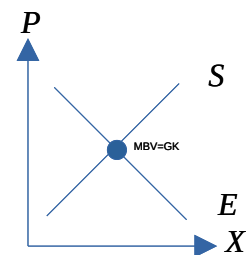
$SO = (PX - C_v(X)) + (B(X) - PX)$

*Maks SO mhp. X*

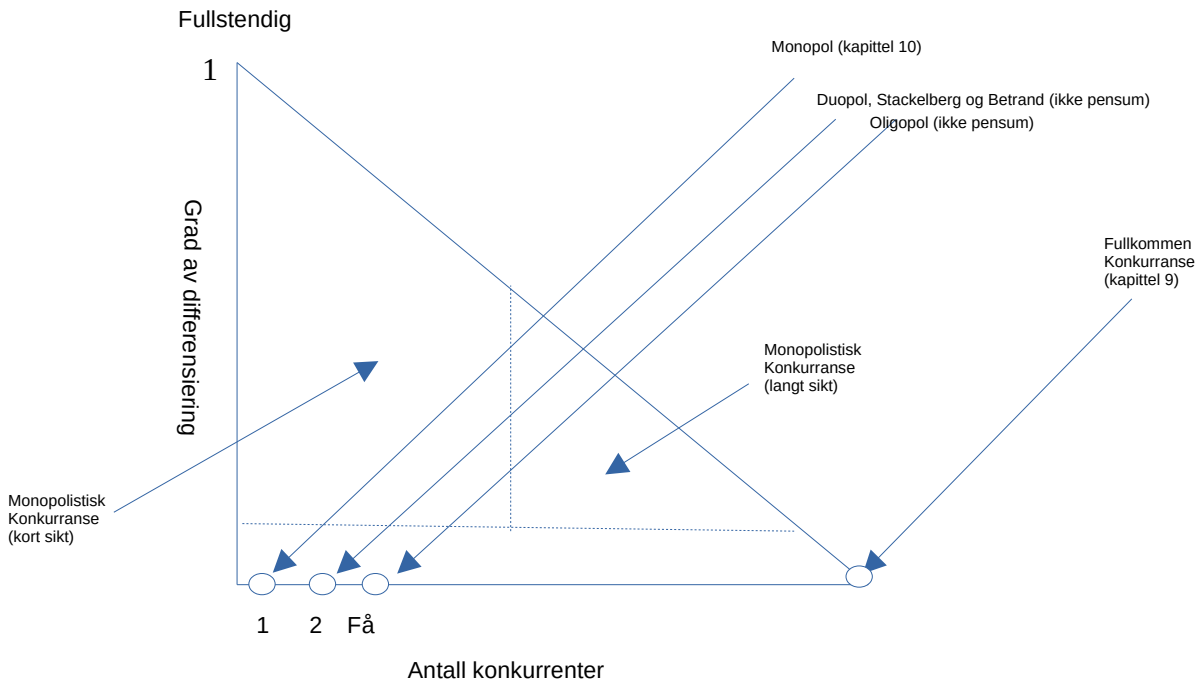
$P - C'_v(x) + B'(X) - P = 0$

$C'_v(x) = B'(X)$

$MBV = GK$



MARKEDSFORMER

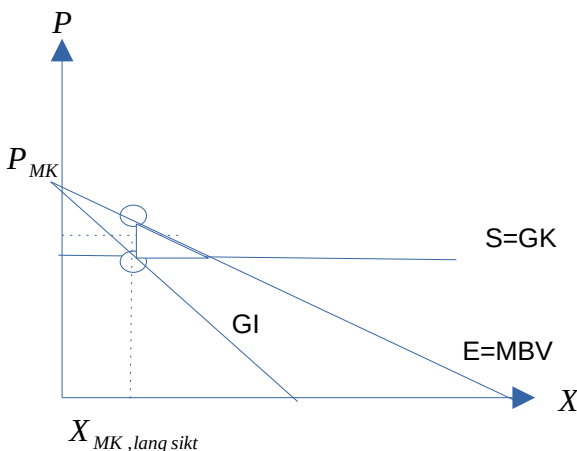
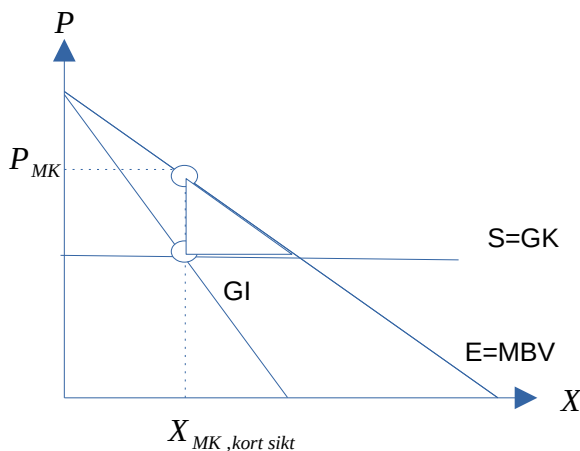


Kort sikt

Lang sikt

MONOPOLISTISK

KONKURRANSE



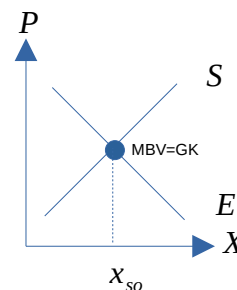
# Ufullkommen konkurranse: Kartel, duopol, oligopol og monopolistiks konkurranse

PLANLEGGER

