

Abstract

This thesis focuses on impact of jumps and simultaneous jumps (co-jumps) in asset prices on future volatility. Our main contribution to the empirical literature lies in the use of panel Heterogeneous Autoregressive (HAR) model that allows us to obtain average effect of jumps for both the portfolio of 29 U.S. stocks and 8 individual market sectors our stocks belong to. On top of that we investigate the effect of sign for both jumps and co-jumps. The estimation results indicate that the impact of jumps on future volatility is positive whereas for co-jumps it is negative. We also document tendency of downward jumps and co-jumps to be followed by increase in volatility and that upward jumps and co-jumps are followed by decrease in volatility. Finally, results for individual sectors reveal that estimated effects vary across industries - for cyclical sectors volatility is in general more sensitive to negative jumps and less sensitive to positive jumps than for defensive sectors.