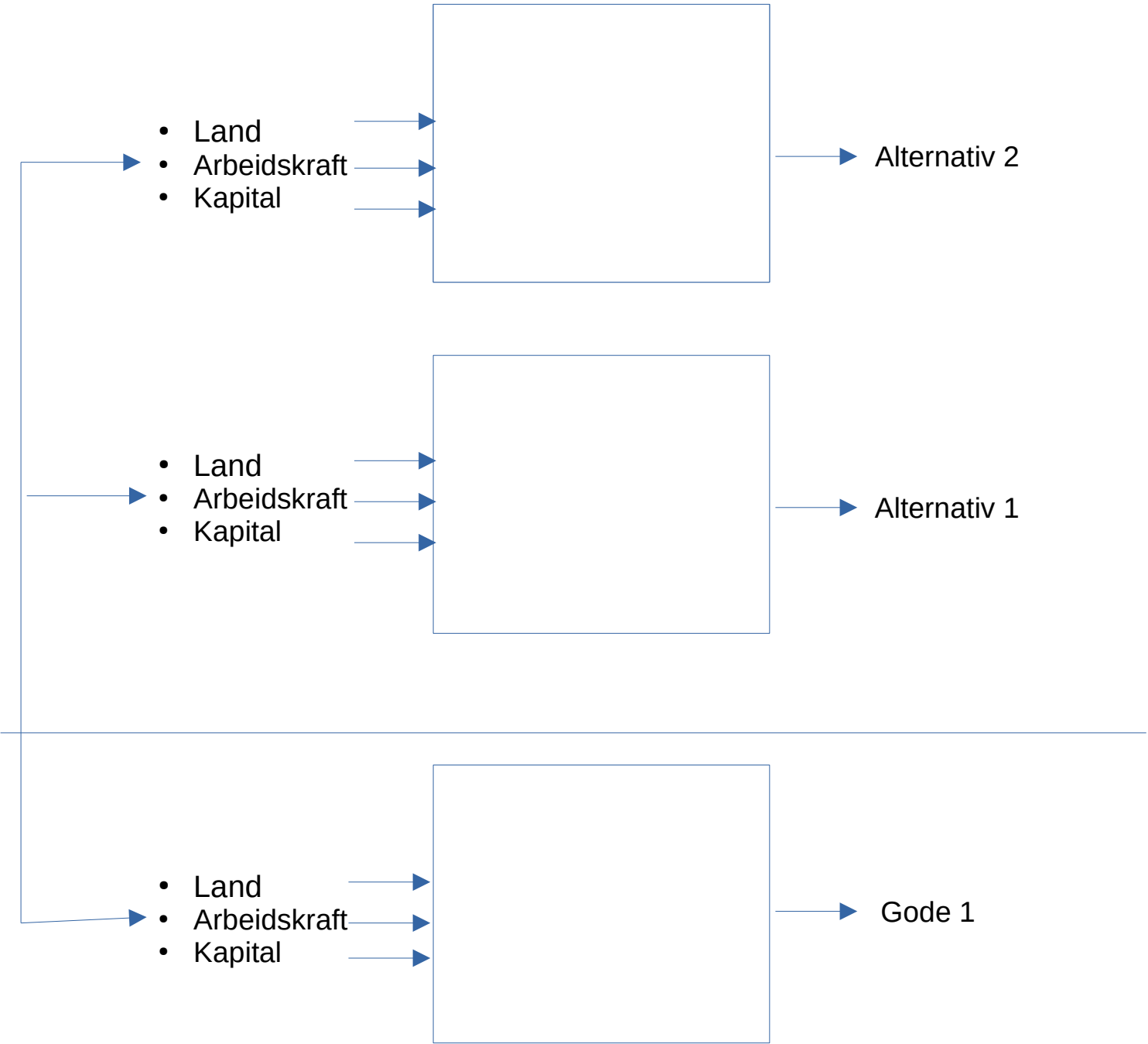
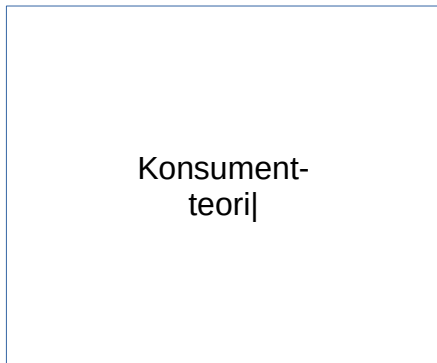


Alternativkostnad



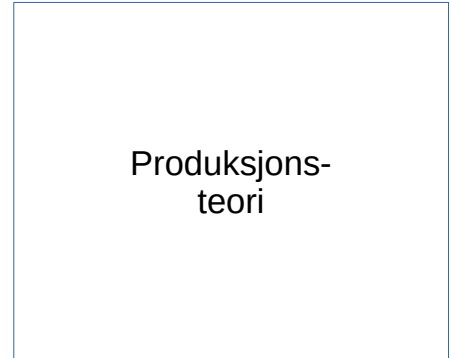
# Mikroøkonomi oppbygging

Behov



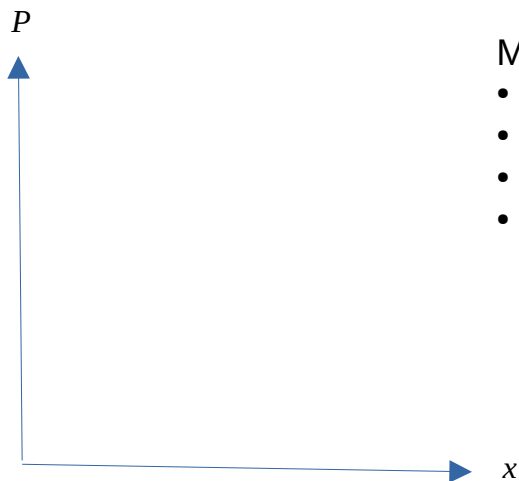
Konsument-  
teori|

Ressurser



Produksjons-  
teori

Partiell  
Likevekt  
(ett marked)



Markedsformer:

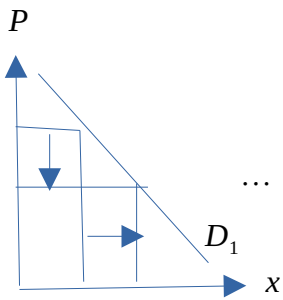
- Fullkommen konkurranse
- Monopol
- Monopolistisk konkurranse
- (Kartell, duopol, oligopol)

Andre emner:

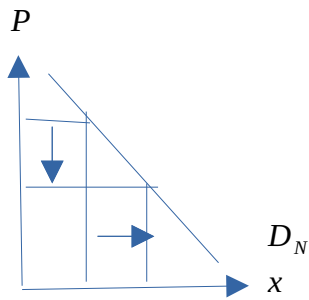
- Prisdiskriminering
- Markedssvikt
  - Markedssvikt
  - Eksternaliteter
  - Kollektive goder
- Internasjonal handel

# Oversikt: Markedet for fullkommen konkurranse

Konsument 1

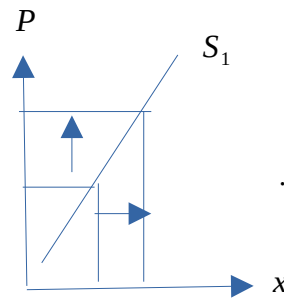


Konsument N

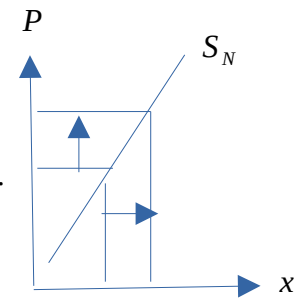


...