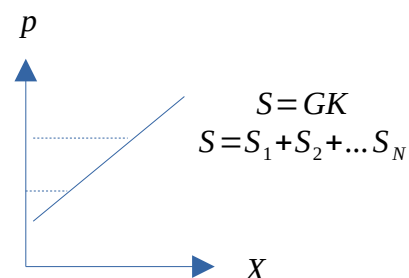
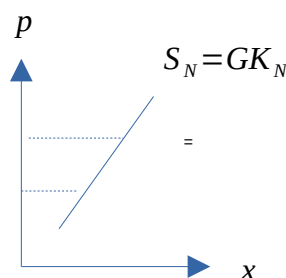
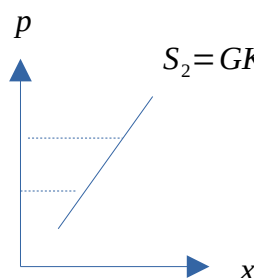
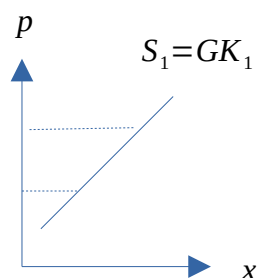
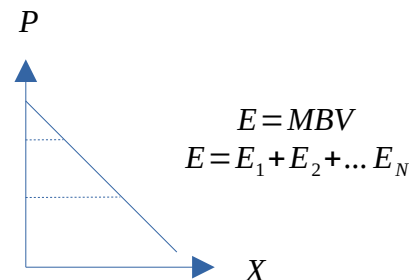
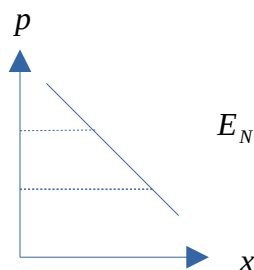
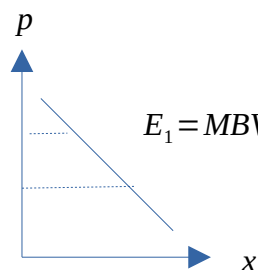
Produsent  
 $GK = C'_v(X)$   
 $VK = C_v(X)$

Konsument  
 $MBV = B'(X)$   
 $B = B(X)$   
 $PO(X) = PX - C_v(X)$     $KO(X) = B(X) - PX$

