Applied Time Series Econometrics with Gretl

Full Errata — First Edition (corrected reprint available)

Chapter 2 — Basic Concepts of Time Series Analysis

Gretl menu path corrections

Ch. 2 Before: *File → Open Data → Import → Text/CSV*
After: *File → Open data → User file… → select DATA.csv → Open*

Ch. 2 Before: *View → Graphs → Time Series Plot*
After: *View → Graph specified vars → Time series plot…*

Ch. 2 Before: *Data → Add Variables → Natural Logs of Selected Variables*
After: *Add → Logs of selected variables*

Ch. 2 Before: *Add → First Differences of Selected Variables*
After: *Add → Time → First differences of selected variables (an alternative right-click method, Add differences, was also added)*

§2.8.1 — The dataset description now states explicitly that it contains 207 observations for each price series.

Chapter 3 — Distributed Lag Models

Equation — A variable label in one estimated equation used the raw Gretl notation L1_l_PRODPOT; this has been corrected to the book's own lag notation, l_PRODPOT_1, for consistency with the rest of the text.

Chapter 4 — Cointegration

Gretl menu path corrections

§4.3.4, p. 88 Before: *In Gretl, select: Save → Residuals*
After: *In Gretl, in the results window, select: Save → Residuals*

§4.4.3, p. 91 Before: *Unit Root Tests → Augmented Dickey–Fuller*
After: *Unit Root Tests → Augmented Dickey–Fuller test*

Substantive additions

§4.3.4 — Clarified that residuals are saved manually under the name e_longrun, with a cross-reference to where this variable is used later in the book.

§4.4.3 — Added a note that Gretl selected two lags based on the Akaike Information Criterion (AIC) for the reported specification.

§4.4.3 — Added a Remark explaining that, because e_longrun is an estimated rather than an observed series, the strictly appropriate critical values for the Engle–Granger test are the cointegration critical values of MacKinnon (2010) rather than standard Dickey–Fuller critical values; in this application the conclusion is unaffected.

Equation 4.3.3 — The long-run equilibrium equation now carries explicit time subscripts (l_CONSPOT_t, l_PRODPOT_t) and the estimated hat symbol, matching notation used elsewhere in the book.

Chapter 5 — Error Correction Models (ECM)

Gretl menu path corrections

p. 102 Before: *Add → First Differences of Selected Variables*
After: *Add first differences*

p. 109 Before: *Tests → Autocorrelation → Breusch–Godfrey test*
After: *Tests → Autocorrelation (opens a dialog to set the lag order; in this application, Lag order for test = 2)*

p. 113 Before: *Tests → Normality of residual → Jarque–Bera test*
After: *Tests → Normality of residual (the Jarque–Bera statistic is reported automatically, no separate menu item needs to be selected)*

pp. 116–117 Before: *Tests → Stability → CUSUM / CUSUMSQ*
After: *Tests → CUSUM test / Tests → CUSUMSQ test (no "Stability" submenu exists)*

Substantive additions

§5.4 — Clarified that the residuals also exhibit autocorrelation, not only heteroskedasticity, and that the model is re-estimated in §5.6.5 using HAC standard errors valid in the presence of both problems.

§5.6.1, Figure 5.5 — The reported LM test statistic label was corrected from LM to LMF, matching the F-form of the Breusch–Godfrey test actually reported by Gretl.

Chapter 6 — Asymmetric Error Correction Models (AECM)

Table 6.1 / Table 6.2

Sign convention — Eight negative values in Tables 6.1 and 6.2 used a plain hyphen instead of a proper minus sign; corrected throughout for consistent typography.

Approximate changes — Four percentage-change figures in Table 6.1 (8.0%, 5.0%, 12.0%, 3.0%) are now labeled “approximately,” with a note explaining that log-difference changes approximate but do not equal exact percentage changes (exact change = $\exp(\Delta) - 1$).

Notation — EC_pos(-1) and EC_neg(-1) have been standardized to EC_pos_1 and EC_neg_1 throughout the chapter, including in the theoretical equation, matching Gretl's actual output naming and the notation used elsewhere in the book.

Diagnostic tests section

§6.4.4 — The diagnostic test list previously included “HAC standard errors” as if it were a fifth diagnostic test alongside Breusch–Godfrey, White, Jarque–Bera, and CUSUM/CUSUMSQ. This has been restructured: the list now contains only the four actual tests, followed by a separate explanatory paragraph clarifying that HAC standard errors were already applied when the AECM was estimated in §6.4, so the re-estimation step described in §5.6.5 is not required here.

§6.3.2 — Clarified that e_longrun was saved from the long-run equation estimated in §4.3.4, before being decomposed into its positive and negative components.

