

Come Book

~~Review Session Tues. 11 AM~~

Ag. Policy
(Ec. 157)

Feb. 7

Waly, My-air
c/o Foster 4647

Infrastructure.

I.D.s; role of counties.

X - subsidy as a fin. program

Rate disinn.

Frt. rates, too. Efforts to abandon service.

I. r.

Soil as infrastructure. SCS; ACP

Who benefits? Landowner + cons.

Conflict of exp. + rect. Ham. + Jeff.

- 1) Wt; 2) power + REA + I.D.s + PUDs + TVA
- 3) Flood control
- 4) access. paved rds.; r.r.s.
- 5) Truck rates -- farm trucks exempt from ICC
Bulk cargo, low rates

Ec. 151

Wed. Mar. 14

Recent developments Ag. Policy.

✓ '69, Govt. prnts. were 30% of ~~net~~ net inc.
'73, OPEC.

'72 Devaluation. Sudden turnaround.

'72 Russian mkt. opens. } 2 of largest food importers.
China recognized.

'70 Act. Set-aside + "freedom to plant".
Requirements of indemnity for loss.

✓ '70, wave of consumerism at home.
" " environmentalism.
" " OSHA.

'72, Russ. grain deal.

✓ '72-'74, U.S. farm exports ~~quadrupled~~ tripled.

Net income up 20% '73.

Prices soared above support levels.

PL 480 dropped to 4% of exports.

Food stamp program ~~blew up~~ grew to dominate.

✓ by '75, 20m. people getting Food Stamp benefits.
1/2 of U.S.D.A. budget.

✓ 173 art, contained new program. Mixed Env. Conserva.
Experiments -- add wildlife, environment etc. to
conserva. purposes for land use incentives.

174 Prices got ahead of support levels, so
instability returned -- but at a hi level.

? Note capt. - int. bias of stable prices; loss of
premium on flexibility.

✓ Meaningless, undefined, circular concept
of basing prices on costs of produ. was tried, when?
Target

a) Omit land from costs, all are
different

b) Include land, then price control
is circular, bcs. price determines cost.

175-77, no set-aside required.

Current issues:

✓ a) Likely return to protectionism. But
huge world supply of \$, future very for exporters.

b) Dear energy + up-down prices, +
end of soil banks, + whole-earth feelings, end of

7
ers. of scale,

c) Return to small towns.

d) Food Stamp for permanent chumpies,
well ensconced.

e) Ag. imports dropped sharply.

f) Tech. Aid Programs have bombed,
growing disenchantment.

g) Consumerism, Environment, OSHA.

h) Labor strife.

(Distrib. Fm. Policy article.)
Mon. Nov. 12, '79 Ec. 157
Major patterns, farm legislation.

1. Promote exports

- a. Push for free trade.
- b. Food relief in wars, called humanitarian
- c. PL 480, from '54, diversion. "Food for Peace," in typical burst of Am. humanitarianism + righteousness.

2. Storage, subsidized with holding

- a. Subtreasury scheme.
- b. '29 Ag. Mktg. Act.
- c. Price-support loans, non-recourse, from '34.

3. Land retirement or set-aside.

- a. From '33. Bus. cartel approach, went w. NRA, outlasted NRA. Was major approach, at first.

1933-36, internally funded.

~~use~~ Pay owner for reduction from base pd.

→ Pay owner, not tenant

Administered by county committees of influential.

b. Tied w. Conservation

- i) General -- retire cropland from any cropping
- ii) Specific -- reduce named crops.

- c. '38, penalty taxes for excess acres. Quota approach
~~More gradually~~ penalty for retiring acres were also used,
this approach waxed + waned.

2

d. '41 - '56, supply ^{not much} ~~was~~ controlled (altno quotas existed)
~~Re. '56, Soil Bank.~~
d. Recall, quotas lifted in Korean war, so ctr. ed. expended in Cal., for a while.

→ e. '56 Soil Bank. To about '66, when Cong. balked at approp.
i) Get pd. rent for reducing quota. Acreage Reserve
→ ii) Cong. Res. General cropland reduction.
Whole-farm approach. Tried + rejected, '56.

→ f. '65, ^{LRG} support prnts. (not loans) to cooperators.
Rose to \$3.7b by '70.

→ g. No limit on indiv. prnts. ~~At~~ Several > \$(m.
'Limit' of roots in '70, \$55,000/crop.

? h. 'Set-aside' approach. from '70.

Constant repackaging of a few common ideas.

Problems w. land retirement

1. Dumps labor on mkt. Land complements labor. Unemployment.

✓ 2. Forces farms to be larger, own more land, to reach opt. scale. There is a force behind Δ size of farms. also, behind hi l.v.

3. Harder on small landowners, cutting back acres.

✓ 4. Hinders movement, entry of new farms + acres. when quotas are fixed. E.g. Tex. migration. Tobacco quotas.

✓ 5. "Commercial Cty." approach, cut back feed grains in best areas, let it expand elsewhere.

Drove corn west, + wheat east.

Like all controls, retires better res., not unqual. ones.

6. Withholds food from the hungry, to help the rich, fnd. by tax's payrolls.

✓ 7. Land retired from one crop often went into another.

8. Only some crops were emphasized. ?

✓ 9. Delegate power to unelected local comms.

✓ 10. Reclamation, AES, REA, X-subsidy etc. work at cross-purposes

✓ 11. Raising for quotas, as in Korean remission,
often results in artificially increasing acreage.

4

4. Price - support.

a. At first, a by-product of supply control, not
a rigid aim. (except under mktg. orders)

b. Limited to some crops - those w. political clout.
Mostly, those grown by big farms. Hops lost out.

c. admin. via non-recourse loans. i.e., gov. put up
money to make it really work by holding back
surpluses.

d. Level of support expressed in terms of parity -
(but not at parity)

✓ e. 1942-54, dominant approach. Huge surpluses
result. Big farms in the saddle

✓ f. '65, coupled support w. reduced acres by
system of support price to voluntary participants.

Passed out, Mon. Jan. 15

Econ. 151. Jan. - March, 1979

Week	Day	Date	Topic	Readings. (W = Wilcox et al.)
1	M	Jan. 8	Survey	W-1
	W	10	Math. refresher	—
	F	12	Finding <u>rent</u> and P.V.	
✓ 2	M	15	Maximizing <u>rent</u> by adjusting timing + intensity	W-2, 4
	W	17	adjusting scale to <u>max. rent</u> and value	W-5, handout
	F	19	Area specialization	W-3
			Guided by <u>max. rent</u> , not yields. Shifts. Energy use.	
3	M	22	Land and Tenure.	W-19
			Aggry. value. Value trends. Rent + Value.	
	W	24	Tenancy, absentee ownership	
	F	26	Concentration of control	Peter Meyer handout
			Effect of rising prices, Truettell + Goldwasser, + Concern. +	
4	M	29	Water supply + drainage	"Water Banking"
	W	30 31	Farm population, migration and labor. Blurring lines, farm v. non-farm.	W-18
	F	Feb. 2	Farm Capital + Finance	W-20
			Prvt. Cap.	
5	M	5	Supplies and Working Capital use of energy. Chemicals.	

<u>Week</u>	<u>Day</u>	<u>Date</u>	<u>Topic</u>	<u>Readings</u>
5	W	Feb. 7	Infrastructure - public K	
	F	9	Taxation	W-22
6	M	12	Urban fringe, preferential assessment	
Ag. + Ec. Dev. regional dev.			Other margins: forest, recreation, desert.	
	W	14	Technology. Appr. techn. Impact analysis.	
	F	16	Environment. Pest input, weeds, mun. fest, etc. Soil Cons.	W-21
7	M	19	Holiday	
	W	21	Midterm	

Post mid-term Syllabus.

<u>Wk</u>	<u>Day</u>	<u>Date</u>	<u>Topic</u>	<u>Rdgs.</u>
7	F	Feb. 23	Marketing system and its evolution	W - 7, 8
8	M	26	Marketing costs and Consumer demands	W - 9, 10
	W	28	Farm prices	W - 11, 12
	F	Mar. 2	" "	W - 13, 14
9	M	5	Cycles & Instability	W - 15, 16
	W	7	International trade	W - 17
	F	9	Govt. in Agric. (Ail Consm.)	W - 6, ²³ 24
10	M	12	Price & Income Policies	W - 24
	W	14	Farm Policy	W - 25
	F	16	Review	
		March 19 - 24	Final Period	

Ag. Ec., Jan. 12, 19
Ec. 151

~~PAID~~

$$F = P(1+i)^n$$

$$P = F(1+i)^{-n}$$

$$P = a \frac{1 - (1+i)^{-n}}{i}$$

1. If grove starts yielding after 5 yrs, find PV
2. If land has value after n yrs, find PV.
 n or $(n+5)$
3. If $n=30$, and you can raise P by letting it bear another 7 yrs, but defer S_{n+5} to S_{n+5+7} , is that good? Not if lowers annual rent. We will show how to calc. this, p. 2.
4. 2 approaches to seeing PV formula.
 - a. $\frac{1}{i} + \frac{1}{i} (1+i)^{-n}$
 - b. Σ of series. Show graphically. Indicate there is also algebraic summation; and integration.
Now there is also hand calc.
5. Doubling Time, rules of thumb.

