



THE IMPACT OF THE COVID-19 PANDEMIC ON THE CROATIAN WOOD PRODUCTS MARKET

14th INTERNATIONAL SCIENTIFIC CONFERENCE **WOODEMA**

Authors

Maja Moro, Mihaela Vuzem, Andreja Pirc Barčič, Darko Motik

Koper, Slovenia, *June 16th - 18th 2021*

- This article presents an analysis of the current situation in the Croatian wood products market based on year-on-year indices of production, exports and imports in the wood processing and furniture production sectors.
- The aim of this paper is to find the answer to how the Covid-19 pandemic affected the movements of production, exports and imports in the two main Croatian wood sectors.

- Data gathered for these analysis are shown in Table 1. and Table 2.
- Table 1. Year on year production indices for sectors C16 and C31

Sectors	2020/2019											
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
C16	101,0	94,5	87,4	81,1	83,7	99,2	89,2	90,4	102,7	101,3	98,3	106,0
C31	110,9	107,1	77,7	40,6	61,9	83,0	100,6	102,1	93,3	92,5	86,0	93,5

- Table 2. Export and import in mil.EUR and shares of C for subsectors C16 and C31

Year	Export				Import			
	C16		C31		C16		C31	
	mil.EUR	% of C	mil.EUR	% of C	mil.EUR	% of C	mil.EUR	% of C
2017	645,4	4,6	328,3	2,3	258,7	1,2	279,0	1,3
2018	707,7	4,9	269,6	1,9	304,7	1,3	311,1	1,3
2019	743,2	4,9	262,4	1,7	358,5	1,4	379,3	1,5
2020	704,0	4,7	249,3	1,7	328,1	1,4	338,7	1,5

- Also, database include the number of daily COVID-19 cases from the begining of pandemia on Feb 26, 2020 in Croatia.

Day	2020												2021					
	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	I	II	III	IV	V	VI	
1		1	96	9	0	54	86	145	234	2179	2900	1170	94	91	2422	2046	216	
2		1	48	3	0	81	36	311	333	1165	3539	255	387	394	2362	944	432	
3		1	68	8	0	96	34	369	241	1427	4534	696	730	747	2234	349	280	
4		1	47	5	1	86	24	334	258	2480	3955	361	516	667	1376	1396	88	
5			56	11	0	57	58	311	138	2848	4084	1071	549	590	138	2494	211	
6		1	40	7	0	69	28	225	287	2890	2899	1896	424	658	735	1640	157	
7		1	60	6	0	52	62	117	363	2399	1886	562	53	394	1649	1435	43	
8			61	36	0	53	77	204	542	2543	2613	1098	71	94	3217	1342	178	
9		1	64	15	0	91	61	341	457	1529	4520	1401	283	491	2599	665	275	
10		2	88	11	2	116	45	291	486	1467	4620	646	577	962	2535	253	184	
11		4	39	9	0	140	91	190	508	2597	4396	230	376	777	1617	876	134	
12		8	66	11	0	50	130	261	181	3082	4135	759	371	823	422	1471		
13		5	50	6	2	53	180	165	372	3056	3363	1135	379	823	1936	1064		
14		7	54	8	1	52	208	65	748	2866	1472	980	198	561	3099	926		
15		10	37	1	2	126	162	151	793	2362	2360	715	68	129	2927	826		
16		8	50	2	1	86	151	280	1131	1313	3327	763	274	691	2698	480		
17		12	23	2	3	98	85	250	1096	1945	3918	379	502	1445	2627	116		
18		20	18	2	11	116	199	234	819	3251	3272	174	365	1197	1565	491		
19		21	39	4	11	92	219	212	393	3164	2752	520	388	1112	410	1000		
20		20	10	2	19	25	255	197	890	2958	1975	902	431	1186	2106	695		
21		76	27	3	18	52	265	70	1424	3573	766	776	260	834	3117	525		
22		48	42	6	19	108	306	144	1563	3308	1595	643	72	150	2885	518		
23		61	31	0	30	104	275	204	1867	1973	2763	599	343	956	2529	251		
24		67	28	1	22	81	136	232	2242	2323	2233	352	688	1891	2535	74		
25		60	7	0	95	77	219	223	2421	3603	1643	134	544	1673	1254	323		
26	2	53	14	0	56	65	358	212	828	4009	350	448	505	1802	410	538		
27		91	9	0	85	24	304	190	1413	4080	618	857	520	1790	1797	375		
28	2	71	8	1	67	41	357	48	2378	3987	316	619	356	1321	2904	321		
29	1	56	15	0	34	71	312	135	2776	2919	1350	561		300	2439	338		
30		77	14	1	52	78	262	213	2772	1830	1850	551		1487	2007	186		
31		77		0		67	146		2769		2391	336		2623		40		

