

# European Container Trade, 2020, Q4

## Examination of container trade in 2020



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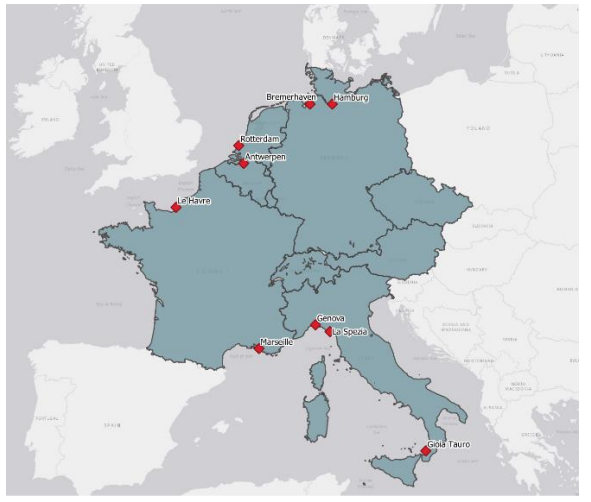
## Full Year, 2020

Sean Newton, 2021, NTP Research, The Hague, Netherlands.

## Background

This article examines the monthly pattern of containerised trade in 2020, using EU (COMEXT) trade data to estimate the quantity of tonnes moved by container. See [4]. The database covers EU trade with non-EU countries, and this article focuses on Central Europe, i.e. trade to and from eight EU Member States:

Table 1: Scope of the analysis - Containerised Trade into and out of Central Europe

Belgium	
Netherlands	
Luxembourg	
France	
Germany	
Italy	
Austria	
Czech Republic	

(Switzerland is not covered as a reporting country by EU trade data.)

At the time of writing, February 2021, the first (COMEXT) trade dataset covering all twelve months of 2020 has just been released by Eurostat, making it possible to examine in detail the ongoing impacts of the Corona Crisis on the sector from the perspective of global economic trade flows and their impact upon the container sector.

Many of the economic analyses of the crisis focus on trade impacts in terms of value (Euros), so here the method is to look at the impacts in terms of trade tonnages, by comparing monthly data for 2020 against the equivalent periods in previous years. We then compare these trade trends against port throughput data obtained from the largest container ports serving the region. This article updates the previous analyses for half-year 2020 (See [5]) and three-quarters 2020 (See [6]).

The aim of this analysis is, first, to test whether it is possible to correlate trade data with port statistics at a high level, and then if so, to be able to analyse the trends in more depth by comparing changes across different geographical markets and different commodity sector.

## Method

The basis for this analysis is the monthly trade data published by Eurostat. These databases are primarily used to record imports and exports per country pair and per commodity in terms of trade value, but they also record information about trade volumes which can be used for analysis of physical cargo flows. In fact Eurostat records whether trade tonnages are containerised or not, but as set out in previous articles, there are significant inconsistencies in terms of coverage per Member State for this information, so to solve this data gap, a detailed set of containerisation factors were calculated and applied. This method has been used throughout this article. See [3] and [4]. Note that throughout the article the trade quantities being analysed are measured in containerised tonnes, and we therefore focus on deep-sea trade into and out of Central Europe.

## Results

Monthly data summarising the three-year period January 2018 to December 2020 is shown below, by trade direction. In each case the flows cover trade between the eight central European countries and non-EU trade partners. The tables show monthly tonnages per direction (in thousands), and each table shows an index comparing 2020 values with average of the previous two years. An index figure of 100 means that 2020 levels are at their “normal” level, whereas a figure of less than 100 means the trade has decreased. Above 100 means there was an increase. We are therefore using these indices to see if 2020 volumes are significantly affected by the crisis.