6. 3 correlate forms of PV formula,

$$a. a = P \cancel{\text{annuity}} \frac{i}{1 - (1+i)^{-n}}$$

i) Instalment

ii) Rent

A) DCF

B) Annualize

This step is vital, cfy. DCF from alt. plans of diff. n.

$$b. F = P(1+i)^n = a \frac{(1+i)^n - 1}{i}$$

$$c. a = F \frac{i}{(1+i)^n - 1}$$

Mon, Jan. 15, '79

Adjusting so as to max. rent.

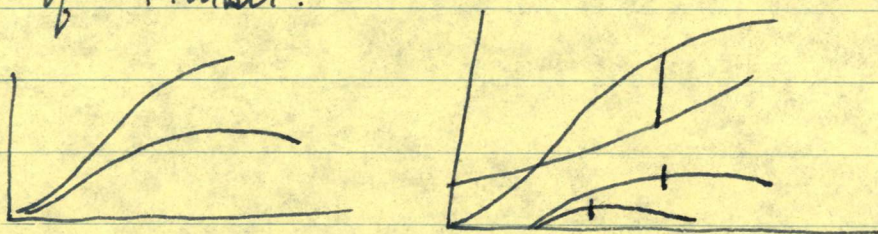
1. Timing

Max PV? No, max. annuity.

A. 4 forms of annuity eqn.

B. use skp. fund form. Compound forward.
Annualize.
Then max.

C. E.g. of timber.



2. Labor intensity (and capital widening -- above is deepening)

Dim. rets.

? Joint response. W, more fertilizer, plant corn thicker
W + C dispair, p. 46, but use MNP concept.

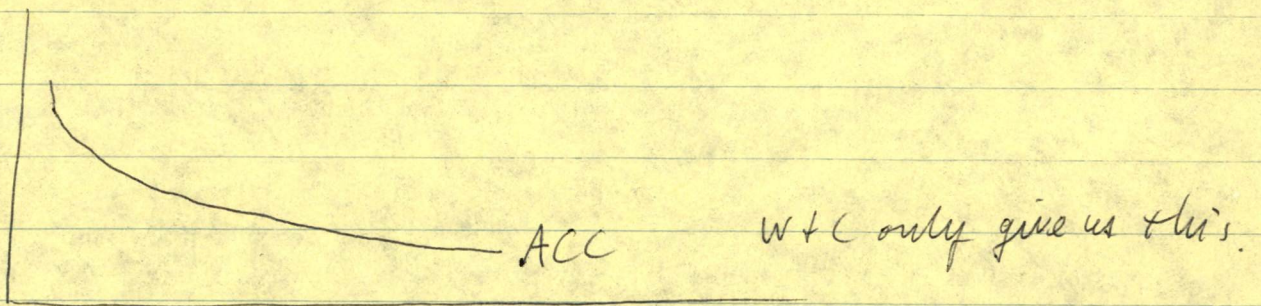
Or, alt-ly, cost of both together.

Indiv. MP vs. collective MP

Another tree

" head of stock

W., Jan. 17, '79.



Results are weak, even so.

They omit:

- yields/acre. Violating their own rule, given earlier in Chapter.
- shifting to other crops.
- Tax factors.
- Credit factors, price appreciation

Fri, Jan. 19, '79.

Ec. 151

1 More on ess. of scale.

Current flap over requests. 160 a. lim.

a. MNP can be neg., altho. cost/acre falling.

b. Form of x-subsidy.

Core carries fringes.

Allegory or analogy for whole ec.

✓ Divert resources from central acres.

Yield of mgul. acre is not MP, even if you hire no extra complements.

c. ~~Dissect~~ ^{Dissect} ~~off~~ ^{off} Ec. of scale.

Large bldgs. machines.

Espec. machines, looking at data.

Spread o' head.

d. Disecs. of scale.

- Dim. rets, due to vble. propus.

✓ Dim. rets. to land applied to fixed K.

- X_{ptm}.

- Energy cost

- Control + commun.

- Timing. Can't set there when needed.

- Theft.

e. Finance + scale, with rising l.v.

f. Talent + scale

g. Risk, innovation + scale.

Rising rent, + succession of uses.

$$1. \quad P = \frac{a}{1+i} + \frac{a(1+g)}{(1+i)^2} + \dots + a \frac{(1+g)^{n-1}}{(1+i)^n}$$

$$S = \frac{a}{1+i} \frac{1 - \left(\frac{1+g}{1+i}\right)^n}{1 - \frac{1+g}{1+i}} = a \frac{1 - \left(\frac{1+g}{1+i}\right)^n}{1+i - 1-g} = a \frac{1 - \left(\frac{1+g}{1+i}\right)^n}{i-g}$$

$$2. \quad \text{If } n = \infty,$$

$$P = a \frac{1}{i-g}$$

$$P_i - P_g = a$$

$$P_i = a + P_g$$

$$P = \frac{a + P_g}{i} = \frac{a}{i} + P \frac{g}{i}$$

$$3. \quad \text{If } n < \infty, \text{ and cycles repeat,}$$

$$P = \frac{a}{i-g} \left[1 - \left(\frac{1+g}{1+i}\right)^n \right] \left[1 + \left(\frac{1+g}{1+i}\right)^{-n} + \left(\frac{1+g}{1+i}\right)^{-2n} + \dots + \left(\frac{1+g}{1+i}\right)^{-\infty} \right]$$

$$= \frac{a}{i-g} \left[1 - \left(\frac{1+g}{1+i}\right)^n \right] \left[\frac{1 - \left(\frac{1+g}{1+i}\right)^{-n \cdot \infty}}{1 - \left(\frac{1+g}{1+i}\right)^{-n}} \right]$$

$$= \frac{a}{i-g} \left[1 - \frac{(1+g)^n}{(1+i)^n} \right] \left[\frac{1}{1 - \left(\frac{1+g}{1+i}\right)^{-n}} \right]$$

But cycles are likely to repeat from higher base, cycle 2 begins w.

$$a_{n+1} = a_0 (1+g)^n$$

Then,

$$\begin{aligned} P &= \frac{a}{i-g} \left[1 - \left(\frac{1+g}{1+i} \right)^n \right] \left[1 + \left(\frac{1+g}{1+i} \right)^n + \dots + \left(\frac{1+g}{1+i} \right)^{\infty} \right] \\ &= \frac{a}{i-g} \left[1 - \left(\frac{1+g}{1+i} \right)^n \right] \left[\frac{1}{1 - \left(\frac{1+g}{1+i} \right)^n} \right] = \frac{a}{i-g} \end{aligned}$$

4. Thus, we can use (2) with some generality

$$P = \frac{a}{i} + P \frac{g}{i}$$

It is common today that $\frac{Pg}{i} \geq \frac{a}{i}$

In addition, Pg is tax free (or deferred); a is ordinary.

This gives great weight to credit ratings and tax shelters.

5. More realistic might be:

a const. for each cycle, but they rise successively.

$$P = \frac{a}{i} \left[\frac{1 - (1+i)^{-n}}{i} \right] \left[\frac{1}{1 - \left(\frac{1+g}{1+i} \right)^n} \right]$$

6. We can also add the later cycles

$$P = \frac{a}{i} \left[1 - (1+i)^{-n} \right] + \frac{a(1+g)^n}{i-g} \left[\frac{1 - \left(\frac{1+g}{1+i} \right)^n}{1 - \frac{1+g}{1+i}} \right] \frac{1}{(1+i)^n - 1}$$

and variations.

7. Analogy of discount bond.

$$P = \frac{a}{i} (1 - (1+i)^{-n}) + R_n (1+i)^{-n}$$

Area Specialism

1. Guided by max rent, not yields.
So wheat doesn't get best wheat land.
Farms don't get best farm land.
2. Hierarchy of uses.
Highest yield not highest use, may be ungod.
3. Rent is max $R - C$, not max. R/c
 $C/R = i.g.$ --- min. is sought by some, for
easy life, but not best use.
4. Effect of new Techn.

Jan
~~Feb~~ 19

Effect of new techn. on relative values.
e.g. new techn., premium on flat land.

Strip irrig.

Deep pumps

Drainage

Gypsum v. alkali

Abandonment in east.

Macro + micro regions. Soil maps.

Overdecentralization.

Underside of intensive irrig.

Ag. Zone

Mon. Jan. 22, '79

Land + Tenure

1. Disposed. Enormous, lasting influence

A. 13 colonies

NE. pattern, towns.

Kibbuz, Ejido. Mormons.

Mid. Atl. prop. + Crown colonies

Commercial

S.W. Plantations

B. Midwest

Fed. land laws, ord. of 1787.

C. S.W.

Spanish, w. mix of all the eastern patterns.

Plus, unsold Fed. lands. Taylor grants. Hi conc.

Cal.

Old grants: Irvine;

RR Grants: S.P.

