**Dynamic Econometric Models**

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Author's nameorcid_16x16.png[[1]](#footnote-1)\* (style: **Author**)

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A b s t r a c t. The abstract is limited to 600 signs with spaces. It should concisely state what was done, how it was done, principal results, and their significance.

K e y w o r d s: The author shall provide up to 5 keywords (in alphabetical order) to help identify the major topics of the paper (minimum 3 keywords). Provide terms for indexing the submission; **separate terms with a semi-colon** (term1; term2; term3).

J E L Classification: G15; Q47.

Introduction (*style: Heading 1)*

This template provides authors with the formatting specifications needed for preparing electronic versions of DEM papers. Margins, column widths, line spacing, and type styles are built-in; examples of the type styles are provided throughout this document and are identified in italic type, within parentheses. Also, the table text style is provided.

1. Paper's Editorial Format *(style: Heading 1)*

Paper has to be written in English in Microsoft Word format (docx (preferred) or doc version). Manuscripts not meeting all of the requirements outlined below cannot be considered for publication and will be returned to the authors for completion..

**In the whole paper** there is:

* single line spacing,
* automatic hyphenation,
* no free lines added.

1.1. Page Layout *(style: Subheading 1)*

The paper's margins are set as follows:

* top, bottom: 5,85 cm,
* right, left: 4,5 cm,
* gutter: 0 cm,
* header, footer: 4,85 cm.

The header and footer should be marked as different on even and odd pages, and also on first page.

1.2. Main Document *(style: Subheading 1)*

**Main document** is written in Times New Roman 11 font, interval after (a paragraph): 0 pt, tabulator: 0.6 cm, alignment: justified. Use the ***Main text*** style. Capitalize not only the first word but also others words in a paper title, except conjunctions.

1.3. Bullet Point Style *(style: Subheading 1)*

Different styles can be used to bullet:

style ***Bullet: -*:**

* xxx,
* xxx,
* xxx.

style ***Bullet: 1.*:**

1. Aaa.
2. Bbb.
3. Ddd.

style ***Bullet: a)*:**

1. alal,
2. bbb,
3. ddd.

1.4. Equations

**Equations** size is set as follows:

* full: 11 pt
* Subscript / superscript: 7 pt
* Sub- subscript / superscript: 5 pt
* Symbol: 16 pt
* Sub-symbol: 11 pt,

Style options regarding equations are following: matrices and vectors are in bold, Greek letters in italic. Equation is a part of sentence, therefore it should be ended by comma or dot.

***Example:***

The combined forecasts are calculated according to the following formula:

, , *(style:* ***Equation****)* (1)

where – combined forecast, – a weight assigned to forecast obtained from the individual model *i*.

The mathematical form of the VAR(p) is represented by (Kusideł, 2000; Lütkepohl, 1991, 2005, Tsay, 2002, 2010; Watson, 1994):

, (2)

where:

– a *k*-dimensional vector of the log-returns at period *t* *(style:* ***Equation – where)***,

– ﻿a *k*-dimensional vector of constants,

– ﻿matrixes of parameters,

– ﻿a sequence of i.i.d. vectors with mean zero and covariance matrix .

1.5. Numbers

In all tables and main document the numbers should be displayed using dot as a decimal separator (e.g. 0.25). While, the intervals have a comma as a separator.

1.6. Citation and Footnotes

Citations should be prepared in [APA style](https://www.apastyle.org/) (*American Psychological Association 6th edition style*). In Microsoft Word, you can automatically generate a bibliography of the sources you used to write your paper. Each time you add a new citation to your document, Word adds that source so that it appears in the bibliography in the proper format. More information you can find on the [Office support webside](https://support.office.com/en-us/article/apa-mla-chicago-%E2%80%93-automatically-format-bibliographies-405c207c-7070-42fa-91e7-eaf064b14dbb?ui=en-US&rs=en-US&ad=US). You can also use another program to create citations and references, for example [Mendeley](https://www.mendeley.com/).

Citation in the main document should contain only name (names) and year of publication in parenthesis, e.g.

* (Poon & Granger, 2003), (Fiszeder, 2001, p. 112, 2009), (Hwang, Basawa, & Yoon Kim, 2006, p. 112),
* in the case of citing several references, they should be separated by semicolon, e.g. (Black, 1976; Comments & Versus, 1987; Engle & Manganelli, 1999; Poon & Granger, 2003) and ordered according to publication year.
* …to mention among others works by Piontek (2003), Doman, Doman (2004), Jajuga (2001; 2003b, 2003a) and Pipień (2006, p. 112).
* Studies developed by Solnik et al. (1995) indicate the growing integration of the greatest stock exchanges in the world during the period 1960–1990.

**Citation with some comments, notes or discussion** should be given a footnote[[3]](#footnote-3), e.g. …is higher than the potential PKB[[4]](#footnote-4).