Produsent 1

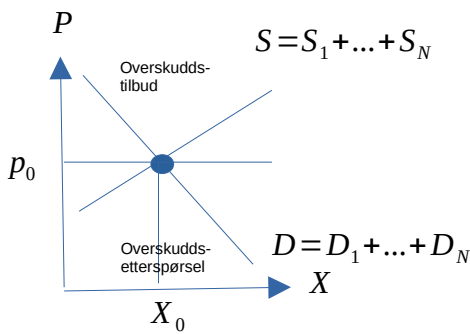


Produsent N

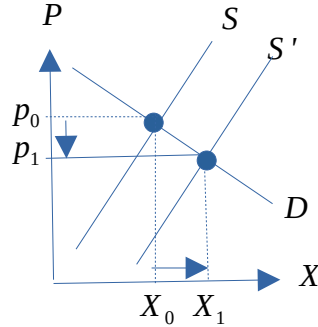


$X_0$   $X_1$

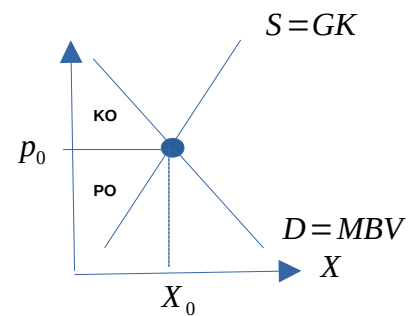
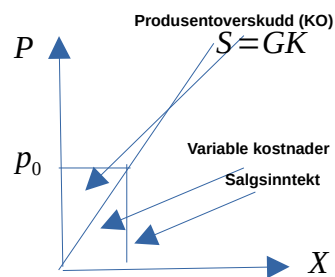
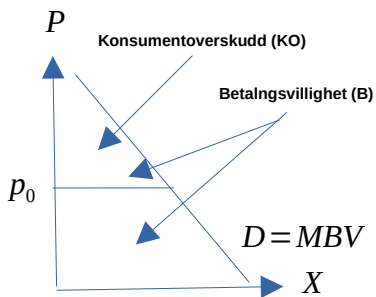
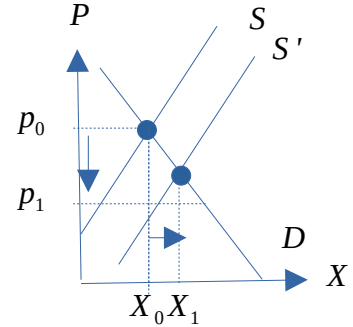
Fullkommen konkurranse



Skiftanalyse (slak etterspørselskurve)

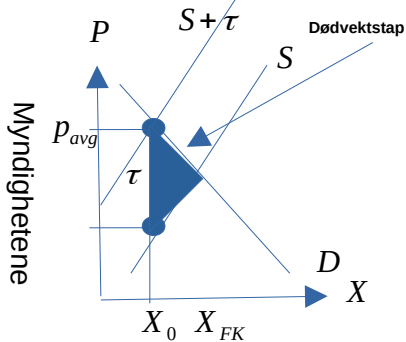


Skiftanalyse (bratt etterspørselskurve)

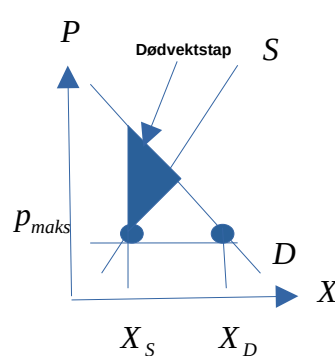


Avgift

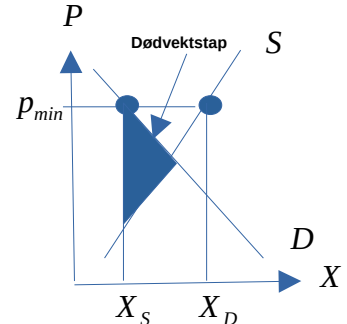
Fullkommen konkurranse



Maksimalpris



Minstepris

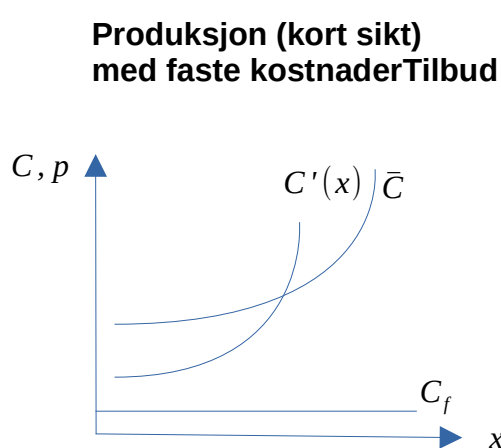
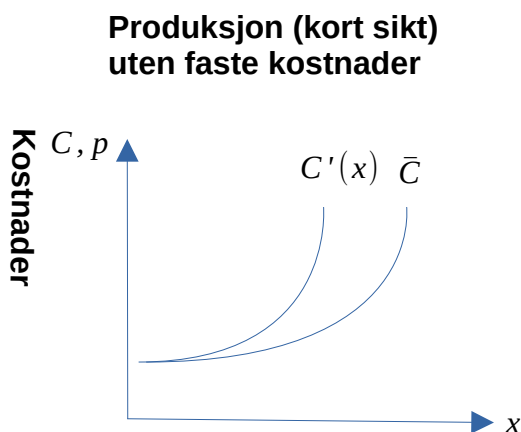
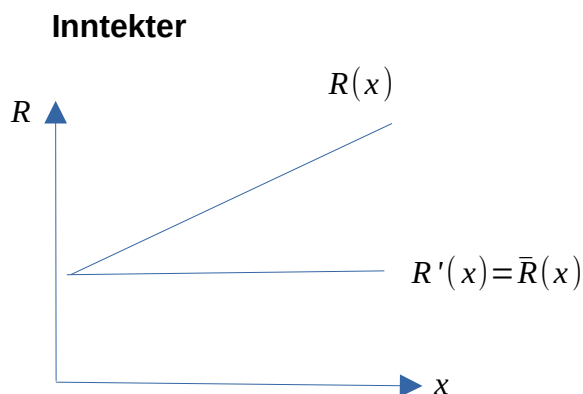
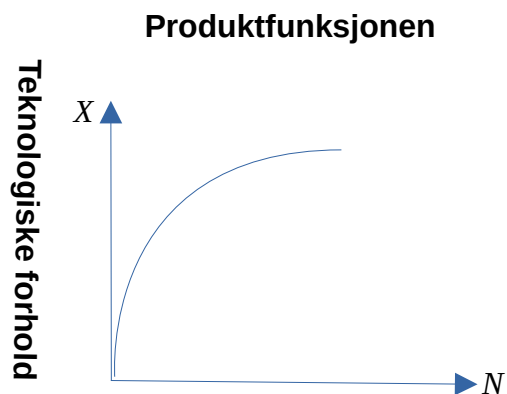