Swamp + overflow: M + L, Bonwell

Desert Land Act: KCLC - Tenness

Homestead: E. Side

2. Ham. vs. Jefferson
Cont. v. Expansion
Expansion + Imperialism.

3. Natural heritage idea.
Land under obligations. Servitudes.
Bundle of rights.
Led to counties + rural districts. tax

4. Value of land.
Low + uncertain, until lately.
Now, sharp A.

Ec. 157, Jan. 22, 1979

Rising rent and its Effect on Land Values.

P = Price of land

a = annual rent, year zero

i = rate of interest

g = annual increase in rent, as a percentage

n = number of years.

Tool formula. The sum of a geometric progression is:

$$S = a \frac{1 - r^n}{1 - r} \quad (1)$$

where

a = first term

r = rate of progression

n = number of terms

P is the sum of discounted future values.

$$P = \frac{a}{1+i} + a \frac{(1+g)}{(1+i)^2} + \dots + a \frac{(1+g)^{n-1}}{(1+i)^n} \quad (2)$$

(2) is a progression.

The first term is $\frac{a}{1+i}$

2

The rate is $\left(\frac{1+g}{1+i}\right)$

$$P = \frac{a}{(1+i)} \left[\frac{1 - \left(\frac{1+g}{1+i}\right)^n}{1 - \frac{1+g}{1+i}} \right] = a \left[\frac{1 - \left(\frac{1+g}{1+i}\right)^n}{1+i - 1-g} \right]$$
$$= a \left[\frac{1 - \left(\frac{1+g}{1+i}\right)^n}{i-g} \right] \quad (3)$$

For land, $n = \infty$, so (3) becomes:

$$P = \frac{a}{i-g} \quad (4)$$

If Smith, Brown and Jones have different credit ratings and borrowing rates, the effect of g is to exaggerate the effect of those differences when they enter the market for land. Table 1 shows the leverage effect of g .

Table 1.

<u>Farmer</u>	<u>His own Interest rate</u>	<u>Capitalization Rate $i-g$, where $g = .06$</u>	<u>Land Value, derived from $a = 100$</u>
Smith	.08	.02	5,000
Brown	.09	.03	3,333
Jones	.13	.07	1,428

The advantage of the lower "own interest rate" (sometimes called "internal interest rate") in bidding for appreciating land is very great.

We gain further insight by juggling (4) around.

$$Pi - Pg = a$$

$$P = \frac{a + Pg}{i} \quad (5)$$

Pg is the annual increment of land value, so (5) says that we value land by capitalizing the sum of ordinary income (a), plus the capital gain, (Pg).

But now note that the ordinary income is subject to regular income tax rates, while the gain is never taxed unless and until the farm is sold.

The annual gain in value of farmland over 1950 - 79 has about equaled the annual income, before taxes. After taxes, the Pg element carries more weight than the a element.

This is what gives so much weight to credit ratings and tax shelters in farming.

June 24

Tacy. Land of U.S. made part. to put land in hands of occupiers who worked it. Worker-owners. Unlike Eur. or Asia. Steady history.

% of area under lease > % of +uts. 35% vs. 25%

- but, tot. farm. inv. larger
- but, part-owners.

% of value > % of area

- but, leased land higher value
- but, owner v.e. has more bldgs.

Owner-occ. higher in farms than cities.
- + farm is job as well as home.

Hired mgs., another 10% of land not run by owner.

all told, 50-60% of value, i.e. capacity to produce, is leased.

Tacy, on better land. Cropland, vs. pasture & waste.

Tacy hi where B/L ratio low. -- Ia, central Ill.,
Imp. V.

NEng., v.e. / acre worth more than WNC; but land less.

Tacy, also hi where Δ l.v. expected.

had big conditions

2

Trend.

Up from near zero, ca. 1850

Decline, w.w. II.

But big consid. of rented farm, so decline of
leased land was less.

And the losses were the less valuable land.

E. Montana, E. Colo., W. N.D., W. S.D., Ga.

✓ Hard core persisted in n.w. Ia., central Ill.,
Miss. delta, central Ks., s.e. Wash.

Tucy is returning bar. of hi l.v./inc.

War doesn't guarantee drop in Tucy.

W.W. I was opposite. Multinomial forecasts.

W.W. II was special. Hi wages, pessimism.

~~Pre~~ Preceded by 20 yrs of trouble.

Tucy is product of success, — (also of unequal
wealth.)

Thus, carries seeds of own destruction.

Learning problems, types.

Long lease - rare. Why?

Share rent.

Must limit area.

Supervise.

Cash rent.

Too risky for money.

Fu. of facy?

Conc

Jan. 26

1. WC + H avoid.

2. Census on size.

	<u>Date</u>	<u>By bucket</u>	<u>% furs</u>	<u>% land</u>	<u>LCR</u>	<u>Ave size</u>
Furs	'50	> 1,000 a.	2.3%	43%	.70	4.081
			36.5%	3.8%	.70	21.5
N1	'50				.40	
Farm Inc.					.42	
					.40	

3. Trend -- sharply up.

Big get bigger, small punier, get smaller.

✓ To next page

4. Ecs. of scale cd. explain Δ mean size.

But not the ~~change~~ concn., which means small getting smaller.

5. Intensity of use varies inversely w. size.
So, ~~not~~ larger on smaller farms.

To p. 3

6. Large fms. report losses.

7. Tot. fms. are medium, much less concd.

3. Concn.

a. As hi in U.S. as LDCs.

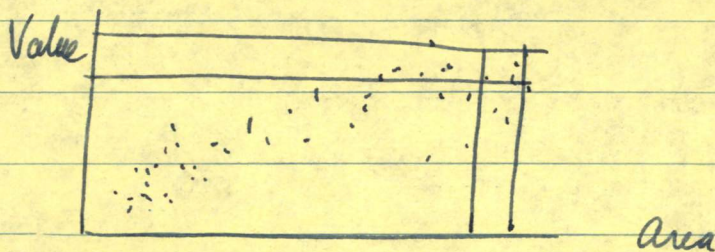
LCRs, from p. 180

9a., .35

Cal. .86 like Chile.

b. As consid by value as by area.

Problem of regression fallacy.



Not all large farms are on bad land.

- In 9 states they are on better land
(Mid-Atl. esp.)

But not in 17 W-n. states.

- Cash-grain farms on better land -- + one larger.

- Many poor land regions have small farms.

Hill-lands, Appalach. + Ozark.

Utah + SE. Idaho.

In Mo., a study found higher density on worse land.

The few studies there are, show higher concn.
by value than by area.

5 ~~ex~~ Larger farms less int. used.

Farm inc. much less concn. .42 vs. .10

Large farms use much less labor / L.V.

See p. 207

Saigon vs. Hanoi

Large farms use less cap. / land.

Esply. bldgs. also trees, vines.

Not cattle, machines.

(Note tax biases.)

Ec. 151, Mon. Jan. 29, '79.

Water Supply

"Water Banking" hasn't come. Use my
Water Econ. article.

1. Water Law

Rip., Appr., Correlative
Gov's Comm.

Faults of Appr.

a. Premature

b. Excessive diversion. ^{Capture, they waste.}
~~Hist. of use~~

c. Hist. of use

d. Rationing under scarcity. Seniority

e. Xfrability, Apprnt. Trusteeship.

f. Pooling? Can do.

g. Aquifer map? Appr. rts. come first.

h. Cont. of service areas.

Scattered,

Gov. disadvantages.

i. Distr. equity.

2. These orgs.

Comm. - few.

Coops - many

I.D.s.

a. Desert Land Act, '77.

vs. Small farm, e. side.

b. Wright Act, '87

c. 3 powers

Tax + MC pricing

Bonding -- leading demand

Competing w. the rich.

Pooling credit ratings.

Forced inclusion.

The "line principle".

d. 4 m. across in Cal.

Subdiv. E. Side v. W. side

Arwin v. Dinuba.

The secrets:

- Pool the big scale things, leave the others to small bus.

- Get credit

- Tax land

c. Ecs. of Scale achieved

- Pooling supplies for stability
Sources
Rights

- Pooling demands. Subdivide water.
- Storage

Surface
Managing aquifers

- Diversion & pumping
- Conveyance & distr.

Contract Keweenaw

- Fung

Pass along credit in low land prices.

Reduce front-money burden.

Wing Prop. 13 so hurtful.

- Syndic indep. dev.

- Compact settlement

Avoid the curse of the frontier

Other line-services gain, too.

Focus funds, power on small towns.

Dinuba.

Total community.

Synergistic City.

- Manage aquifers.
- Drainage

- Multi-use devmt.
- Tapping external pec. res.
Tax cities

Jan. 31

Labor

1. PM

My first job. 10 d/yr.

No workmen's comp.

S.S. (or tax)

union

unempl. ins.

fringes

no govt. prot. for not working

2. Labor are not funds for program purposes

Only for justifying subsidies.

(Part time funds. misused, in debt)

3. Poverty is not just rural. Incredible myth.

4. Decline in total free workers.

plus

Displacement by firms.

a revolution

✓ Creation of a class society.