1.7. Tables

Table should be span across the full with of page and centered (without word wrapping). Properties of table are as follows: size: width 12 cm, alignment: centered, word wrap: no). Table heading should appear above the tables. Insert tables after they are cited in the text as close to the citation as possible.

Styles to use in table formatting:

* ***Table\_title*** (font: Times New Roman, 10 pt, indent: left: 0 cm, hanging indent: 1,4 cm, spacing before: 9 pt, spacing after: 4 pt). Before and after the table number the hard space should be placed (Ctrl+Shift+space),
* ***Table\_text*** (font: Arial Narrow, 9 pt, alignment: centered),
* ***Table\_note*** (font: Times New Roman, 9 pt, spacing before: 2 pt,   
  spacing after: 0 pt).

References are not placed below the table.

Horizontal **lines in table** should be single, standard weight; minimal number of lines is 3. **There are no vertical lines** (see example).

Numbers should be placed in aligned format, with the same decimal places (maximal number of decimal places is four, but in the case of more column this number should be reduced).

***Example:***

Table 1.  Testing for the unit roots and stationarity results for the unleaded petrol prices produced by Orlen (Orl) and Lotos (Lot), the world price (Rot), and the ex-change rate (Ex), daily observations from the period Jan. 4, 2005–  
–Jan. 26, 2007

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | No.  obs. | Test | | | | | |
| Leybourne | | | | KPSS | |
| ADF*f* | AIC(*j*) | ADF*r* | AIC(*j*) | KPSSA | KPSSB |
| Orl | 789 | –2.4628 A | –3798.3 (2) | –1.9146 A | –3801.0 (2) | 0.8896 | 0.1963 |
| Lot | 789 | –2.4031 A | –3813.5 (2) | –2.3973 A | –3814.7 (2) | 0.9070 | 0.1980 |
| Rot | 789 | –2.0768 A | –2199.4 (1) | –1.2336 A | –2199.8 (1) | 2.3214 | 0.2614 |
| Ex | 789 | –1.2069 | 1793.6 (1) | 0.9294 | 1789.1 (1) | 2.5807 | 0.4435 |

*Note:* ADF*f*, ADF*r* – estimates of the ADF test statistics on the sample in the chronological (*f*) and the reverse (*r*) order, with an intercept (A), and with an intercept and trend (B); AIC(*j*) – estimates of the Akaike information criterion for an auxiliary ADF regression with the augmentation of order *j* removing autocorrelation; *l*=20 – truncation lag parameter; asymptotical critical values for the ADFmax test statistics: –3.41 (B); –2.86 (A); –1.95 (ADF regression without an intercept and trend); KPSSA, KPSSB – estimates of the KPSS test statistics (constant and trend stationarity), critical values 0.463 and 0.1416, respectively; all critical values at 5 per cent significance level. (*style:* ***Table\_note***)

1.8. Figures and Schemes

Figure and schemes captions should be below the figures and schemes. Use the ***Figure\_title*** or ***Scheme\_title*** and before and after the figure number put the hard space (Ctrl+Shift+space). Use the abbreviation "Fig. 1", even at the beginning of a sentence. Insert tables after they are cited in the text as close to the citation as possible.

Figures and schemes should be prepared white-black color palette and centered.

Multiple lines in figure are distinguished by symbols (markers or labels) or various line styles. Figure should not have an external frame or shadowed field. Legend is placed below or on the right side without frame.

Figure Labels: use 9 point Times New Roman for figure labels. Use words rather than symbols or abbreviations when writing figure axis labels to avoid confusing the reader. As an example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)”

References are not placed below the figure/scheme.

***Example:***

Figure 1.  The dynamics of the conditional Kendall’s tau coefficients estimated with the *t*-DCC and MSC models

Conclusions

One of the most important questions of market microstructure theory is about the way in which information is disclosed and how it affects volume and prices. The impact of the information flow on the market dynamics can be diverse and, according to different market microstructure theories, depends mainly on the behavior of informed and uninformed traders.

References

References are important to the reader; therefore, each citation must be complete and correct. References list should be prepared in [APA style](https://www.apastyle.org/) (*American Psychological Association 6th edition style*). In Microsoft Word, you can automatically generate a references of the sources you used to write your paper. Each time you add a new citation to your document, Word adds that source so that it appears in the bibliography in the proper format. More information you can find on the [Office support webside](https://support.office.com/en-us/article/apa-mla-chicago-%E2%80%93-automatically-format-bibliographies-405c207c-7070-42fa-91e7-eaf064b14dbb?ui=en-US&rs=en-US&ad=US). You can also use another program to create citations and references, for example [Mendeley](https://www.mendeley.com/). Titles in other language than English should be translated into English and given along with the original title. Capitalize not only the first word in a references' title, but also others words except conjunctions. If a given reference has the DOI index, it should be displayed (see examples below). To obtain information about the DOI index of papers or books, go to the website [http://www.crossref.org/guestquery](http://www.crossref.org/guestquery/). References should use the ***Literature*** style (font 9 pt, indent: left: 0 cm, hanging indent: 0,9 cm, tabulator: 0,9 cm).