### Containerised Tonnes

Table 2: Central Europe: Containerised *Export* Tonnes (000s)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>2018</b>	9,855	9,700	10,378	9,627	9,975	10,141	10,179	9,597	9,661	11,147	9,848	9,031	119,137
<b>2019</b>	9,788	9,687	10,431	10,290	10,408	9,195	10,569	9,602	10,269	11,212	9,929	9,369	120,749
<b>2020</b>	9,890	10,221	10,149	9,511	8,490	9,432	10,436	9,096	10,856	11,250	10,784	10,458	120,574
<b>INDEX</b>	100.7	105.4	97.5	95.5	83.3	97.6	100.6	94.8	108.9	100.6	109.1	113.7	100.5

Table 3: Central Europe: Containerised **Import** Tonnes (000s)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>2018</b>	9,670	8,948	9,157	8,965	9,818	9,325	9,593	9,086	8,099	9,837	8,781	7,740	109,020
<b>2019</b>	10,129	9,236	9,002	10,374	10,169	8,847	10,064	8,797	8,677	9,082	8,574	7,924	110,876
<b>2020</b>	10,117	8,531	8,746	9,442	8,378	8,352	8,518	7,818	8,524	8,669	8,320	7,812	103,228
<b>INDEX</b>	102.2	93.8	96.3	97.6	83.8	91.9	86.7	87.4	101.6	91.6	95.9	99.7	93.9

Table 4: Central Europe: Containerised **TOTAL** Tonnes (000s)

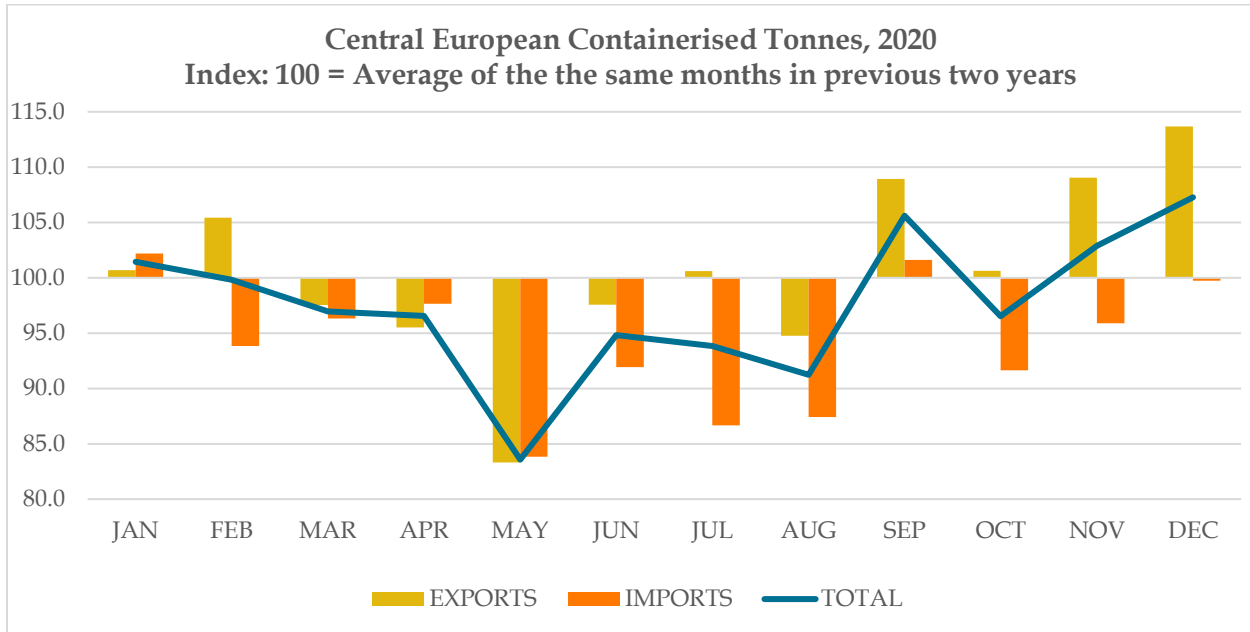
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>2018</b>	19,525	18,648	19,536	18,592	19,792	19,466	19,771	18,684	17,760	20,984	18,629	16,771	228,157
<b>2019</b>	19,918	18,923	19,433	20,664	20,577	18,042	20,633	18,399	18,946	20,294	18,503	17,293	231,625
<b>2020</b>	20,007	18,752	18,895	18,953	16,869	17,784	18,955	16,914	19,381	19,920	19,104	18,271	223,802
<b>INDEX</b>	101.4	99.8	97.0	96.6	83.6	94.8	93.8	91.2	105.6	96.5	102.9	107.3	97.4

