Consider the formula for the natural rate of unemployment,

\[ \frac{U}{L} = \frac{s}{s+f} \]

If the new law lowers the rate of separation \( s \), but has no effect on the rate of job finding \( f \), then the natural rate of unemployment falls.

For several reasons, however, the new law might tend to reduce \( f \). First, raising the cost of firing might make firms more careful about hiring workers, since firms have a harder time firing workers who turn out to be a poor match. Second, if searchers think that the new legislation will lead them to spend a longer period of time on a particular job, then they might weigh more carefully whether or not to take that job. If the reduction in \( f \) is large enough, then the new policy may even increase the natural rate of unemployment.

Chapter 7 #6

6. a. The labor demand curve is given by the marginal product of labor schedule faced by firms. If a country experiences a reduction in productivity, then the labor demand curve shifts downward as shown below. If labor becomes less productive, then at any given real wage, firms demand less labor.

b. If the labor market is always in equilibrium, then, assuming a fixed labor supply,
an adverse productivity shock causes a decrease in the real wage but has no effect on employment or unemployment, as shown below.

If unions constrain real wages to remain unaltered, then as illustrated below, employment falls to $L_1$ and unemployment equals $L - L_1$.

This example shows that the effect of a productivity shock on an economy depends on the role of unions and the response of collective bargaining to such a change.
Chapter 7 #9

The vacant office space problem is similar to the unemployment problem; we can apply the same concepts we used in analyzing unemployment labor to analyze why vacant office space exists. There is a rate of office separation: firms that occupy offices leave, either to move to different offices or because they go out of business. There is a rate of office finding: firms that need office space (either to start up or expand) find empty offices. It takes time to match firms with available space. Different types of firms require spaces with different attributes depending on what their specific needs are. Also, because demand for different goods fluctuates, there are “sectoral shifts” — changes in the composition of demand among industries and regions — that affect the profitability and office needs of different firms.