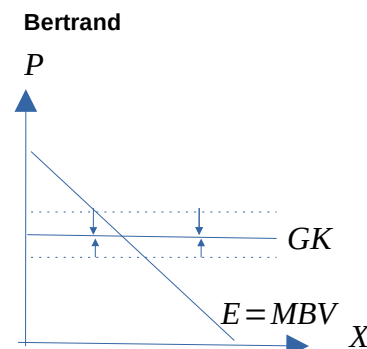
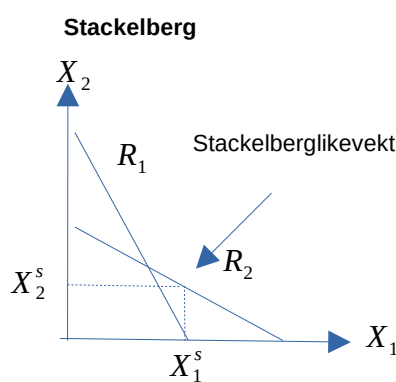
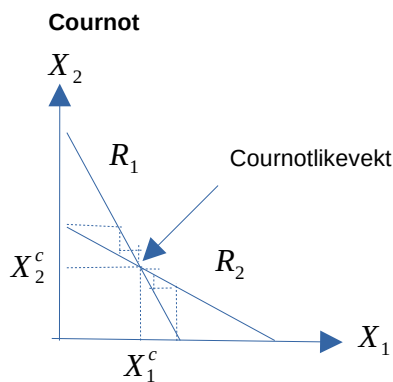
Sosial planelegger  
 Velferd =  $SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX)$   
 Maks  $SO$  mhp.  $X$   
 $P - C'_v(x) + B'(X) - P = 0$   
 $C'_v(x) = B'(X)$   
 $MBV = GK$



AGGREGERING



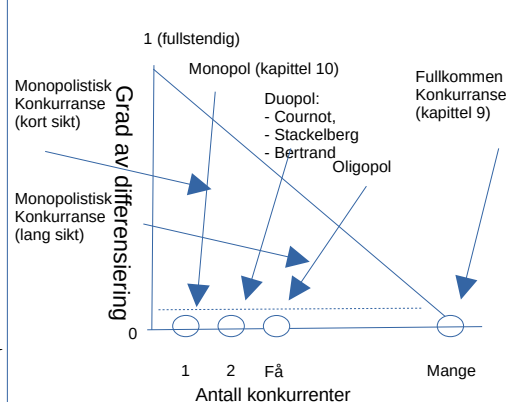
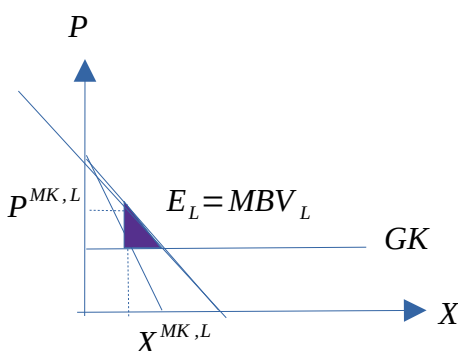
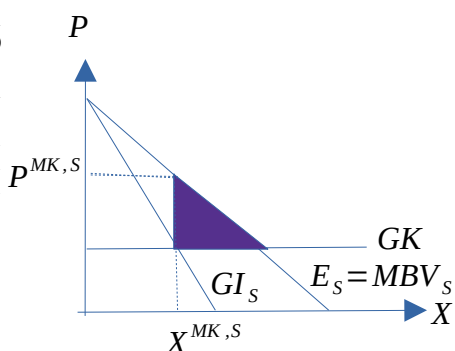
DUOPOL



Kort sikt

Lang sikt

MK  
 OON  
 OKU  
 POR  
 LIA  
 NTS  
 ISK



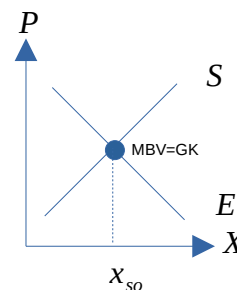
# Ufullkommen konkurranse: Kartel, duopol, oligopol og monopolistiks konkurranse