## Produktfunktjonen

- N
- K



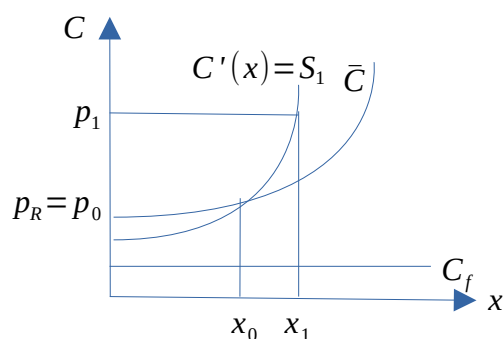
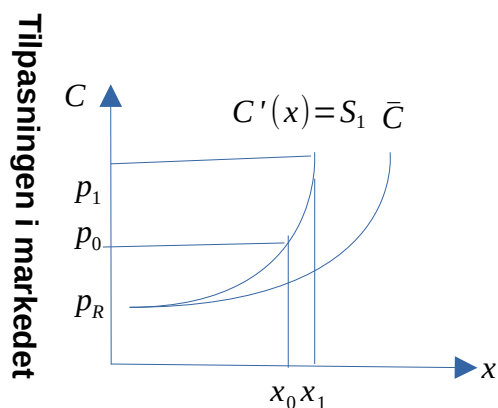
# Produksjonsteori på kort sikt



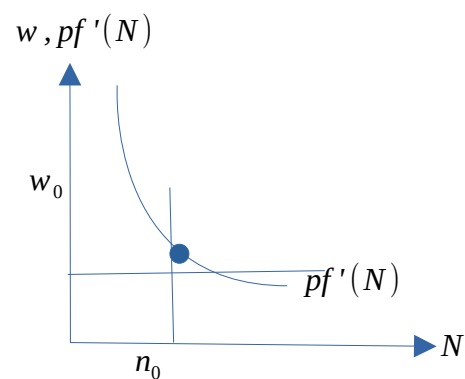
## Tilbudsfunksjonen fra en produsent

Uten faste kostnader

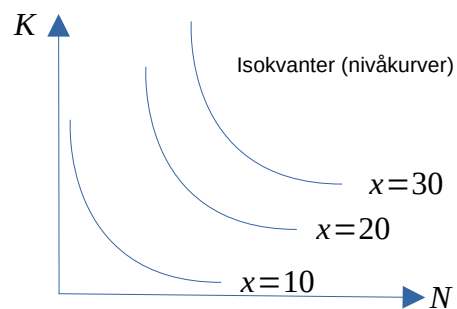
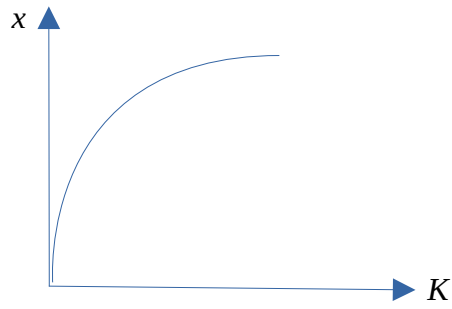
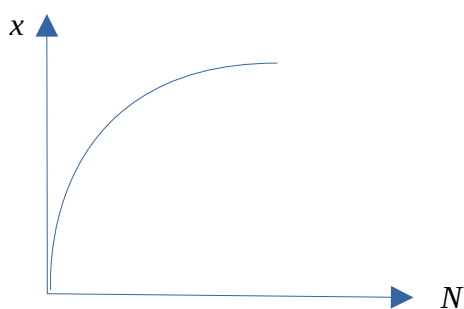
Med faste kostnader (reversible)



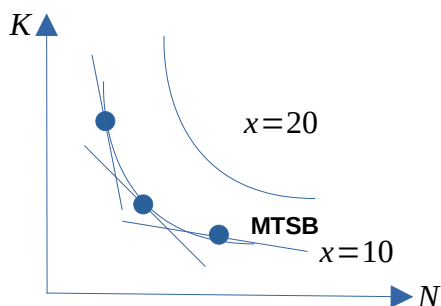
## Etterspørselen etter arbeidskraft



# Produksjonsteori på lang sikt

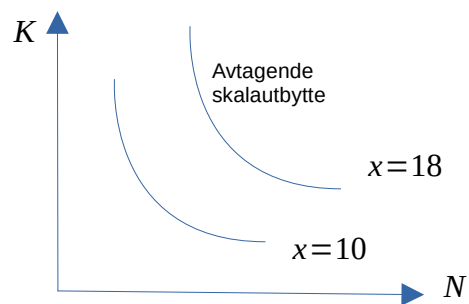
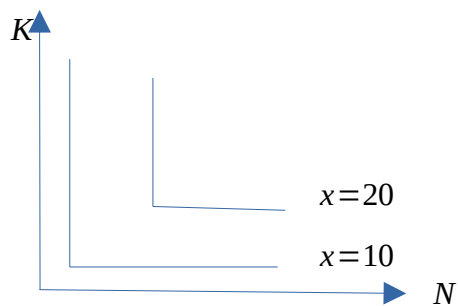
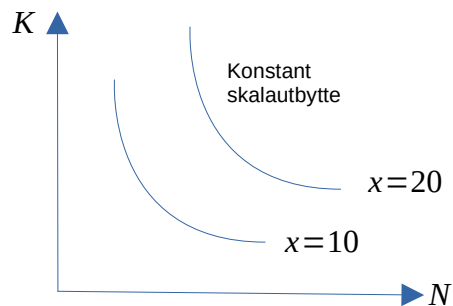
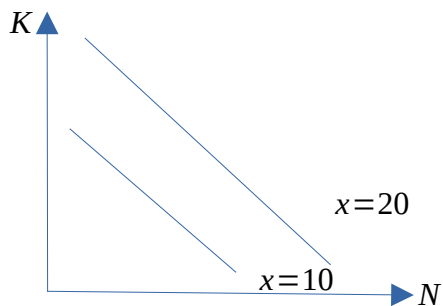
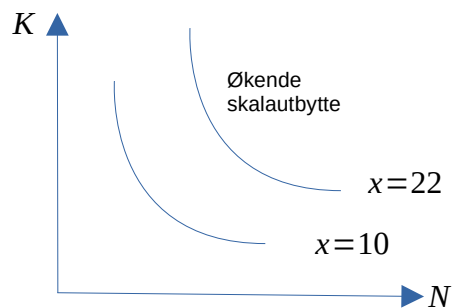


