Exercício C11.1

i) Equação 1

Dependent Variable: LINVPC
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.232353	0.084684	-2.743759	0.0091
LINVPC(-1)	0.634004	0.122168	5.189592	0.0000

R-squared	0.408480	Mean dependent var	-0.658846
Adjusted R-squared	0.393313	S.D. dependent var	0.167975
S.E. of regression	0.130836	Akaike info criterion	-1.182195
Sum squared resid	0.667604	Schwarz criterion	-1.098606
Log likelihood	26.23499	Hannan-Quinn criter.	-1.151756
F-statistic	26.93186	Durbin-Watson stat	1.630582
Prob(F-statistic)	0.000007		

Equação 2:

Dependent Variable: LINVPCST
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.004427	0.019483	0.227238	0.8214
LINVPCST(-1)	0.482453	0.139396	3.461010	0.0013

R-squared	0.234973	Mean dependent var	0.003236
Adjusted R-squared	0.215357	S.D. dependent var	0.140814
S.E. of regression	0.124733	Akaike info criterion	-1.277736
Sum squared resid	0.606772	Schwarz criterion	-1.194147
Log likelihood	28.19358	Hannan-Quinn criter.	-1.247297
F-statistic	11.97859	Durbin-Watson stat	1.582649
Prob(F-statistic)	0.001319		

Nota: LINVPCST são os resíduos da regressão de LINVPC sobre C e T.

A estimativa do coeficiente de autocorrelação pode ser obtida, de modo equivalente, com a seguinte regressão:

Dependent Variable: LINVPC
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.420990	0.126228	-3.335162	0.0019
LINVPC(-1)	0.481637	0.141225	3.410421	0.0016
T	0.003915	0.001996	1.961361	0.0572

R-squared	0.462858	Mean dependent var	-0.658846
Adjusted R-squared	0.434587	S.D. dependent var	0.167975
S.E. of regression	0.126307	Akaike info criterion	-1.229847
Sum squared resid	0.606232	Schwarz criterion	-1.104463
Log likelihood	28.21186	Hannan-Quinn criter.	-1.184189
F-statistic	16.37239	Durbin-Watson stat	1.583063
Prob(F-statistic)	0.000007		

Equação 3:

Dependent Variable: LPRICE
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001766	0.005647	-0.312688	0.7562
LPRICE(-1)	0.933914	0.049598	18.82949	0.0000

R-squared	0.900902	Mean dependent var	-0.090822
Adjusted R-squared	0.898361	S.D. dependent var	0.061970
S.E. of regression	0.019757	Akaike info criterion	-4.963105
Sum squared resid	0.015223	Schwarz criterion	-4.879516
Log likelihood	103.7436	Hannan-Quinn criter.	-4.932666
F-statistic	354.5497	Durbin-Watson stat	1.550148
Prob(F-statistic)	0.000000		

Equação 4: (LPRICEST são os resíduos da regressão de LPRICE sobre C e T)

Dependent Variable: LPRICEST
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000166	0.003009	0.055240	0.9562
LPRICEST(-1)	0.820308	0.091165	8.998036	0.0000

R-squared	0.674904	Mean dependent var	0.000383
Adjusted R-squared	0.666568	S.D. dependent var	0.033362
S.E. of regression	0.019265	Akaike info criterion	-5.013552
Sum squared resid	0.014474	Schwarz criterion	-4.929963
Log likelihood	104.7778	Hannan-Quinn criter.	-4.983113
F-statistic	80.96466	Durbin-Watson stat	1.444347
Prob(F-statistic)	0.000000		

ii) Equação 5:

Dependent Variable: LINVPC
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.853255	0.040291	-21.17732	0.0000
DLPRICE	3.878646	0.957997	4.048703	0.0002
T	0.008037	0.001595	5.038209	0.0000

R-squared	0.509875	Mean dependent var	-0.658846
Adjusted R-squared	0.484079	S.D. dependent var	0.167975
S.E. of regression	0.120653	Akaike info criterion	-1.321449
Sum squared resid	0.553167	Schwarz criterion	-1.196066
Log likelihood	30.08970	Hannan-Quinn criter.	-1.275791
F-statistic	19.76562	Durbin-Watson stat	0.930285
Prob(F-statistic)	0.000001		

iv) Equação 6:

Dependent Variable: DLINVPC
Method: Least Squares
Sample (adjusted): 1948 1988
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.005932	0.047912	0.123799	0.9021
DLPRICE	1.566526	1.139214	1.375093	0.1772
T	3.70E-05	0.001897	0.019493	0.9845

R-squared	0.047490	Mean dependent var	0.013851
Adjusted R-squared	-0.002643	S.D. dependent var	0.143286
S.E. of regression	0.143475	Akaike info criterion	-0.974950
Sum squared resid	0.782238	Schwarz criterion	-0.849567
Log likelihood	22.98647	Hannan-Quinn criter.	-0.929292
F-statistic	0.947288	Durbin-Watson stat	1.764671
Prob(F-statistic)	0.396758		