

Macroeconomic Theory and Policy

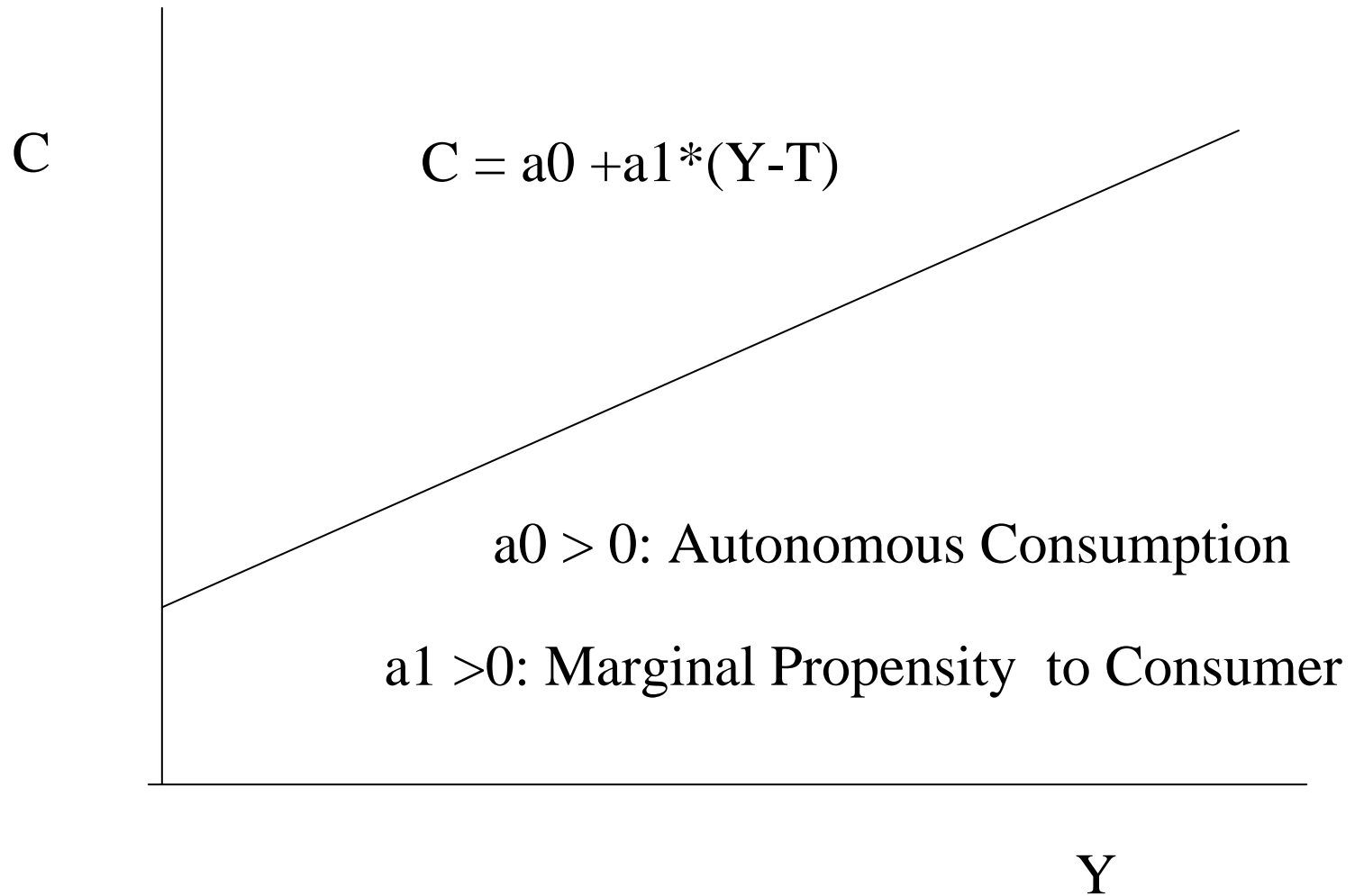
Lecture 3

Keynesian Theory of Aggregate Demand for the Short Run: Goods Market Equilibrium

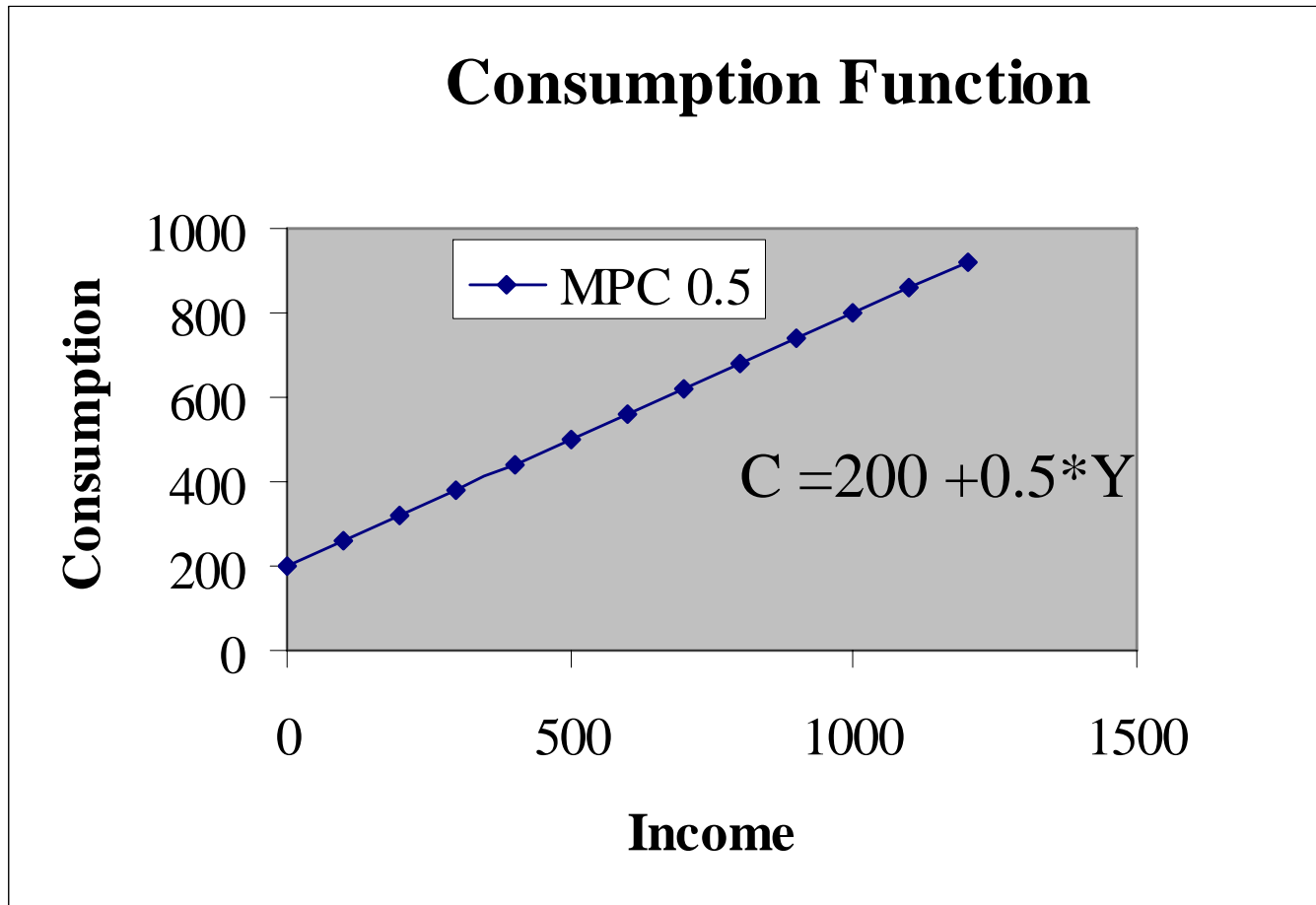
Keynesian theory of aggregate demand

- Components of aggregate demand:
 - Consumption
 - Investment
 - Government expenditure, (Revenue)
 - Exports, (imports, trade balance)
- Determination of national income
 - Keynesian cross,
 - Saving and investment identity
- Derivation of the IS curve
- Factors that shift this curve

