**Abstract:** The sectoral co-movement of output and hours worked is a prominent feature of business cycle data. However, most two-sector neoclassical models fail to generate this sectoral co-movement. We construct and estimate a realistic two-sector neoclassical DSGE model that generates the sectoral co-movement in response to both anticipated and unanticipated shocks. The key to our model's success is a significant degree of intersectoral labor immobility, which we estimate using data on sectoral hours worked. Furthermore, we demonstrate that imperfect inter-sectoral labor mobility provides a better explanation for the sectoral co-movement than some alternative model emphasizing the role of labor-supply wealth effects. Finally, we find that news shocks make a sizable contribution to accounting for the business-cycle fluctuations in the context of our two-sector DSGE model.