We provide clear-cut evidence for economically and statistically significant multivariate jumps (multi-jumps) occurring simultaneously in stock prices by using a novel nonparametric test based on smoothed estimators of integrated variances. Detecting multi-jumps in a panel of liquid stocks is more statistically powerful and economically informative than the detection of univariate jumps in the market index. On the contrary of index jumps, multi-jumps can indeed be associated with sudden and large increases of the variance risk-premium, and possess a statistically significant forecasting power for future volatility and correlations which implies a sizable deterioration in the diversification potential of asset allocation.