Consumption Function

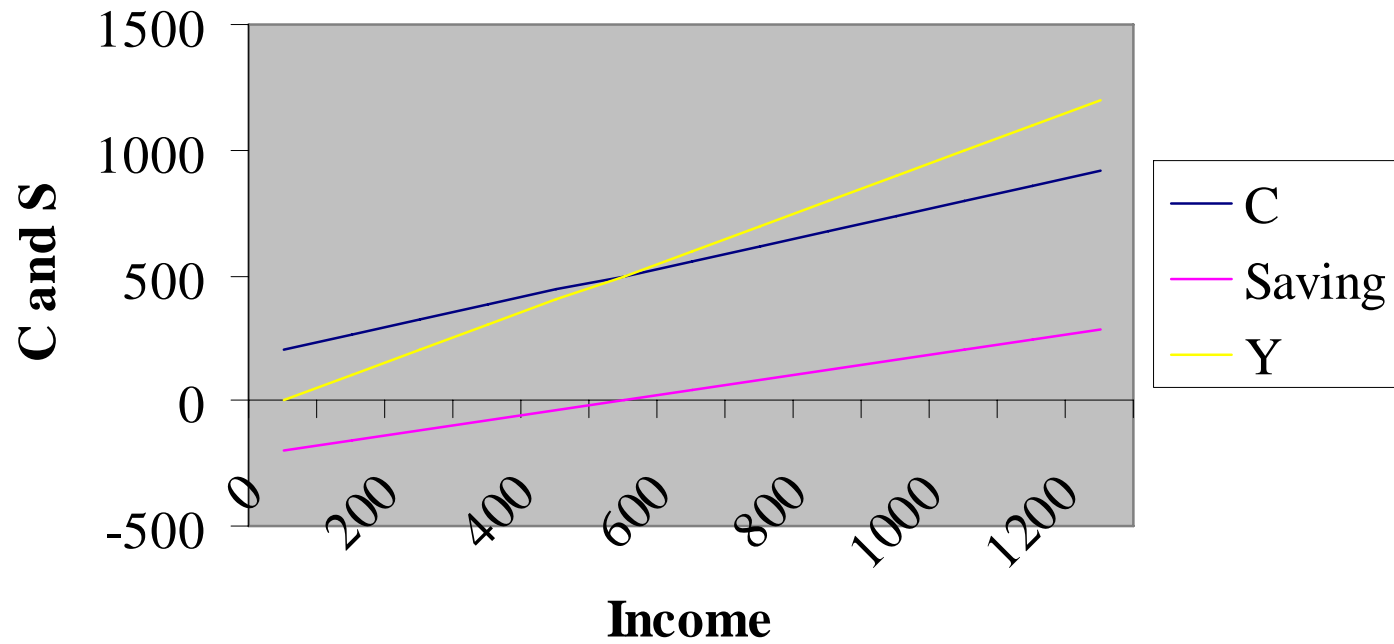


Numerical Example



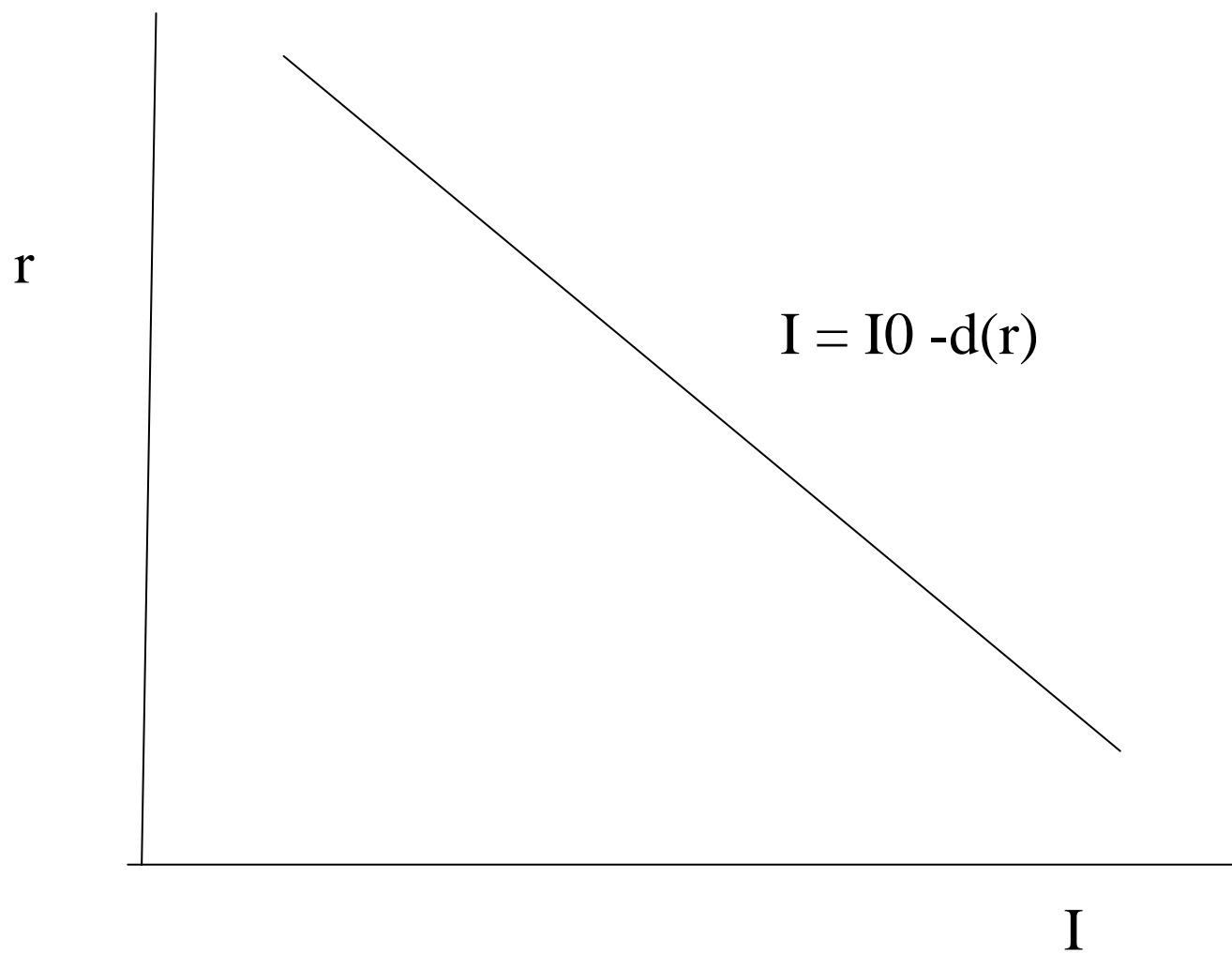
Y	C
0	200
100	260
200	320
300	380
400	440
500	500
600	560
700	620
800	680
900	740
1000	800
1100	860
1200	920