## Tekniske substitusjonsmuligheter



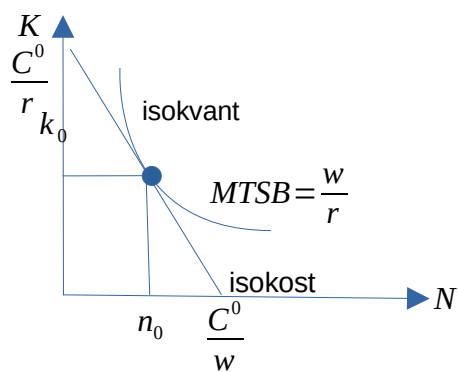
Normale substitusjonsmuligheter

## Skalaegenskaper

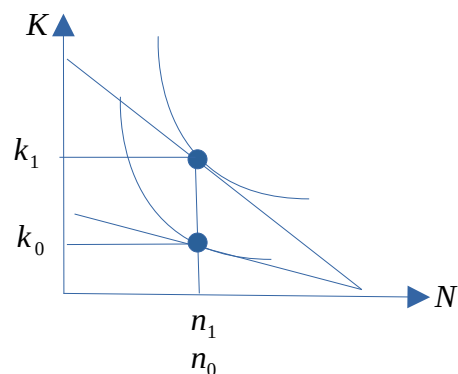
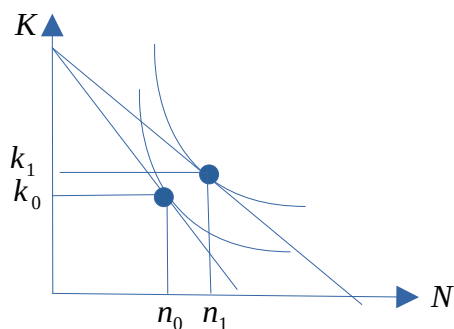


# Produksjonsteori på lang sikt

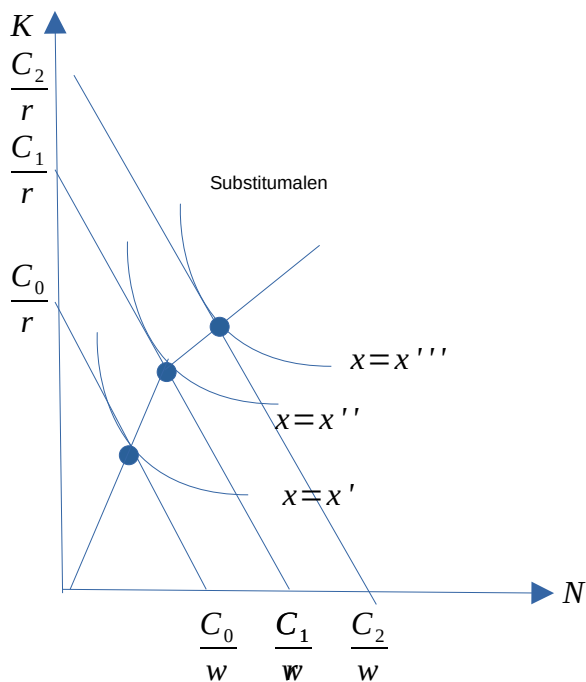
## Kostnadsminimering (lang sikt) - Billigere arbeidskraft



## - Billigere kapital

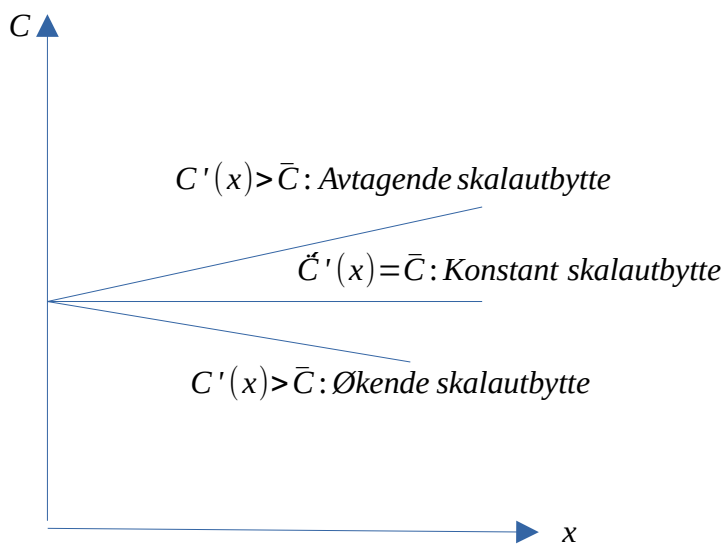


## Kostnadsminimering For et gitt budsjett



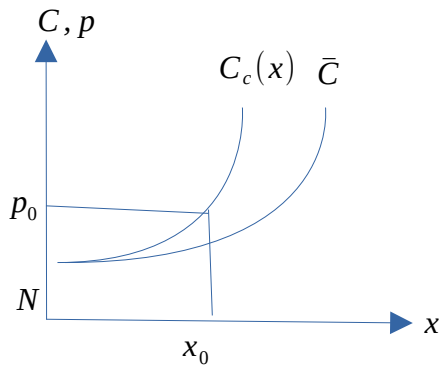
## Kostnadsfunksjonen for ulike antagelser om skalaufbytte

Kostnader (lang sikt)

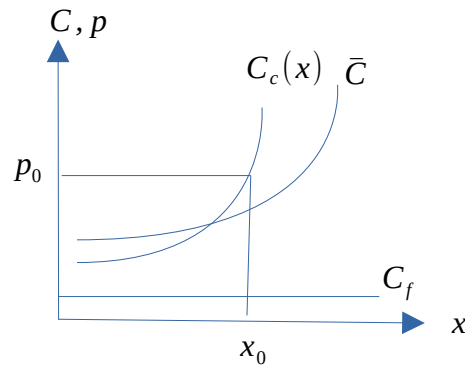


# Produksjonsteori: Produsentens økonomiske adferd i gode- og arbeidsmarkedet

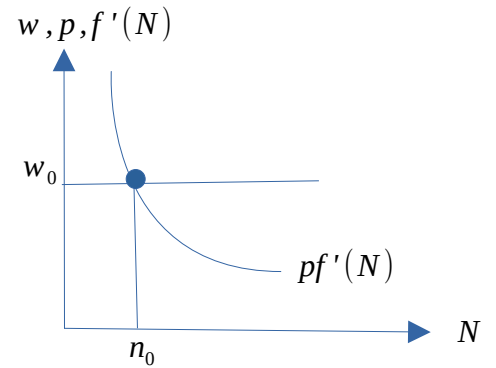
## Produksjon (kort sikt) uten faste kostnader



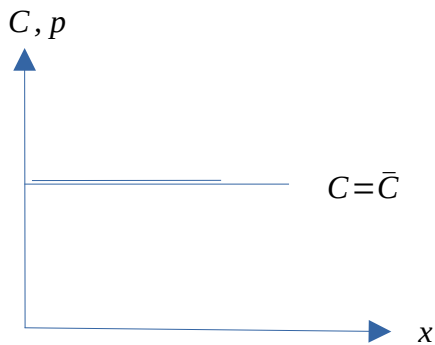
## Produksjon (kort sikt) med faste kostnader



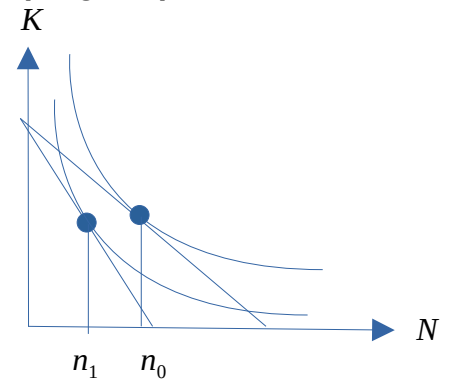
## Bruk av arbeidskraft (kort sikt)



