

Table 10.1: A Nested Sequence of Models: Money, Prices and Output

Note: M denotes imports, M^r the real money supply, and M_1 the nominal money supply.

Model	Endogenous	Exogenous	Comments
Model A: The Multiplier $C = c_0 + c_1 Y_d$ (Consumption Function) $Y_d = d_0 + d_1 Y$ (Disposable Income Function) $Y \equiv C + I + G + X - M$ (GDP identity)	C, Y_d , Y	G, I, X, M	$\partial Y / \partial G = \partial Y / \partial I = \partial Y / \partial X = 1 / (1 - c_1 d_1)$ $\partial Y / \partial M = -\partial Y / \partial G$ $\partial Y / \partial d_0 < c_1 \partial Y / \partial G$ (tax cut multiplier)
Model B: The IS Curve Above + $I(i)$, $\partial I / \partial i < 0$ (Investment function)	Above + I	Above - I + i = G, X, M, i	The rate of interest is a new policy variable.
Model C: The IS-LM Model Above + $M^r = L(i, Y)$ (Demand for money equation)	Above + i	Above - i = G, X, M, M_1^r	The interest rate is now endogenous. M_1^r , the (real) money supply, is a new exogenous variable.
Model D: Aggregate Demand Curve Above + $M^r = M_1 / p$	Above + M_1^r	Above - M^r + p, M_1 = G, X, M, M_1 , p	The central bank determines the nominal money supply (M_1) but not its real value (M_1^r).
Model E: Aggregate Demand & Supply (Short Run “Keynesian Case”) Above + $w^r = w^m / p = \partial Q(L_d, K) / \partial L$ (labor’s marginal product = real wage) $L_d(w^r, K)$ (labor demand; i.e. employment) $Y_s = Q(L_d, K)$ (aggregate supply)	Above + p, w^r , Y_s	Above - p + w^m , K = G, X, M, M_1 , w^m , K	Money wages are assumed to be rigid downward, which may prevent full employment. Assuming profit maximization yields labor demand, given production function $Q(L, K)$, the money wage and the capital stock.
Model F: Aggregate Demand & Supply (Long Run “Classical Case”) Above + $L_s(w^r)$ (supply of labor depends on real wage) $L_s(w^r) = L_d(w^r)$ (w^r adjusts to preserve full-employment) $Q(L_s(w^r), K)$ (Full employment output) $Q(L_s(w^r), K) = Y_d(G, M_1 / p)$ (Output always at capacity!)	Above + w^m , L_s , L_d	Above - w^m = M_1 , G, X, M, K	Because money wages are assumed to be flexible, real wages adjust to achieve full employment. Effective demand equals full employment output. Shifts in aggregate demand curve due to monetary and fiscal policy determine the price level but not the level of output or the real money supply.

Addendum: Dynamic complications include $i^r = i^n - \dot{p}$ and $dK/dt = I$.