Samples of the correct formats of references are given:

Black, F. (1976). The Pricing of Commodity Contracts. *Journal of Financial Economics*, *3*(1–2), 167–179. https://doi.org/10.1016/0304-405X(76)90024-6

Comments, S., & Versus, T. (1987). Some Comments on. *Journal of Applied Econometrics*, *15*(4), 501–505. https://doi.org/10.2307/1267380

Doman, M., & Doman, R. (2004). Ekonometryczne modelowanie dynamiki polskiego rynku finansowego. Poznań: Wydawnictwo AE.

Engle, R., & Manganelli, S. (1999). *CAViaR: Conditional Value at Risk by Quantile Regression* (Working Paper Series). https://doi.org/10.3386/w7341

Fiszeder, P. (2001). Zastosowanie modeli GARCH w analizie krótkookresowych zależności pomiędzy Warszawską Giełdą Papierów Wartościowych a międzynarodowymi rynkami akcji. *Przegląd Statystyczny*, *3*–*4*, 345–364.

Fiszeder, P. (2009). Modele klasy GARCH w empirycznych badaniach finansowych. Toruń: Wydawnictwo Naukowe UMK.

Hwang, S. Y., Basawa, I. V, & Yoon Kim, T. (2006). Least Squares Estimation for Critical Random Coefficient First-Order Autoregressive Processes. *Statistics & Probability Letters*, *76*(3), 310–317. https://doi.org/10.1016/j.spl.2005.08.024

Jajuga, K. (2003a). Metody statystyczne w finansach. StatSoft Polska.

Jajuga, K. (2003b). On Modeling the Relations in Time Series. In *Dynamiczne modele ekonometryczne* (pp. 7–18). Toruń: Wydawnictwo UMK.

Jajuga, K., & Jajuga, T. (2001). Inwestycje. Instrumenty finansowe, ryzyko finansowe, inżynieria finansowa. Warszawa: Wydawnictwo PWN.

Kusideł, E. (2000). Modele wektorowo-autoregresyjne VAR: metodologia i zastosowania. Łódź: Absolwent.

Lütkepohl, H. (1991). Introduction to Multiple Time Series Analysis. Berlin: Springer-Verlag.

Lütkepohl, H. (2005). New Introduction to Multiple Time Series Analysis. New introduction to Multiple Time Series Analysis. https://doi.org/10.1007/978-3-540-27752-1

Piontek, K. (2003). Weryfikacja wybranych technik prognozowania zmienności - analiza szeregów czasowych. In K. Jajuga & W. Ronka-Chmielowiec (Eds.), *Inwestycje finansowe i ubezpieczenia - tendencje światowe a rynek Polski* (pp. 484–494). Wrocław: Wydawnictwo AE we Wrocławiu.

Pipień, M. (2006). Wnioskowanie bayesowskie w ekonometrii finansowej. Kraków: Wydawnictwo AE.

Poon, S.-H., & Granger, C. W. J. (2003). Forecasting Volatility in Financial Markets: A Review. *Journal of Economic Literature*, *41*(2), 478–539. https://doi.org/10.1257/002205103765762743

Tsay, R. S. (2002). Analysis of Financial Time Series: Financial Econometrics. New York: John Wiley & Sons.

Tsay, R. S. (2010). *Analysis of Financial Time Series*. Hoboken, NJ, USA: John Wiley & Sons, Inc. https://doi.org/10.1002/9780470644560

Watson, M. W. (1994). Vector Autoregressions and Cointegration. *Handbook of Econometrics*. https://doi.org/10.1016/S1573-4412(05)80016-9

1. \* Correspondence to: Anna Kowalska, Nicolaus Copernicus University, Faculty of Economic Sciences and Management, 11A Gagarina Street, 87-100 Toruń, Poland, e-mail: a.kowalska@umk.pl; Hanna Kurnikowa, Warsaw School of Economics, Collegium of Economic Analysis, Institute of Econometrics, 6/8 Madalinskiego Street, 02-513 Warsaw, Poland, e-mail: h.kurnikowa@sgh.pl. [↑](#footnote-ref-1)
2. \*\* This work was financed *(identify applicable sponsors here)*. [↑](#footnote-ref-2)
3. Footnote style: (font: 9 pt, indent: first line: 0,5 cm, alignment: adjusted, spacing after: 1 pt). [↑](#footnote-ref-3)
4. Solow and Taylor (2002) indicate that it is short-run relationship, however, as they mention, there is the necessity of choosing between the level of inflation fluctuation and level of output gap. [↑](#footnote-ref-4)