5. Now ~~growth~~ decline of native supply.

Δ monoculture, peatening.

✓ Dogpatch areas of ambulatory hibernation turned to indl. forest, quarrying.

Big Δ use of foreign labor.

- no vote

- no Δ local taxes for public services, schools

✓ - no rights. I.N.S. deports every leaders.

Big Senators either are or rep. big employers.

Hypocritical system.

✓ Bracero program. 1944-65. PL 78

✓ Ended, Dec. '64, Ff. by grape strike, etc.

'66, min. wage of 1.65/hr. unenforced.

No unempl. ins.

6. ✓ Landowners whose land is best suited for crops of hi capac. + low rentability lead the fight for cheap labor.

Farm labor

1. Small farms more labor/land.

✓ Data. Smallest 36% of farms have 4% land but 17% income.
Labor/acre drops over a cliff. By region, see p. 208

2. Capacity vs. Rentability

- of land
- of land uses

3. Elast. of demand for labor

- MP of labor.
- ~~substit.~~
- changing uses, products.

2. Hi elast. of prodn. means

- hi capacity
- low rentability

4. Hist. labor supply has been farm boys
Demand is ~~too~~ seasonal so are boys. Perfect.
also, factory labor. Still is, big back & forth
movement.
also, w. small farms, staggered peak needs,
pooling effect.

7. Fin. labor not counted as part of frug. except for calc. mean income.

8. Labor can make bad land productive

✓ Mechaniz. has differentiated land more -- 4d premium of flat land, deep soils, etc.

Reduced premium on livability.

abandoned lands in Vt. Kelly Staud.

Feb. 2
Capl. & Face.
W-20

1. p. 371
Int, prop. tax, deprec. come to 24% all fin. inc.
But T. 20-1, p. 371, doesn't give ful. distr.

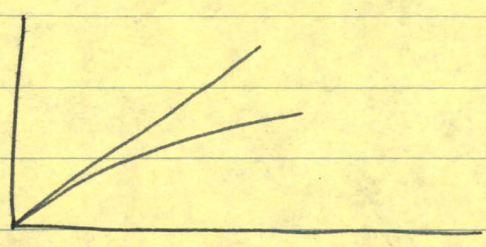
2. Mechanism. fastest, 1910-40 p. 372
after that, machines got bigger, rather than more
numerous. (Play's w. numbers!)
Huge substitu.
Hoses common, to 1950.

3. p. 373
The Prices of fin. "inputs", 1950-74
R.E. has risen fastest. But r.e. is an
"output", too.

4. Substitu. of K for labor results in big Δ in
share of inc. going to interest.
Not so much on "expendable" budget.
Fertilizer, fuel, pesticides, M+O of machines, are big
items. These turn over annually -- like labor.
"Prodn. Credit"

But durables, which pay off slowly.
Intermed., land bank, & port. credit.

Durable means slow payout. Explain why.



Share going to interest.

5. Δ l.v. lets fur. borrow.

✓ Best land also responds better to machinery

so allocation of credit is tilted. Big get bigger.

✓ Small survive ... by going part-time.

6. Double-talk re return on equity.

✓ The endless cycle of getting richer while pleading poverty.

✓ 7. Liabilities = 19% total assets, '70

cf. 10% '50

cf. young home buyer, 80%

cf. big corp. 40%

small " 75%

8. Fed. Land Banks.

a. They brought down water, remote areas.

But ~~only~~

b. Only for the right people.

Credit rationing is key to class society.

9. Interned. credit, gap filled by priv. enterprise.

Feb. 5

Loose ends, prior sessions.

1. Tragedy of Commons.
Relate to def. of MP

~~2.~~

~~1.~~

2. Inverse rel. of MPs.

$$\frac{\frac{dP}{dL}}{\frac{P}{L}} = \frac{\frac{dP_P}{dL}}{\frac{L}{L}} = \epsilon$$

$$\sum \epsilon = 1$$

3.

Feb. 5

Supplier + Working Capt.

1. Huge Δ in chemicals.

To the firm, these are not res. or K-int.

To the whole co., they are, very. Bes. Their produ-
is.

2. Data on Δ share of ~~Assets~~ "Indus. Product inputs"

	1910	1920
Labor	10%	6%
Indus. prod.	12.5%	21%

3. Chemicals are not K-int. to firm, but they
complement capt. (+ land)

Fuel + traction

Grain drying

Pumping irrig. wtr.

4. Same for electr. power.

5. Growing dependence of firm on 2 sisters.

A dangerous result of decline of small firm. +
firm, workers.

Fuel not free. Energy-obsolescence. The "Soviet Disease."

6. Purchased feed

Cash-grain + feeder is our old story. Cash-

grain had best land, sold feed to feeders,
labor-using + Cap-using.

Potential for centralizing command + control
w. ~~\$~~ grain-sellers always existed. Now, via
feed cos. has occurred in poultry.
May go further.

1. Growing pattern of food, + farm workplace.
Old manure cycle disrupted.
 - horses out
 - stock manure not longer spread.

Pesticides

Treadmill effect.

IPM movement, new frontier.

Corruption of AES research?

8. Δ A.P. of labor.

Is this effic.?

Elast. of prodn.

Inverse relations.

If call ~~it~~ Δ AP effic., it marks real trends.

Feb. 7

Infrastructure

The best kept secret in ecs: how to get ag. devt. Only a few countries have, outside older settled countries. (Older settled countries of Eur. + Asia have similar histories, farther back.)

In a word: supply infrastr. publicly: tax land to pay for it, by local initiative.
In U.S., countries, s.d.s, + special dists.

The I.D. story is as good as any
Ecs. of scale they supplied:

1. Pooling supplies

2. Storage

Surface. Bombed. Melons.

Underground. Control level

3. Diversion

4. Conveyance + Distrib.

Cost As w. length of line, but $\sqrt$ of vol.

Vol. effects + distance effects.

Distr. is much messy.

Korean mess as bad ex.

I.D.s. consid. "rationalize".

True ecs. of scale (not Soviet Disease)

There are

~~the~~ Irregular sprawl is like urban sprawl.
 Overlapping even worse.
 Approp. aggrandizement worsens.

Peaking needs require economy in conveyance.

5. Fairs.

Pool credit of small owners. Mortgage lend to I.D.
 Advance credit via tax caps.

$$V = \frac{a}{i - r + g}$$

6. Synchs, indep. devmt.

Internalize the externalities -- of small firms.
 Build ahead of demand -- then force demand.

7. Compact settlement

Total Community

Syncretistic Chautrons.

Diversification, keep labor busy year-long.

8. Aquifer regmt.

Current frontier. Legisl. ferment

9. Drainage

10. Multi-purpose devmt.

Using tax power

11. Marshalling social surplus.

Techn. - raising water

Pecun. - Chautau effect

Problems

1. Rigid allocns. of I.D.s.

2. X - subsidy

W-in I.D.s.

Other utilities

State hiways

R.R.s.

Fed. hiways.

Fed. Taxn.

3. Rate-making.

Farm preferences.

M., Feb. 12, Leon. 151

Taxation

1. Land Taxes.

A. Capm.

$$P = \frac{a - T}{i}$$

$$T = \tau P$$

Tax based on after-tax income

$$Pi = a - Pt$$

$$P = \frac{a}{i + \tau}$$

From earlier session, $P = \frac{a + Pg}{i}$

and $P = \frac{a}{i - g}$

So

$$P = \frac{a}{i - g + \tau}$$

2

Note front-end effects. + lowers P.
Lowers credit factor.

Same as lending to buyers -- at same rate
for all.

Cuts off suboptimal holdings of big holders.

Discourages Truzy.

Constructive role, historically.

Solves Tragedy of commons. Instead of
dissipating, rent, use it + collect it.

Unusual tax, improves incentives.
(Laffer Curve is nonsense) Improves
"bus. climate."

Not avoidable by aliens, multi-nationals,
etc.

B. Decline of farm land taxes.

Prof. Assmt.

Winson. Act.

B.C. ag zoning.

Timber Zone Act.

Reduced fm. prop. who need services.

2. Other farm prop. taxes.

Tendency toward pref. treatment, some kinds of cap.

"Personal Prop." $\frac{1}{2}$ exempt. Machines, cattle, big farms.

Trees & Vines

1st 5 yrs.

P-13 treatment

My assmt.

Bldgs. - fully and, I believe.

3. Inc. taxes, (all land-based inc. is preferential, so
cf. Ag. w. labor, not other land uses.)
Cash basis

Expensing of capl.

Soil + Wtr cons. -- permanent land improvement

~~Planting trees~~

Swimming pools

Breeding herds.

ITC -- orchards, each turnover.

Fast deprec.

Cap. gains ~~about~~ treatment of land

- no tax if never sell, or only trade, or lease
- forgiven at death
- half exempt if sell

Defer, by

- instalment sale
- land contract
- inflate price, seller forces, low i.

WTC say inc. tax has no supply effects.
Nonsense!

