

## Chapter 9 Appendix

### An Algebraic Version of the IS-LM/AD-AS Model

#### Supply Side (Labor and Production)

$$Y = A \left( f_1 N - \frac{1}{2} f_2 N^2 \right)$$

$$w = A (f_1 - f_2 N D)$$

$$NS = n_0 + n_w (1 - t) w$$

$$NS = ND$$

$$N = NS = ND$$

#### Goods Market

$$C^d = c_0 + c_Y (Y - T) - c_r r$$

$$T = t_0 + tY$$

$$I^d = i_0 - i_r r$$

$$Y = C^d + I^d + G$$

#### Money Market

$$\frac{M^d}{P} = l_0 + l_Y Y - l_r (r + \mathbf{p}^e)$$

$$M = M^d$$

#### Exogenous Variables

$t, t_0, G, M$

#### Endogenous Variables

$Y, N, NS, ND, w, T, C^d, I^d, r, P, M^d$

#### Parameters

All others