New citations added

§6.1 — Added citations (Bacon 1991; Borenstein, Cameron, & Gilbert 1997; Peltzman 2000; Meyer & von Cramon-Taubadel 2004; Frey & Manera 2007) supporting the discussion of asymmetric price transmission in commodity, food, energy, and fuel markets.

§6.2 — Added a sentence noting that the AECM specification follows Granger and Lee (1989), as applied to agricultural and food price transmission by von Cramon-Taubadel (1998).

§6.1 — Added a citation (Bacon, 1991) for the “Rockets and Feathers” phenomenon.

Figure correction

p. 130, Figure 6.1 — The screenshot showed the “Robust standard errors” checkbox unchecked, while the accompanying text instructs the reader to select it. The figure has been corrected to show the checkbox selected and HAC enabled.

Chapter 7 — Vector Autoregressive Models (VAR)

§7.8.2 — The diagnostic test list item “Jarque–Bera Test” has been corrected to “Doornik–Hansen Test,” matching the test actually reported for the multivariate VAR residuals.

§7.8.1 — The label “residual autocorrelation (Portmanteau Test)” has been simplified to “residual autocorrelation,” avoiding a redundant sub-label.

§7.8.1 — The interpretation paragraph has been rewritten to correctly reference Figure 7.13 and lag orders 1 and 2, and now cross-references the portmanteau test reported with the estimation output in §7.4.1 (LB(48) = 174.387, p = 0.6040).

§7.6.4 — “rather than the ninth” corrected to “rather than between the seventh and the ninth,” matching the actual impulse response pattern shown in the figures.

§7.6.4 — Added a sentence clarifying that results under the reversed variable ordering are not reported separately; they are obtained by re-estimating the model with the ordering of the two variables reversed.

Chapter 8 — Vector Error Correction Models (VECM)

Interpretation corrections

p. 180 — The statement that a negative adjustment coefficient always indicates convergence has been revised. Statistically significant adjustment coefficients indicate which variables respond to deviations from the long-run equilibrium; the sign must be interpreted together with the definition of the Error Correction Term (ECT), since it does not hold uniformly across both VECM equations.

p. 186 — The interpretation of the Johansen test has been substantially expanded. The book previously reported only the rejection of Rank = 0. It now also addresses the borderline result at Rank ≤ 1 ($p \approx 0.03$), explains that mechanically this would point toward Rank = 2, and clarifies why Rank = 2 is theoretically inconsistent with the I(1) status of both series established in Chapters 2 and 4, so that Rank = 1 is the defensible and adopted choice for the VECM.

New procedure added (§8.6.2, pp. 218–219)

Short-run causality — A complete step-by-step Gretl procedure has been added for reproducing the short-run causality results reported in Table 8.1: constructing the cointegrating term (EC1, EC1_1), estimating each VECM equation individually by OLS, and using Tests → Omit variables to obtain the joint F-tests. This procedure was entirely missing from the first printing, which reported the results in Table 8.1 without showing how to reproduce them.

Other additions

§8.5 — Added a Remark clarifying that the lag order entered in the VECM dialog refers to the underlying VAR in levels; because the VECM is expressed in first differences, its short-run terms involve one lag fewer, explaining the d_l_CONSPOT_1 / d_l_PRODPOT_1 naming.

§8.7.3, §8.8.3 — Added, in both the Impulse Response and Forecast Error Variance Decomposition interpretation sections, a clarifying sentence that results under the reversed variable ordering are not reported separately; they are obtained by re-estimating the model with the ordering reversed.

§8.9.2 — Heading corrected from “Test for residual normality” to “Test for Residual Normality,” matching Title Case used for all other subsection headings in the chapter, both in the body text and the Table of Contents.

Equations — The estimated cointegrating vector (β) and adjustment coefficients (α) are now shown with a hat symbol throughout the chapter, correctly denoting estimated quantities rather than theoretical parameters.

References and Bibliography

Methodological references — Ten references were added in correct alphabetical order to support the corrections above: Akaike (1974), Doornik & Hansen (2008), Granger & Lee (1989), Granger & Newbold (1974), Hannan & Quinn (1979), MacKinnon (2010), MacKinnon, Haug & Michelis (1999), Phillips & Ouliaris (1990), Schwarz (1978), and von Cramon-Taubadel (1998).

Author's publications — Six of the author's more recent publications (2015–2026) have been added to the Author's Publications list, which previously ended at a 2021 entry.

A fully corrected reprint (paperback) and updated eBook are available under the same title. None of the above affects the book's overall conclusions or methodology; all corrections concern Gretl menu paths, notation consistency, figure accuracy, and expanded interpretive clarity.