Consumption and Saving in the Keynesian Model (MPC = 0.6)

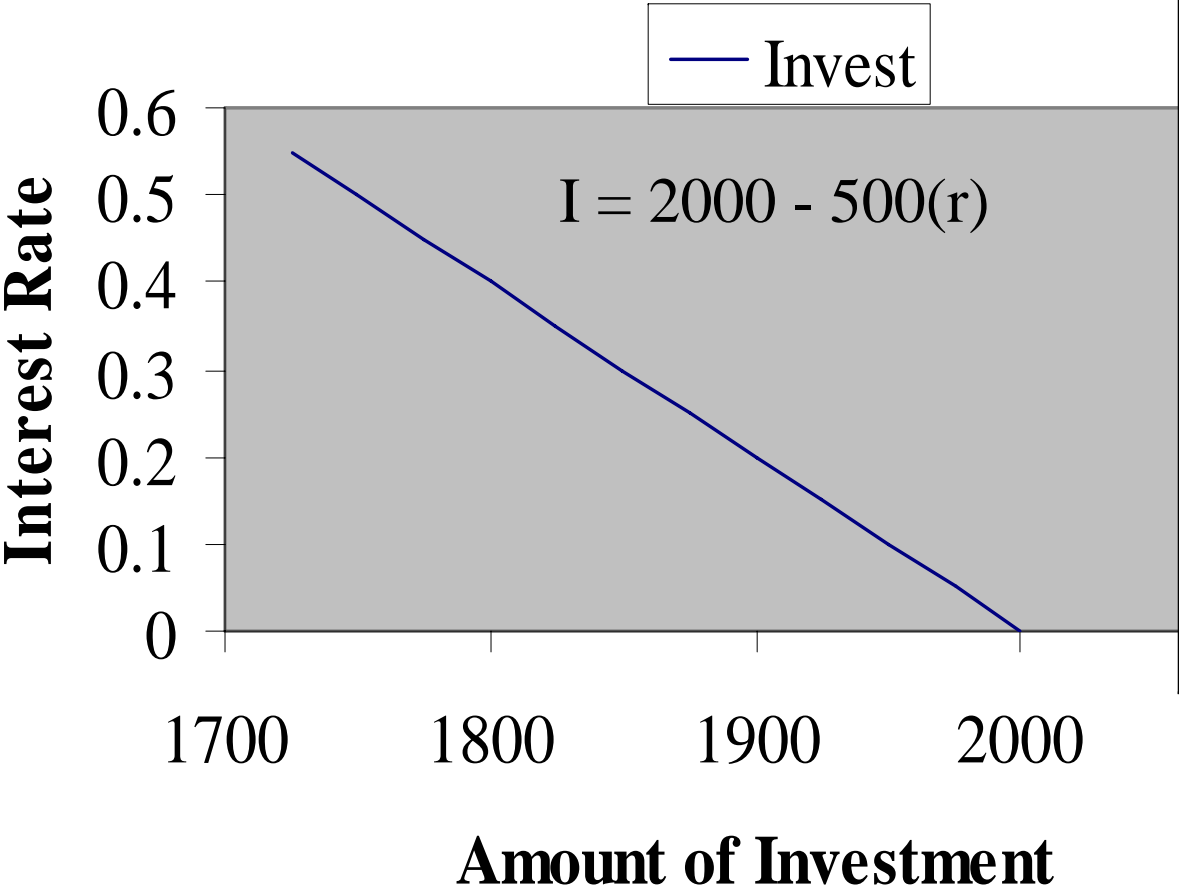


Y	Saving	C
0	-200	200
100	-160	260
200	-120	320
300	-80	380
400	-40	440
500	0	500
600	40	560
700	80	620
800	120	680
900	160	740
1000	200	800
1100	240	860
1200	280	920

