5. ECONOMIC COORDINATION.

- Shortage creates need for central planning.

Supply = 19.
Demand= 30 10 10 10

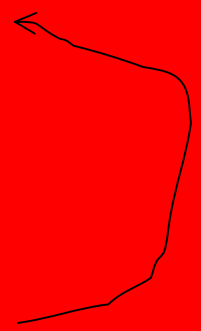
9.5 9.5 0

0 10 9

9 0 10

10 9 0

0 10 9

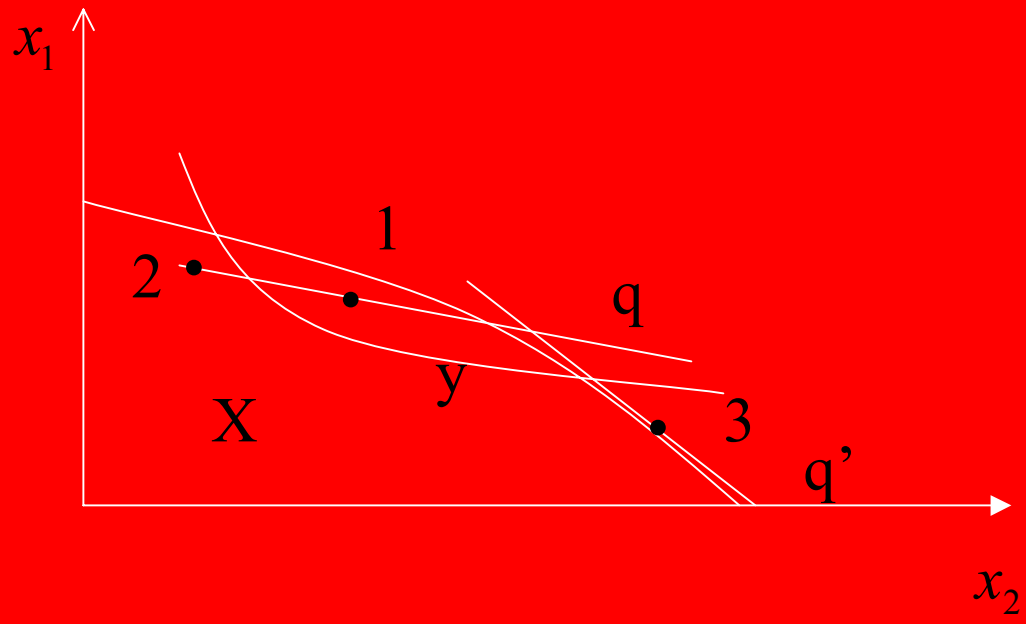


Cycling! Importance of power and centralized discretion.
=> Implodes if power collapses.

How was coordination achieved despite inconsistent plans and absence of markets?

1) Planning from the achieved level.
   Take last year's output as basis for this year's plan.

2) Aggregation.



X: production possibility set (disaggregated).
y: efficient consumption curve downstream.
q: aggregate plan
1 is disaggregated equilibrium, 2 will create shortages (disagg.dis.)
1 can be found at lower level. However, q' either feasible on production or demand side, not on both!=> Disagg. eq. Infeasible.

3). Adjustment through shortage.
Investment cycle (Bauer, 1978). Increased investment => increased shortage of investment goods. => C crowded out.
⇒Investment is reduced to reduce shortages.
Tested econometrically (Grosfeld, 1987; Roland, 1987)

4) Sectoral shortage management.
Priority management of a few number of key products. Automatic priority to upstream branches in branch system (different with Kombinate).

