Errata

"Return Volatility and Trading Volume: An Information Flow Interpretation of Stochastic Volatility"

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Two of the moment conditions on page 188 contain typos. The corrected versions are:

$$\begin{split} & E[\,|\,R_{t}\,\bar{-r}\,|\,(\,V_{t}\,\bar{-}\,V\,)\,] & = c\,\,(2/\pi)^{1/2}\,\,m_{1}\,\,(E[\,K_{t}^{\,\,3/2}]\,\bar{-}\,K\,\,E[\,K_{t}^{\,\,1/2}]) \\ \\ & E[\,(\,R_{t}\,\bar{-r}\,)^{2}(\,V_{t}\,\bar{-}\,V\,)^{2}\,] & = c\,\,K\,\,V\,+\,c^{2}\,\,m_{1}\,\,\text{var}(\,K_{t}\,)\,+\,c^{2}\,\,m_{1}^{\,\,2}\,\,[\,E[\,K_{t}\,\bar{-}\,K]^{3}\,+\,K\,\,\text{var}(\,K_{t}\,)\,] \end{split}$$

Table VII also contains errors. The tests for over-identifying restrictions are based on 11 moments, which were not provided due to space considerations. The set of unconditional moments employed were: $E[R_t]$; $E[R_t - \bar{r}]$; $E[R_t - \bar{r}]^2$; $E[R_t - \bar{r}]^3$; $E[(R_t - \bar{r})^4]$; $E[V_t]$; $E[(V_t - V)^2]$; $E[R_t \cdot V_t]$, $E[(R_t - \bar{r})^2 \cdot V_t]$; $E[R_t \cdot (V_t - V)^2]$; $E[R_t \cdot (V_t - V)^2]$; $E[R_t - \bar{r}] \cdot (V_t - V)$]). Given 11 moments and 7 parameters, the degrees of freedom of the χ^2 -tests is four, and not three, as reported in the heading to the last column. Moreover, the two test statistics in bottom two rows of the last column are also incorrectly reported. The corrected Table VII is provided in full below.

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VII.

TABLE VII Estimation Results for the Standard Mixture of Distributions Hypothesis

The results are based on continuously compounded percentage returns, corrected for dividends and stock splits, and detrended volume figures, corrected for stock splits, calculated from the daily New York Stock Exchange closing prices and trading volume for a set of five common stocks over the period January 2, 1973 - December 23, 1991. Observations between December 24 and January 1, inclusive, were deleted. The figures were obtained from Standard & Poor's Daily Stock Price Guide and checked against the returns and volume indicated on tapes from the Center for Research in Security Prices. The volume series was detrended by dividing the actual trading volume for a given day by the expected value calculated using a nonparametric kernel regression with a normal kernel (corresponding to the series in Panel A of Table IV). The following system involving the daily returns, R_t , the detrended volume, V_t , and the (unobserved) number of information arrivals, K_t , was estimated by the Generalized Method of Moments:

$$\begin{array}{c|ccc} R_{_t} & K_{_t} & \sim & N(\overline{r}, K_{_t}) \\ V_{_t} & K_{_t} & \sim & N(\mu_{_v}, \sigma_{_v} K_{_t}) \end{array}$$

The estimated parameters include the mean return, \bar{r} , various unconditional moments of the K_t -process, including the mean $K = E[K_t]$, and the volume parameters, μ_v and σ_v . Estimated standard errors are provided below the point estimates, while p-values are indicated below the test statistics. The weighting matrix used in the objective function was calculated according to Newey and West (1987a) using 25 lags, except that the weighting matrix and parameter estimates were iterated until convergence, so the weighting matrix reflects the final parameter estimates. The χ^2 -test for Goodness-of-Fit (Hansen (1982)) has four degrees of freedom since there are 11 moment restrictions and 7 free parameters.

	ī	$E[K_t^{1/2}]$	K	$E[K_t^{3/2}]$	$E[K_t^2]$	$\mu_{ m v}$	$\sigma_{ m v}$	χ ₄ ² (p-val.)
ALCOA	-0.015	1.89	4.34	9.92	27.2	0.236	0.013	96.8
	(0.021)	(0.032)	(0.131)	(0.494)	(1.65)	(0.008)	(0.011)	(5·10 ⁻²⁰)
AMOCO	-0.036	1.72	3.43	7.14	15.7	0.302	-0.019	168
	(0.019)	(0.028)	(0.096)	(0.283)	(0.875)	(0.009)	(0.007)	(3·10 ⁻³⁵)
COCA-	-0.153	2.59	13.0	57.2	436	0.086	-0.110	937
COLA	(0.020)	(0.026)	(0.098)	(0.651)	(7.77)	(0.001)	(0.003)	(2·10 ⁻²⁰¹)
IBM	-0.048	1.73	3.34	6.95	16.0	0.331	-0.090	390
	(0.016)	(0.019)	(0.065)	(0.279)	(0.695)	(0.007)	(0.008)	(4·10 ⁻⁸³)
KODAK	-0.042	1.93	4.41	11.7	29.1	0.250	-0.056	307
	(0.019)	(0.029)	(0.131)	(0.501)	(1.79)	(0.007)	(0.006)	(3·10 ⁻⁶⁵)