Investment Function

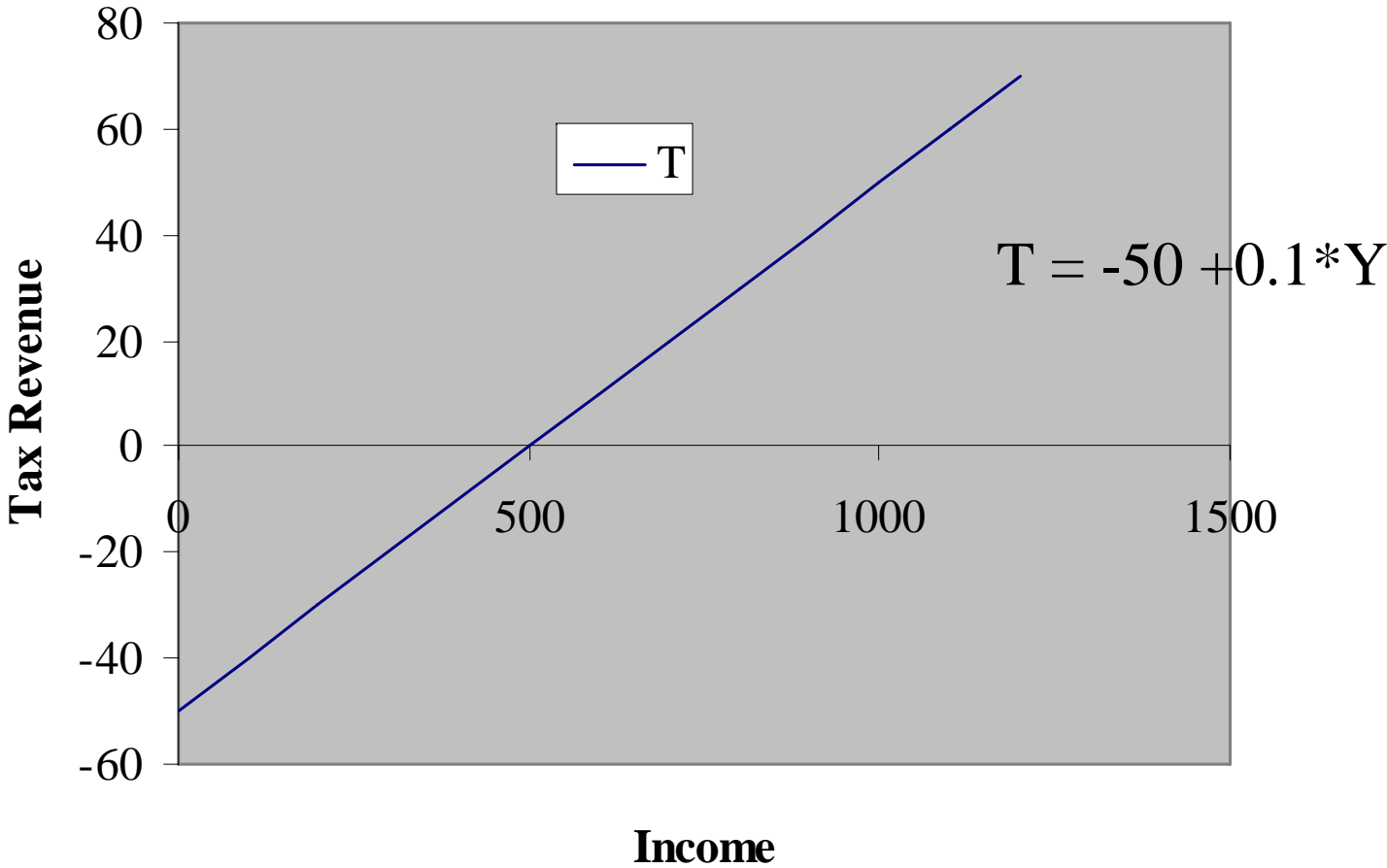


Investment Function

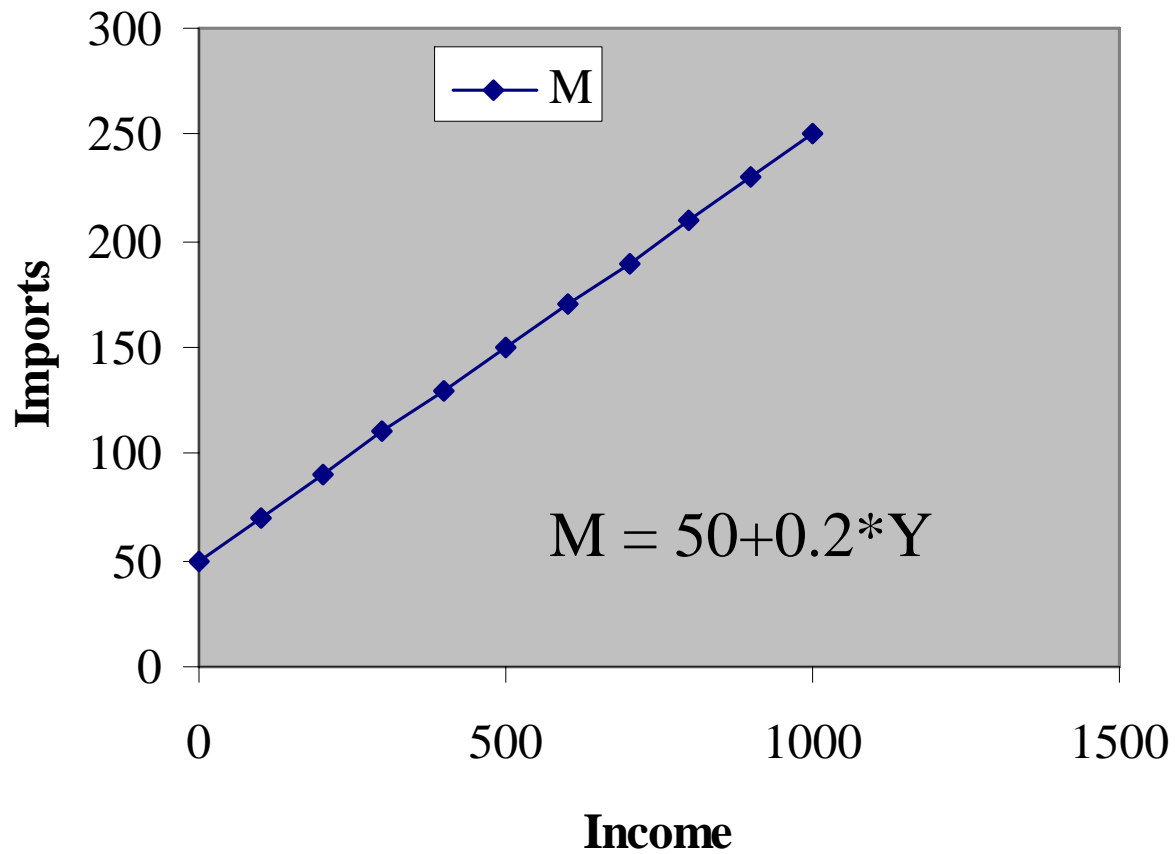


r	I1	Keyne sian	Mon etarie st
0	2000	2000	2000
0.05	1975	1995	1800
0.1	1950	1990	1600
0.15	1925	1985	1400
0.2	1900	1980	1200
0.25	1875	1975	1000
0.3	1850	1970	800
0.35	1825	1965	600
0.4	1800	1960	400
0.45	1775	1955	200
0.5	1750	1950	0
0.55	1725	1945	-200