4. Death Taxes

Valued by cap's arg. inc. ^{Triple} ~~Double~~ gain

- a) Omit Δ ag. inc.
- b) " ~~non~~ urban conversion, minerals, etc.
- c) " amenity values

5. Payroll tax? Exempt

6. Sales tax? Exempt, food is, mostly.

7. Overall, farm inc. preferentially taxed.

Evenson study

40% Δ when move to city, at given inc. level.

Ec. 151, Feb. 14.

Zoning, social control of land use.

1. Pref. Assmt.

W + L + H do not mention. They need to update.
Began in '56.

Cal. has:

1. Wilson. Act. Assmt. based on use value,
10-yr. contract.

Large units mainly.

Objectives mixed, unclear.

Cynical view:

- Tax dodge for spec. More pref.
treatment for unrealized cap. gains. Irvine Est.;
H. L. Hunt; Kaiser?; Newhall Land Co;
Moraga Co.; Limoneira; ~~S.P.; SoCal; Arco~~ Dick O'Neill?
Most conc. form of land.

- Lower taxes for huge Kern Cty.
farms, no urban comp. at all. Tenneco,
Tejón Ranch, M + L, Bowell; S.P.; Chevron; Arco
How do they gain? Cap. only current inc.;
leave out mineral rts.

- Few small fruit growers near
cities use it. They value freedom for quick sale.

2. TPZ Act.

Timber already exempt. 40 yrs.

Land now exempt, too.

S.P.; CZ; Simpson; Ga. Pac.; Boise Canada;

3. Regular city & City. Zoning.

But not credible. Assn. follows mkt.

Hence, demand for Pref. Assmt.

4. Problem -- all these are neg. cont.

We need:

A. Stop X-subsidy

B. Incentive to use center better.

2. Rural Zoning.

Orig. Wis., '29, to stop ag. sprawl.

Nesters & Squatters.

Now, mainly to control urban sprawl. But hardly works.

Evaluate crim of "protecting best farm land".

Good crim: avoid messy septic-tank sprawl pd;
go direct from ag. to hi-density.

3. S.C. Distrs.

Mainly a way of spending fed. money.
Won't adopt any regs.

4. ACP prints.

after '36, became way to reduce supply legally.
Cons. prohibited to price raise.

5. Acquiring unqual. land.

Define unqual. land.

Has to cover taxes, too.

The myth of unrec. abandonment due to
hi land taxes.

WC + H perpetuate -- it is part
of the iron chain of fixed ideas that keeps
ag. costs static

6. Use of public land.

Econ. replaced by "Science" + pressure groups.
Science w/o econ. is as bad as pressure group.
Means what you do if cost is no object.
Science is a scam.

F.S. doctrine, case #1, $i = 0$

Bureaucracy is another pressure group.
Internalize profits.

"Community stability" fetish.
S.Y., E.F., CMAI

Multi-use. Choices based on pressure +
LCD opinion, not cost + benefit.

Grazing

Timber

Wt.

Wildlife

Hunting

Fishing

Camping

Hiking

Preservation.

Nightmare in B.C.

Solutions in VT, Cantons, Europe.

Mason Gaffney, 19 February 1976
A Step in Finding Optimal Area of Engineering Bloc

(1)	(2)	(3)	(4)	(5)	(6) MNP: 1,5 Increase of Net Product per Additional Acre $\Delta(5) \div \Delta(1)$
Acres	Cut per Acre (\$)	Cost per Acre (\$)	Net Product Per Acre (2) - (3)	Net Product (1) x (4)	
50	4,000	6,000	-2,000	-100,000	-
100	5,000	5,000	0	0	2,000
150	5,000	4,000	1,000	150,000	3,000
200	5,000	3,500	1,500	300,000	3,000
250	5,000	3,500	1,500 ²	375,000	1,500
300	4,900	3,600	1,300	390,000	300
350	4,800	3,700	1,100	385,000	-100
400	4,700	3,800	900	360,000	-500
450	4,600	3,900	700	315,000	-900
500	4,500	4,000	500	250,000	-1,300 ⁶

↑ omitted

- Notes.
1. MNP means Marginal Net Product
 2. Optimal scale: 250 acres, where (4) = (6), and (4) is max.
 3. Numbers are hypothetical. Use discounted values to allow for time factor. Value of cut per acre falls with acreage because of deferral of cut as well as recourse to less productive sites.
 4. Costs per acre rise with acreage because of increased distances. (Initial drop is due to spreading fixed cost over more land). Environmental costs also increase with acreage because a) We go to steeper land, more erosive and slower to come back; and b) longer skids and low standard forest roading required.
 5. Note how much more sensitive an indicator Marginal Net Product (MNP, Column 6) is than any other.
 6. A common error is to make areas too big. The profitable core is used to subsidize the submarginal fringes. To avoid, either abandon the fringe areas, or increase the number of blocs. Increasing the number of blocs may call for additional mileage of trunk roads and spurs. To allow for this factor, include a pro rata share of trunk road costs in the overhead of each bloc.

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Fri., Feb. 16

Techu, A.T., Impact Analysis.

We have covered some major points

14. AES bias to
large farms + subsg
land for labor.

1. 3 kinds petrochem, big Δ .
2. Larger machines, as vs. more.
3. Reduced farm-boy labor force.
4. Δ outgroup, alienated labor force.
5. Δ specialization. Decline of balanced farm. Δ trucking.
6. Reduced ~~not~~ manning.
7. Drought-adaptation, great dust bowls.
8. Δ ground wtr. use, + suppl. irrig; drip irr.
9. Reduced consn? Counter forces.
10. Abandoning submrgd. lands -- to grass, timber.
11. Genetic advances; new crops, products. ^{Tolerance to cold, drought, salt, disease.}
12. Rural utility networks, esp. power + phone.
13. Δ differentiation of good land from bad land.

Future + Current Trends:

1. Δ export demand, w. devel.
2. Energy obsol.
3. A.T. movement: IPM, organic farm., "serious hobby farm."

Note. In past, subsgd for labor bcs. its relative cost rose. ~~But~~ But land was ris'g too, + we have yet to do much subsg for scarce land -- at least, on intensive mgn.

Fri., Feb. 23

Ec. 157

Env.; Soil Cons.

1. Limits to growth.

Malthus

RFE optimism. Mainstream ec.

Meantime, Ag scarcity value of farm land.

Limits to Growth.

Boom Bubbles.

New eq. needed, greater concern.

2. Externalities.

Conc. of wastes -- manure, from + to - value?

Maybe. But truly, conc. of waste is one solution. Stages I, II.

3. & pollutants

Acids.

Animal waste

Ind. process wastes

Nutrients

Crop residues

Salt

Pesticides

Air pollen.

4. Effluent charge hard to use, non-point sources.

I ideally we wd. + cd. have a comprehensive system of incentives on part. owners. i.e., central plan + free ent. are compatible.

But we're a long way from it. Careers for env. ecsts.

5. Who bears costs of control?

W + C have them shifted fwd. Speak of inelastic demand - yet we compete in world mkt.

Overlooks incl. supply. Comes out of rent.

Higher costs may be mainly labor.

Improved env. turns around, As rent!

Can be sure of rapid tech. change, too.

They use fwd. shifting to conditions us for resisting env. controls. Regressive. (Same as P-13 argument.)

Let's see if they're equally concerned when discussing price supports.

6. Soil Conserv.

Weak treatment

4 kinds soil qualities.

Matrix

Conservable Flow

Expendable Surplus

Revolving Fund

Article on reserve.

Mon, Feb. 26

Marketing System & Its Evolution.

W 7, 8

Price we pay for gains of regional specialization.

1. Storage.

"Equalizing". Time utilization.

Interest must be pd. (Also rent - not mentioned.) Requires capt., land.

Mkt system as a "great reservoir."

Grain is naturally storable, before milling.

But now, preservatives overused. Shelf-life too long.

Hist. of movements vs. grain specs.

Bas. of hi turnover, not capt. - int. But is land-int. a + 1. Superway, battle for key sites, big parking lots.

~~Stuff~~ "Shelf-space" means parking space.

2. Xptn.

X - subsidy.

Granger + Populist r.o. regu.

Cost of xptn. determines what you produce, & where you process it.

New revolutions coming.

3. Grading, measuring

4. Fuel.

5. Packing, processing.

6. Retailing. 40% of cost.

Vert. Intn.

Decline of comm. row.

Ossifica. of big firms, new forms of by
passing.

X-hauling.

Ecs. of scale in center, may warrant it.

conc. in retailing?

Middle-size chains grow faster, but
become regm falling.

Wed., Feb. 28

10

Marketing services: changing cons. needs.

by Outline. O. Immigration - 14

1. ~~Changing~~ patterns of cons. Importance, d. ag. H; ~~34~~ 34
Inc. elast. 23, 36 = inequl. 5, 6
Price elast. 2 Different shares to four. 28
Changing tastes, edu. 2

2. Changing patterns.

- A capt. plugg. 22, 24 Clothes for warmth 32
- A prod service. 20, 29, 31
- A quality. Poultry 4; oleo. 4
Flight from kitchen. 9, 25. from gardens. 19
A urbanize; prog. cons. 12, 13, 15. Reg. dev. ~~13, 15, 31, 45~~

3. Problems.

- Adaptation, more opps. 26 Hormones
Metricious values, junk 21
Preservatives; refining 16
Oligop. - #1: 8; 18; ~~30~~
Mktg. coops. 7
Malnutrition 10
Sprawl 17
Weak cons. edu. 26
Fmr. share hasn't dropped 29

Ideas, re mktg, etc.

