

Convergence analysis

Instructions to create a custom dataset, and how to download an indicator from Eurostat and feed it to the app. *[correct as of 27/10/2023]*

1. It needs to be a .csv file
2. The word “**time**” needs to be in small caps.
3. With time and country arranged this way:

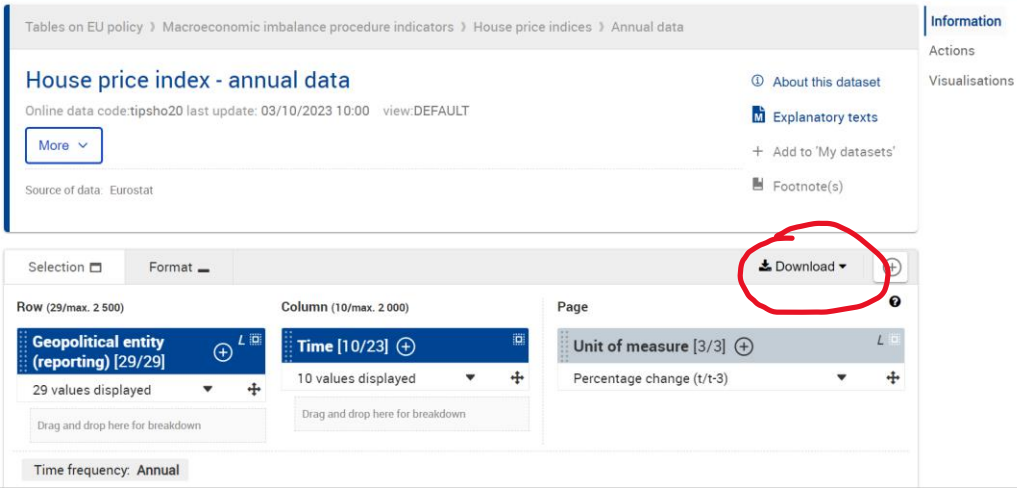
time	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	L
2000	36.6	40.7	43.2	34.2	38.1	40.5	38.6	42.1	38.4	38.5		39.1	39.3	42.5	39.4	
2001	36.4	41.1	41.4	34.6	37.9	40.2	38.3	42.2	38.3	38.1		39.2	38.8	43.1	39	
2002	36.6	41.2	41.4	35.1	37.5	40.4	37.7	42	38.5	37.6	40.9	35.7	38.4	42.5	38.6	
2003	36.4	40	41.5	34.3	37	39.9	37.2	42.1	37.7	36.8	40.9	38.9	38.2	42.2	37.8	
2004	36.2	40.7	42.2	33.8	37	40.1	37	42.1	38.3	36.7	40.8	38.4	38.8	41.1	38	
2005	36.7	40.7	41.8	35.3	37	40.1	37.3	41.9	38.7	36.8	40.2	38.1	39.4	41.5	38.2	
2006	36.8	41.1	41.6	35	36.2	40.1	37.1	41.5	38.6	36.8	40.3	38	39.3	41.4	38.2	
2007	37	41.2	41.4	35.1	36.2	39.9	36.5	41.2	38.4	36.7	40.5	38	39.1	40.8	38.6	
2008	36.8	41.1	41.4	35.1	36.1	39.3	36	41	38.3	36.7	40.1	37.6	39.1	39.6	39.3	
2009	36.7	40.4	40.7	34.7	35.5	37.8	35	40.8	37.9	36.5	39.9	37.2	38.6	39	38.7	
2010	37	40.5	40.6	35.1	35.7	38.7	35	40.8	37.7	36.8	39.8	37.3	39	38.5	38.5	
2011	36.9	40.3	40.4	35.3	35.8	38.8	34.9	40.9	37.6	36.8	39.6	37.1	38.8	38.6	38.4	
2012	36.7	40.2	40.1	35.1	35.8	38.6	35	40.8	37.2	36.6	39.5	36.4	38.9	38.4	38.2	
2013	36.9	40	39.5	35.1	35.5	38.4	35.1	40.9	37.2	35.9	39.2	36.3	38.3	38.5	38.2	