Tax Revenue Function

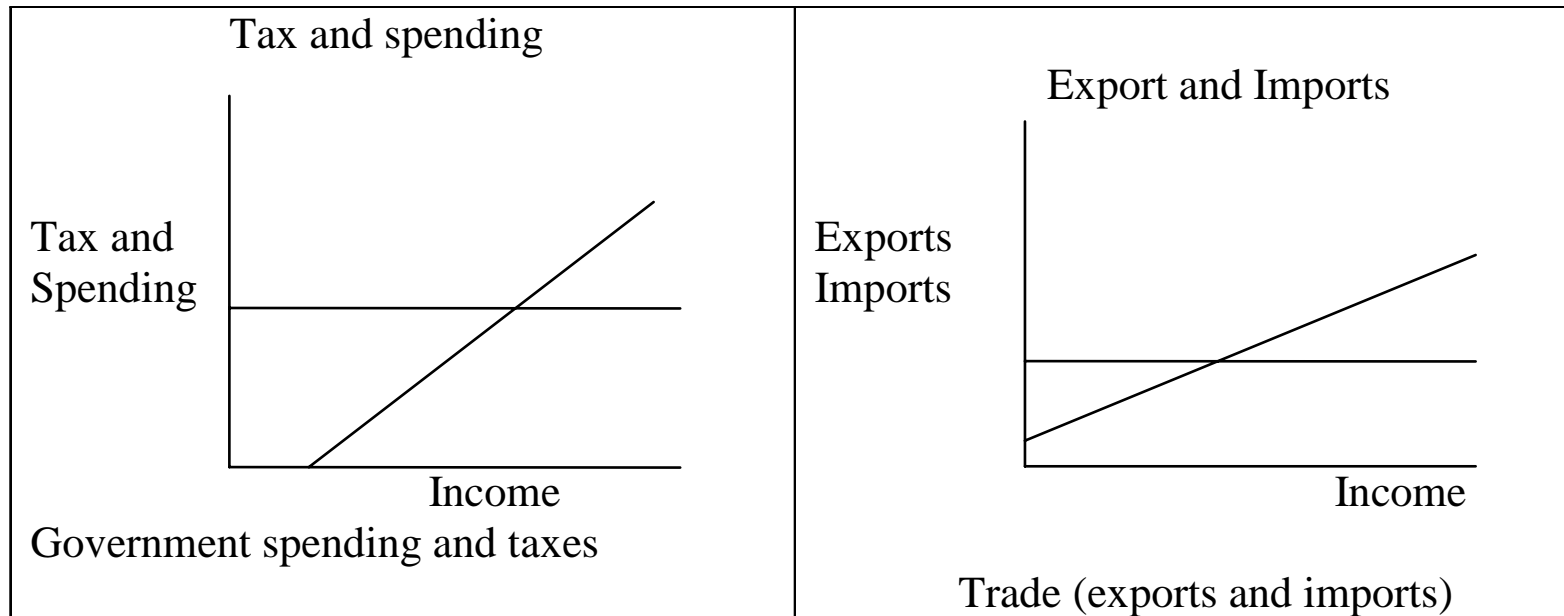


Imports Function

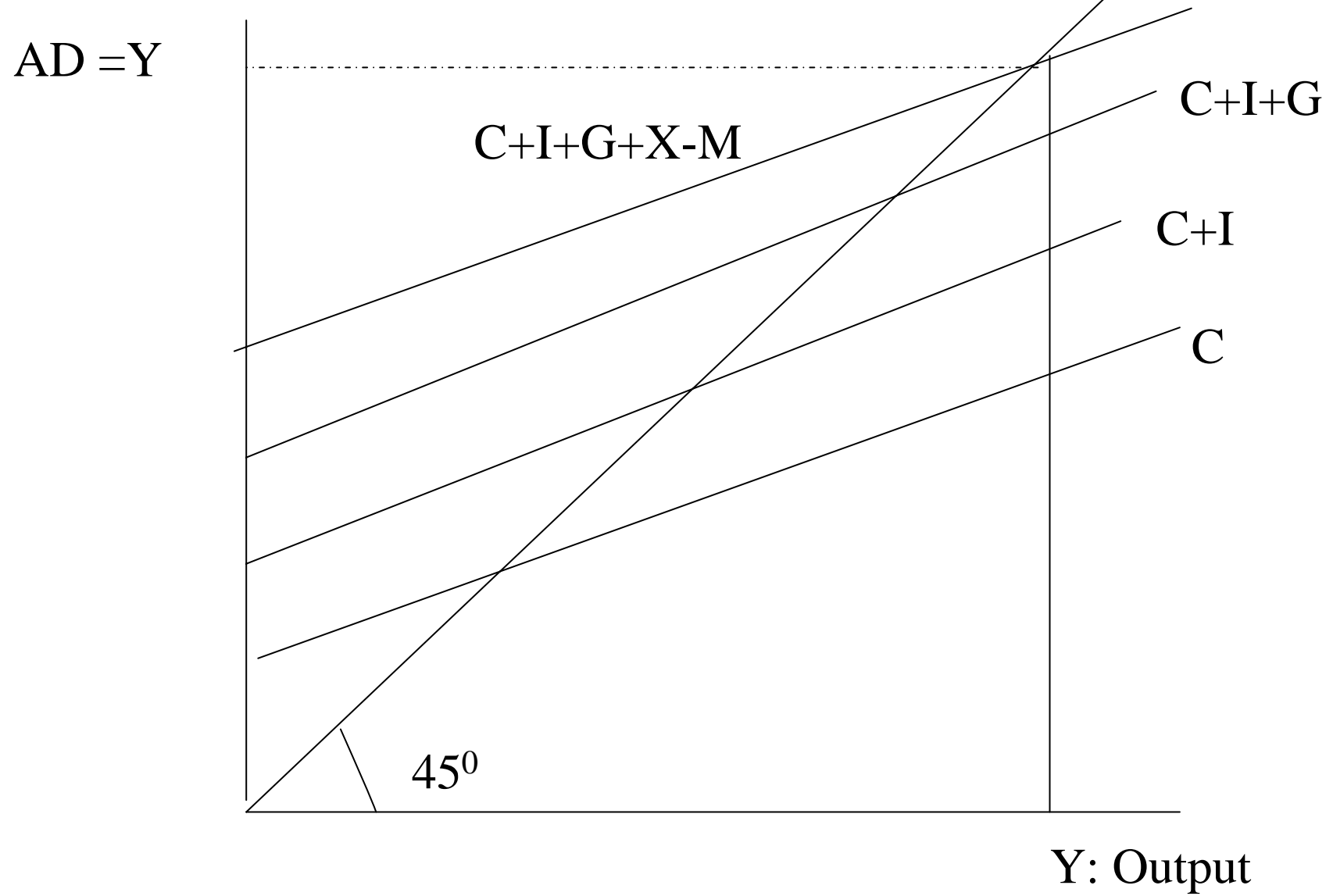


	Y	M
	0	50
	100	70
	200	90
	300	110
	400	130
	500	150
	600	170