1. Giant + Safety control P.C.
cf. Milw. Kohls, Sundt's
2. Most food is a luxury, cfd, to cheapest ways to meet basic nutrient needs.
as a bachelor, I lived on oatmeal, powdered skim milk, beans, rice, raisins, dates, nuts, trail mix, p'ties, chard
But they were socially unacceptable.
3. Areas of changeable climate, nature produced grains, which keep for yrs.
Man learned to store them.
Or cattle, which move.
These are earliest Capital.
(Don't eat the seed-corn; or the mother cow)

2. But food is a luxury, demand is more elastic than the chicks have it.

4. Changes in p.c. cons., 1960 - 72 (p.152)

A. Livestock products

Poultry	+ 50%
Beef, veal	+ 25
Pork	—
Eggs	- 5
Dairy	- 5

B. Crop Products

Veg. Oils	+ 41%
Processed fruit, veg.	+ 18
Cereal, baking	- 3
Fresh fruit, veg.	- 10

4 1/2. Junk foods, fast food not mentioned.
Soybean revolution omitted.
Malnutrition

5. Chap. 10 sneaks up on reader.

p. 144-51, endless bottomless bapped ~~empty~~ platitudes,
truisms.

p. 153, dir m.u. = unqul. allow.

6. ~~Write a~~ ~~unqul. prior.~~

Must add time element to = unqul. idea.

Choices aren't presented all at once.

Must deny impulses today, to consume alt. Tomorrow.
"Save up" for something else. This calls for self-discipline,
foresight, imagination, faith — not universal qualities.
Or fear, eply. of old age.

7. Strategy of equalizg MR by mupst, dissuading
(esp one who runs cartel, cannot shut out unqul. sellers, wants
to keep them happy)

8. Sellers & buyers always trying to bypass mkt. system.

In producing areas, farm mkt do so

In cities w. large shuttle popn, like Mke, ~~not~~ workmen town,
easy to bypass. In D.C., much harder.

9 Return to the kitchen still, come Huge incentives.

- Tax gains
- Freshness
- Ingredient control
- Bypass mktg system
- Appliances available

10. Huge medical bills
Food is subst. for MD

11. Ag. + regional devt.

Alaska, Nevada, Can. Shield, n. woods - no ag. to devt.

12. Far from mkt., can only raise:

- subsistence
- cattle - Transport selves
- grain - stores + travels well. Seed.
- hard liquor; wine. (Beer required refrig., hence milk ice trade)
- cheese (Minn. Wis.)
- ~~salt~~ canned, preserved, salted, pickled, now frozen food
- fish

13. Feed conversion, + location, + by
 Feed beef near land, but ~~low~~ ^{by} conv. rates, 7/1
 " poultry " mkt, ^{low} ~~low~~ " " " " 2/1
 " dairy " " , but grain + hay travel better than milk.

14. Examples of countries where moving to U.S. helped or not.
^{Mexico}
 Ireland — huge emigration, remained backward
 Spain " " " "
 Portugal " " "
 Africa " "
 Japan — emigr. blocked, advanced fast.
 Israel " "

15. Cal. before roots, exported cattle, wheat, ^{rice, sugar beets.} Dried fruits: ^{dates, figs} prunes, raisins.
 Wine also keeps + travels.
 Dry vegs -- beans, peas.

But Cal. needn't export now, huge local mkt. Farmer's dream.

13. Some farm crops breed local indy., but they need local
 packing, freezing, drying. Fruits + veg.
 Others are shipped around world - e.g. cotton, wool,
 grain. They may go to Minn. or Spokane for
 milling, but even this is unrec.

16. White flour stores well - an early purpose of milling out germ. Recall Cuth. Clark.
 Are e.g. of how storage needs ^{conflict with} ~~and bad for~~ nutrition needs.

17. Urban sprawl interferes w. prox. of city + country, mkt. gardening.

18. Small towns, only one supermkt.

Beaumont, Alpha Beta is it -- no Gamma, Delta, Kappa or Omega.

But there is Hadley's. We live in a cornucopia of varied produce ready for consumer. Not so in Anchorage, D.C., Chicago, Baltimore, or small towns in east. They've gotcha.

19. Decline of "garden sass," once so common.

20. Retailing has become less labor-using.

p. 140 shows o'head + profits = labor cost in mktg. ^{No effort to show labor's share.}

21. Pkgs + Advtg.

Decline of real values: rise of meretricious ones.

22. % of labor force in primary has dropped much.
Service is big increase. Up to ~~the~~ 63% of force, 1970.
23. Engel's Law -- higher inc., less % on food.
Rwanda, overstated.
24. Cap. has subbed for labor in primary & 2ndry sectors.
Pushing labor into tertiary service -- includes
retailing.
25. Decline of kitchen &c. "Flight from the kitchen."
Result: much higher cap. cost of retailing, bcs. of large
varieties to carry.
Decline of home storage; home butchering; canning;
26. Communism: a. Unit Pricing
b. Open dating
c. Nutritional disclosure.
Indy. has resisted.
One para. for 70 yrs. of struggle! Hardly good enough.
1906, Pure Food + Drug.
Adulteration, enormous problem.
Truth in labelling.
Honest weights
Consumer edu., nutritional edu.

Nutrition edu. has been stifled.
 Fred. Stone, indy. consultant.
 Jean Mayer was good.

"Faddism". Ridicule used as weapon ^{to discredit} ~~vs.~~ anyone
 questioning quality of processed food.
 Colleges used, subverted.

27. p. 135, premature forecasts.

28. p. 136.

<u>Commod</u>	<u>Fresh Beef</u>	<u>Processed Cheese</u>	<u>Fla. Oranges</u>	<u>Canned Tom.</u>
Retail	239¢	20	35	15
Xpts. + Whols.	109¢	20	18	10
Process. pksy.	79¢	20	22	59
Farm Prod.	609¢	40	25	18

Processing costs Δ w. perishability.
 Not much Δ in grow'g yr. own beef! But
 vegs. yes.

29. Furr's share of retail cost moves up & down. p. 137.
 But hasn't dropped much, 1913-70.
 In spite of all the talk about more processing & plugging,
this means a lot! Furr. still gets 40% of
 retail for mkt. basket. Cf. 46%, 1913; 41%,
 1920-24; 34%, 1930-34.

30. p. 141, whitewash of mkt. profits. No defns. or anal.
 Big agri. business firms hire ag. exsts. too.

31. Nothing said about reduced service -- e.g. home
 delivery, once common. Personal service.

32. As heat goes down, clothing for warmth more than
 decoration will come back.

33. = unqual. princ. in allocg. consumer \$.

34. % of expenditures given to various classes, U.S. nonfarm, 1960.
 Median consumer. p. 154

Food	24%	}	35%	}	58%	}	74%
Clothing	11						
Hsg.	23						
Xp'ts.	16						
Med.	6						

34. cont. (Hsg. is really more, b/c. imputed int. on equity).

Food + Fiber come to 35%, Ag. Ec. covers $\frac{1}{3}$ of economy. Big stuff.

35. This is why indig. agric. is so vital to regional growth. Hsg. is always supplied locally, all regions. But leakage for food is a killer.

36. Different resource content of diff. foods, accounts for much of price diff.

Luxury foods use much more land.

Thus, inc. - el. of demand for farm land is very hi.

p. 155. foods of hi inc. elast.

Meat

Processed veg. + fruit.

Fresh fruit (not veg.)

Inferior goods:

Dried veg. + fruit

Sugar

Flour, cereal

Ec. 151.

Wed. Feb. 28

Marketing; changing cons. needs.

(Reprise. Some countries of enormous ~~trans.~~ immigration show little gain at home: Mexico; Ireland; Spain; Portugal. But Japan booms.)

Mktg. -- tells producer what to do.

A. Patterns of Cons.

1. ~~the~~ Impt. weight of agric. p. 154

Food 24%

Clothes 11%

35%

$\frac{1}{3}$ of spending; $\frac{1}{3}$ of the economy.

Only hsg. + xpt. rival it. (Shows you where jobs are. Also for ecst.)

Hasn't declined over 100 yrs. Food is here to stay.

Bes. of this, agr. is neg. condition for regional dev't.

Leakage of 35%, no trade balance can stand. Ak. Nev. ^{Can.} ~~should~~.

Not just any agric., but commercial agric.

Regions w. big cash-grain surpluses are not populous.

Cowboy country not populous.

"Mkt-oriented" ~~is~~ agric., like dairy, poultry.

But the attraction is mutual. The mkt. follows them, first. People move to cheap food. ^{they}

Dairy is mkt. oriented b/c grain stores + travels well; milk doesn't. Only cheese, far from mkt.

