



**Figure 2.3**

**Phase diagram for the behavior of the saving rate (in the Cobb–Douglas case).** In the Cobb–Douglas case, the savings rate behaves monotonically. Panel *a* shows the phase diagram for  $\hat{c}/\hat{y}$  and  $\hat{k}$  when the parameters are such that  $(\delta + \rho + \theta x)/\theta > \alpha \cdot (x + n + \delta)$ . Since the stable arm is upward sloping, the consumption ratio increases as the economy grows toward the steady state. Hence, in this case, the saving rate (one minus the consumption rate) declines monotonically during the transition. Panel *b* considers the case in which  $(\delta + \rho + \theta x)/\theta < \alpha \cdot (x + n + \delta)$ . The stable arm is now downward sloping and, therefore, the saving rate increases monotonically during the transition. Panel *c* considers the case  $(\delta + \rho + \theta x)/\theta = \alpha \cdot (x + n + \delta)$ . The stable arm is now horizontal, which means that the saving rate is constant during the transition.