- Searching for the answer to how the Covid-19 pandemic affected the movements of production, exports and imports in the two main Croatian wood sectors, we performed a three different analysis.
 - Pandemic of COVID-19 in the Croatia
 - Production in sectors C16 and C31
 - Export and import in sectors C16 and C31

- Pandemic of COVID-19 in the Croatia

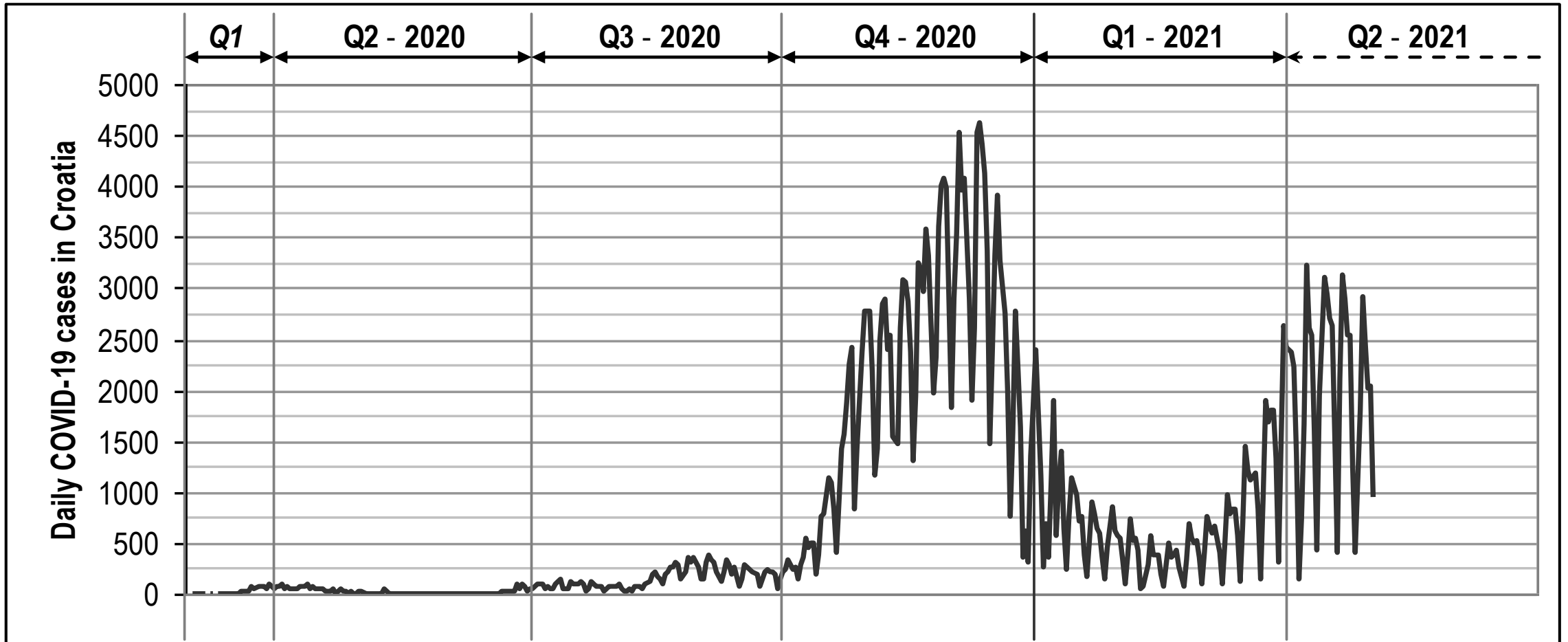


Figure 1. Daily new cases in period Feb 25, 2020 - **May 2, 2021**

- From the curve of the pandemic shown in Figure 1, we can see that the "worst wave" starting in the last quarter of last year (Q4, 2020; Max 4620) is behind us, and that we are now in the middle of the "new wave" that started in the half of February this year, with maximum of 3217 infected on Apr 8, 2021.
- Analyzing the weekly highs of those infected with Coronavirus in Croatia from December 10, 2020 to May 2, 2021, we came to the current trend according to which the end of this wave can be expected in mid-July this year (Figure 2).
- This is just one possible scenario, but also we have to be aware about a possibility of one or more subsequent waves.