## Produksjon (lang sikt), med konstant skalaufbytte



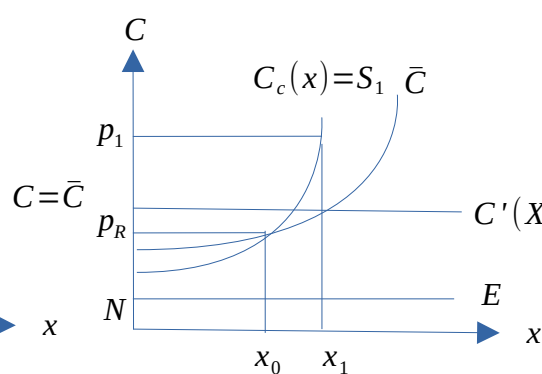
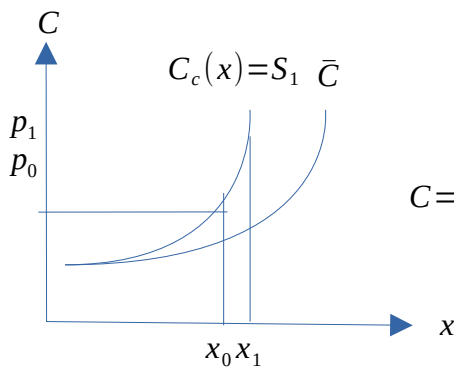
## Bruk av arbeidskraft (lang sikt)



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

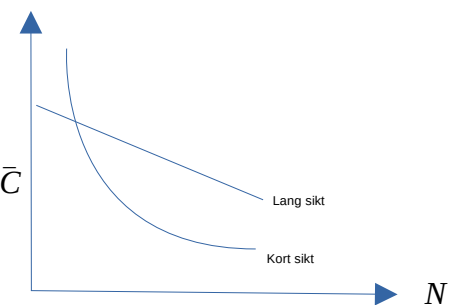
Uten faste kostnader

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:

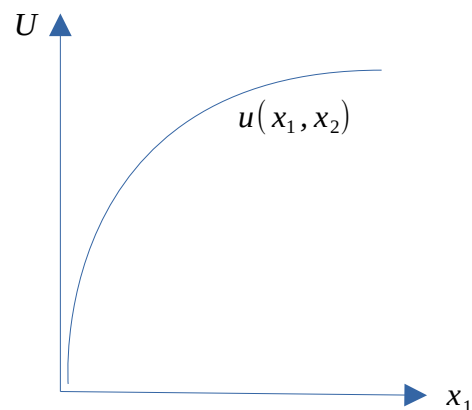
$$U = u(x_1, x_2)$$

Hvor vi antar at:

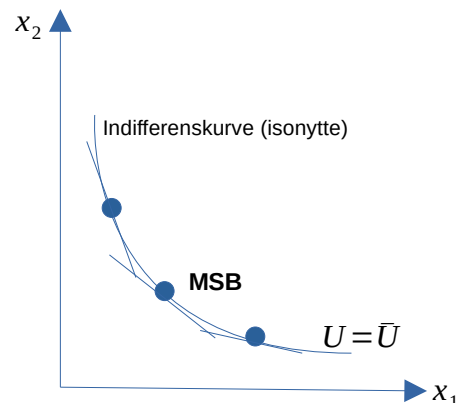
$$u'(x_1) > 0, u''(x_1) < 0$$

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

## Nyttefunksjonen

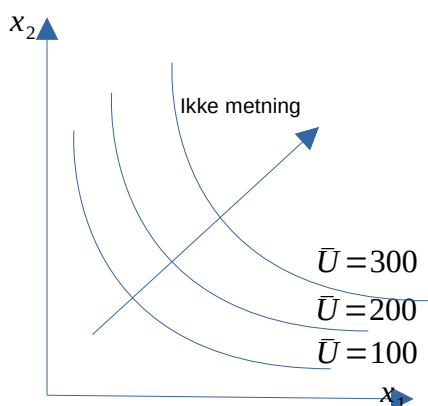


## Indifferenskurve

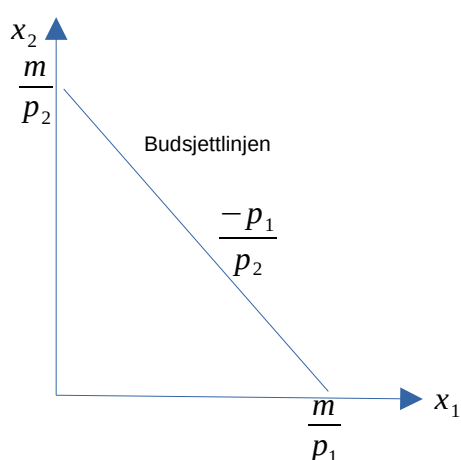
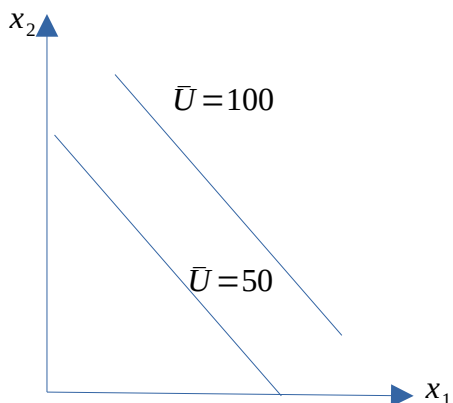


