

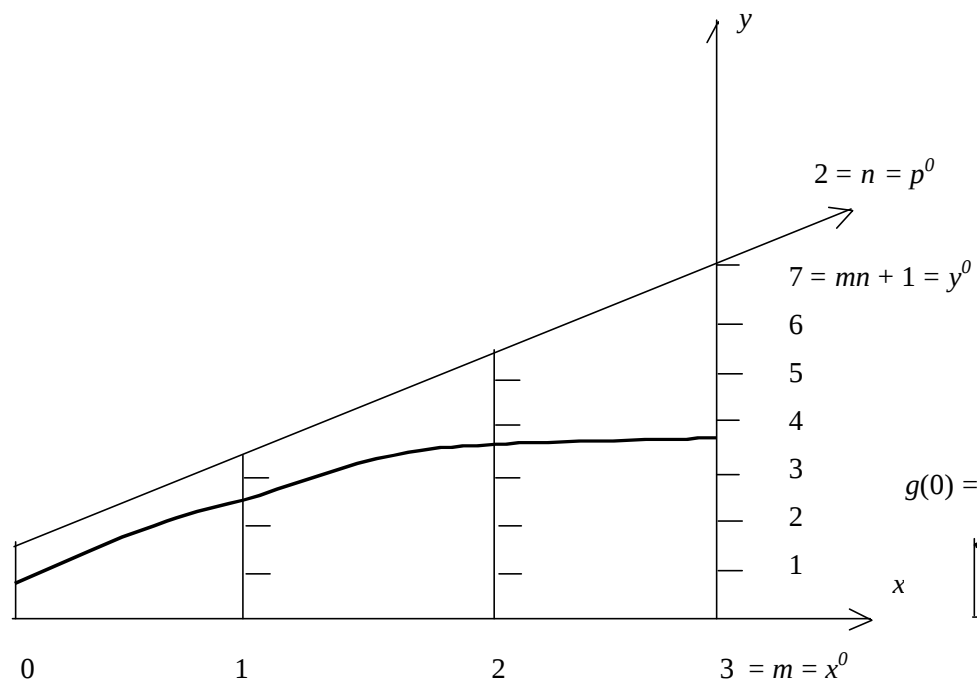


Figure I

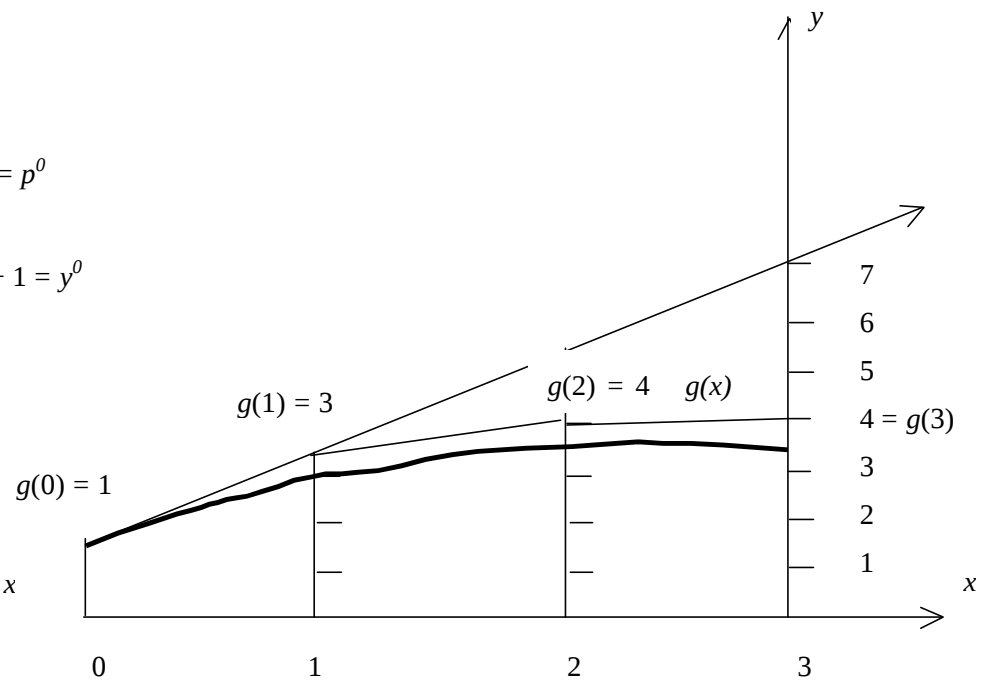


Figure II

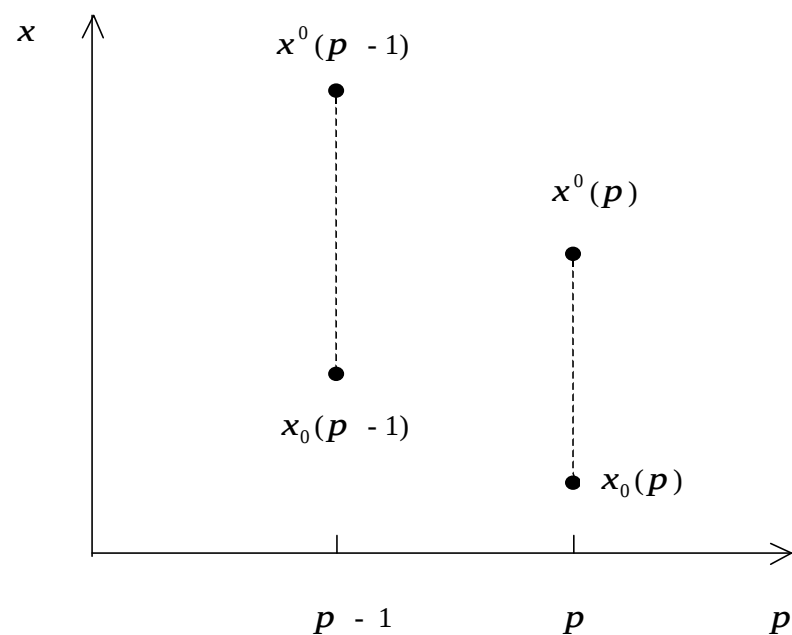


Figure III

m	Centralized system		Price mechanism
	lower bound:	upper bound:	upper bound:
	$2(m\log 4 + \log m)$	$2(m\log 27/4 + \log m)$	$6(\log m)^2/\log 2$
4	4.89 ^b	6.24 ^b	7.22
10	14	16.8	20
100	124	170	80
1,000	1,210	1,665	179
10,000	12,049	16,594	319

Table I^a

a. The base of logarithm is 10.

b. Figures are computed directly from (26) and (30).