

## Does Belgian residential property offer a hedge against inflation?

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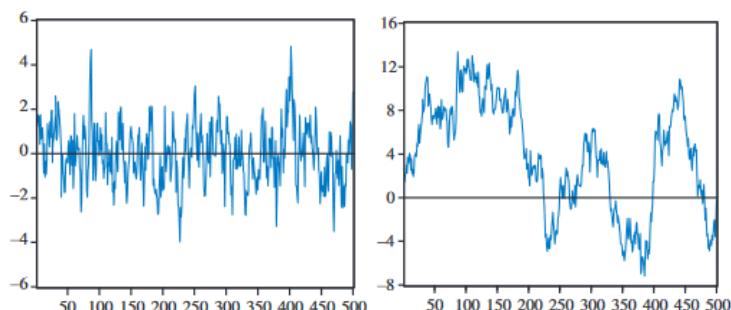
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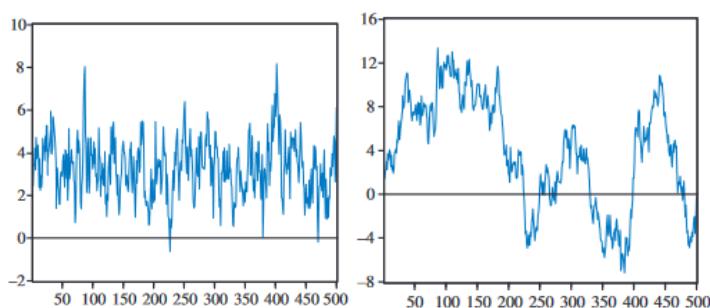
## 1 Appendices

### Appendix 1: Example for ADF test with no constant and no trend



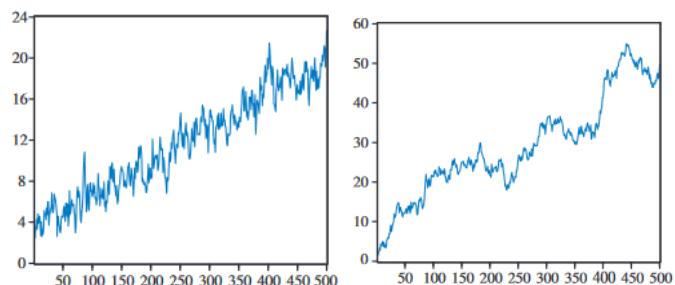
*Source: Hill et al (2011)*

### Appendix 2: Example for ADF test with constant but no trend



*Source: Hill et al (2011)*

### Appendix 3: Example for ADF test with constant and trend



*Source: Hill et al (2011)*

#### Appendix 4: Correlation matrix

	R (2 or 3)	R (4 or more)	R(flats)
<b>Belgium</b>			
R (ordinary)	0.9010***		
R (villas)		0.7823***	
R (flats)			0.4240**
<b>Wallonia</b>			
R (ordinary)	0.5095***		
R (villas)		0.5332***	
R (flats)			0.3011
<b>Brussels</b>			
R (ordinary)	0.3996**		
R (villas)		0.7498***	
R (flats)			0.6586***
<b>Flanders</b>			
R (ordinary)	0.8847***		
R (villas)		0.5732***	
R (flats)			0.3771**

Notes:

\*\* Significant at 5% level

\*\*\* Significant at 1% level

*Source: our own calculations with Gretl*

#### Appendix 5: ADF test for all types of inflation

	At level	1 <sup>st</sup> difference
<b>2011-2017</b>		
AI	0.9503	0.0002***
EI	0.9263	0.0000***
UI	0.0076	0.0000***

Notes:

\*\*\* Significant at 1% level

*Source: our own calculations with Gretl*



**Appendix 6: ADF test for returns based on old methodology from 2011 to 2017**

	At level	1 <sup>st</sup> difference
<b>Belgium</b>		
R (ordinary)	0.0000***	
R (villas)	0.0105**	
R (flats)	0.0037***	
<b>Wallonia</b>		
R (ordinary)	0.0058***	
R (villas)	0.0091***	
R (Flats)	0.0208**	
<b>Brussels</b>		
R (ordinary)	0.4322	0.0000***
R (villas)	0.0000***	
R (flats)	0.0128**	
<b>Flanders</b>		
R (ordinary)	0.0000***	
R (villas)	0.0001***	
R (flats)	0.0170**	

Notes:

\*\* Significant at 5% level

\*\*\* Significant at 1% level

*Source: our own calculations with Gretl*

**Appendix 7: ADF test for returns based on new methodology from 2011 to 2017**

	At level	1 <sup>st</sup> difference
<b>Belgium</b>		
R (2 or 3)	0.0000***	
R (4 or more)	0.0001***	
R (flats)	0.5315	0.0000***
<b>Wallonia</b>		
R (2 or 3)	0.2071	0.0000***
R (4 or more)	0.0003***	

R (flats)	0.0051***
<b>Brussels</b>	
R (2 or 3)	0.0000***
R (4 or more)	0.0254**
R (flats)	0.0865
<b>Flanders</b>	
R (2 or 3)	0.0000***
R (4 or more)	0.0061***
R (flats)	0.0016***

Notes:

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\*\* Significant at 5% level