## Budsjettbetingelsen

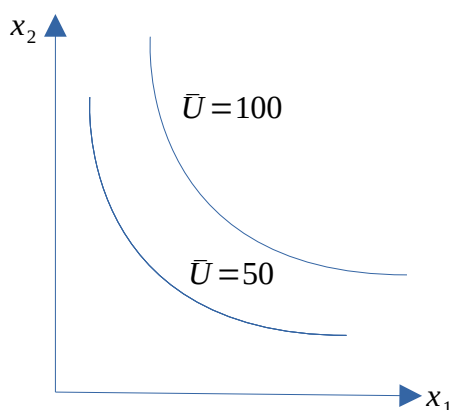
### Indifferenskart



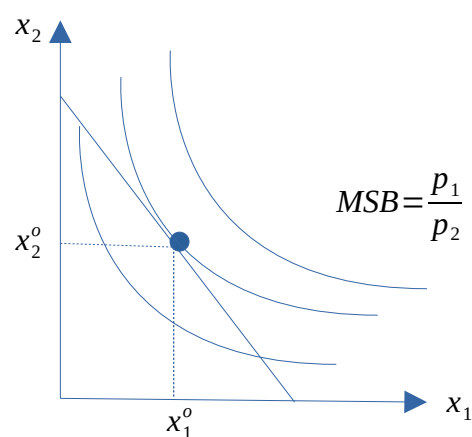
### Perfekte substitusjonsmuligheter



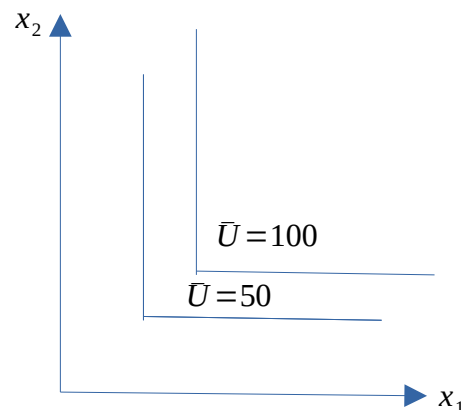
### Vanlige substitusjonsmuligheter



## Optimal tilpasning

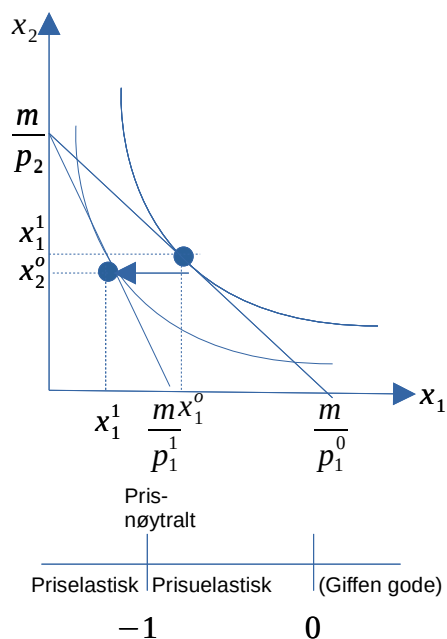


### Ingen substitusjonsmuligheter

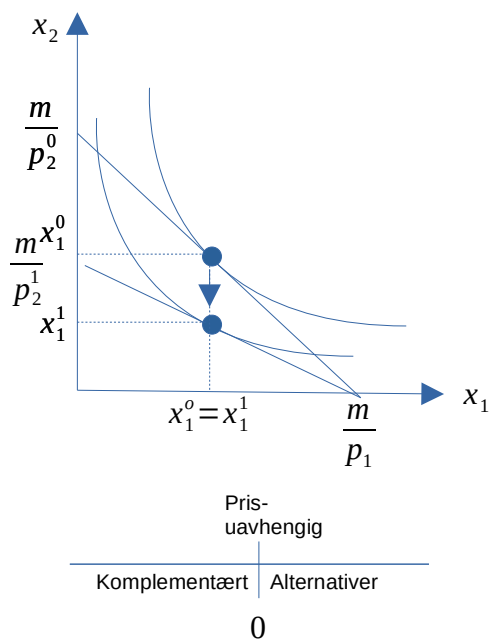


# Konsumentteori: Konsumentens økonomiske adferd i gode- og arbeidsmarkedet

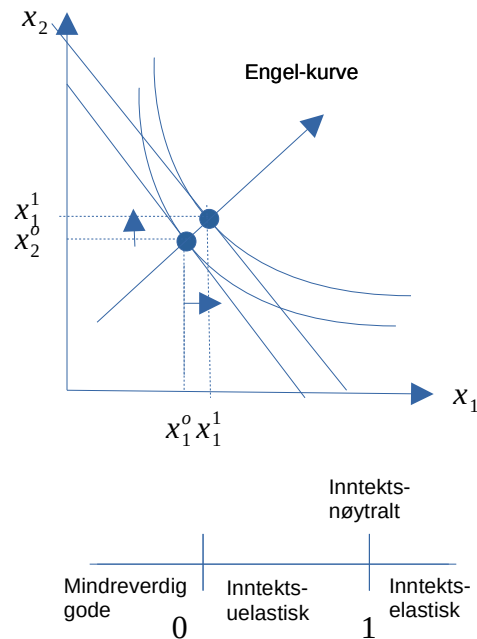
## Egenpriselastisitet



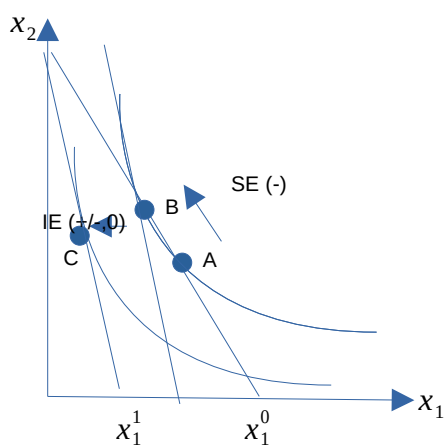
## Krysspriselastisitet



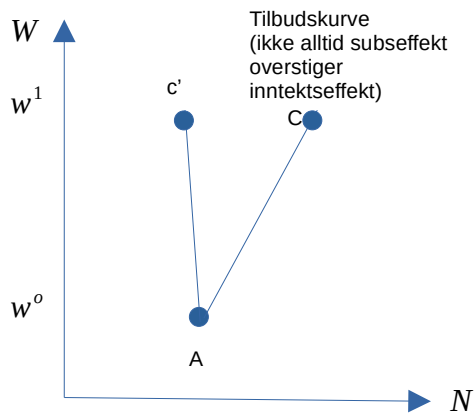
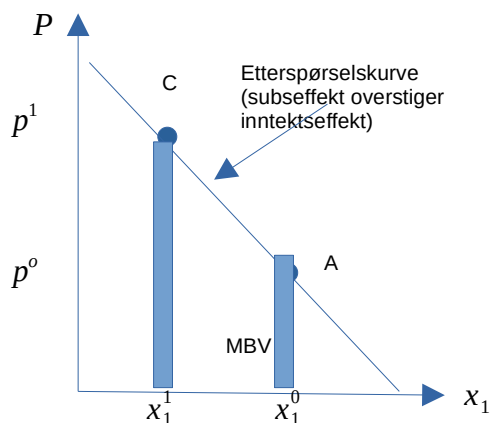
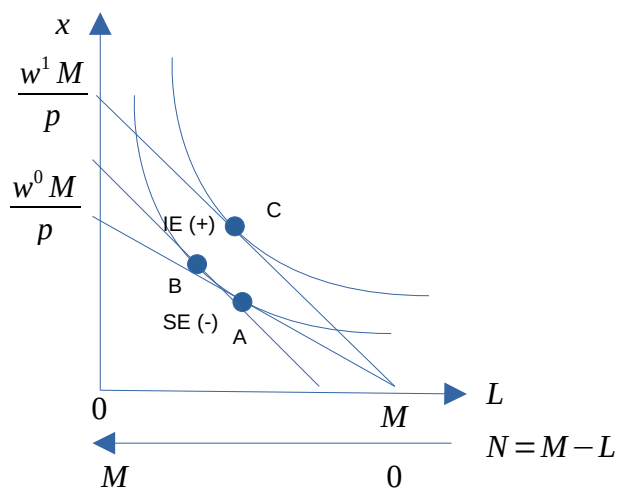
## Inntektselastisitet



## Utleddning av etterspørselskurven for gode 1



## Utleddning av tilbudskurven for arbeidskraft (ikke pensum)



# Fullkommen konkurranse

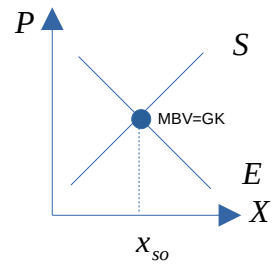
PLANLEGGING

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

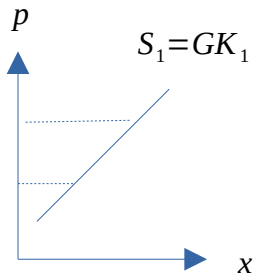
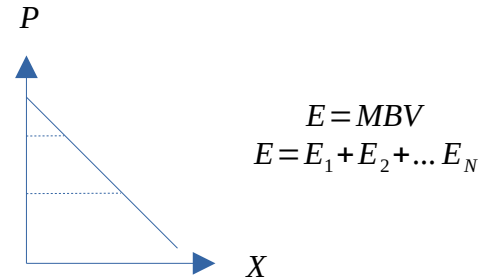
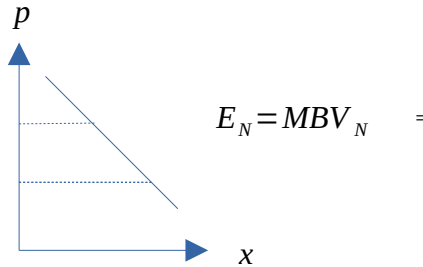
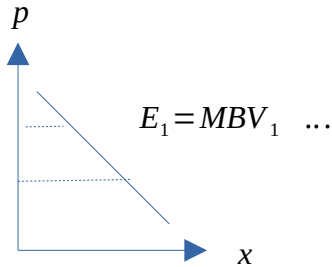
$PO(X) = PX - C_v(X)$      $KO(X) = B(X) - PX$

