This thesis consists of three chapters concerned with applied econometric modeling of Central European (CE) financial markets. The first chapter ("The Distribution and Dynamics of Central European Exchange Rates: Evidence from Intraday Data") lays out a solid empirical framework for accurate modeling and forecasting of Central European exchange rates using intraday data. In sharp contrast to the parametric methodology generally encountered in the empirical literature, the analysis present in this chapter relies on flexible and computationally simple non-parametric approach. The second chapter ("Volatility Transmission in Central European Foreign Exchange Markets") adopts the same non-parametric framework to study the volatility transmission among the CE exchange rates and the U.S. dollar. In particular, this chapter provides a thorough analysis of the extent to which shocks to foreign exchange volatility in one forex market transmit to current and future volatility in the other forex markets under study as well as of the dynamic evolution of the corresponding volatility spillovers over time. Finally, the third chapter ("Dependence Structures on Central European Equity Markets") investigates the existence of asymmetric dependence structures between the Central European and major Western equity markets and their possible implications for portfolio diversification and risk management. In the following paragraphs, we briefly review the motivation behind each chapter as well as its main contributions.