- Pandemic of COVID-19 in the Croatia

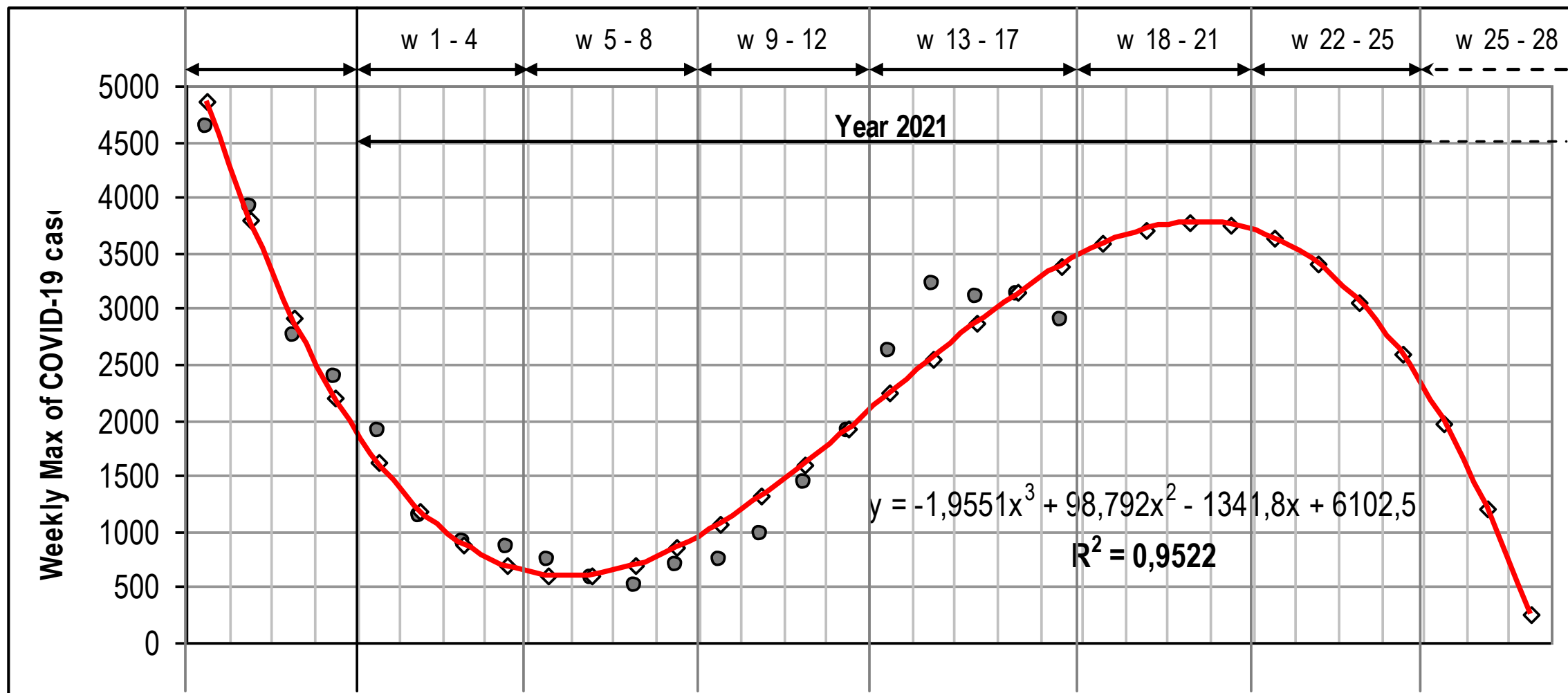


Figure 2. Weekly Maximum of new cases in period Dec 7, 2020 – May 2, 2021

- Pandemic of COVID-19 in the Croatia

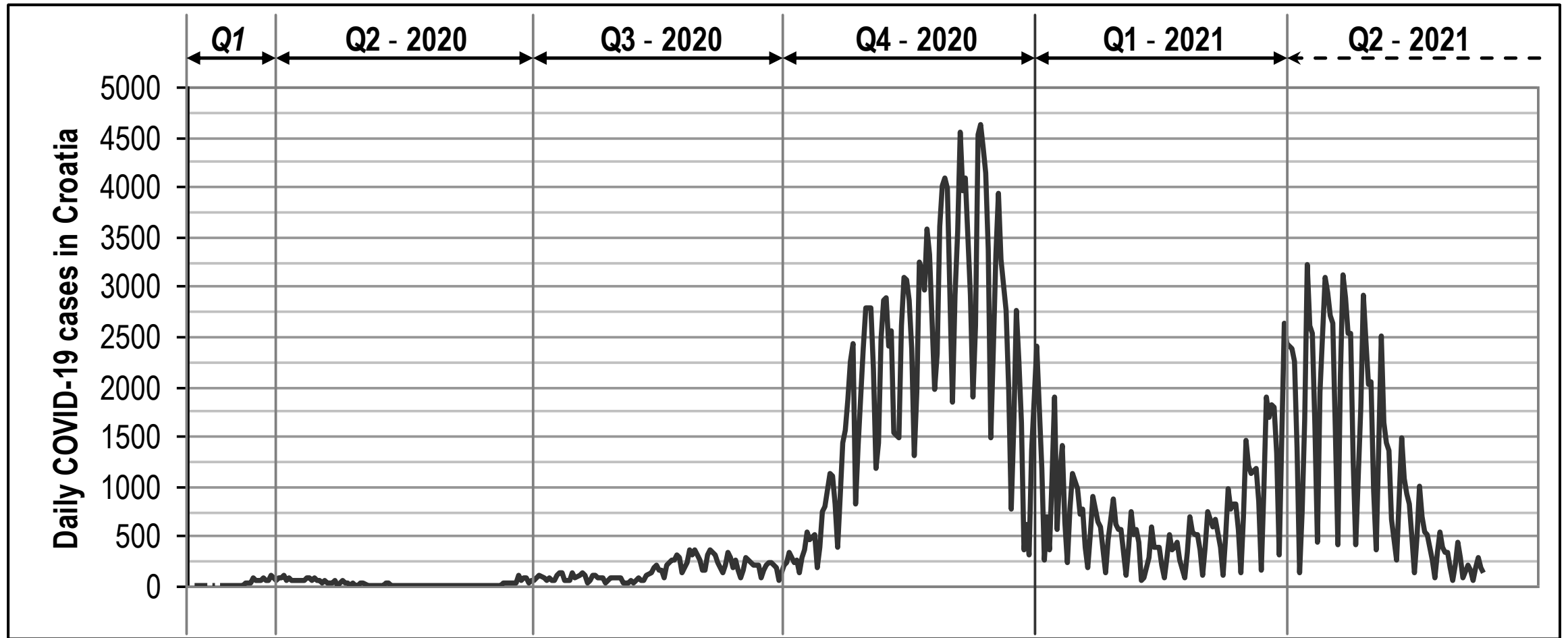


Figure 1*. Daily new cases in period Feb 25, 2020 – June 11, 2021

- **Production in sectors C16 and C31**

- Analyzing the year on year production indices 2020/2019, on the base on average gross indice in 2019 for sectors C16 and C31, we calculated a gross indices of production for all months in years 2019 and 2020.
- For sector C16, the most significant decline in production was recorded in July and December in both analyzed years, while sector C31 recorded a drastic decline in production in the second quarter of 2020.
- The results of these analyses and movement of production in two main Croatian wood manufacturing sectors are shown in Figures 3 and 4.

