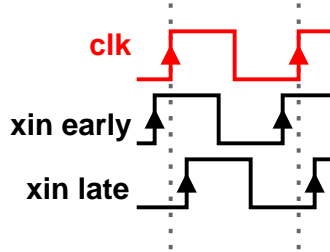
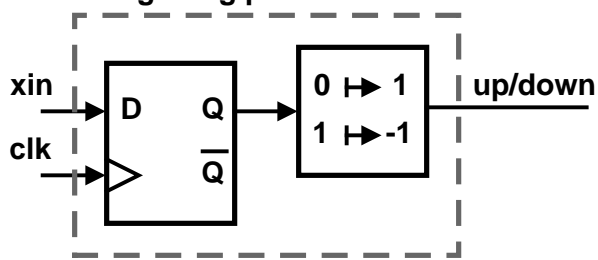


Bang-bang phase detector



Q	up/down
1	-1
0	1