2

Beef is country-oriented bus. high feed ratio ... 7/1
Poultry mkt " " low " " ... 2/1

Loc. thy, science of these things. Put loc. thy. together w. regional balance of pnts; get "regional science", growing & fascinating field.

Some ~~or~~ farm products breed local indy: packing, drying, freezing. Fruits, vegs.. Others are shippable by nature - cotton, grains. People needn't go to them, bus. they can go to people.

Cal. has evolved fast from one status to the other 19th cent, exported grain, cattle, rice, sugar, dried fruits, wine, dry vegs., packed fish.

Then came rails, & people. Now, farmer's dream.

2. Demand analysis. Standard util. Assume you know - engels; elast.; etc.

3. Inc. elast.

Engel's Law. Overstated. Regm. falling.

A resource content of luxury foods. Thus, hi inc.-elast. of demand for farm land. Beef needs 7x as much land per unit food value as wheat, beans. W. beef, 60% goes to farmer, little to processor, retailer. Thus, farm share

stays up.
 p. 151 Other superior goods: frozen fr. + veg.
 Fresh fruit. (not veg.)

Inf.: Dried veg. + fruit
 Sugar
 Flour, cereal

4. Fmr's share increases w. storability
 Beef 60%
 Cheese 40
 Fla. Oranges 25
 Canned Tom 18

B. Changing patterns of cons.

1. Mign.

a. Urbaniz. Further from sources.

Decline of home gardens, home storage.

b. Coastal move. Flight from breadbasket states.

c. Sunbelt drift.

2. Flight from kitchen

In spite of growing attractiveness of kitchen.

Due to smaller families; 2 earner pattern.

There is strong counter trend.

Tax advantages

Xp'tu. advantages

Quality ... Home mill, cuisinant, etc.

3. A capt. in mktg.

Huge variety. Slower turnover, larger scale.

A pkgs. Energy-int. -- must revenue.

4. Decline of personal service.

Despite 3, retail share has not risen.

Less labor. End of personal service.

W+C miss this completely. They write only of improved service; higher labor in ret. any indy. generally.

p. 140 shows overhead + profits = payroll in mktg.

Labor share way down.

This is why farm share remains 40%, despite all the packaging, processing, variety. p. 137

C. New problems.

W + C see mktg. thru rose glasses.
Agribus. retains ag. ext. consultants, too.

1. Reduced basic quality.
Sick animals. Broilers on wire, + layers.
2/1 ratio by confinement.
~~Harmon~~
2. More processing. more opps. for adulterations,
substn. Fat fatters. MSG.
Consumerism is anemic if limited to unit price etc.
3. Longer storage + shelf-life after processing,
preservatives.
Refining. White flour stores better.
4. Subversion of consumer edu. in nutrition.
Agribusiness has rewarded friends -- F. Stone --
+ ridiculed + harassed critics, ~~etc~~
Any critic is a "faddist".
Big failing of mkt. system. Mfrs. have
powerful interest in pushing product.
E.g. tobacco; minibikes; autos.

5. Meriticious sense of values. ~~But~~ Inherent in
bus. of packaging, advertising. Cover > the book.

Growth of junk food. Preying on the
weak, vulnerable, stupid -- damaging bodies & minds
together.

6. Oligop. Large scale, reduces entrepreneur.

D.C., 2 chains, Giant & Safeway.

Mt. Airy, many stores, note huge diff. Kohl. Sundek.
Large shuttle pops; commerce tradition.

Beaumont, one store.

W+C whitewash, no analysis.

7. Mktg. orders, ^{producer} ~~farmer~~ loops.

Have sometimes exploited, altho they
cannot control output in long run

Divide mkt. = mgt. MR.

8. Malnutrition. Even ~~now~~ on farms themselves.

Bradfield case. To make yourself non
grate, study malnutrition among migrant workers.
Scratch every sore in the system.

There are vested interests in malnutrition —
those who sell junk to uninformed people.

Some auth. countries have done better than we on
this. U.S. not best nourished.

So badly nourished, half my cohort are dead.
90% of survivors are bald or gray.

I'm no Jack La Lanne, but human body needs it fall apart so
fast, if follow rules of cons. edu, spurn most
processed foods, grow yr. own.

9. Urban sprawl.

Huge Δ distr. costs.

Ec. 157, Mar. 2, Fri., '79.

Farm Prices crops. 11, 12, 13, 14.

1. Index no., farm prices. Weighted.
2. Farm price changes. Boom in big wars: peaks in 1814, 1864, 1920, 1945-51, 1973.
3. Parity ratio. Ratio of 2 indices, $\frac{\text{Food + Fiber}}{\text{Farm inputs}}$

The trouble is, *denom.* is fudged. They change it a lot, and it includes farm r.e.; farm r.e. taxes (used for local services); farm wage rates. + other circular + meaningless things.

Then, is a no. that those in power can fudge as they please. Like counting votes in Chi.

4. Confusion on p. 173. Some careless research. Challenges for young exsts.
3. Who is a farmer? Unresolved qn., shuffled around for convenience.

This is why I advise, keep eye on value of farmland.

5/ Why do prices rise + fall together? Subson. in supply + demand.

Exceptions: a) Ctn., early 20s, rose relatively. Series of crop failures.

b) Beef. in prosperity. Lags in adjusting to Δ demand.

c). Citrus, vines. Long lead times. Can get way out of line. Value of good foresight.

6. Greater amplitude of price swings in fmg. than many other industries, booms + busts. Why?

- a. More flow res., as v.s. fund res. cf. oil.
- b. More coupon.
- c. Less h/o power. Big wealth effect, counteracts input ^{dis-}incentive of $-2P$.
- d. Countercyclical changes in labor supply. Soaks up laid-off workers.
- e. Inelastic demand.
- f. Variable wx, uncontrollable swings in supply.
- g. Long lead times in changing capacity.

These things do not mean prices aren't working. They are doing what they are supposed to.

7. Corn-hog cycle.

Remarkable persistence of bad foresight? Probably something more is involved -- a wealth effect. When hogs are hi, fms. can afford to ~~fund~~ invest more. Hog fms. are mgt. people.

8. Other cycles. -- whenever there is long lead-time.

a. Beef cattle. Longer cycle. More dependent on
wx; taxes.

And a high share of breeding stock is convertible
to the product. Great place for accel. princ. to
obtain, prevail, work.

Hi demand, thus, reduces supply at first.

Opening new lands, same effect. They must be
stocked.

also, bcs. of long life cycle, a small Δ
demand calls for large $\% \Delta$ in current additions to
capl. — like housing.

Nat. cycles in allegory, or microcosm.

b. Fruit. Cal. has had many. Avo.s. coming.

c. Infrastructure. Wtr. supply, vast swings.

Western r.r.s.

Canal boom

Turnpike "

9. Seasonal + even daily cycles.
10. Farm prices as "residual"? No more so than others.

M. Am. 5.

Cycles + Instability

W 15, 16.

Intro. Nature, ampl. of ^{bus.} cycles, overall.

Cycles, a product of K turnover.

Now, after big boom, capl. locked up.

ΔM subs. for real inv., causes infln.

1929-33 50% drop in GNP. Bank collapse.

Flight into \$. Non-replmt., disinfl.

Now, contracycl. spending. Traded infln. for cycles.

Effects on Ag.

1. Structure

Farms take price change, rather than prodn.
Demand steadier; supply contracyclical.

2. Inv. in ag.

As in boom times.

But relationship getting thinner, post WW II.

(Have class distinguish 2 reasons why
farms inv. more in boom... cash flow + cutbacks.)

(Note conflict w. under inv. thesis.)

Bus. price supports insulate farms.

2
3. Popn. in ag.

Ebb + Flow, recession + prog.

Ambulatory hibernations. Role of small farmers.

4. Farm firms

They say nothing, except re o'head costs.
Too easy. Much fun. in labor-int.

B.S. about chronic o'prodn.

Chap. 16: Ag. in a Dev'd. Dynamic Ec.

Poor-mouthin' like usual.

W. fixed land supply, in area, farm output continues to rise. This is due to "Tech. advance." Too easy.

Is due to intensification. There is no end to this frontier.

Tractor released 70 m.a., 20% of our cropland, from feed. (Soil bank froze it up again.)

Chap. 17

Intl. Trade

Wed. Mar. 7

Ag. mostly an export indy.

But also competes w. imports: sugar, fruit

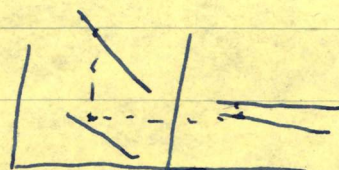
3. Graphs

1. Dumping

2. Gains from trade

a. Imports

b. Exports.



1. clear, Int. Trade.

1. Ag. loss to protectionism.

Western farms allied w. eastern business, civil war.
Populism forged new cotton-wheat alliance, ~~but~~
fell short, but gradually made headway.
Underwood Tariff, lower, 1913.