4. If there are any missing values, the cell should be empty.

time	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	L
2000	36.6	40.7	43.2	34.2	38.1	40.5	38.6	42.1	38.4	38.5		39.1	39.3	42.5	39.4	
2001	36.4	41.1	41.4	34.6	37.9	40.2	38.3	42.2	38.3	38.1		39.2	38.8	43.1	39	
2002	36.6	41.2	41.4	35.1	37.5	40.4	37.7	42	38.5	37.6	40.9	35.7	38.4	42.5	38.6	
2003	36.4	40	41.5	34.3	37	39.9	37.2	42.1	37.7	36.8	40.9	38.9	38.2	42.2	37.8	
2004	36.2	40.7	42.2	33.8	37	40.1	37	42.1	38.3	36.7	40.8	38.4	38.8	41.1	38	
2005	36.7	40.7	41.8	35.3	37	40.1	37.3	41.9	38.7	36.8	40.2	38.1	39.4	41.5	38.2	
2006	36.8	41.1	41.6	35	36.2	40.1	37.1	41.5	38.6	36.8	40.3	38	39.3	41.4	38.2	
2007	37	41.2	41.4	35.1	36.2	39.9	36.5	41.2	38.4	36.7	40.5	38	39.1	40.8	38.6	
2008	36.8	41.1	41.4	35.1	36.1	39.3	36	41	38.3	36.7	40.1	37.6	39.1	39.6	39.3	
2009	36.7	40.4	40.7	34.7	35.5	37.8	35	40.8	37.9	36.5	39.9	37.2	38.6	39	38.7	
2010	37	40.5	40.6	35.1	35.7	38.7	35	40.8	37.7	36.8	39.8	37.3	39	38.5	38.5	
2011	36.9	40.3	40.4	35.3	35.8	38.8	34.9	40.9	37.6	36.8	39.6	37.1	38.8	38.6	38.4	
2012	36.7	40.2	40.1	35.1	35.8	38.6	35	40.8	37.2	36.6	39.5	36.4	38.9	38.4	38.2	
2013	36.9	40	39.5	35.1	35.5	38.4	35.1	40.9	37.2	35.9	39.2	36.3	38.3	38.5	38.2	

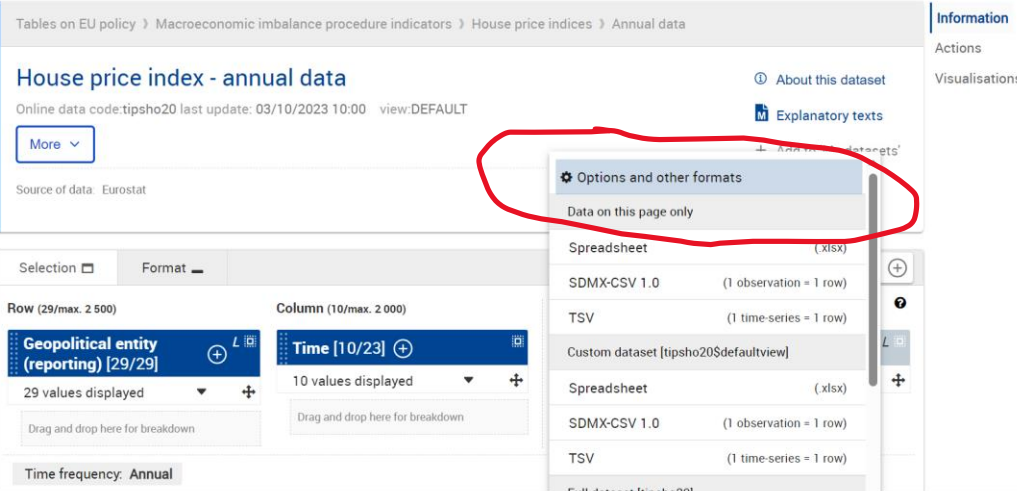
CONVERGEU APP – Getting an indicator from Eurostat manually (you can also use the R package convergEU if you use R)

