Mathematics > Statistics Theory

A closed-form estimator for the multivariate GARCH(1,1) model

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(Submitted on 15 Mar 2013)

We provide a closed-form estimator based on the VARMA representation for the unrestricted multivariate GARCH(1,1). We show that all parameters can be derived using basic linear algebra tools. We show that the estimator is consistent and asymptotically normal distributed. Our results allow also to derive a closed form for the parameters in the context of temporal aggregation of multivariate GARCH(1,1) by solving the equations as in Hafner [2008].

Subjects:	**Statistics Theory (math.ST)**
MSC classes:	62M10, 91B84, 65F30
Cite as:	**arXiv:1303.3740 [math.ST]**
	(or **arXiv:1303.3740v1 [math.ST]** for this version)

Submission history

From: Federico G. Poloni [view email]

[v1] Fri, 15 Mar 2013 11:24:46 GMT (21kb)

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