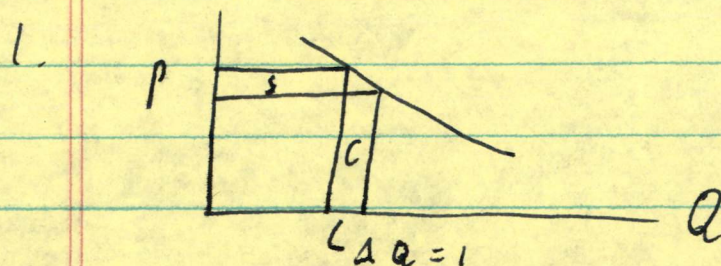


Cost Analysis

Demand

Which is indep. vble? Either can be.

2. $MR = C - S$

$$C = P \cdot \Delta Q = P$$

$$S = Q \cdot \Delta P$$

$$\text{But } E = \frac{\Delta Q \cdot P}{\Delta P \cdot Q}$$

$$\text{So } \cancel{\Delta Q} \cancel{\Delta P} \cdot Q = \frac{\Delta Q \cdot P}{E} = \frac{P}{E} \quad (\Delta Q = 1)$$

$$\text{So } C - S = P - \frac{P}{E} \equiv MR$$

3. E Description MR

∞ Inf.: flat P

> 1 Elastic > 0

$= 1$ Unitary 0

< 1 Inelastic < 0

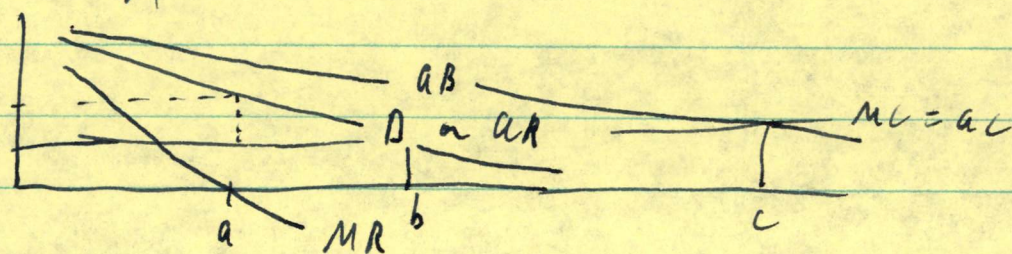
4. Related to E of prodn., but variables put together differently.

Reconciling is tedious, will skip.

5. Changes of demand (p. 2A)

6. Use of E

a. Simple mnp.



a. Max mnp gain

Show mnp ~~profit~~ gain

b. Max social gain. Show C.S.

c. Missn. of all gains

b. Price discrim. Tap C.S. To p. 3

5. Changes in demand.

a. Endogenous

Caused by seller, by ΔP

Move along curve.

"Demand" means Q

b. Exog.

Caused by other forces.

Inc. E

Wealth E

Gross E

Learning curves

Curve shifts.

These require forecasting, interpreting the world.

c. Mixed

Seller causes by non-price changes: nature of product, advertising, sales effort.

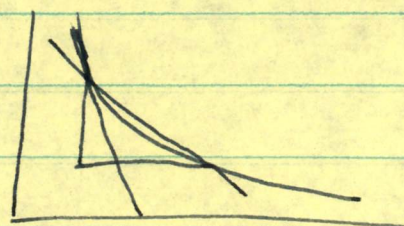
d. "Directional"

Going up ~~very~~ diff then coming down, may follow diff curve.

e. Arc- E

Big changes.

Is a compounding effect, like comp. int.



RTN to p. 2

Ec. 162A

~~Thurs. 12/9/82~~ Wed., Oct 881. Price Discrim., methodsa. ~~Sell~~ Discounts, special classes of buyers (or sellers)

- Coupon clippers

- Regular customers

- Friends; people who speak your language.

- Clergy; children; golden agers; handicapped

- Food stamps; "dumping" vises.

b. Branding. Same product, different names

c. Location. Same product, worse location.