\*\*\* Significant at 1% level

Source: our own calculations with Gretl

#### Appendix 8: Regression results for actual inflation from 2011 to 2017 based on old methodology

Dependant variable	Constant	Actual inflation	Adjusted $R^2$	DW Statistics
<b>Belgium</b>				
R (ordinary)	0.0243***	1.3665	0.1053	1.9527
R (villas)	0.0187***	0.5765	0.1906	1.9485
R (flats)	0.0196***	0.1434	0.0390	2.0253
<b>Wallonia</b>				
R (ordinary)	0.0200***	2.7503***	0.3199	1.9532
R (villas)	0.0165**	0.2744	0.0764	1.8294
R (flats)	0.0233*	2.2923	0.1017	2.0543
<b>Brussels</b>				
R (ordinary)	-0.0014	-0.4414	0.0293	2.0349
R (villas)	0.0018	-3.5249	0.0329	1.9071
R (flats)	0.0310***	1.0526	0.1319	2.0378
<b>Flanders</b>				

R (ordinary)	0.0281***	1.4859	0.0537	2.0233
R (villas)	0.0165***	0.98642	0.1588	1.9278
R (flats)	0.0172*	0.4403	0.1109	1.9264

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Notes:

\* Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

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*Source: our own calculations with Gretl*

**Appendix 9: Regression results for actual inflation from 2011 to 2017 based on new methodology**

Dependant variable	Constant	Actual inflation	Adjusted $R^2$	DW Statistics
<b>Belgium</b>				
R (2 or 3)	0.0241***	0.1693	-0.0277	1.9503
R (4 or more)	0.0191***	0.8257	0.0133	2.0119
R (Flats)	0.0004	0.6199	0.0478	2.0786
<b>Wallonia</b>				
R (2 or 3)	0.0002	0.7502	0.2647	2.2989
R (4 or more)	0.0185***	1.9754**	0.2347	2.0285
R (Flats)	0.0230***	-0.5335	0.0865	2.0854
<b>Brussels</b>				
R (2 or 3)	0.0332***	2.6484*	0.2418	2.0213
R (4 or more)	-0.0157	0.6783	0.1534	1.5810
R (Flats)	0.0010	0.7059	-0.0156	1.9784
<b>Flanders</b>				
R (2 or 3)	0.0273***	1.0861	0.0111	2.0418
R (4 or more)	0.0167***	1.4719**	0.2567	2.0381
R (Flats)	0.0255***	1.3277*	0.1015	2.2047

**Notes**

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\* Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

*Source: our own calculations with Gretl*

**Appendix 10: Regression results for expected and unexpected inflation from 2011 to 2017 based on old methodology**

Dependant variable	Constant	Expected inflation	Unexpected inflation	Adjusted $R^2$	DW Statistics
<b>Belgium</b>					
R (ordinary)	0.0002	1.4272	1.1097	0.4506	2.9361
R (villas)	-0.0004	0.5659	1.2830	0.0934	1.94812
R (flats)	-0.0006	0.1925	0.1319	0.1205	2.1957
<b>Wallonia</b>					
R (ordinary)	0.0199***	3.4145***	-0.8417	0.3969	1.9979
R (villas)	0.0166**	0.2587	-0.3948	0.0384	1.8402
R (flats)	0.0232*	2.6871	-0.1608	0.0837	2.0298
<b>Brussels</b>					
R (ordinary)	-0.0014	-0.3710	-0.8601	-0.0122	2.0331
R (villas)	0.0019	-2.3845	-10.5836	0.0066	1.8982
R (flats)	0.0308	1.3250	-1.1311	0.1206	2.0385
<b>Flanders</b>					
R (ordinary)	0.0278***	1.5691	1.0876	0.0106	1.9666
R (villas)	0.0165***	0.9318	1.3478	0.1249	1.9092
R (flats)	0.0171*	0.5027	-0.0705	0.0740	1.9192

Notes:

\*Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

Source: our own calculations with Gretl

**Appendix 11: Regression results for expected and unexpected inflation from 2011 to 2017 based on new methodology**

Dependant variable	Constant	Expected inflation	Unexpected inflation	Adjusted $R^2$	DW Statistics
<b>Belgium</b>					
R (2 or 3)	0.0241***	0.1129	0.5263	-0.0719	1.9487
R (4 or more)	0.0192***	0.4348	3.5407	0.0472	2.0317
R (flats)	0.0007	0.7302	0.3890	0.0217	1.8433
<b>Wallonia</b>					
R (2 or 3)	0.0003	1.3155*	-2.3359	0.3565	2.3448
R (4 or more)	0.0185***	1.8659**	2.7935	0.2103	2.0240
R (flats)	0.0229***	-0.3557	-2.0260	0.0667	2.0839
<b>Brussels</b>					
R (2 or 3)	0.0175*	0.8049	-0.5255	0.1023	1.9541
R (4 or more)	-0.0159	-0.1692	7.4888	0.1244	1.5895
R (flats)	0.0010	0.8566	-0.2527	-0.0518	1.9699
<b>Flanders</b>					
R (2 or 3)	0.0273	1.2625	-0.0398	-0.0229	2.0445
R (4 or more)	0.0167***	1.5277**	1.0727	0.2257	2.0208
R (flats)	0.0255***	1.2616	1.9992	0.0685	2.1974

**Notes**

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\* Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

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*Source: our own calculations with Gretl*

