

360 Views | 47 CrossRef citations to date | 0 Altmetric

Original Articles

# Integer-valued moving average modelling of the number of transactions in stocks

Kurt Brännäs & A. M. M. Shahiduzzaman Quoreshi

Pages 1429-1440 | Published online: 13 Sep 2010

Cite this article <https://doi.org/10.1080/09603107.2010.498343>

Sample our  
Economics, Finance,  
Business & Industry Journals

>> [Sign in here](#) to start your access to the latest two volumes for 14 days

Full Article | Figures & data | References | Citations | Metrics

Reprints & Permissions | [Read this article](#) | [Share](#)

## We Care About Your Privacy

We and our 870 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting "I Accept" enables tracking technologies to support the purposes shown under "we and our partners process data to provide," whereas selecting "Reject All" or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the ["privacy preferences"] link on the bottom of the webpage [or the floating icon on the bottom-left of the webpage, if applicable]. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

.....

I Accept

Reject All

Show Purpose



number of  
properties  
ferred. Least  
small Monte  
. Empirically  
n stock  
number of

Acknow

The financial support from the Jan Wallander and Tom Hedelius Foundation is gratefully acknowledged. This version has gained from the comments of seminar/workshop audiences at Umeå, Uppsala and Tilburg universities.

## Notes

<sup>1</sup> The INMA( $\infty$ ) can also be obtained from the INAR(1), i.e.  $y_t = \alpha \circ y_{t-1} + \varepsilon_t$  and  $y_t = \alpha^t \circ y_0 + \sum_{i=1}^t \alpha^{t-i} \circ \varepsilon_i$  are equal in distribution. As a large  $t$  gives that  $\alpha^t \approx 0$  and  $\beta_i = \alpha^i$ .

<sup>2</sup> Pairs of thinning operations of the type  $\circ$  and  $\cdot$ , for  $\alpha, \beta$ , are independent (McKenzie, [1988](#)). Assumptions of this type can be relaxed (cf. Brännäs and Hall, [2001](#)).

<sup>3</sup> The experiments are performed using Fortran codes. Poisson random deviates are generated by the POIDEV function (Press et al., [1992](#)), while the binomial thinning is performed by the BNLDEV function.

<sup>4</sup>  $\beta_k < 0.01$  for  $k \geq 32$  for  $\gamma_1 = -0.1$ , the sum is 1.87 for  $k \geq 16$  and  $\gamma_1 = -0.2$ , 1.61 for  $k \geq 11$  and  $\gamma_1 = -0.3$ , and 1.45 for  $k \geq 8$  and  $\gamma_1 = -0.4$ .

<sup>5</sup> Note that the INAR(1) process is a Markov chain with a finite state space. The sequence of observations  $y_1, y_2, \dots, y_t$  is a Markov chain for this feature. The INAR(1) process is a Markov chain with a finite state space, so that a uniform distribution can be used for the initial state.

<sup>6</sup> In some cases, the representation of the INAR(1) process as a Markov chain is not possible.



Relat

A lon

Sourc

Param

Sourc

Likeli

Source: MDPI AG

ation

## INARMA Modeling of Count Time Series

Source: Multidisciplinary Digital Publishing Institute

Estimating the parameters of a BINMA Poisson model for a non-stationary bivariate time series

Source: Informa UK Limited

Integer-Valued Self-Exciting Threshold Autoregressive Processes

Source: Informa UK Limited

Parameter estimation for binomial AR(1) models with applications in finance and industry

Source: Springer Science and Business Media LLC

## INAR(p) MODELS

Source: Wiley

Local influence in Poisson autoregression

Source: Wiley

Thinning-based models in the analysis of integer-valued time series: a review

Source: SAGE Publications

## References

Source: John Wiley & Sons, Ltd

Quasi-Maximum Likelihood Estimation for Long Memory Stock Transaction Data—Under Conditional Heteroskedasticity Framework

Source: Blekinge Tekniska Högskola, Institutionen för industriell ekonomi

Inferential methods for an unconstrained nonstationary BINMA time series process with

Source

Linkin

Relate



Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Keep up to date

Register to receive personalised research and resources by email

 Sign me up

- 
- 
- 
- 
- 

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Copyright

Accessib

Registered  
5 Howick Pl

or & Francis Group  
orma business