1. After selecting countries and variables we like, we go to **Download**



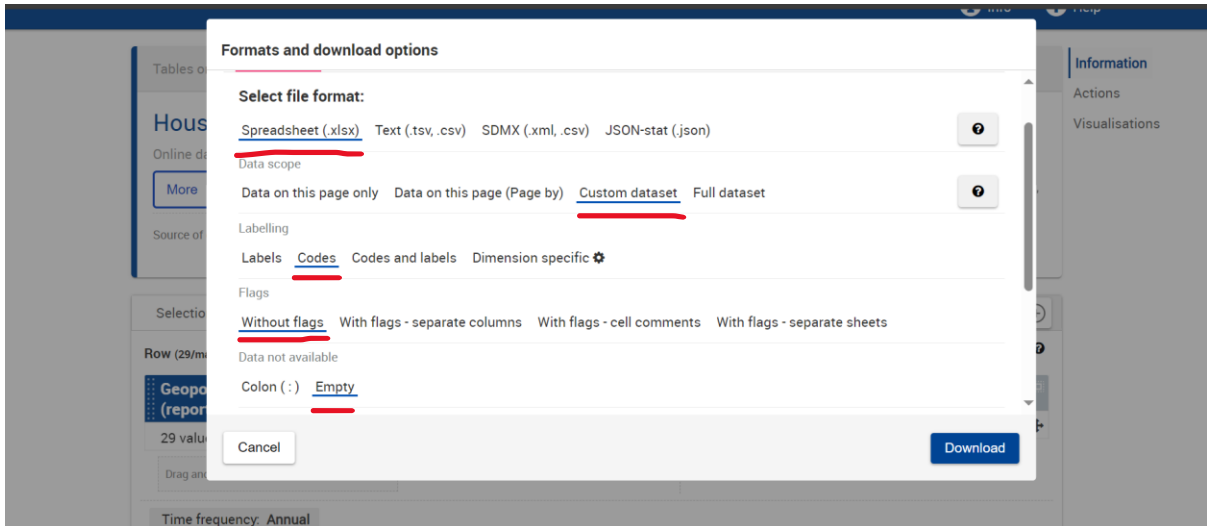
The screenshot shows the Eurostat data browser interface for 'House price index - annual data'. The breadcrumb trail is 'Tables on EU policy > Macroeconomic imbalance procedure indicators > House price indices > Annual data'. The page title is 'House price index - annual data' with the online data code 'tipsho20' and last update '03/10/2023 10:00'. A 'More' dropdown menu is visible. The source of data is 'Eurostat'. On the right, there are links for 'About this dataset', 'Explanatory texts', 'Add to My datasets', and 'Footnote(s)'. Below this, there are tabs for 'Selection', 'Format', and 'Download', with the 'Download' tab circled in red. The main content area shows 'Row (29/max. 2.500)' with 'Geopolitical entity (reporting) [29/29]' and 'Time [10/23]' selected. The 'Column' section shows 'Unit of measure [3/3]' with 'Percentage change (t/t-3)' selected. The 'Page' section shows 'Unit of measure [3/3]' and 'Percentage change (t/t-3)'. The time frequency is set to 'Annual'. At the bottom, it says 'EC data browser (Latest commit ddf246d02, built on 2023-10-11T04:55:19.535Z)'.

2. We click on **Options and other formats**



The screenshot shows the Eurostat data browser interface for 'House price index - annual data'. The breadcrumb trail is 'Tables on EU policy > Macroeconomic imbalance procedure indicators > House price indices > Annual data'. The page title is 'House price index - annual data' with the online data code 'tipsho20' and last update '03/10/2023 10:00'. A 'More' dropdown menu is visible. The source of data is 'Eurostat'. On the right, there are links for 'About this dataset', 'Explanatory texts', 'Add to My datasets', and 'Footnote(s)'. Below this, there are tabs for 'Selection', 'Format', and 'Download', with the 'Download' tab circled in red. The main content area shows 'Row (29/max. 2.500)' with 'Geopolitical entity (reporting) [29/29]' and 'Time [10/23]' selected. The 'Column' section shows 'Unit of measure [3/3]' with 'Percentage change (t/t-3)' selected. The 'Page' section shows 'Unit of measure [3/3]' and 'Percentage change (t/t-3)'. The time frequency is set to 'Annual'. At the bottom, it says 'EC data browser (Latest commit ddf246d02, built on 2023-10-11T04:55:19.535Z)'. The 'Options and other formats' dropdown menu is open, showing options: 'Data on this page only', 'Spreadsheet (.xlsx)', 'SDMX-CSV 1.0 (1 observation = 1 row)', 'TSV (1 time-series = 1 row)', 'Custom dataset [tipsho20\$defaultview]', 'Spreadsheet (.xlsx)', 'SDMX-CSV 1.0 (1 observation = 1 row)', 'TSV (1 time-series = 1 row)', and 'Full dataset [tipsho20]'.

3. IMPORTANT DATA STYLE TO SELECT: Labelling = **Codes**, Flags = **Without flags**, Data not available = **Empty**



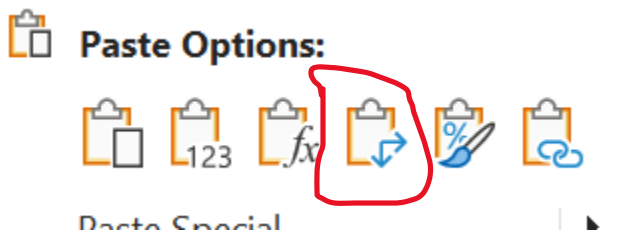
4. This is how the dataset looks like. We only want the table now, so we delete all the rows that we don't care about.