#### Appendix 12: Quarterly inflation rate based on HICP

	Mean	Median	Min	Max	Std. Dev
<b>2011-2023</b>					
AI	0.0247	0.0193	-0.0066	0.1126	0.0265
EI	0.0247	0.0191	-0.0066	0.1123	0.0265
UI	8.3462e-006	9.1500e-005	-0.0014	0.0009	0.0005

Source: our own calculations with Gretl

#### Appendix 13: ADF test for quarterly inflation rate based HICP

	At level	1 <sup>st</sup> difference
<b>2011-2023</b>		
AI	0.0001***	
EI	0.0002***	
UI	0.0001***	

#### Notes

\*\*\* Significant at 1% level

Source: our own calculations with Gretl

#### Appendix 14: Results for actual inflation from 2011 to 2023 based on HICP

Dependant variable	Constant	Actual Inflation	Adjusted R <sup>2</sup>	DW Statistics
<b>Belgium</b>				
R (2 or 3)	0.0247***	0.5697**	0.0882	2.2046
R (4 or more)	0.0026	-0.1168	0.3107	2.2487
R (Flats)	0.0013	-0.0551	0.1225	2.1061
<b>Wallonia</b>				
R (2 or 3)	0.0024	-0.1127*	0.2018	2.3481
R (4 or more)	0.0195***	0.4684**	0.2246	2.2274
R (Flats)	0.0013	-0.0676	0.2456	2.3220
<b>Brussels</b>				
R (2 or 3)	0.0260**	0.3932	0.1075	2.0455
R (4 or more)	0.0457	-0.7750	0.1341	2.0119

R (Flats)	0.0334***	0.0696	0.4066	2.2464
<b>Flanders</b>				
R (2 or 3)	0.0283***	0.4723***	0.0302	1.9874
R (4 or more)	0.0026	-0.1079	0.2418	2.2963
R (Flats)	-0.0001	-0.0033	0.4369	2.9848

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Notes

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

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*Source: our own calculations with Gretl*

**Appendix 15: Results for expected vs. unexpected inflation and economic cycles from 2011 to 2023  
based on HICP**

Dependant variable	Constant	Expected inflation	Unexpected inflation	High inflation	Recession	Adjusted R <sup>2</sup>	DW Statistics
<b>Belgium</b>							
R (2 or 3)	0.0305***	0.5604*	1.3824	-0.0021	-0.0218	0.0717	2.1734
R (4 or more)	0.0035	0.0328	0.7221	-0.0124	0.0044	0.2978	2.2731
R (Flats)	0.0017	-0.0041	-1.4936	-0.0043	0.0014	0.0885	2.0853
<b>Wallonia</b>							
R (2 or 3)	0.0038	-0.1824**	4.4883	0.0049	-0.0088*	0.2252	2.3508
R (4 or more)	0.0182**	0.4399*	2.6150	0.0029	0.0036	0.1818	2.2522
R (Flats)	2.70e-05	-0.0930	0.4565	0.0027	0.0033	0.2028	2.3253
<b>Brussels</b>							
R (2 or 3)	0.0336***	0.3321	2.9106	0.0019	-0.0326*	0.1203	2.0407
R (4 or more)	0.0745	-0.9120	-24.7997	0.0015	-0.1202	0.1345	2.0009
R (Flats)	0.0320***	0.0863	3.9574	-0.0034	0.0115	0.3970	2.3362
<b>Flanders</b>							
R (2 or 3)	0.0316***	0.5117**	1.2694	-0.0047	-0.0097	0.0996	1.9622
R (4 or more)	0.0024	-0.1456	3.4888	0.0031	-0.0016	0.2023	2.3080
R (Flats)	-0.0002	-0.0076	-5.5722	0.0003	0.0006	0.4038	2.9958

Notes:

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\*Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

Source: our own calculations with Gretl

#### Appendix 16: Quarterly inflation rate based on Health index

	Mean	Median	Min	Max	Std. Dev
<b>2011-2023</b>					
AI	0.02477	0.0183	0.0002	0.1117	0.0241
EI	0.0247	0.0191	-0.0066	0.1123	0.0265
UI	-6.7138e-006	0.0001	-0.0183	0.0301	0.0087

*Source: our own calculations with Gretl*

#### Appendix 17: ADF test for quarterly inflation rate based on Health Index

	At level	1 <sup>st</sup> difference
<b>2011-2023</b>		
AI	0.7382	0.0000***
EI	0.0002***	
UI	0.0895*	

#### Notes

\*Significant at 10% level

\*\*\* Significant at 1% level

*Source: our own calculations with Gretl*

#### Appendix 18: Results for actual inflation based on Health Index

Dependant variable	Constant	Actual Inflation	Adjusted R <sup>2</sup>	DW Statistics
<b>Belgium</b>				
R (2 or 3)	0.0387***	0.7016	0.0054	2.0304
R (4 or more)	-0.0001	0.0413	0.2932	2.1916
R (Flats)	5.93681e-05	0.0699	0.1062	2.0808
<b>Wallonia</b>				
R (2 or 3)	-0.0003	0.1070	0.1589	2.2657
R (4 or more)	0.0318***	1.5092***	0.3494	2.1246
R (Flats)	-0.0002	-0.0233	0.2390	2.3095
<b>Brussels</b>				
R (2 or 3)	0.0350***	1.4355**	0.1643	2.0782

R (4 or more)	0.0183	3.2081	0.1246	1.8449
R (Flats)	0.0364***	0.4255	0.4249	2.2301
<b>Flanders</b>				
R (2 or 3)	0.0395***	0.2664	0.0119	2.0479
R (4 or more)	-1.78864e-05	0.0359	0.2089	2.2387
R (Flats)	-0.0002	0.0774	0.4378	2.9766

