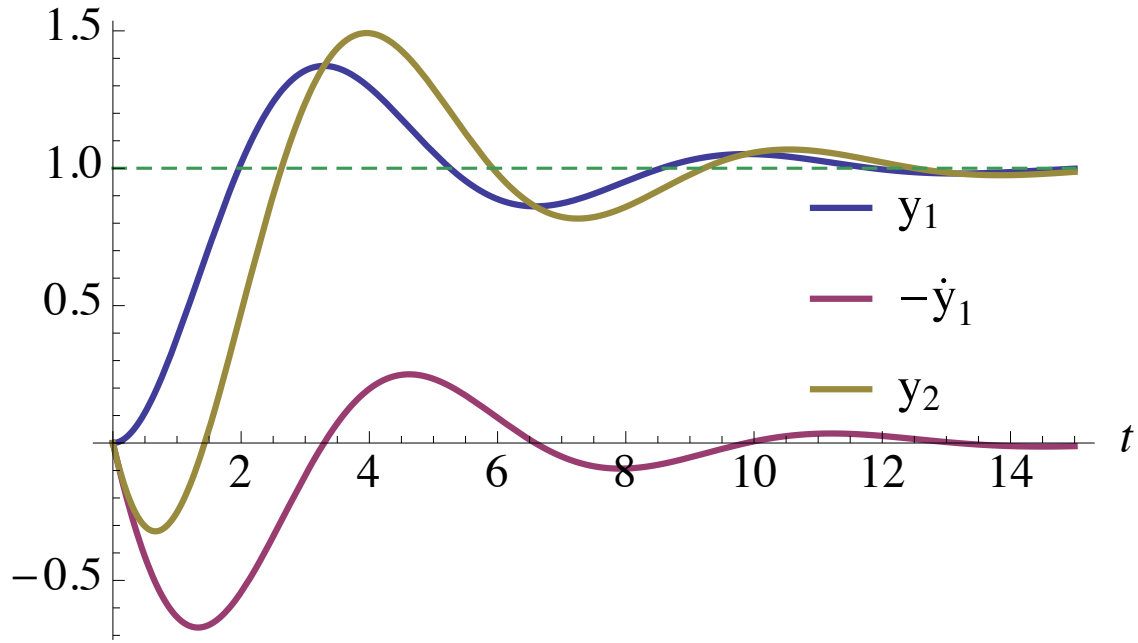
What About a RHP Zero?

$$H_1(s) = \frac{1}{s^2 + 2\zeta s + 1} \xrightarrow{\text{add zero at } s = a} H_2(s) = H_1(s) - \frac{1}{a} \cdot sH_1(s)$$

$$y_2(t) = y_1(t) - \frac{1}{a} \cdot \dot{y}_1(t)$$



Effects of a RHP zero:

- slows down (delays) the response
- creates *undershoot* (at least, when a is small enough)