Theatre seats. Play or desire for status, prestige.

d. "Sales"

e. Service differentials, e.g. self-serve gas

f. Tipping

g. Quantity discounts

h. Special extra service for some, same price

i. Haggling

j. Fees based on value of estate; on patient's income; etc.

all these are subtle, ambiguous, arguable.
 Sly, cunning.

2. Nat. unities have carried this farthest

a. Frt. rates, based on value of service
Or based on degree of parallel compen.
(Serious ec. distortions result. Primary
products subsidized.)

Postal rates.

Airline ~~rate~~ fares

b. X-subsidy

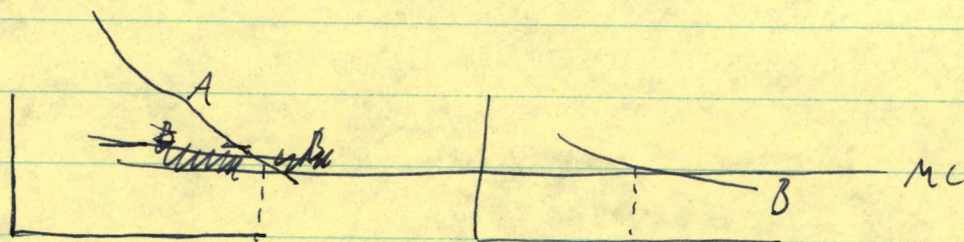
Rich Territory carries lean. "Postage-stamp pricing."
Old Territory "new dev. drawn by paying int.
Trunk lines carry spurs. B.C.

(Enormous locational biases result)

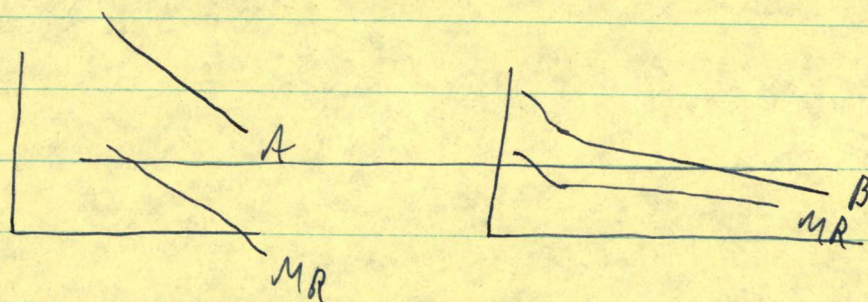
c. Declining block rates

Extreme case: flat rate. (Standby charge;
hook-up charge
This gets right to the individ. demand
curve.

3. ~~Response~~ Dividing Mkts. + equating MR



a) ↑ In open mkt., divide supply so $P_A = P_B$ at MC



b) ↑ In controlled mkt., equate $MR_A = MR_B$ at MC

c) Some cartels cannot control supply, i.e. they have a fixed Q to mkt.

They ~~are~~ then ignore MC, allocate among mkts. to equate MR. If $MR < 0$, will quickly destroy.

d) They also "divert" or "dump" to the elastic mkt.

4. Responses to discrim.

Consumers try to get in favored class.

a. "Gray mkt." in cameras.

U.S. consumer is everyone's favorite patsy.

"Arbitrage" is the gain from shifting from A to B.

b. Hi-valued freight abandons rails, goes to trucks.

c. People move to suburbs.

Major cause of higher postal rates, e.g.

d. Cartels - keep expanding. Misdirected invt. is final result.

Most of these responses distort the ec. seriously.
Cause waste & suffering. A country is better
off to discourage discrim. Meantime, we must
all live w. it.

5. Discrim. by buyers. Same patterns.

a. Nat. gas reg.

b. Labor mkt.

Cost analysis.

Mgrl.

Demand.

- ✓ 1. Utilit. Lead times importance of forecasting demand.

Case: Periph. Canal.

APCO & pumped storage at Bummley Gap, Va.
Wash. Pub. Pwr. & 5 units.