PLANLEGGING

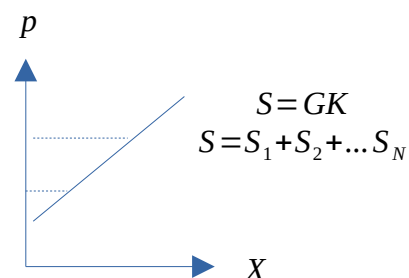
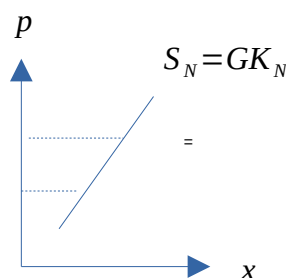
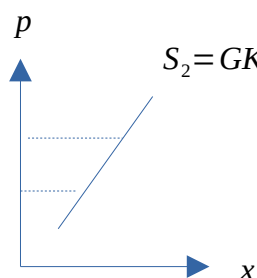
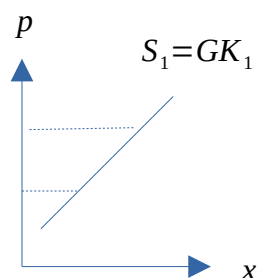
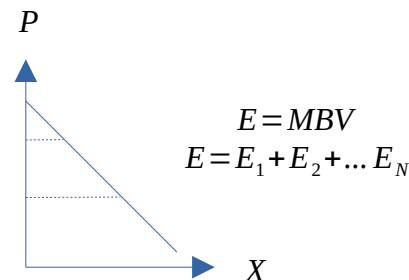
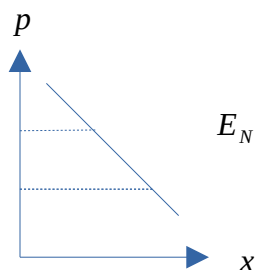
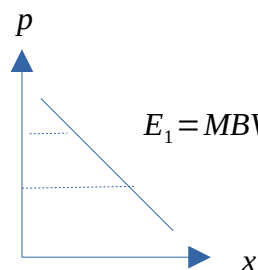
Produsent  
 $GK = C'_v(X)$   
 $VK = C_v(X)$

Konsument  
 $MBV = B'(X)$   
 $B = B(X)$   
 $PO(X) = PX - C_v(X)$     $KO(X) = B(X) - PX$

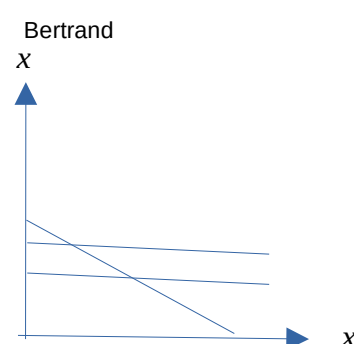
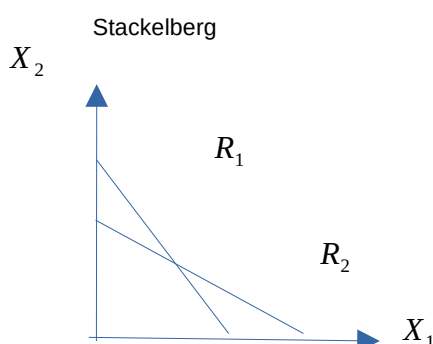
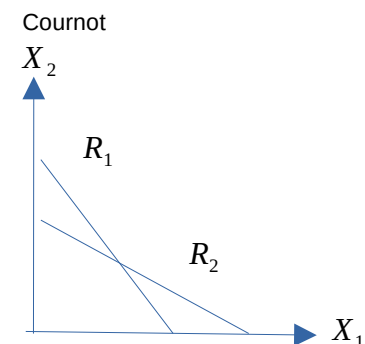
Sosial planelegger  
 Velferd =  $SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX)$   
 Maks SO mhp.  $X$   
 $P - C'_v(x) + B'(X) - P = 0$   
 $C'_v(x) = B'(X)$   
 $MBV = GK$