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

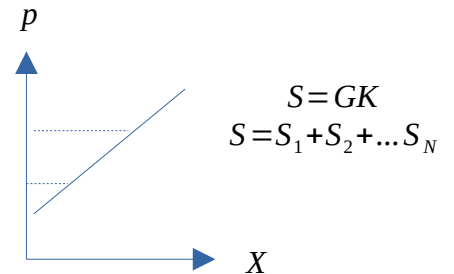
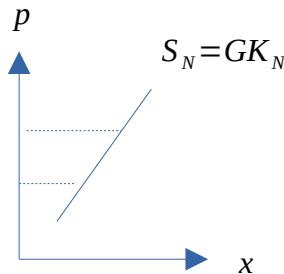
**Sosial planelegger**  
**Velferd**  $= SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX)$   
**Maks SO mhp. X**  
 $P - C'_v(X) + B'(X) - P = 0$   
 $C'_v(X) = B'(X)$   
 $MBV = GK$



AGGREGERING



...

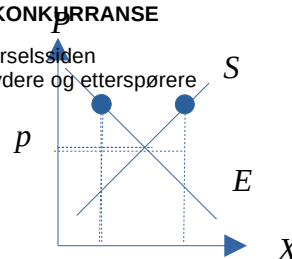


Markedslikevekt

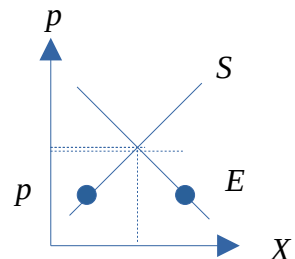
## FORUTSETNINGER BAK FULKOMMEN KONKURRANSE

- 1) Mange aktører på både tilbuds- og etterspørselsiden
- 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

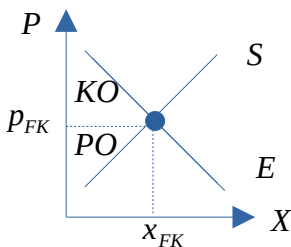
Overskuddstilbud



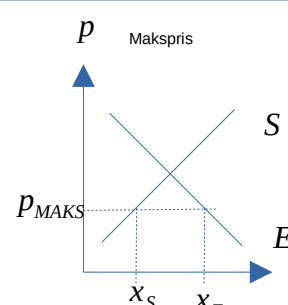
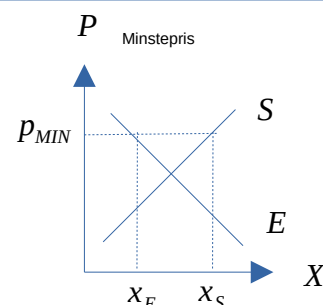
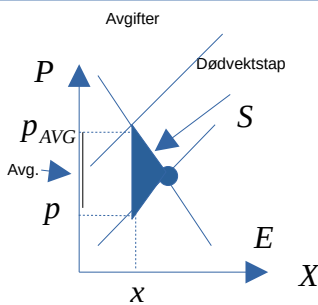
Overskuddsetterspørsel



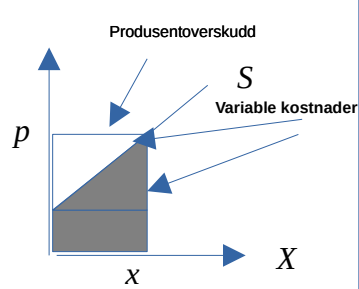
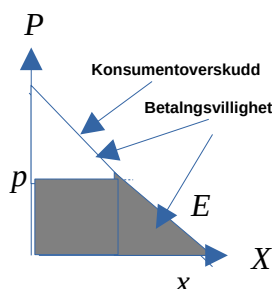
MARKEDET



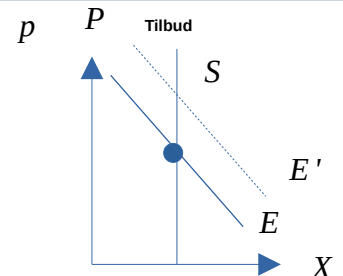
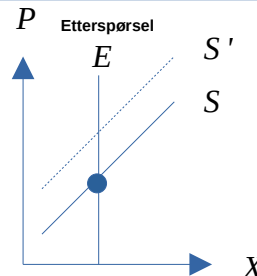
PRISREGULERING



OVERSKUDD



UELASTISK



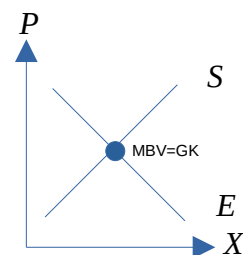
# Monopol

PLANLEGGING

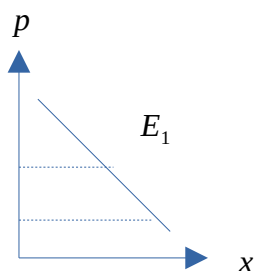
**Produsent**  
 $GK = C'_v(X)$   
 $VK = C_v(X)$   
 $PO(X) = PX - C_v(X)$

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

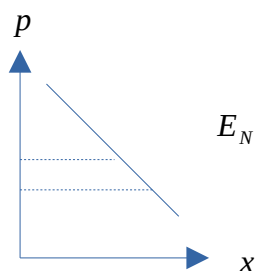
**Sosial planelegger**  
 $Velferd = SO = PO + KO$   
 $SO = (PX - C_v(X)) + (B(X) - PX)$   
 Maks SO mhp.  $X$   
 $P - C'_v(X) + B'(X) - P = 0$   
 $C'_v(X) = B'(X)$   
 $MBV = GK$



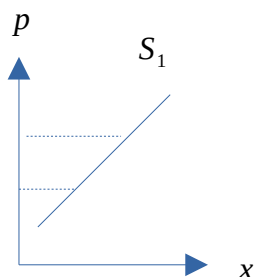
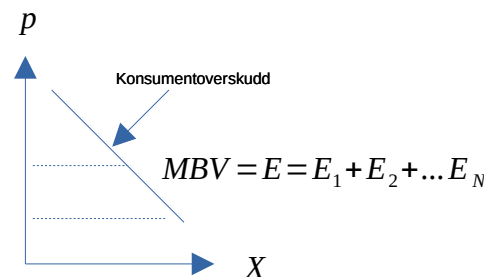
AGGREGERING