- Production in sectors C16 and C31

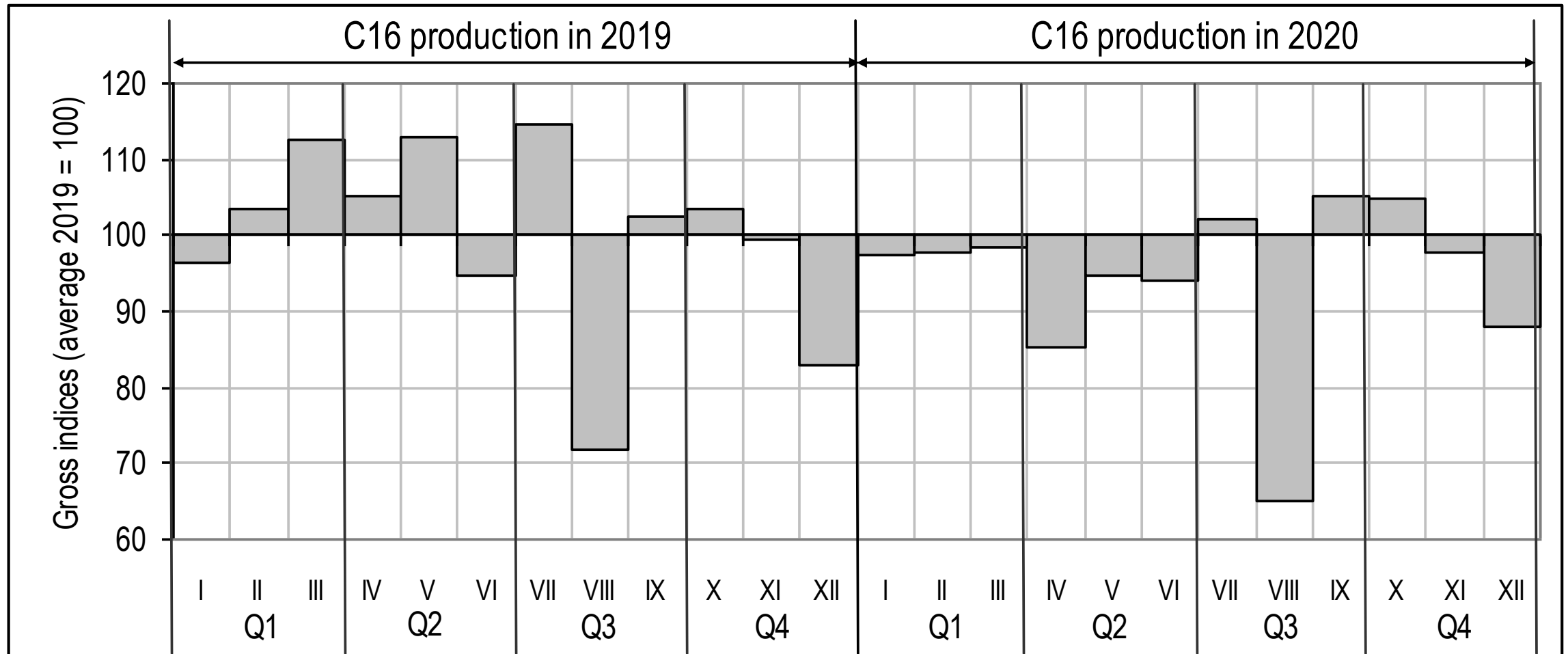


Figure 3. Gross indices for C16 production in 2019 and 2020

- Production in sectors C16 and C31

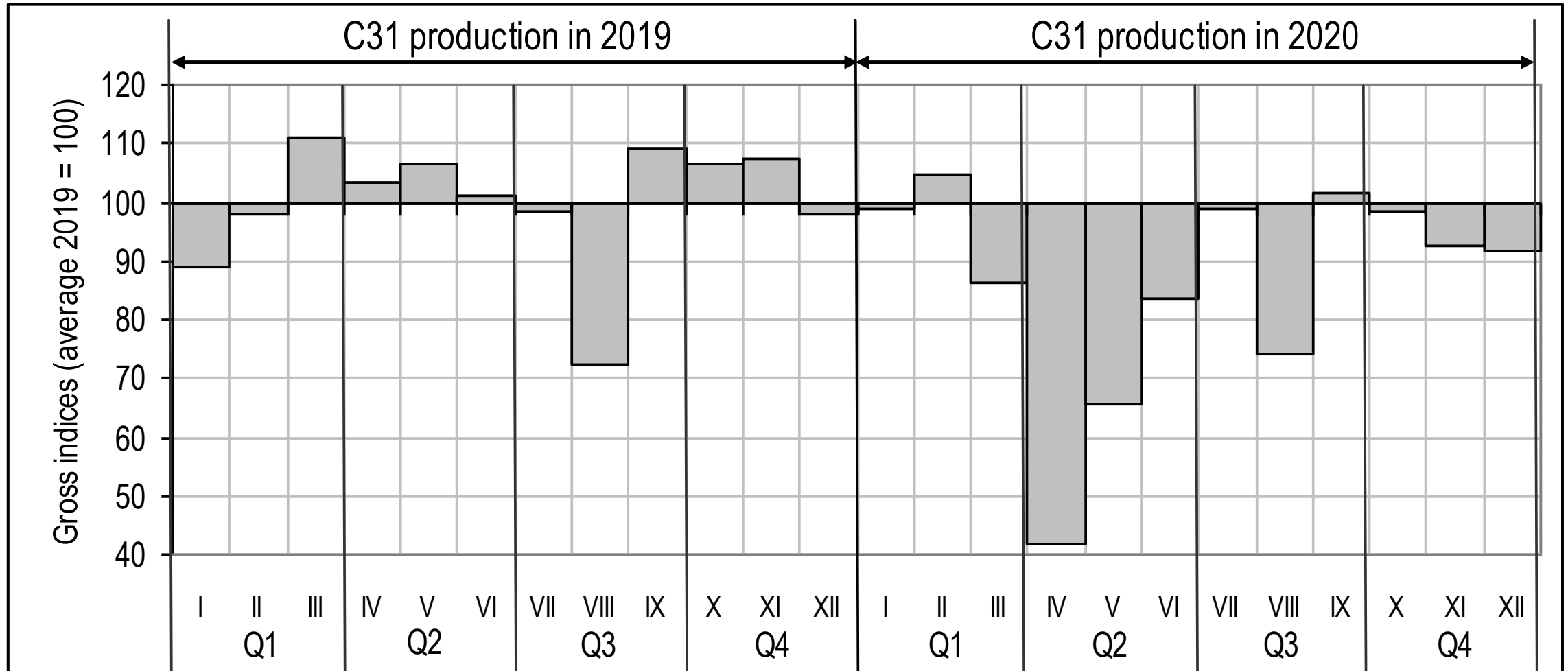


Figure 4. Gross indices for C31 production in 2019 and 2020

- **Export and import in sectors C16 and C31**

Comparing the movement of export and import from 2017 to 2020 in both sectors C16 and C31, the most significant decline was recorded in pandemic year 2020.