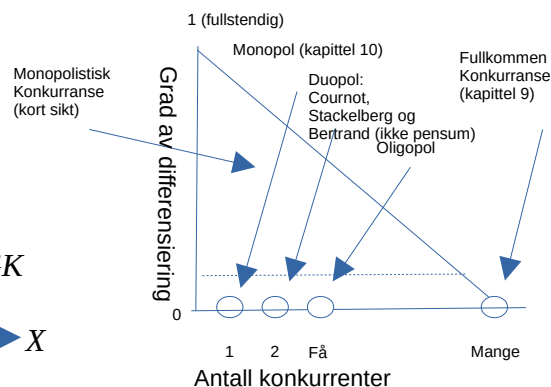
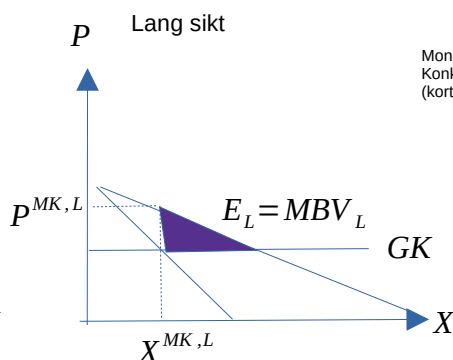
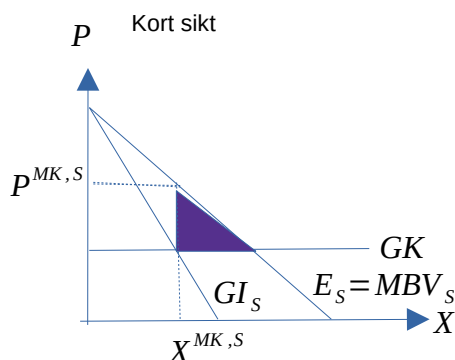
AGGREGERING



DUOPOL



MKONNOKUPORLANSISSEK



# Prisdiskriminering

F  
O  
R  
R  
U  
T  
S  
E  
T  
N

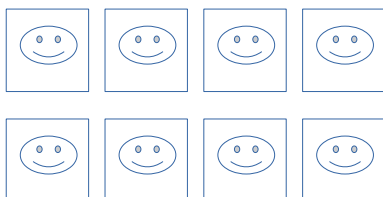
Vi har **prisdiskriminering** i et marked når en produsent har en fordel (dvs. kan få økt sin fortjeneste) ved å ta ulik pris til forskjellige etterspørere.

- 1) - Forskjellige etterspørere (eller gruppe av etterspørere) må ha ulik marginal betalingsvillighet (MBV).
- 2) - Produsentene må mulighet til å **skille** de forskjellige etterspørere fra hverandre.
- 3) - Videre salg mellom gruppene (dvs. fra konsumenter til konsumenter) er ikke mulig, alternativt kostbart å utføre.

## Sorteringsmekanisme: Individuelle sortering

1.

G  
R  
A  
D  
S



## Sorteringsmekanisme: Selvsortering

2.

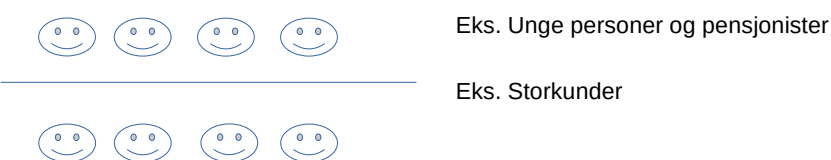
G  
R  
A  
D  
S



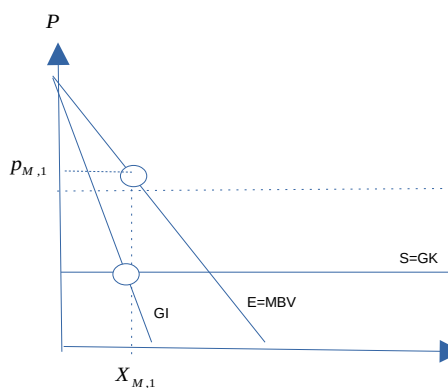
## Sorteringsmekanisme: Separering

3.