A1 Data extracted on 25/10/2023 16:18:41 from [E

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Data extracted on 25/10/2023 16:18:41 from [ESTAT]												
2	Dataset	House price index - annual data (tipsho20_custom_8096792)											
3	Last updated:	03/10/2023 11:00											
4													
5	FREQ	A											
6	UNIT	IHX_A_AVG											
7													
8	TIME	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
9	REG(CODES)												
10	BE	98.90	98.35	100.00	102.64	106.37	103.42	113.78	118.60	127.06	134.19		
11	BG	95.92	97.29	100.00	107.02	116.30	123.96	131.42	137.41	149.33	169.92		
12	CZ	93.90	96.20	100.00	107.20	113.70	130.00	141.90	153.90	184.20	215.30		
13	DK	90.09	93.49	100.00	105.22	110.00	114.81	117.51	123.48	137.98	137.33		
14	DE	92.60	95.50	100.00	107.50	114.10	121.70	128.70	138.70	154.70	162.90		
15	EE	82.29	93.58	100.00	104.75	110.51	117.07	125.27	132.79	152.78	186.76		
16	IE	76.99	89.72	100.00	107.46	119.14	131.33	134.41	134.82	145.98	163.96		
17	EL	113.82	105.32	100.00	97.62	96.63	98.38	105.48	110.22	118.61	131.72		
18	ES	96.24	96.54	100.00	104.62	111.10	118.58	124.71	127.50	132.19	141.98		
19	FR	102.93	101.36	100.00	101.04	104.24	107.29	110.86	116.62	123.98	131.82		
20	HR	104.63	102.98	100.00	100.89	104.75	111.14	121.10	130.38	139.91	160.69		
21	IT	109.10	104.00	100.00	100.30	99.20	98.60	98.50	100.40	103.00	106.90		
22	CY	103.29	101.47	100.00	100.27	102.52	104.32	108.20	107.98	104.33	107.71		
23	LV	97.62	103.48	100.00	108.49	118.01	129.30	140.88	145.77	161.65	184.01		
24	LT	90.65	96.47	100.00	105.40	114.80	123.18	131.61	141.18	163.84	195.05		
25	LU	90.89	94.88	100.00	106.01	111.96	119.86	131.99	151.12	172.15	188.60		
26	HU	84.87	88.43	100.00	113.38	127.24	145.50	170.17	178.58	208.04	254.35		
27	MT	92.16	94.51	100.00	105.45	111.03	117.45	124.65	128.86	135.44	144.45		
28	NL	95.75	96.53	100.00	105.02	112.93	123.61	132.62	142.75	164.21	186.29		
29	AT	92.10	95.33	100.00	108.53	114.26	119.64	126.60	136.31	153.26	170.77		
30	PL	97.54	98.50	100.00	101.86	105.78	112.74	122.52	135.36	147.77	165.21		
31	PT	93.09	97.04	100.00	107.12	117.02	129.03	141.88	154.33	168.84	190.17		
32	RO	99.26	97.22	100.00	105.95	112.36	118.62	122.69	128.44	134.09	143.70		
33	SI	106.21	99.20	100.00	103.25	111.79	121.55	129.69	135.66	151.32	173.65		
34	SK	93.59	94.91	100.00	106.70	112.99	121.32	132.39	145.06	154.33	175.47		
35	FI	100.35	100.00	100.00	101.29	102.39	103.34	103.77	105.60	110.45	111.75		
36	SE	80.79	88.40	100.00	108.24	115.43	114.35	117.19	122.11	134.46	139.25		
37													
38	Special value	not available											
39													
40													
41													