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Notes

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

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*Source: our own calculations with Gretl*

**Appendix 19: Results for expected vs. unexpected inflation and economic cycles from 2011 to 2023  
based on Health Index**

Dependant variable	Constant	Expected inflation	Unexpecte d inflation	High inflation	Recession	Adjusted $R^2$	DW Statistics
<b>Belgium</b>							
R (2 or 3)	0.0327***	0.3955	-0.8891	0.0013	-0.0205	0.0953	2.2654
R (4 or more)	0.0032	0.0548	0.1187	-0.0130	0.0043	0.2992	2.2737
R (Flats)	0.0021	-0.0303	-0.1430	-0.0036	0.0013	0.0978	2.0970
<b>Wallonia</b>							
R (2 or 3)	0.0047*	-0.2551***	-0.4002*	0.0066	-0.0079*	0.2668	2.4269
R (4 or more)	0.02188***	0.2618	-0.9930*	0.0047	0.0035	0.2192	2.1990
R (Flats)	0.0006	-0.1438	-0.2756	0.0040	0.0037	0.2125	2.3410
<b>Brussels</b>							
R (2 or 3)	0.0372***	0.1028	-1.2896	0.0057	-0.0298*	0.1539	1.9931
R (4 or more)	0.0994*	-2.0875	-6.2569	0.0165	-0.1239*	0.1676	1.9715
R (Flats)	0.0273**	0.2384	0.7602	-0.0036	0.0130	0.4031	2.2997
<b>Flanders</b>							
R (2 or 3)	0.0327***	0.4270*	-0.4526	-0.0029	-0.0090	0.1118	1.9946
R (4 or more)	0.0025	-0.1555	-0.0504	0.0033	-0.0012	0.1971	2.3019
R (Flats)	-0.0001	-0.0201	-0.0818	0.0006	0.0003	0.3992	2.9835

Notes:

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\*Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

Source: our own calculations with Gretl

#### Appendix 20: Quarterly Inflation rate with lagged variables

	Mean	Median	Min	Max	Std. Dev
<b>2011-2023</b>					
AI	0.0256	0.0190	-0.0048	0.1108	0.0249
EI	0.0255	0.0192	-0.0036	0.1123	0.0262
UI	0.0001	-0.0001	-0.0116	0.0237	0.0061

Source: our own calculations with Gretl

#### Appendix 21: ADF test for quarterly inflation rate with one lagged variable

	At level	1 <sup>st</sup> difference
<b>2011-2023</b>		
AI	0.309	0.0001***
EI	0.0000***	
UI	0.0000***	

#### Notes

\*\*\* Significant at 1% level

Source: our own calculations with Gretl

#### Appendix 22: Results for actual inflation from 2011 to 2023 with lagged variables

Dependant variable	Constant	Actual Inflation	Adjusted R <sup>2</sup>	DW Statistics
<b>Belgium</b>				
R (2 or 3)	0.0383***	1.2206*	0.0500	2.1048
R (4 or more)	-0.0002	0.0593	0.2935	2.1922
R (Flats)	3.46823e-05	0.0388	0.1030	2.0752
<b>Wallonia</b>				
R (2 or 3)	-0.0004	0.1860	0.1688	2.2201
R (4 or more)	0.0309***	1.1545***	0.2148	2.1321
R (Flats)	-0.0003	0.1864	0.2447	2.2949
<b>Brussels</b>				
R (2 or 3)	0.0341***	2.0036***	0.2559	2.1180
R (4 or more)	0.0160	1.0094	0.1004	1.8845

R (Flats)	0.0360***	0.3155	0.4175	2.2779
<b>Flanders</b>				
R (2 or 3)	0.0396***	0.9390**	0.0650	1.8133
R (4 or more)	-3.89510e-05	0.0891	0.2110	2.2227
R (Flats)	-0.00025	-0.0846	0.4378	2.9773

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Notes

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

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*Source: our own calculations with Gretl*

**Appendix 23: Results for expected vs. unexpected inflation and economic cycles from 2011 to 2023  
with lagged variables**

Dependant variable	Constant	Expected inflation	Unexpected inflation	High inflation	Recession	Adjusted R <sup>2</sup>	DW Statistics
<b>Belgium</b>							
R (2 or 3)	0.0312***	0.4540	-0.7673	-0.0070	-0.0022	0.0001	2.0883
R (4 or more)	0.0314***	0.2247	-0.7249	-0.0093	0.0027	0.1100	2.2174
R (Flats)	0.0032	-0.1065	-0.1628	0.0014	-0.0053	0.1292	2.1581
<b>Wallonia</b>							
R (2 or 3)	0.0044*	-0.2657***	-0.4851	0.0071	-0.0059	0.2474	2.5428
R (4 or more)	0.0339***	0.2263	-1.8167**	-0.0164	-0.0007	0.2684	2.2127
R (Flats)	0.0014	-0.0038	-0.0671	-0.0055	0.0039	0.2073	2.2967
<b>Brussels</b>							
R (2 or 3)	0.0368***	-0.3193	-2.9375**	0.0220	-0.0121	0.1247	2.0008
R (4 or more)	0.1055*	-2.8197	-3.1809	0.0238	-0.0774	0.1420	1.9745
R (Flats)	0.0400***	0.1753	-0.3766	-0.0197**	0.0011	0.4482	2.2254
<b>Flanders</b>							
R (2 or 3)	0.0334***	0.4418*	-0.5195	-0.0068	-0.0057	0.0682	1.8566
R (4 or more)	0.0032	-0.0685	-0.0318	-0.0038	0.0009	0.2020	2.3112
R (Flats)	0.0005	0.0287	0.0298	-0.0036	0.0005	0.4012	2.9648