2. Return to protection, 1930. Smoot-Hawley. Hit ag. hard. Here is why farm prices fell so much, 1930 on.

3. Post WW II, GATT approach.

1962, Dillon round

67, Kennedy .. (?)

Dominant industrial interests became export-oriented.
U.S. capt. flowed out, too, foreign export balance,
moderating effects. U.S. taxes, too, used to
subsidize.

4. Exports as % cash recs. farm mktg.

1910	16%
1920	25
1940	6
1945	13
1952	9
1955-70	16

5. Decline of U.S. comp. power -- why?
- a. Infln., overvalued \$
 - b. Neglect of export indus., by instl. bias
 - housing
 - xpts.
 - c. Subsidizing compn.
 - milky umbrellas
 - capt. export
 - fr. tax credit, etc.

U.S. as a big cow, being milked by multi-nationals.

- d. Disincentive tax structure
- e. Fr. dumping via VAT

6. '71, devalue \$. Gold, \$38/oz.

Great for multi. nats.

- '73, 2d deval.

Now, "floating". - a better word is "sinking"

7. Gains from intl. specialization, OK.

But losses, too.

We didn't just trade. We let imp. polns. use trade as tool to manipulate others -- & us.

They carried masses along by false pride of cultural imperialism. "We'll show you how."

The only way to show how is make yr. own country work. Charity begins at home; reform begins w. you & me. There's no other way.

8. 'Trade' helps peace.

But we didn't just trade. We acquired land, res.

We build up capt. by:

Int.

Approp.

Apprec.

Slowback.

This required military protection.

Hobson pointed out, it was not trade, but int. that brought the flag along with it. And thus led to war, imperialism.

But W & C make no such line.

We build up their indy. more than their ag.

9. W & C still in age of \$ shortage. Worry about our willingness to import. Also think frms. will use their scarce \$ for heavy producer goods, rather than food.

10. Domestic CCC price supports, above world price, once prevented exports. - except by dumping.

11. They say protection creates jobs, bcs. it wd. take more labor to produce bananas in greenhouse. But, non seq. Wd. also take more land; more K.

12. 1870 - 1970, U.S. changed from mainly exporting primary products, to importing them.

13. '37 - '41, big Δ U.S. exports, including ~~the~~ agr.

14. Up to '51, big % U.S. farm exports were under govt. programs. 41%, '51. Then, sharp drop.
H. points were 1946, 69%
1950, 67%.

15. Biggest ag. customers:

Japan

Gx.

Canada (but we also buy from them)

Netherlands

U.K.

Korea.

Taiwan.

16. Export Crops, % exported.

Rice 62%

Soybean 55

Tallow 46

Hides, Cattle 43

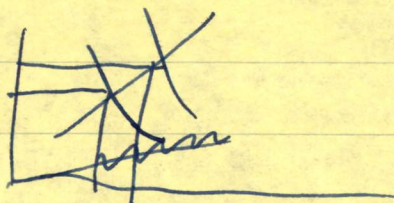
Wheat 41

Tobacco 35

Cotton 33

These are pretty land-using. Rice uses water.

17.



Gain from export.

W + C imply this is all net gain - overlook consumers.

18. Trade restricting devices

Tariff

Quota. We impose beef + dairy ones.

Variable levies, decreasing w. price. EEC uses on us.

Sanitary

State purchasing agencies.

" Trading empires. (Ore, liquor)

Custom unions

19. 1/3 of ag. imports are "non-competitive". Nonsense.

20.



Effect of imports.

21. Late '60s change from high price supports to direct payments.

22. WW II, food shipments began.

also postwar. famine relief.

1954, permanent vehicle for dumping, P.L. 480,
Food for Peace.

1968, shifted to main use of its Title IV,
cheap loans.

Gradual disengagement — but they hardly list
all the reasons.

Fri., March 9, '79

Ec. 157

Dates

Presid.

Sec'y Ag.

1932-37

Roosevelt

37-41

"

41-45

"

45-46

"

46-49

Truman

49-53

"

Brannan

53-57

Eisenhower

Benson

57-61

"

61-63

Kennedy

Freeman

'63-65

Johnson

'65-69

"

'69-73

Nixon

Butz

'73-74

"

74-77

Ford

'77-

Carter

Bergland

Major Farm Legish.

1929

Agr. Mktg. Act. Fed. Farm Bd.

"Revolving Fund", to store to cure 'temporary' low prices. Turned only once.

1933

C&A. Prodn. control.

Ctn

Tob.

Wheat

Corn

Hogs (later dropped.)

Voluntary -- puts. to landowners, rentals.

Internally fixed ... tax on gross.

Set up like a cartel.

1934

Mandatory controls for ctn. + tobacco

Price-support loans. (beginning of "Ever-normal granary." Recall Subtreasury scheme.) Non-recourse "loans". Double talk. (But there were 2 days, until '48)

'33

Mktg. Orders - for perishable crops + milk.
Ef. Cal. earlier ~~and~~ laws.

1936

Soil Cons. approach. Fund. from general fund. Puts for redeeming acres.

1938

Comprehensive supply adj., by crop.

Non-recourse loans. storable crops. 52-75% parity.

1938

Quotas -- duration of Sec. Ag. Penalty taxes for excess acreage.

(No discussion of how quotas allocated locally — local committees.)

Mandatory for S. Ag. to use price-support loans.

1942-

S. Ag. can veto price ceilings on farm products.
Steagall Amendment, requiring price support for 2 yrs. "following close of war." — to '48.

'48

Ag. Act. 90% Parity

Revised Mktg. Quotas on "basic crops":

Cotton

Corn

Wheat

Rice (new)

Tobacco

P-nuts (new)

(Hogs of '33 Act replaced by Rice + Peanuts.
Hogs are the poor man's crop.)

'48 saw a big shift in emphasis. Supply control was out; price support became prime emphasis. Big farmers riding high.

1948

Modernized Parity Formula.

$$\frac{\text{ave 1938-48 price of corn}}{\text{ave all farm prices 1938-48} \times 100} \times 100 = \text{adj. base price of corn}$$

.. .. 1910-14

$$\frac{\text{adj. base price} \times \text{prices-pd. index}}{100} = \text{parity price.}$$

E.g.

a = ave price corn, 1938-47

b = " all farm prices, 38-47

c = " " " " 1910-14

d = $100 \times b/c$ = general farm price index, e.g. 269

e = prices-pd. index, e.g. 420 (a.k.a. parity index)

~~$$f = \frac{a}{b} \cdot 100 = \text{adj. base price corn}$$~~

$$f = \frac{a}{d} \cdot 100 = \text{adj. base price corn}$$

$$g = f \times \frac{e}{100} = \text{parity price, modernized.}$$

Old parity wd. be 1910-14 price of corn $\times$ e.
 Note lack of way to cf. old vs. modern parity —
 we lack 1910-14 corn price.

Result is to change around relative prices of farm products, favoring those that were higher in last 10 years.

1948 Farm wages added to parity index of prices-pd., for the first time.

1949 Higher price supports. 90% parity.

1954 Enormous surplus ^{had} accumulated.

1954 Flexible supports, 75-90. 7% by sequential lowering.

54 PL 480, "dispersion"

56 Soil Bank. 2 parts

(a.) Average Reserve, '56-'58

If you had basic crop allotment, put part in reserve.

If you were in the 'commercial corn area,' only.
(Result: dispersion.) (Retire good land, bring in bad.)

(b.) Conservation Reserve. Sign contract, get money, min. of 3 yrs., max. 15, if plant trees.
(Note how like Wilson-Celt.)

Whole-farm approach tried, to retire hdqrs., too. Threatened farm tradesmen, they objected.

'59-60. Surpluses & dumping reach record levels.
 1961-65 Worked down wheat stocks. Not clear why.

1965 "Food & Ag. Act."
 "Began system of support prnts. to voluntary participants, coupled w. freedom not to participate.
 E.g. wheat:

Price, \$1.50

Govt. .75 -- to participants, w. certificates.
 2.25 return to farm, ~~of~~ ~~part~~

'66 Cong. refuses to vote funds for cropland retreat.
 '60-'70 Diversion becomes most successful tool.

1970 Direct prnts to coop. participants (from '65 act)
 rose to \$3.76

Many indiv. farms got > \$1m. Public began
 to notice the sham + fraud of it all.
 (Boswell, etc.)

1966 Pest problems hit cotton, yields drop, enormously.
 (Learn more about this! Result of subbing
 something for labor?)
 This solved the ch. surplus problem.

1970

Remove restrictions on use of land.

Major emphasis on "setting aside" cropland.

a general cropland retirement program.

Ceiling per crop: \$55,000 per indiv.

1972

Result: puts to farms set a new record.

1961-74,

38-65 m.a. cropland set aside

Out of 300 m.a. cropland, or from 13% - 22%

Populist & Progressive attitude toward immigration.

U.S., by acting as a safety valve for despotic countries, slowed down social justice & land distribution there.

That was aimed at Eur. Today aim at Mexico.
We are not doing them a favor; we are simply helping an exploitive ruling oligarchy.