

1900 →

- subsistence ag
- trade → specialization  
↳ higher output
- institutions appeared to facilitate
  - trust replaces spot transactions
    - family → extended
    - church
    - social organizations
- small holdings - population ↑
  - subdivided farms
- soil quality ↓ - cropping patterns  
+ ag techniques

- low stock of capital.
- ↓ low acreage

↳ fertilizers not used.  
 ↳ no crop rotation. -  
 corn → rye → corn.

soil quality ↓ yields ↓

→ timber leases -  
 purchase timber rights not  
 land.

- "Broad form deeds"  
 "any means practicable"  
 ↓ all  
 - timber → clear cut.  
 - flooding & erosion

timber → float logs spring runoff }  
 - erosion  
 - mill damage

- income distribution  
 - myth equality  
 - court records show - concentration  
 in land ownership ↑

Floyd CO Virginia.

1900 Weise - top 10% owned 57% of wealth  
 bottom 60% " 7% "

- property transactions - errors
  - surveying inaccurate - terrain
  - conflicts → timber + mineral leases
  - disputed areas
  - competing claims
- 

### Civil War. -

- loss of capital - land
  - forest
  - mills
  - rail
- loss of human capital - labor shortage

- work life

↳ subsistence ag  
 subsidized off season employment  
 - timber harvest - winter  
 & float logs in spring  
 & then back to farm

Mixed economy

- timbering small scale - complement  
 to ag.

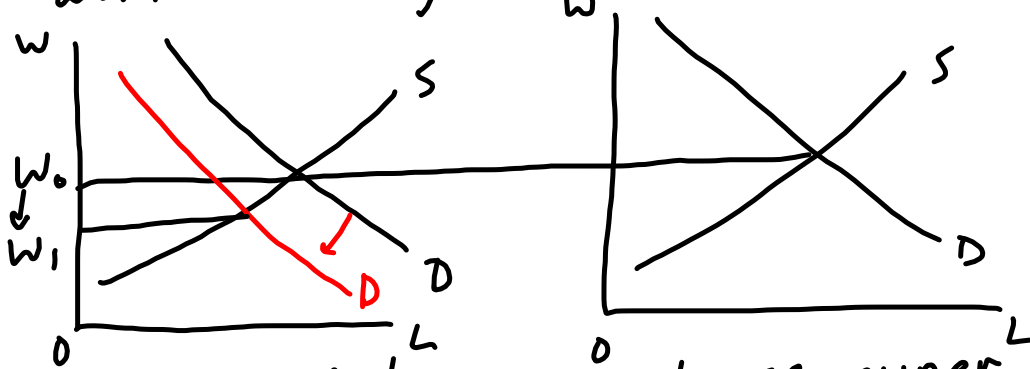
- when large scale timber leases

- pattern - clear cut area

↳ without moving - lost off season  
 timber cutting

- price of independent timber  
 (rail charges ↑)

- workers - wage employment



independent

timber  
(owner operator)

lease owner

timber  
(employees)

D net of transport  
cost  $\rightarrow$   $w \downarrow$   
makes working  
for lease owner more  
attractive

- family incomes ↓
  - farm earnings ↓
  - complementary employment ↓
- migration -
  - J. Kirby 1910 - 1960
- debt ↑ for households
  - foreclosure
  - tax sales
- Broad Form Deeds -
  - land ownership (surface rights)  
didn't transfer
    - property tax
  - survey borne by landowner

- 1900 → outmigration
  - adverse selection
    - ↳ most educated } more skilled.
- remaining population → older
  - ↳ age younger.
  - ↳ less skilled.
- decline in economies



- when earnings in ag ↓
    - replenishing capital ↓
    - wages outside ag ↓ - supply of labor ↑
  - Eller → "growth but not development"
    - growth → incomes ↑ formal sector employment
    - development → self-sustaining?  
no need for external cash flows
- Why growth does not yield development

Rostow - stages of growth  
 "take off" stages

Perroux - "growth pole" - industry  
 with spin offs  
 - place → scale that  
 supports growth.

North → institutions  
 - property rights  
 - transaction costs ↓  
 - governance - reduce  
 fraud.

North & Thomas  
 "Rise of Western World."

Hirschman (Albert)

- linkages - backward → inputs  
purchased locally

forward → further  
processing locally

backward → local earnings  
labor & firms

forward → local sawmills - primary  
prep  
to full market final lumber

- value added - % of final price produced  
locally

weak linkages - low levels of sustainable  
growth