**Notes**

R (2 or 3) = returns of houses with 2 or 3 facades

R (4 or more) = returns of houses with 4 or more facades

\* Significant at 10% level

\*\* Significant at 5% level

\*\*\* Significant at 1% level

DW denotes Durbin-Watson statistics

*Source: our own calculations with Gretl*

#### Appendix 24: Quarterly property returns based on House Price index (HPI)

	Mean	Median	Max	Min	Std. Dev	Correlation with AI
<b>2011-2023</b>						
Belgium	0.0305	0.0319	0.0736	-0.0058	0.0191	0.4400***
Wallonia	0.0254	0.0246	0.0698	-0.0234	0.0698	0.4491***
Brussels	0.0362	0.0373	0.0974	-0.0134	0.0282	0.1418
Flanders	0.0306	0.0276	0.0780	-0.0025	0.0196	0.4733***

Note:

\*\*\*Significant at 1% level

Source: our own calculations with Gretl

#### Appendix 25: ADF test for quarterly property returns based on House Price Index (HPI)

	At level (with constant)	1 <sup>st</sup> difference
<b>2011-2023</b>		
Belgium	0.4570	0.0000***
Wallonia	0.2223	0.0000***
Brussels	0.5351	0.0015***
Flanders	0.3309	0.0000***

Notes

\*\*\* Significant at 1% level

Source: our own calculations with Gretl

#### Appendix 26: Results for actual inflation based on House Price Index (HPI)

Dependant variable	Constant	Actual inflation	Adjusted R <sup>2</sup>	DW Statistics
<b>2011-2023</b>				
Belgium	-0.0002	0.0072	-0.0203	2.1121
Wallonia	-0.0002	0.1298	0.2280	2.1452
Brussels	-0.0005	-0.0279	0.0485	2.0227
Flanders	-0.0002	-0.0096	-0.0203	2.1036
Notes				

DW denotes Durbin-Watson statistics

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*Source: our own calculations with Gretl*

**Appendix 27: Results for expected vs. unexpected inflation and economic cycles from 2011 to 2023  
based on Housing Price Index (HPI)**

Dependant variable	Constant	Expected inflation	Unexpected inflation	High inflation	Recession	Adjusted R <sup>2</sup>	DW Statistics
<b>2011-2023</b>							
Belgium	0.0038**	-0.0703	-0.2109	-0.0038	-0.00215	0.1024	2.3651
Wallonia	0.0032**	-0.1490**	-0.4901**	0.0022	-0.0030	0.3356	2.4853
Brussels	0.0019	-0.0495	-0.1007	-0.0041	0.0027	0.0450	2.0387
Flanders	0.0043**	-0.0770	-0.2351	-0.0038	-0.0036	0.0869	2.2901

Notes

\*\* Significant at 5% level

DW denotes Durbin-Watson statistics

*Source: our own calculations with Gretl*

**Appendix 28: ADF test for residuals based on House Price index returns**

	P-value of the residuals
<b>2011 – 2023</b>	
Belgium	0.5252
Wallonia	0.3363
Brussels	0.7421
Flanders	0.3543