	700	190
	800	210
	900	230
	1000	250

Tax and government spending and imports and exports



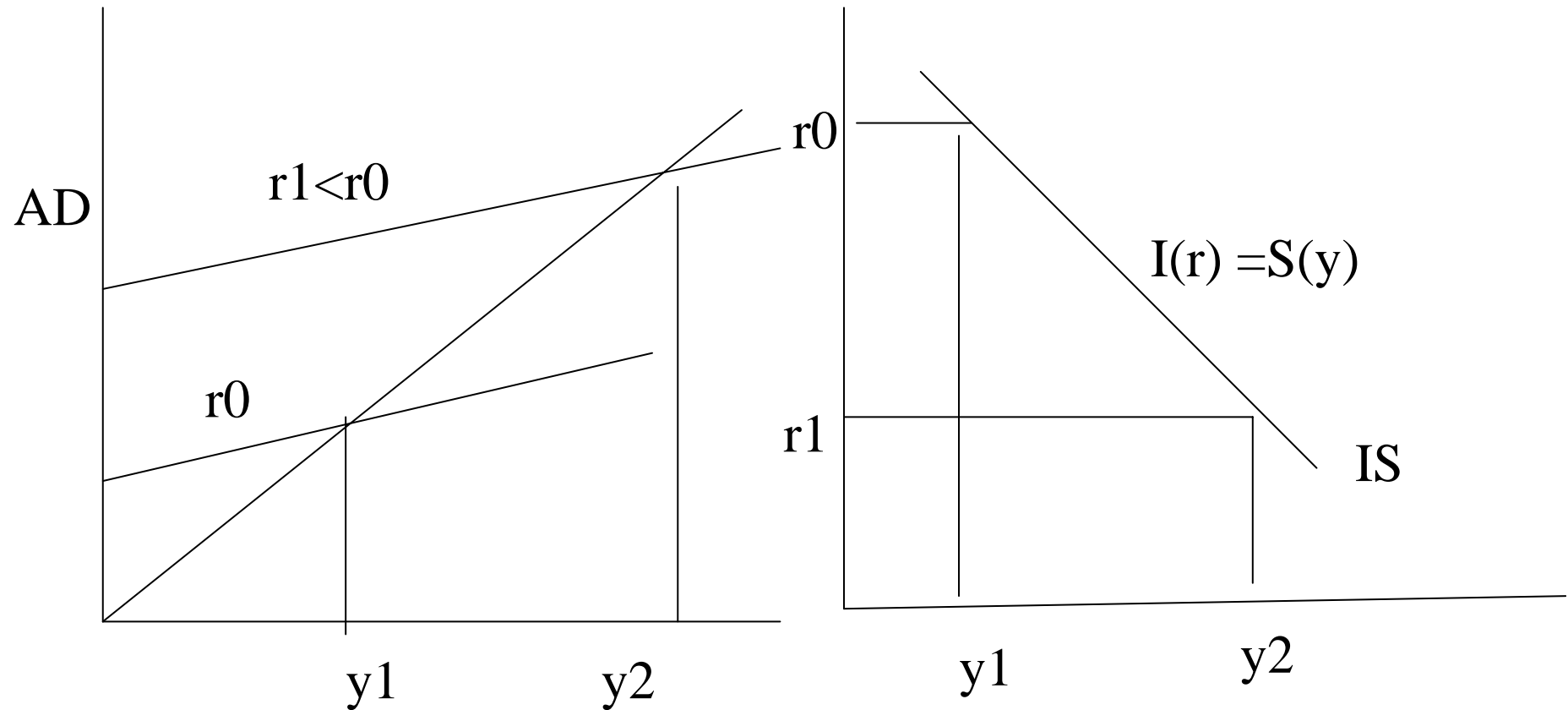
Equilibrium National Income In the Keynesian Model