- We change **TIME** into **time**, and then we flip the table so that years are rows. Copy the table and then paste it with the transposed table, then delete the previous table and start the transposed table to A1.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	time	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
2	BE	98.90	98.35	100.00	102.64	106.37	109.42	113.78	118.60	127.06	134.19			
3	BG	95.92	97.29	100.00	107.02	116.30	123.96	131.42	137.41	149.33	169.92			
4	CZ	93.90	96.20	100.00	107.20	119.70	130.00	141.90	153.90	184.20	215.30			
5	DK	90.09	93.49	100.00	105.22	110.00	114.81	117.51	123.48	137.98	137.33			
6	DE	92.60	95.50	100.00	107.50	114.10	121.70	128.70	136.70	154.70	162.90			
7	EE	82.29	93.58	100.00	104.75	110.51	117.07	125.27	132.79	152.78	186.76			
8	IE	76.99	89.72	100.00	107.46	119.14	131.33	134.41	134.82	145.98	163.96			
9	EL	113.82	105.32	100.00	97.62	96.63	98.38	105.48	110.22	118.61	131.72			
10	ES	96.24	96.54	100.00	104.62	111.10	118.58	124.71	127.50	132.19	141.98			
11	FR	102.93	101.36	100.00	101.04	104.24	107.29	110.86	116.62	123.98	131.82			
12	HR	104.63	102.98	100.00	100.89	104.75	111.14	121.10	130.38	139.91	160.69			
13	IT	109.10	104.00	100.00	100.30	99.20	98.60	98.50	100.40	103.00	106.90			
14	CY	103.29	101.47	100.00	100.27	102.52	104.32	108.20	107.98	104.33	107.71			
15	LV	97.62	103.48	100.00	108.43	116.01	123.30	140.88	145.77	161.65	184.01			
16	LT	90.65	96.47	100.00	105.40	114.80	123.18	131.61	141.18	163.84	195.05			
17	LU	90.89	94.88	100.00	106.01	111.96	119.86	131.99	151.12	172.15	188.60			
18	HU	84.87	88.43	100.00	113.38	127.24	145.50	170.17	178.58	208.04	254.35			
19	MT	92.16	94.51	100.00	105.45	111.03	117.45	124.65	128.86	135.44	144.45			
20	NL	95.75	96.53	100.00	105.02	112.93	123.61	132.62	142.75	164.21	186.29			
21	AT	92.10	95.33	100.00	108.53	114.26	119.64	126.60	136.31	153.26	170.77			
22	PL	97.54	98.50	100.00	101.88	105.78	112.74	122.52	135.36	147.77	165.21			
23	PT	93.09	97.04	100.00	107.12	117.02	129.03	141.88	154.33	168.84	190.17			
24	RO	93.26	97.22	100.00	105.95	112.36	118.62	122.69	128.44	134.09	143.70			
25	SI	106.21	99.20	100.00	103.25	111.79	121.55	129.69	135.66	151.32	173.65			
26	SK	93.59	94.91	100.00	106.70	112.99	121.32	132.39	145.06	154.33	175.47			
27	FI	100.35	100.00	100.00	101.29	102.39	103.34	103.77	105.60	110.45	111.75			
28	SE	80.79	88.40	100.00	108.24	115.43	114.35	117.19	122.11	134.46	139.25			



- This is how it looks at the end. Watch out for missing values. They have to be blank. If you download the datasets with ":" as missing values by mistake, make sure to change them before uploading the dataset in the app.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
1	time	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022																			
2	BE	98.90	98.35	100.00	102.64	106.37	109.42	113.78	118.60	127.06	134.19																			
3	BG	95.92	97.29	100.00	107.02	116.30	123.96	131.42	137.41	149.33	169.92																			
4	CZ	93.90	96.20	100.00	107.20	119.70	130.00	141.90	153.90	184.20	215.30																			
5	DK	90.09	93.49	100.00	105.22	110.00	114.81	117.51	123.48	137.98	137.33																			
6	DE	92.60	95.50	100.00	107.50	114.10	121.70	128.70	136.70	154.70	162.90																			
7	EE	82.29	93.58	100.00	104.75	110.51	117.07	125.27	132.79	152.78	186.76																			
8	IE	76.99	89.72	100.00	107.46	119.14	131.33	134.41	134.82	145.98	163.96																			
9	EL	113.82	105.32	100.00	97.62	96.63	98.38	105.48	110.22	118.61	131.72																			
10	ES	96.24	96.54	100.00	104.62	111.10	118.58	124.71	127.50	132.19	141.98																			
11	FR	102.93	101.36	100.00	101.04	104.24	107.29	110.86	116.62	123.98	131.82																			
12	HR	104.63	102.98	100.00	100.89	104.75	111.14	121.10	130.38	139.91	160.69																			
13	IT	109.10	104.00	100.00	100.30	99.20	98.60	98.50	100.40	103.00	106.90																			
14	CY	103.29	101.47	100.00	100.27	102.52	104.32	108.20	107.98	104.33	107.71																			

- Save it as csv: **File > Save As > CSV UTF-8 (Comma delimited) (*.csv)**.