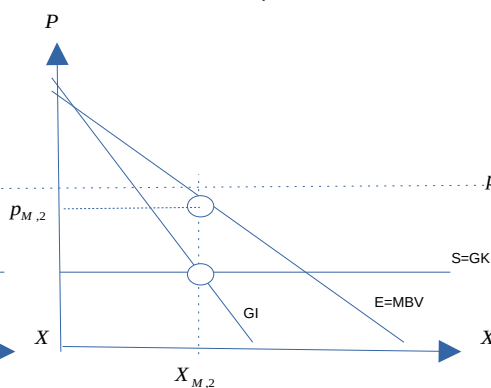
G  
R  
A  
D  
S



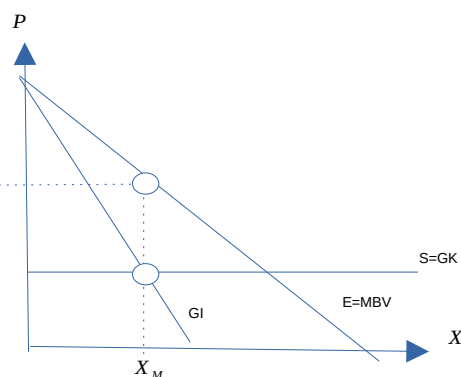
Segment 1:  
Prisufølsomme etterspørere



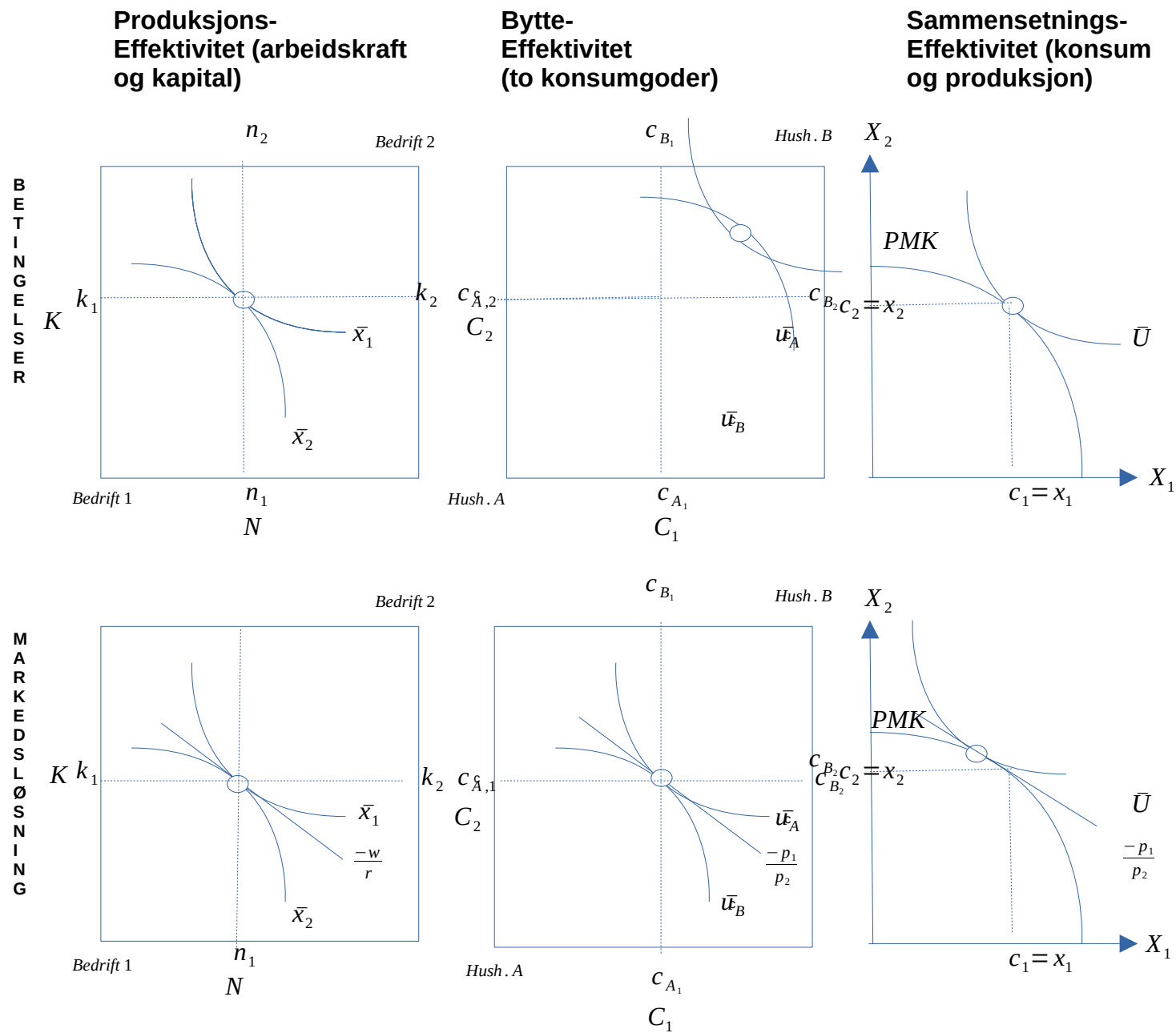
Segment 2:  
Prisfølsomme etterspørere



Monopolist (uten segmentering)



Effektivitet og velferd





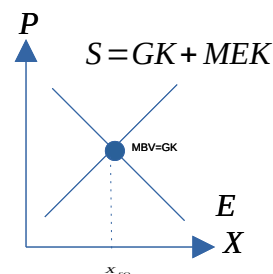
# Markedssvikt og offentlige virkemiddelbruk

PLANLEGGER

**Produsent**  
 $GK = C'_v(X)$   
 $VK = C_v(X)$   
 $PO(X) = PX - C_v(X)$

**Konsument**  
 $MBV = B'(X)$   
 $B = B(X)$   
 $KO(X) = B(X) - PX$

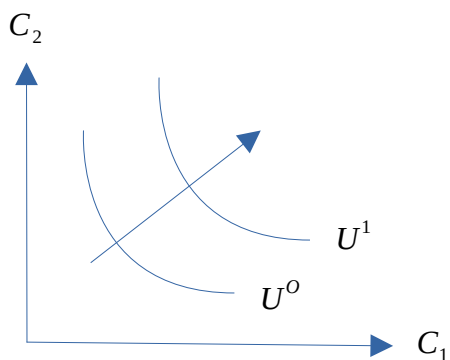
**Sosial planelegger**  
 $Velferd = SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX) - E(X)$   
**Maks SO mhp. X**  
 $P - C'_v(x) + B'(X) - P - E'(X) = 0$   
 $C'_v(x) + E'(X) = B'(X)$   
 $MBV = GK + MEK$



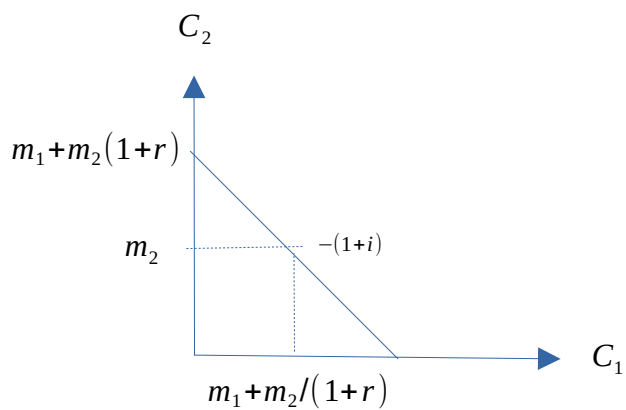
	Markedsmakt	Eksterne virkninger	Andre tilfeller
Markedssvikt		<p><b>Eksternaliteter:</b> Er bivirkninger av andres konsum eller produksjon som den som forårsaker bivirkninger ikke tar hensyn til når man skal fatte beslutningen om hvor mye man skal produsere eller konsumere.