*Source: our own calculations with Gretl*

### Appendix 29: Choice of the method for the ADF test for AI, EI, UI from 1992 to 2010

AI → with constant



EI → with constant

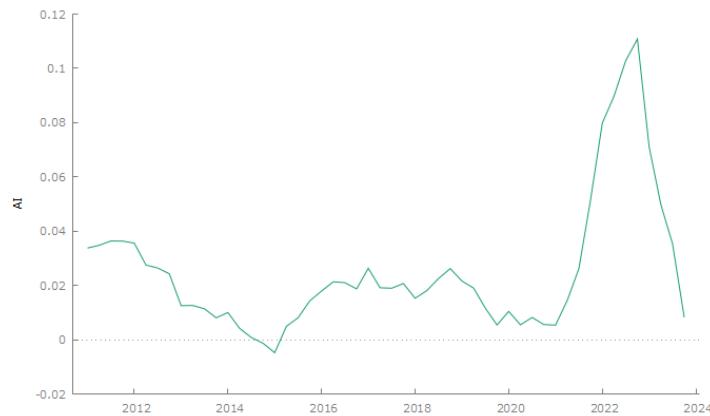


UI → without constant

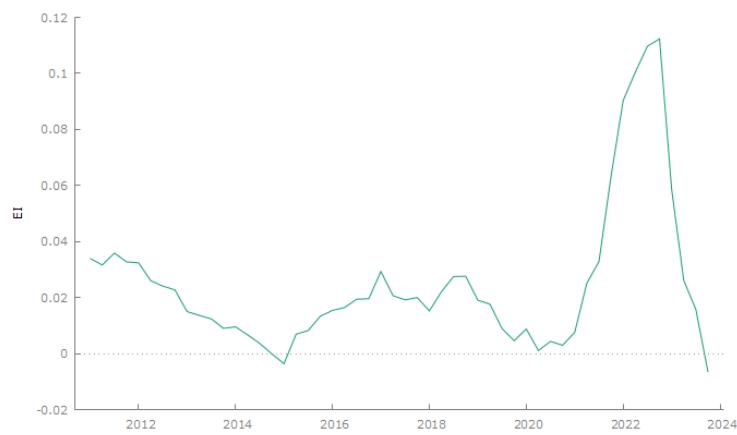


### Appendix 30: Choice of the method for the ADF test for AI, EI, UI from 2011 to 2023

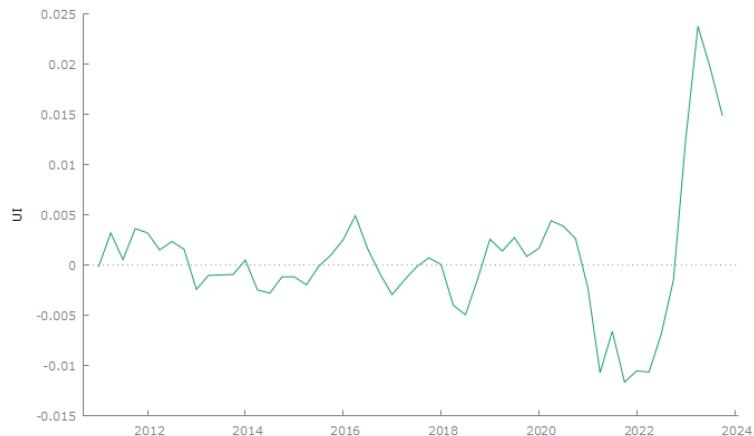
AI → with constant



EI → with constant



UI → without a constant



**Appendix 31: Choice of the method for the ADF test for property returns from 1992 to 2010**

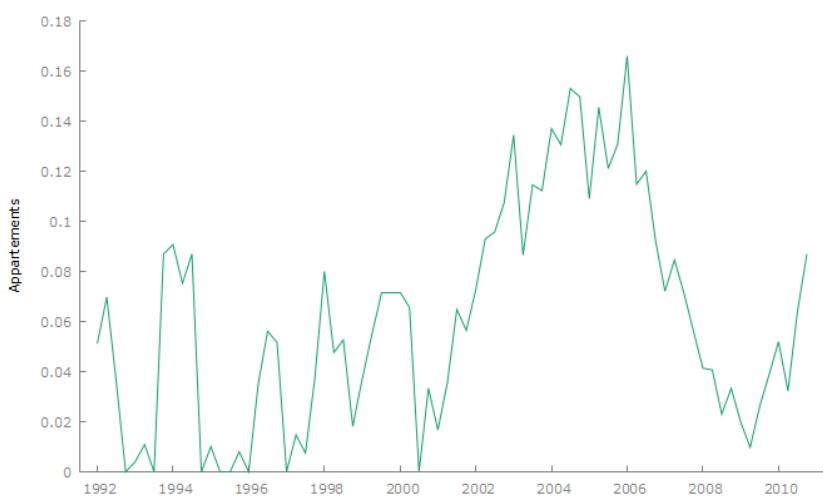
Ordinary (Belgium) → with a constant



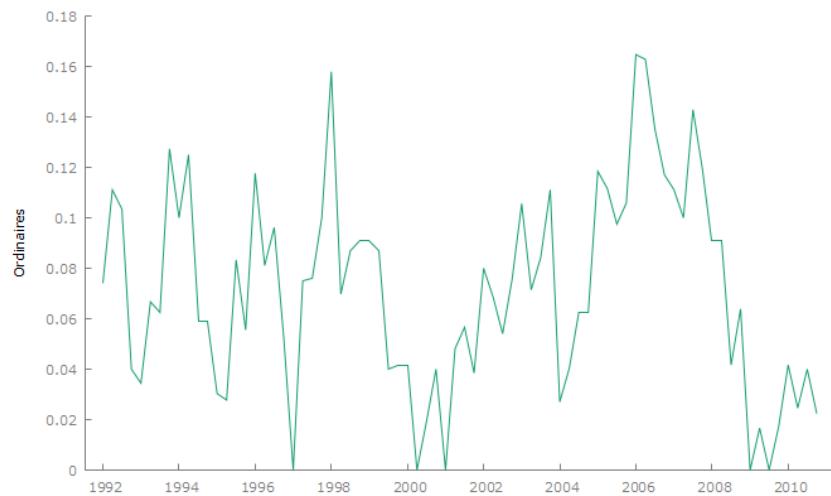