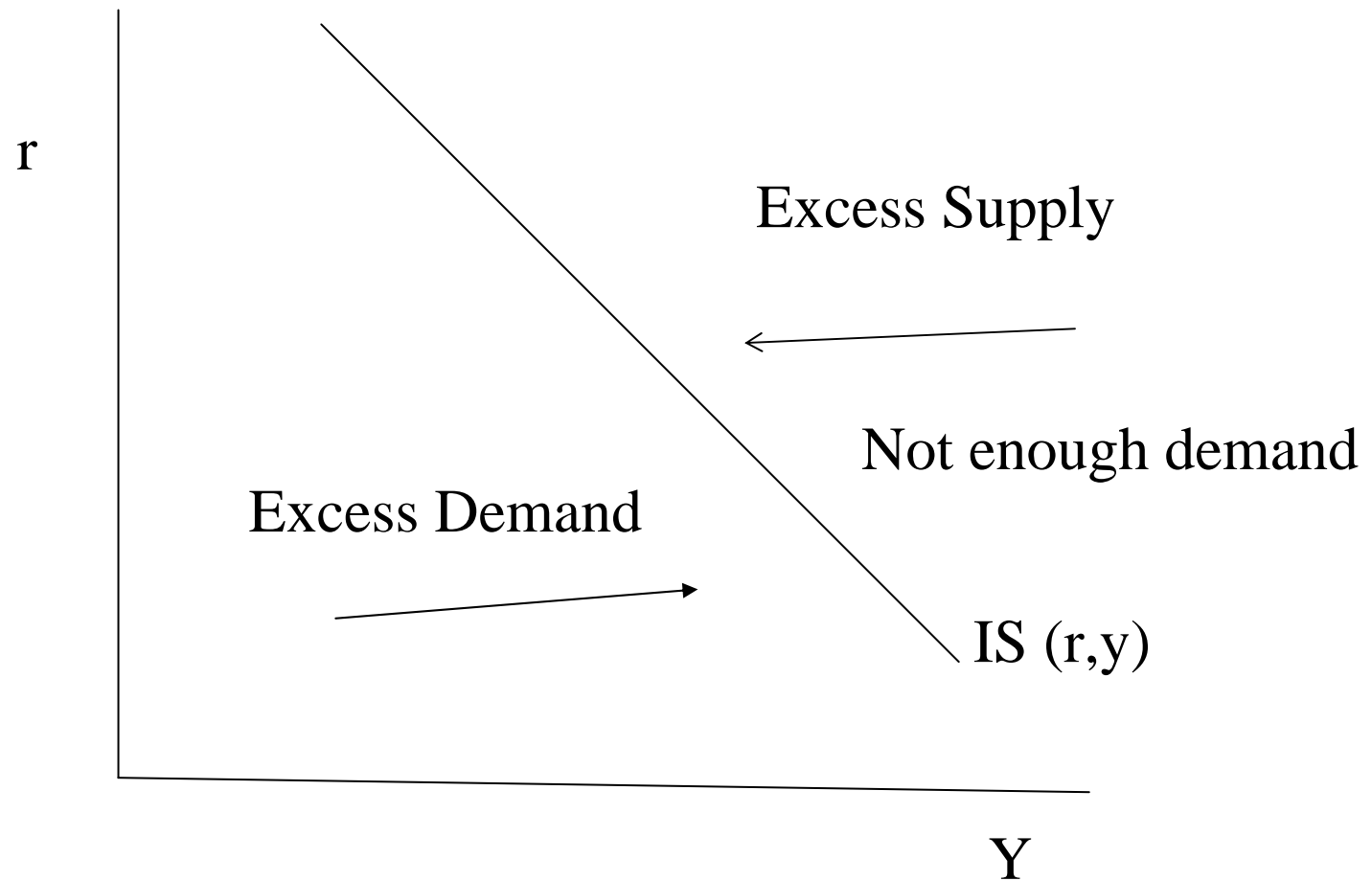
Goods Market Equilibrium in a Closed Economy

Saving = Investment

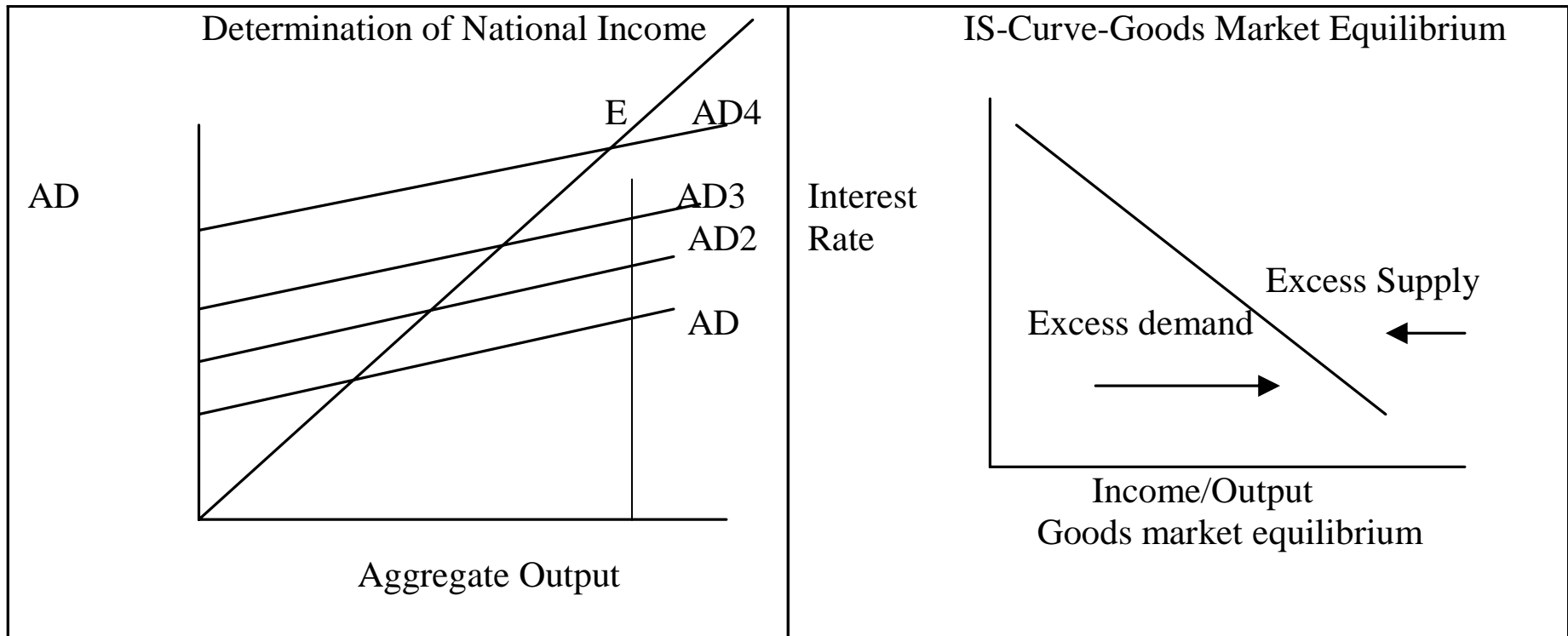
Derivation of the IS Curve in the Keynesian Model



Why the IS Curve Represents a Good Market Equilibrium?