</p>	<p><b>Kollektive goder:</b></p> <ul style="list-style-type: none"> <li>- Ikke rivaliserende</li> <li>- Ikke ekskluderende</li> </ul> <hr/> <p><b>Formyndergoder:</b></p> <ul style="list-style-type: none"> <li>Merit goods</li> <li>Merit bads</li> </ul> <hr/> <p><b>Ufullstendig informasjon</b></p> <ul style="list-style-type: none"> <li>- Assymterisk informasjon</li> <li>- Ufullstendig informasjon tilknyttet Godens beslutningsgrunnlag</li> </ul>
	<p><b>Løsninger</b></p> <ul style="list-style-type: none"> <li>• Lover og regler</li> <li>• Institusjoner og tilsyn</li> <li>• Andre tiltak som sikrer konkurranse</li> </ul>	<p><b>Avgifter og subsidider</b></p> <p><b>Direkte reguleringer: Kvoter</b></p>	<p><b>Kollektive goder</b></p> <ul style="list-style-type: none"> <li>- Offentlige bør produsere inntil Summan av mbv er lik grensekostnad</li> </ul> <hr/> <p><b>Formyndergoder</b></p> <p>Økt skatt eller redusert skatt</p> <hr/> <p><b>Ufullstendig informasjon</b></p> <p>Offentlige kan forbedre informasjonsgrunnlaget</p>