Villas (Belgium) → without a constant



Flats (Belgium) → with a constant



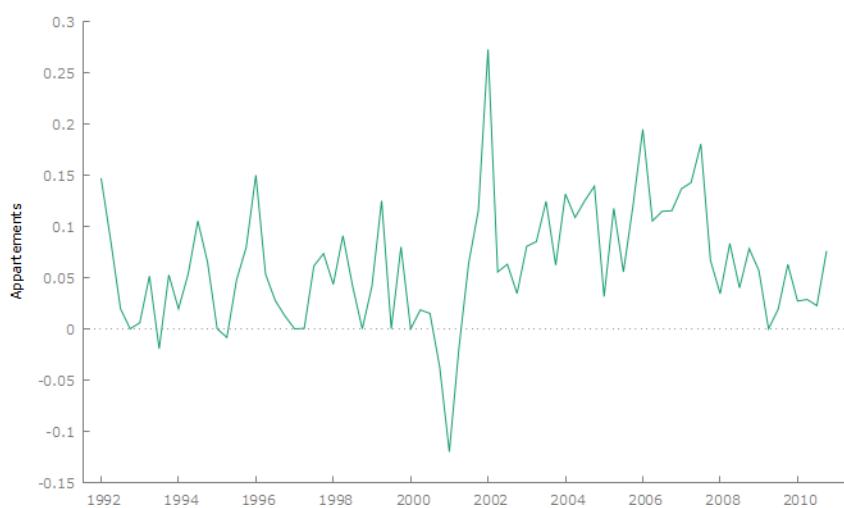
Ordinary (Wallonia) → with a constant



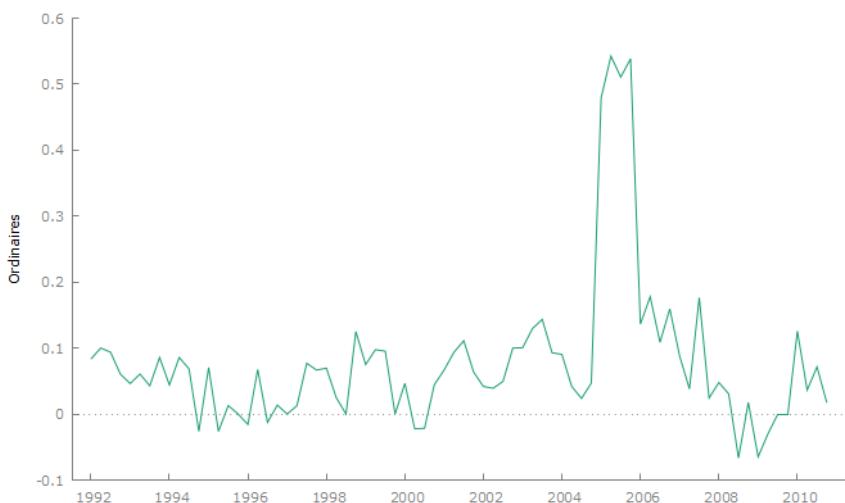
Villas (Wallonia) → without a constant



Flats (Wallonia) → with a constant



Ordinary (Brussels) → with a constant



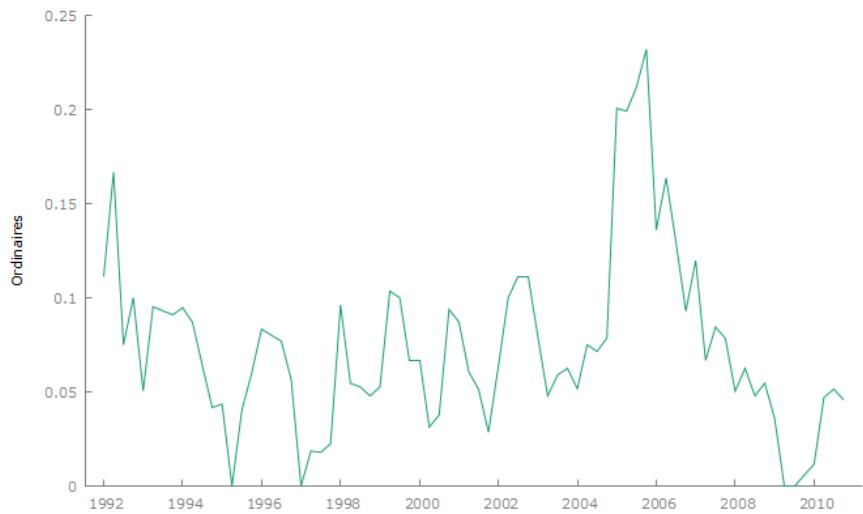
Villas (Brussels) → without a constant



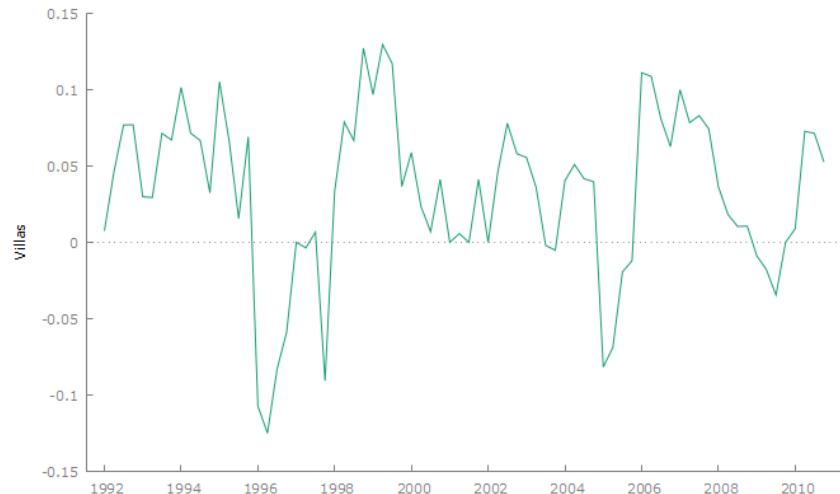
Flats (Brussels) → with a constant



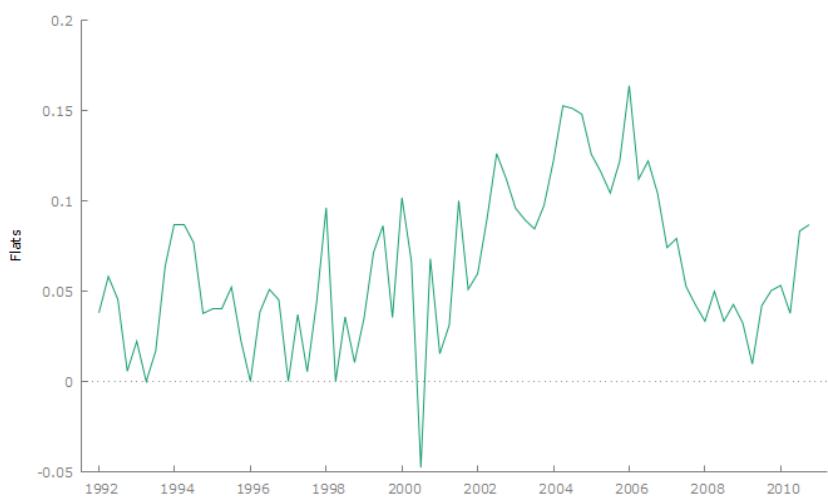
Ordinary (Flanders) → with a constant



Villas (Flanders) → without a constant



Flats (Flanders) → with a constant