Keynesian Model of National Income Determination: Review



A Simple Keynesian Model

MODEL

$$C = C_0 + a(Y - T)$$

$$I = b - dr$$

$$Z = mY$$

$$T=100 \quad G=100 \quad X=50$$

$$Y = C + I + G + X - Z$$

Numerical Example

$$C = 200 + 0.8(Y - 100)$$

$$I = 100 - 200(0.05)$$

$$Z = 0.2Y$$

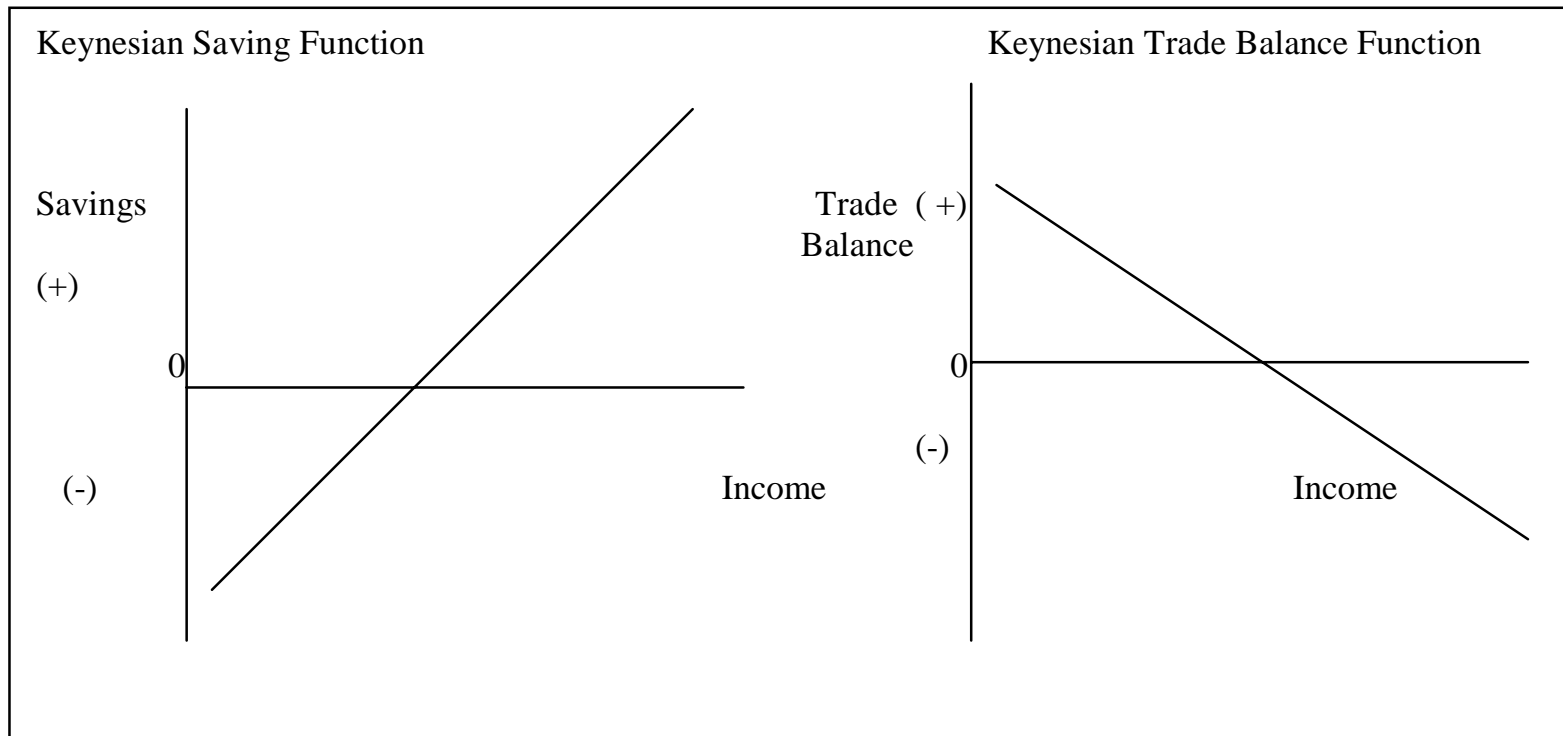
$$Y = \frac{C_0 - aT + b - dr + G + X}{1 - a + m}$$

$$Y = \frac{200 - 0.8 * 100 + 100 - 200 * 0.05 + 100 + 50}{1 - 0.8 + 0.2}$$

Model Solutions

- $Y = 900$
 - $C = 840$
 - $I = 90$
 - $T=G= 100; X=50$
 - $M = 180$
 - $X-M = -130$
 - $S=Y-T-C=-40$
 - $S-I=-40-90=-130$
- $$C = 200 + 0.8(Y - 100)$$
- $$I = 100 - 200(0.05)$$
- $$Z = 0.2Y$$

Keynesian Saving and Net Trade Balance Functions



What are the factor that shift the IS curve?

- Towards the right
 - 1 More G
 - 2 Less T
 - 3 Devaluation More X
 - 4 Less Z
 - 5 High MPC
 - 6 High MPM
 - 7 High I_0 , C_0
- Towards the left
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7

Illustration on How the Keynesian Model can be used for Policy Analysis

- Behavioural factors
- Increase in autonomous consumption spending
- Decrease in MPC
- Increase in MPM
- Autonomous taxes
- Policy induced factors
- Tax cut
- Increase in spending
- Depreciation of currency
- Increase in foreign income

References

- B&W 10,11, B1 4, MS 5 MK 11
- Hicks, J. R.(1937): Mr. Keynes and the "Classics"; A Suggested Interpretation, *Econometrica* 5: 1937.
- Keynes (1936) *The General Theory of Employment, Income and Interest Rate*, Cambridge University Press.