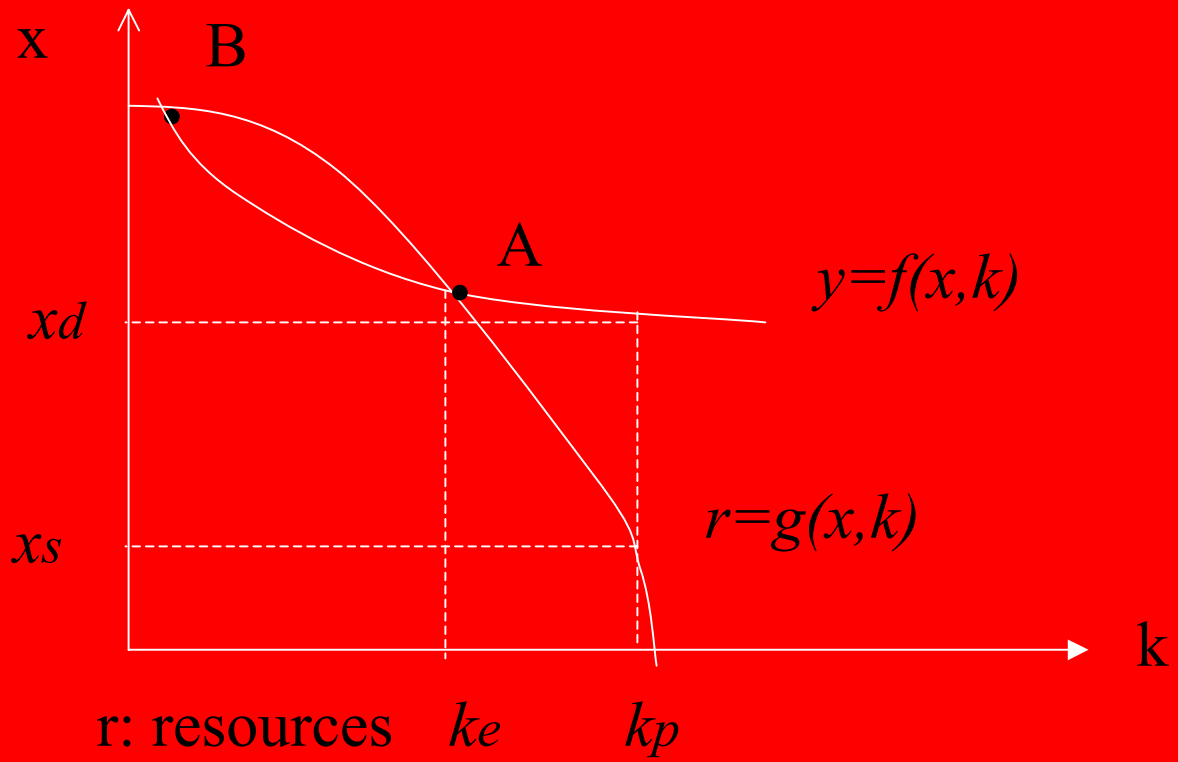
5) Ministries.

-Changes of plans of enterprises.

- input management with objective of maximizing ministerial output (with distorsions downstream). Branch system makes substitutions easier.

6. Quality management.

What are the effects of lower quality?



r: resources
x: quantity
k: quality

At A, lower k is equilibrating but not at B!

7. Parallel activities.

Understanding coordination => understanding the system, (how it reproduced, its properties) and understanding implications for transition.

Systemic properties:

- Chronic shortage (unavoidable because impossible to compute disaggregated plans, cumulative character of shortage and no instantaneous adjustment)
- Short temporal horizon of enterprises (plan revisions)
- Poor quality of products (incentives)
- Authoritarian structure of command (necessary for survival of system and finding equilibrium)
- Adaptation of technology to the data-processing capacities of the economy. Favors administrative boundaries of branch system (excess specialization and lack of interface)

Systemic crisis: increases needs and complexity as source.

Reforms within the system:

- increase in nomenclature of goods to improve incentives, reforms of measures, reforms of indicators, organizational reforms (sovnarkhoze)

-inconsistencies of partial reform within the system (*Gospriemka)* profit priority, autonomy to enterprises, cuts in ministries, introduction of democracy