### Appendix 32: Choice of the method for the ADF test for property returns from 2011 to 2023

2 or 3 facades (Belgium) → without a constant



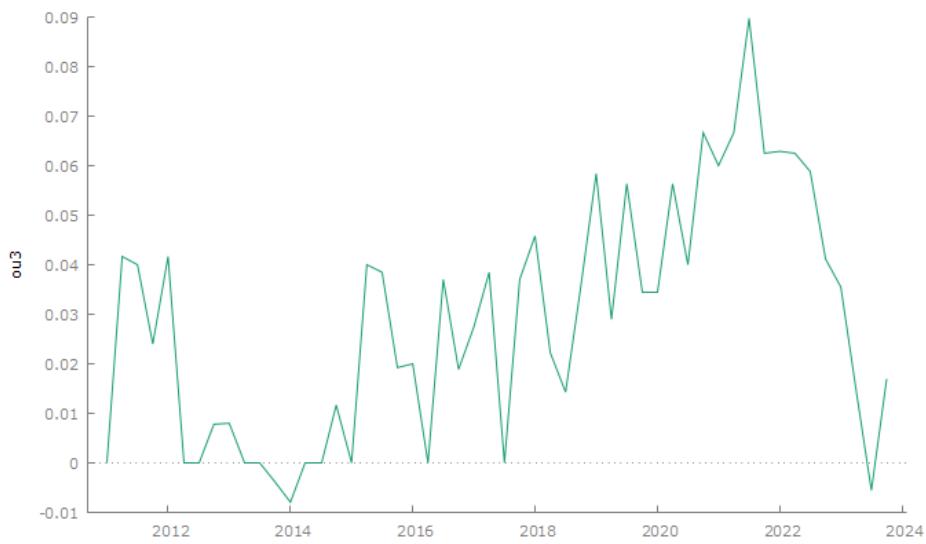
4 or more facades (Belgium) → with a constant



Flats (Belgium) → with a constant



2 or 3 facades (Wallonia) → with a constant



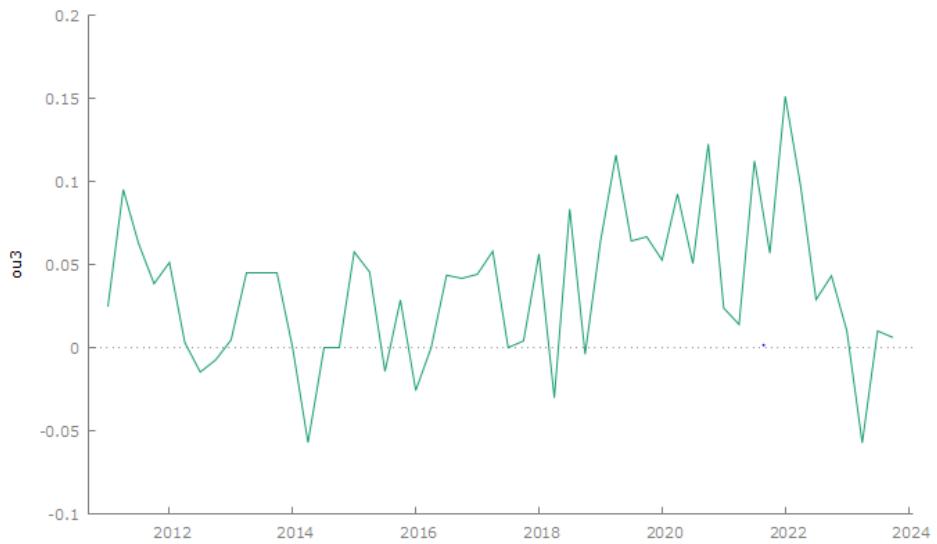
4 or more facades (Wallonia) → with a constant



Flats (Wallonia) → with a constant



2 or 3 facades (Brussels) → with constant



4 or more facades (Brussels) → without a constant



Flats (Brussels) → with a constant



### 2 or 3 facades (Flanders) → with a constant



### 4 or more facades (Flanders) → with a constant



### Flats (Flanders) → with a constant