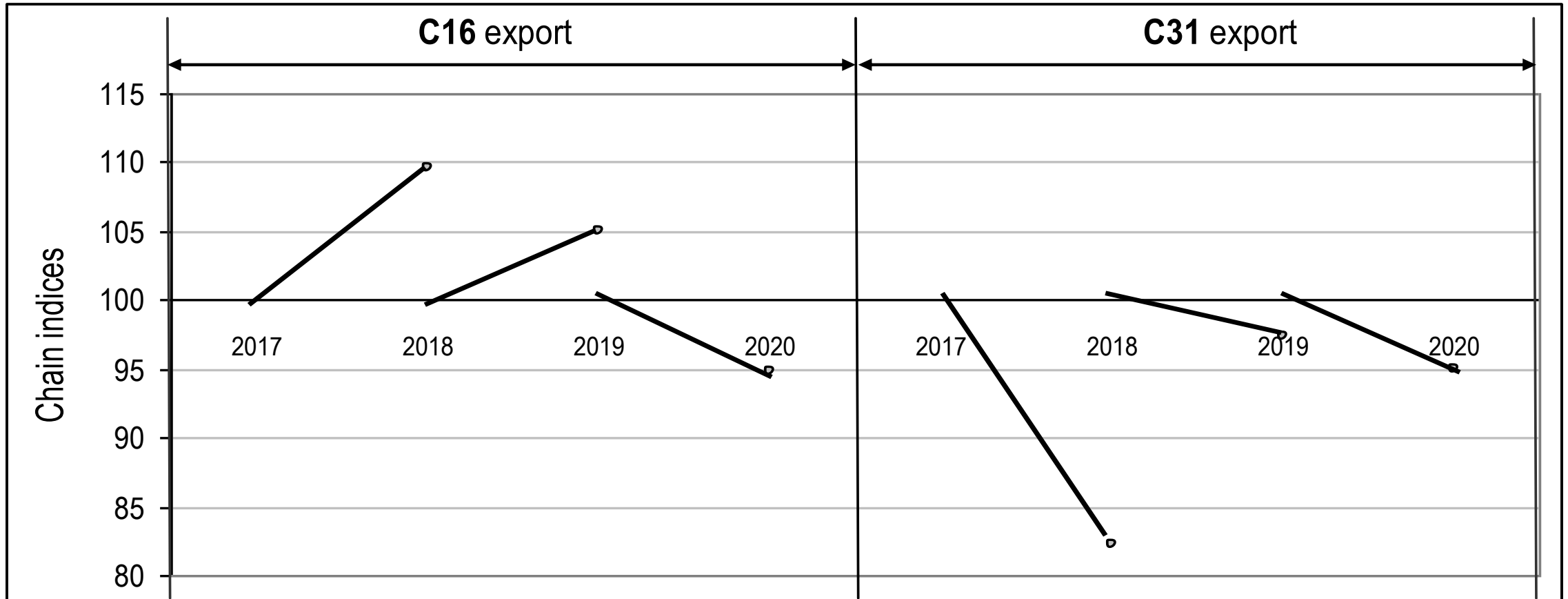


Figure 5. Chain indices for export in sectors C16 and C31

- **Export and import in sectors C16 and C31**

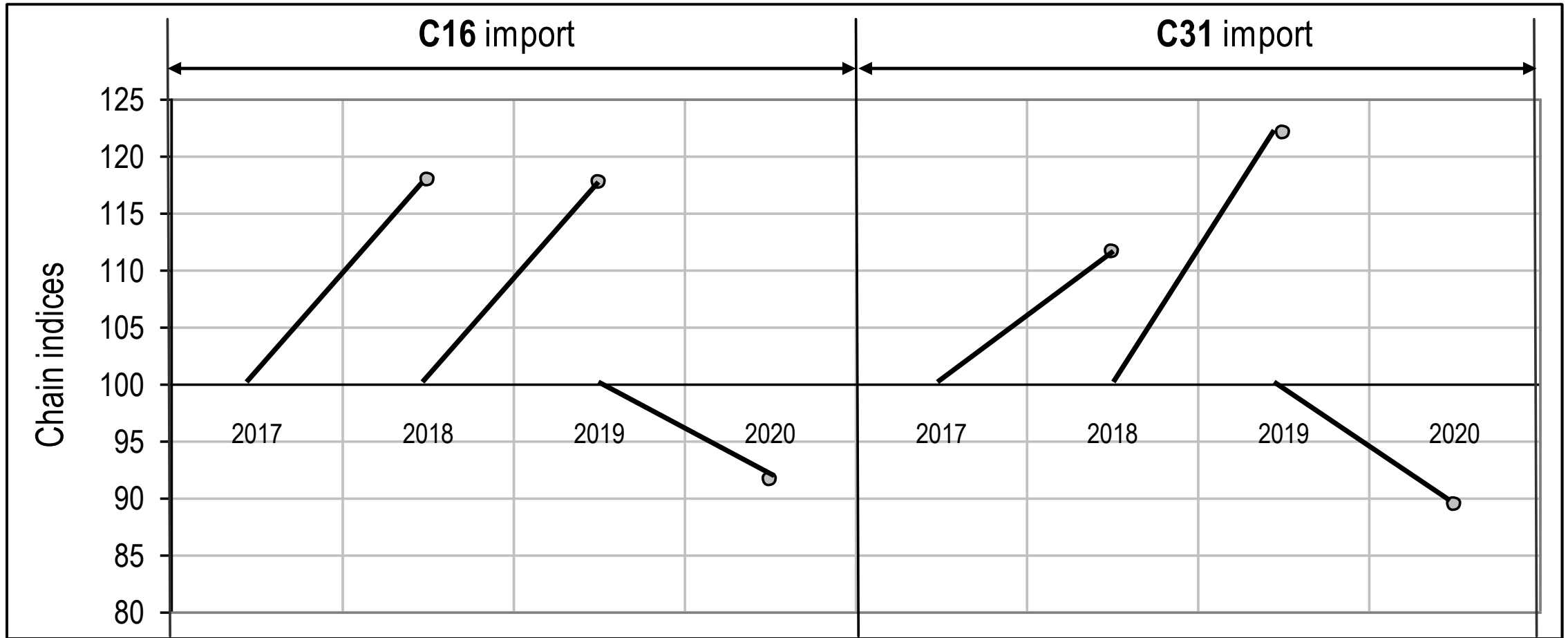


Figure 6. Chain indices for import in sectors C16 and C31

- **CONCLUSION**

- The curve of the pandemic in Croatia, shown in Figure 2, have a theoretical character. On the empirical data and analyses of production, export and import is very hard to predict the acceleration and deceleration phases of a pandemic, and their impact on Croatian woodworking sectors C16 and C31.
- The depth and duration of this crisis will depend on the public health response that involves controlling the spread of the virus, and in the case of a successful response the outlook for economic recovery could be more positive.



THANK YOU



MAJA MORO



+385915055931



mmoro@sumfak.hr

<http://www.woodema.org/>