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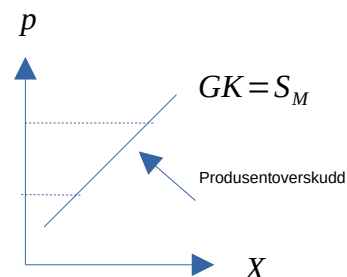
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## ETABLERINGSHINDRE

- Lover og regler
- Patenter og rettigheter
- Tilgang til råvarer
- Geografisk avstand og andre hindre
- Fallende enhetskostnader

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Overskuddsetterpørsel

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

Optimal produksjon

## FORMELT

$$R'(X) > C'(X)$$

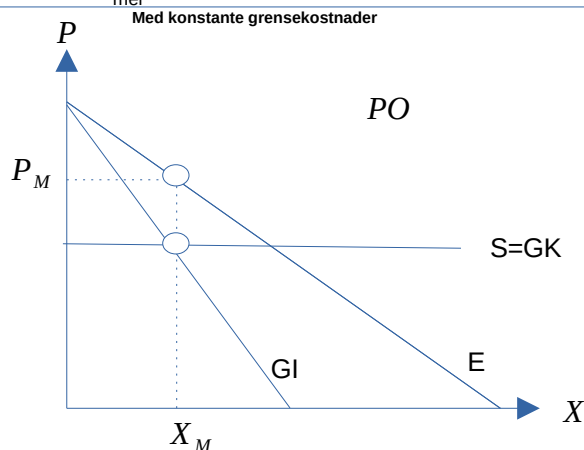
$$R'(X) < C'(X)$$

$$R'(X_M) = C'(X_M)$$

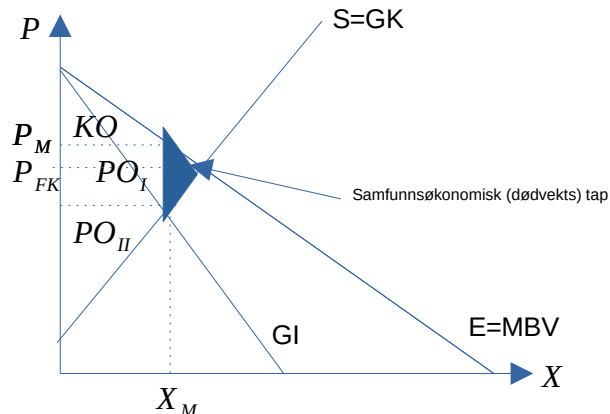
Lønner seg å øke produksjonen

Lønner seg å redusere produksjonen

GRAFISK



Med stigende grensekostnader (mer deltajert figur)



SAMMENN

## Fra fullkommen konkurranse til monopol

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

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

PLANLEGGER

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

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

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

Sosial planelegger

Velferd =  $SO = PO + KO$

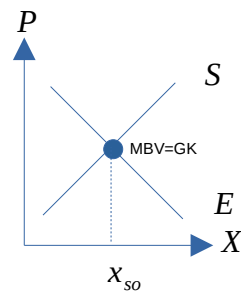
$SO = (PX - C_v(X)) + (B(X) - PX)$

Maks  $SO$  mhp.  $X$

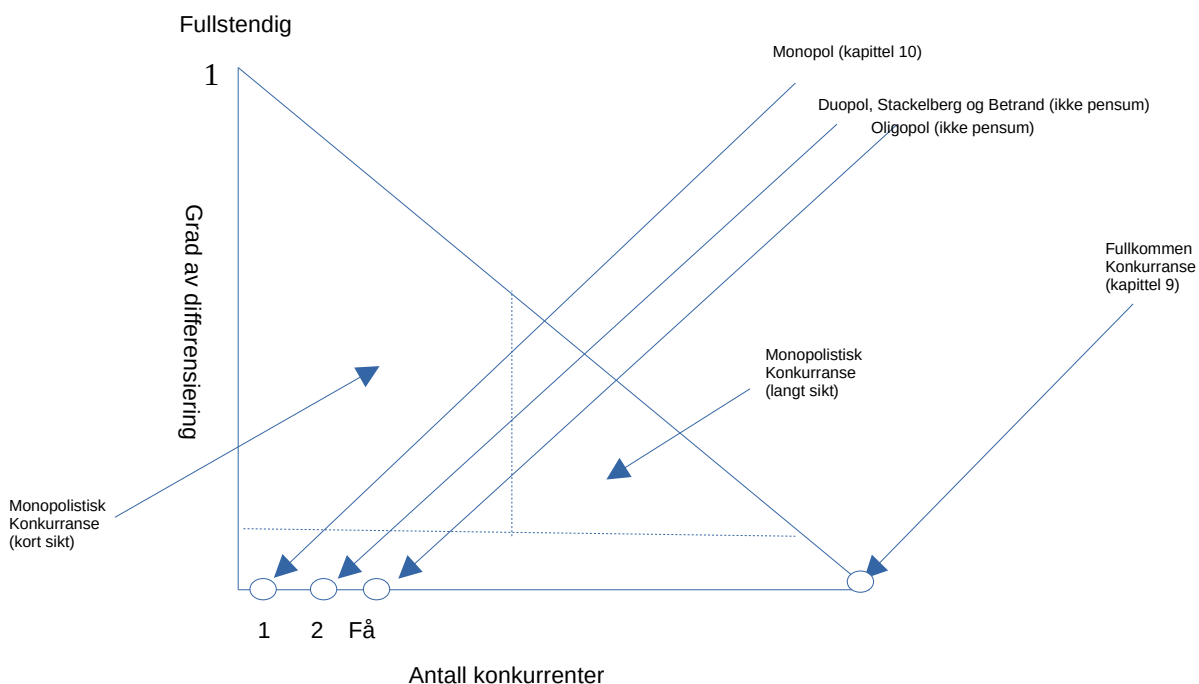
$P - C'_v(x) + B'(X) - P = 0$

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

$MBV = GK$

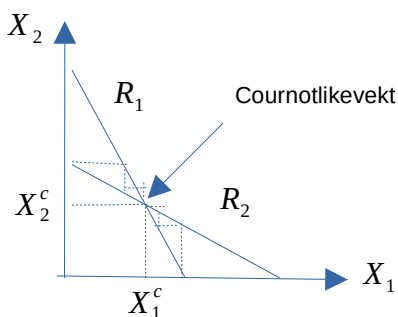


MARKEDSFORMER

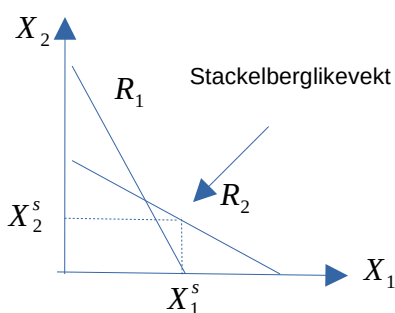


DUOPOL

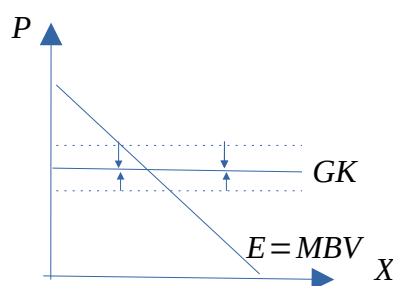
Cournot



Stackelberg



Bertrand



Kort sikt

Lang sikt

MK  
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