Low state of the art.

- Projecting.

- Rigging demand projections. A PCO

got caught doing this re Bummley Gap.

✓ Brent Rommhal, an energy forecaster, Am. El. Pwr. Co. sware
he was pressured to fake energy projections, & fired when he objected.

- ✓ 2. Price flex. as alt. to adding capacity.

- ✓ 3. Pump storage uses 1.42 kw to get back 1.00 kw.

4. Strip-mining - cheaper for owners, but big env. damage -- water poison. floods.

5. "People feel powerful when they begin to feel networked." - Maureen O'Connell, soc. M.

Fri, 11-¹⁵43-85-

1. $Q = \frac{\text{Input}}{\text{Output}} =$

$$AVC = \frac{\text{Vble. Input}}{\text{Proput}} = \frac{1}{Q P_x}$$

where x is variable input

$$ATC = \frac{VC + FC}{TP} = AVC + AFC$$

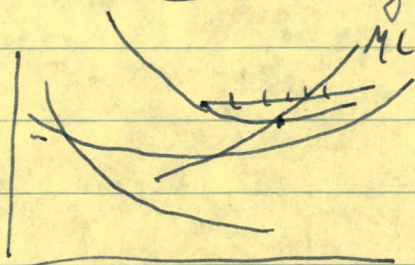
2. Purpose of inventing, and restating prodn. eqs?

a. Many people speak & think in this format.

b. Relate to demand, make commensurable.

c. Relate to efficiency.

3. "S.v." cost curves. (fixed plant is fixed physically - also its value may change.)



~~a. Move to~~

4. Components of cost

A.) FC.

Int.

Deprec. (time-deprec.), obsolescence

Rent.

Imputed rent most often ignored. Here is
where o.c. most relevant. Land always
has o.c.

Ford's 4,000 a.

Victoria, plywood

Kaiser steel

Disney, Burbank, land carried at 1/4+
current value.

Prop. taxes.

Implications for s.s. e.c.s.

Deduct appren.

Figuring deprec. Key it to asset.

Bldg.

Union rep.

Vehicle, blue book.

Front rows

Obsolescence

Techn.

Taste

Location

Energy cost
etc.

FC are only fixed wrt output. Otherwise change regularly.

Thus, we are constantly in process of shifting from ~~SR~~ SR to LR

E.g. as bldgs age, FC falls, VC rise.

Some labor is FC. Puts Japan firms under heavy pressure to produce. More social responsibility.

B.) VC

Movels.

Some labor -

Most taxes ... most anything that moves.

Working IS.

Be sure you take some out! Taxes IS to subst. for cap.

Int. on K is the cost. You may need more K to A labor, than more int. But can also turn faster.

5. Relevant cost concepts.

Not historical. Bygone. Accy. a poor guide,

Uncle Merrill's House

Always look forward. (v.e. mkt. behavior
strangely, a fact to note ... instns. + sentiment
also important.)

Some costs are price-det.

6. Move to min. ATC

Same as max. eff.

$$ATC = AFC + AVC = \frac{FC}{Q} + \frac{VC}{Q} = \frac{FC + VC}{Q}$$

$$\frac{1}{ATC} = \frac{Q}{VC + FC} = \text{ec. eff.}$$

Cf. partial efficiency.

Max Labor productivity.

" Energy "

Same as min. AVC

5.
7. How get to min. ATC

Compete, ~~long~~

Inputs. (Write up value. Tender offer.)

Friction

8. Inputting away - source of half the confusion
in ccs. Rent.

9. LAC

"Envelope" curves

Growing demand

How to price

When to jump

Wed, Nov. 18 '81

A. Pricing costs.

1. $P = MC$

2. Price disc.

Taxes

Standby charges

3. Price flexibility

4. Risk imptance of vble costs
Components w. Δg + - Δg costs.

5. AC pricing.

a. If costs are $-\Delta g$

b. " " " Δg

c. Historical AC

6. The imperative to redistrib. surpluses