Aktienmarkt der Währungsunion: Konintegration der Werte des Aktienindexes (INDEX) mit den makroökonomischen Variablen Zinsstruktur zwischen lang- und kurzfristigen Zinsen (TSP), der Industrieproduktion (PROD) und der Geldmenge M1 (M1).

1. Das Fehler-Korrektur-Modell

Error Correction Representation for the Selected ARDL Model

ARDL(1,0,0,1) selected based on Schwarz Bayesian Criterion

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Dependent variable is dINDEX

224 observations used for estimation from 1996M2 to 2014M9

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Regressor	Coefficient	Standard Error	T-Ratio[Prob]
dTSP	1.3078	.51758	2.5268[.012]
dPROD	1.2143	.53922	2.2519[.025]
dM1	1.6030	.48025	3.3379[.001]
ecm(-1)	-.061637	.029781	-2.0697[.040]

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List of additional temporary variables created:

dINDEX = INDEX-INDEX(-1)

dTSP = TSP-TSP(-1)

dPROD = PROD-PROD(-1)

dM1 = M1-M1(-1)

ecm = INDEX -21.2182*TSP -19.7002*PROD -6.0980*M1 + .55652*INPT

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R-Squared	.15020	R-Bar-Squared	.13071
S.E. of Regression	.067479	F-Stat. F(4,219)	9.6327[.000]
Mean of Dependent Variable	.3315E-3	S.D. of Dependent Variable	.072375
Residual Sum of Squares	.99265	Equation Log-likelihood	289.0885
Akaike Info. Criterion	283.0885	Schwarz Bayesian Criterion	272.8536
DW-statistic	1.7331		

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R-Squared and R-Bar-Squared measures refer to the dependent variable dINDEX and in cases where the error correction model is highly restricted, these measures could become negative.

Testing for existence of a level relationship among the variables in the ARDL model

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F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
6.5953	3.2618	4.3680	2.7956	3.7834

W-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
26.3810	13.0471	17.4720	11.1826	15.1335

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If the statistic lies between the bounds, the test is inconclusive. If it is above the upper bound, the null hypothesis of no level effect is rejected. If it is below the lower bound, the null hypothesis of no level effect can't be rejected. The critical value bounds are computed by stochastic simulations using 5000 replications.

2. Das Modell ohne Fehler-Korrektur-Term

Autoregressive Distributed Lag Estimates

ARDL(1,0,0,1) selected based on Schwarz Bayesian Criterion

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Dependent variable is INDEX

224 observations used for estimation from 1996M2 to 2014M9

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Regressor	Coefficient	Standard Error	T-Ratio[Prob]
INDEX(-1)	.93836	.029781	31.5090[.000]
TSP	1.3078	.51758	2.5268[.012]
PROD	1.2143	.53922	2.2519[.025]
M1	1.6030	.48025	3.3379[.001]
M1(-1)	-1.2272	.49498	-2.4792[.014]
INPT	-.034302	.012482	-2.7480[.006]

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R-Squared	.92229	R-Bar-Squared	.92050
S.E. of Regression	.067479	F-Stat. F(5,218)	517.4311[.000]
Mean of Dependent Variable	.051657	S.D. of Dependent Variable	.23933
Residual Sum of Squares	.99265	Equation Log-likelihood	289.0885
Akaike Info. Criterion	283.0885	Schwarz Bayesian Criterion	272.8536
DW-statistic	1.7331	Durbin's h-statistic	2.2308[.026]

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Testing for existence of a level relationship among the variables in the ARDL model

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F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
6.5953	3.2618	4.3680	2.7956	3.7834

W-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
26.3810	13.0471	17.4720	11.1826	15.1335

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If the statistic lies between the bounds, the test is inconclusive. If it is above the upper bound, the null hypothesis of no level effect is rejected. If it is below the lower bound, the null hypothesis of no level effect can't be rejected. The critical value bounds are computed by stochastic simulations using 5000 replications.

Diagnostic Tests

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* Test Statistics *	LM Version	*	F Version	*
* A:Serial Correlation*	CHSQ(12) = 57.8853[.000]*		F(12,206) = 5.9820[.000]*	
* B:Functional Form *	CHSQ(1) = 3.2833[.070]*		F(1,217) = 3.2280[.074]*	
* C:Normality *	CHSQ(2) = 1.5590[.459]*		Not applicable	*
* D:Heteroscedasticity*	CHSQ(1) = .041027[.839]*		F(1,222) = .040668[.840]*	

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A:Lagrange multiplier test of residual serial correlation

B:Ramsey's RESET test using the square of the fitted values

C:Based on a test of skewness and kurtosis of residuals

D:Based on the regression of squared residuals on squared fitted values

3. Berechnung der langfristigen Schätzkoeffizienten, die für die Berechnung des fairen Wertes herangezogen werden:

Estimated Long Run Coefficients using the ARDL Approach
ARDL(1,0,0,1) selected based on Schwarz Bayesian Criterion

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Dependent variable is INDEX
224 observations used for estimation from 1996M2 to 2014M9

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Regressor	Coefficient	Standard Error	T-Ratio[Prob]
TSP	21.2182	15.6317	1.3574[.176]
PROD	19.7002	8.1545	2.4159[.017]
M1	6.0980	3.3486	1.8211[.070]
INPT	-.55652	.28381	-1.9609[.051]

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Testing for existence of a level relationship among the variables in the ARDL model

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F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
6.5953	3.2618	4.3680	2.7956	3.7834

W-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
26.3810	13.0471	17.4720	11.1826	15.1335

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