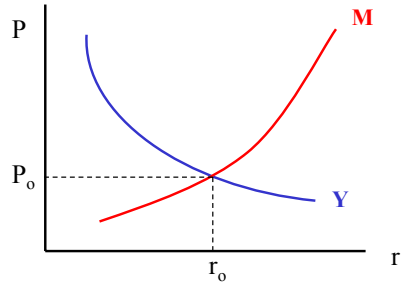
Equilibrium in Two Markets

Exercises

The Y and M Curves



A Problem

	P = 4	*P = 3*	*P=2*	*P=1*
r=20%	91	96	98	100
r=15%	96	98	100	102
r=10%	98	100	103	105
r=5%	100	104	106	111

A Problem

	P = 4	*P = 3*	*P=2*	*P=1*
r=20%	91	96	98	100
r=15%	96	98	100	102
r=10%	98	100	103	105
r=5%	100	104	106	111

$$Y = \sqrt{KL}$$

$$K = L = 100$$

A Problem

	P = 4	*P = 3*	*P=2*	*P=1*
r=20%	91	96	98	100
r=15%	96	98	100	102
r=10%	98	100	103	105
r=5%	100	104	106	111

$$Y = \sqrt{KL}$$

$$K = L = 100$$

$$Y = \sqrt{(100)(100)} = 100$$

A Problem

	P = 4	*P = 3*	*P=2*	*P=1*
r=20%	91	96	98	100
r=15%	96	98	100	102
r=10%	98	100	103	105
r=5%	100	104	106	111

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	25	30	35	40
r=15%	31	33	40	60
r=10%	40	41	50	80
r=5%	50	60	62	100

$M^S = 100$

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	25	30	35	40
r=15%	31	33	40	60
r=10%	40	41	50	80
r=5%	50	60	62	100

25 33 50 100

$M^S = 100$

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	25	30	35	40
r=15%	31	33	40	60
r=10%	40	41	50	80
r=5%	50	60	62	100

25 33 50 100

$M^S = 100$

A $2 Increase in C

	P = 4	P = 3	P=2	P=1
r=20%	91	96	98	100
r=15%	96	98	100	102
r=10%	98	100	103	105
r=5%	100	104	106	111

A $2 increase in C

	P = 4	P = 3	P=2	P=1
r=20%	93 ~~91~~	98 ~~96~~	100 ~~98~~	102 ~~100~~
r=15%	98 ~~96~~	100 ~~98~~	102 ~~100~~	104 ~~102~~
r=10%	100 ~~98~~	102 ~~100~~	105 ~~103~~	107 ~~105~~
r=5%	102 ~~100~~	106 ~~104~~	108 ~~106~~	113 ~~111~~

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	25	30	35	40
r=15%	31	33	40	60
r=10%	40	41	50	80
r=5%	50	60	62	100

$M^S = 100$

Santa adds $60 to people's stockings. Every real dollar increase in wealth adds $0.60 to real money demand.

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	25	30	35	40
r=15%	31	33	40	60
r=10%	40	41	50	80
r=5%	50	60	62	100

M^S = ~~100~~160

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	34~~25~~	30	35	40
r=15%	40~~31~~	33	40	60
r=10%	49~~40~~	41	50	80
r=5%	59~~50~~	60	62	100

M^S = ~~100~~160

If P = 4, Δz=60/4=15

ΔM^D =9

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	34~~25~~	42~~30~~	35	40
r=15%	40~~31~~	45~~33~~	40	60
r=10%	49~~40~~	53~~41~~	50	80
r=5%	59~~50~~	72~~60~~	62	100

M^S = ~~100~~160

If P = 3, Δz=60/3=20

ΔM^D =12

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	34~~25~~	42~~30~~	53~~35~~	40
r=15%	40~~31~~	45~~33~~	58~~40~~	60
r=10%	49~~40~~	53~~41~~	68~~50~~	80
r=5%	59~~50~~	72~~60~~	80~~62~~	100

M^S = ~~100~~160

If P = 2, Δz=60/2=30

ΔM^D =18

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	34~~25~~	42~~30~~	53~~35~~	76~~40~~
r=15%	40~~31~~	45~~33~~	58~~40~~	96~~60~~
r=10%	49~~40~~	53~~41~~	68~~50~~	116~~80~~
r=5%	59~~50~~	72~~60~~	80~~62~~	136~~100~~

M^S = ~~100~~160

If P = 1, Δz=60/1=60

ΔM^D =36

M^S = ~~100~~160

Another Problem

	P = 4	P = 3	P=2	P=1
r=20%	34~~25~~	42~~30~~	53~~35~~	76~~40~~
r=15%	40~~31~~	45~~33~~	58~~40~~	96~~60~~
r=10%	49~~40~~	53~~41~~	68~~50~~	116~~80~~
r=5%	59~~50~~	72~~60~~	80~~62~~	136~~100~~

~~25~~	~~33~~	~~50~~	~~100~~
40	53	80	160

M^S = ~~100~~ 160

Another Problem

	P = 4	*P = 3*	*P=2*	*P=1*
r=20%	34~~25~~	42~~30~~	53~~35~~	76~~40~~
r=15%	40~~31~~	45~~33~~	58~~40~~	96~~60~~
r=10%	49~~40~~	53~~41~~	68~~50~~	116~~80~~
r=5%	59~~50~~	72~~60~~	80~~62~~	136~~100~~

~~25~~ ~~33~~ ~~50~~ ~~100~~

40 53 80 160

Summary

- Y and M curves represent equilibrium in Goods Market (Y curve) and Money Market (M curve).
  - The intersection represents equilibrium in both markets
- Events such as increased confidence and Christmas presents can shift Y and M curves.
  - We analyze policies via the Curves.

End