# Optimal tilpasning over tid

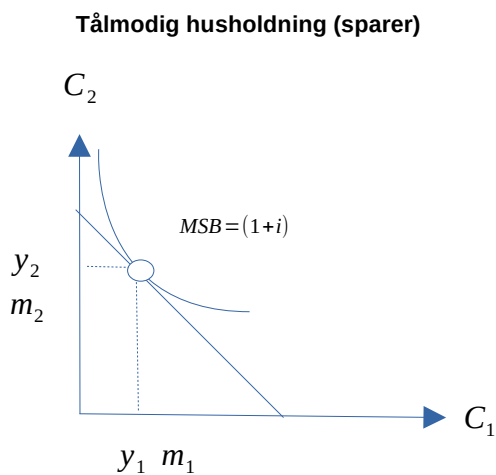
Indifferenskart



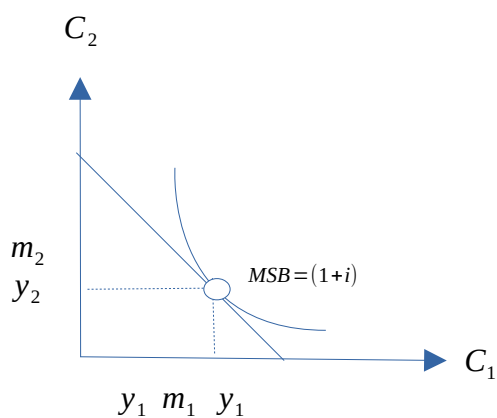
Budsjettbetingelsen



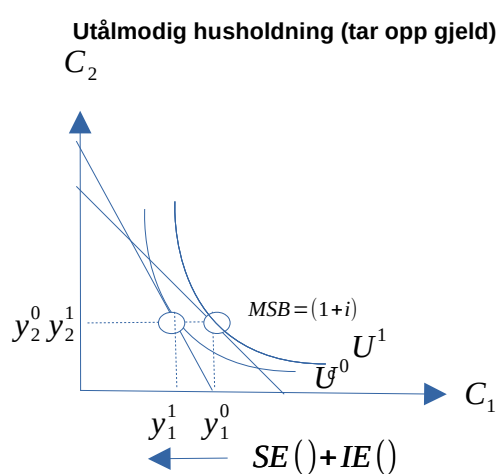
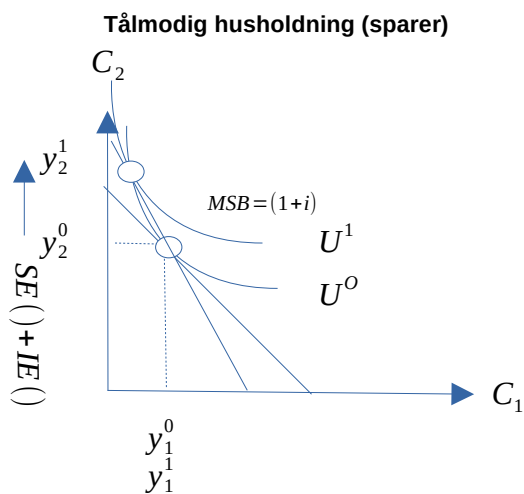
Optimal tilpasning



Utålmodig husholdning (tar opp gjeld)



Rentøkning



Inntektsøkning

