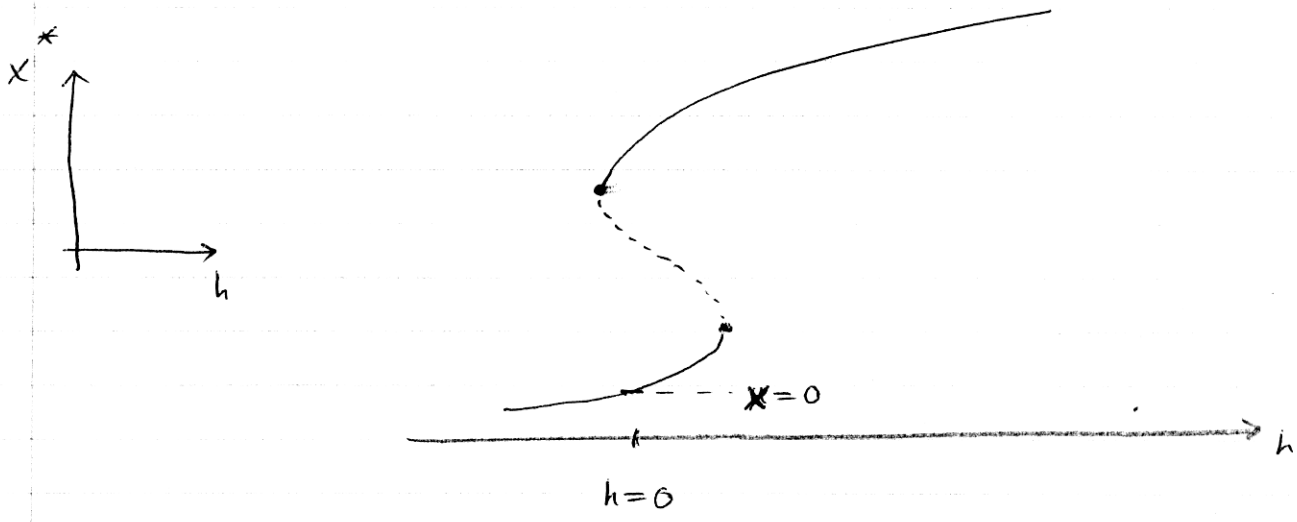
$h > 0$ and h small.

Three critical points: $0 < x_1^*$ STABLE

x_2^* UNSTABLE

x_3^* STABLE.

Note that $x = 0$ is not a critical point if $h > 0$.



Bifurcation picture looks like this. For h very negative, have just one critical point (stable); as h increases, a saddle-node bifurcation occurs, producing a stable / unstable pair. As h increases past 0, the unstable critical points approaches the stable one, and they meet in a second saddle-node bifurcation. After that there is just one stable