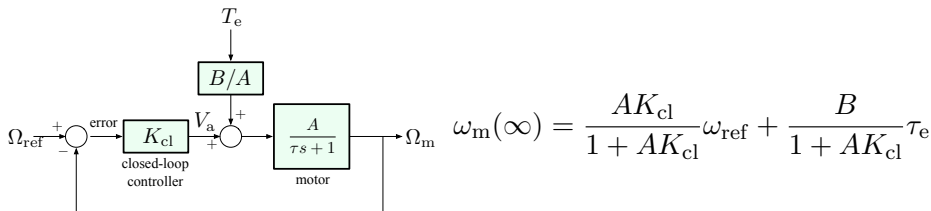


# Disturbance Rejection: Feedback Control

Steady-state speed for constant reference and disturbance:



## Conclusions:

- ▶  $\frac{AK_{cl}}{1 + AK_{cl}} \neq 1$ , but can be brought arbitrarily close to 1 when  $K_{cl} \rightarrow \infty$ . Thus, steady-state tracking is good with high gain, but never quite as good as in open-loop case.
- ▶  $\frac{B}{1 + AK_{cl}}$  is small (arbitrarily close to 0) for large  $K_{cl}$ . Thus, *much* better disturbance rejection than with open-loop control.