In absolute quantities, these trade flows are consistently in the region of 9-10 million containerised tonnes per month per direction, and therefore 19-20 million containerised tonnes per month for both directions together. There is not a great deal of seasonality, but holiday periods such as December and August normally have slightly lower volumes than the other months, so the benchmark levels are relatively constant from month to month.

In 2020, the year started positively in January. However in February the first signs of the COVID crisis start to become visible in the import direction. Volumes remained fairly stable, but below trend until April 2020, and then there was a substantial drop in both import and export tonnages in May 2020. In June 2020, the first signs of recovery could be seen, with the monthly indices rising to around 95% of their normal levels, and staying close to this figure throughout most of the third quarter. Then in the fourth quarter, the recovery strengthened with volumes starting to exceed “normal” levels. By the end of the year, cumulative volumes were within just a few percentage points of 2018 and 2019 levels.

These aggregate results for containerised trade are shown as index values for the first twelve months of 2020 in Figure 1 (see below). This chart shows the index values for EU exports with the rest of the world, EU imports, with the total of both directions superimposed.

Figure 1: Monthly Container Trade Indices, 2020



Starting from January 2020, volumes were close to their trend levels (=100), but then in February there was a noticeable drop in European imports. As the COVID crisis intensified in Europe in March and April 2020 there was a corresponding drop in exports, resulting in a 5% decrease overall. By May 2020, with the economic crisis spreading further around the world, the largest fall occurred. According to the trade statistics for this segment, trade volumes in tonnes fell by over 15% compared to the expected value for May, and the effect was seen for both imports and exports.

By June, however, volumes had returned to a “new normal” level, approximately 6% lower than the expected average until August. But then in September 2020, there was a marked upturn in volumes, and the situation remained positive (mainly above the 100 level) until the end of the year, meaning that some of the earlier losses were partially recovered. October is normally a busy month for container trade, so even though there was a relative decrease in October 2020, this was still one of the busiest months of the year in absolute volume. It is also noticeable that the strength of European export trade was an important contributing factor towards the fourth quarter net recovery.

Cumulatively for the whole year, 2020 containerised tonnage was only down by -3.4% compared to 2019, reaching a total of 223.8 million tonnes of containerised trade (imports plus exports), compared to 231.6 million tonnes in 2019. (A volume of 228.2 million tonnes was recorded in 2018.)

## Containerised tonnes per product group

Using the same EU dataset covering containerised traffics, the trade flows can be broken down into product groups. For this analysis, the six main NST/R product groups for containerised imports and exports have been used. As before, the index values show the relative volume of traffic in 2020 compared to the average for the same month across the previous two years (2018 and 2019). A figure below 100 indicates that traffic volumes were lower than would have been expected under normal economic conditions.

Results for exports and imports can be seen across the different commodity groups in Table 5 and Table 6. The commodities are ranked in descending order of tonnage, and the full year containerised tonnes are shown in the right hand column. As throughout the article, the traffics being analysed cover containerised cargo traded between Central Europe and non-EU countries.

Index values lower than 85 (-15%) are highlighted in red, and values higher than 115 (+15%) are highlighted in green.

Table 5: Central European Containerised Exports, 2020 Index Values vs. 2018/19

NST/R	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TONNES
<b>Manufactures</b>	92.6	100.9	97.9	79.9	76.0	93.2	91.6	88.8	102.4	97.1	101.3	107.6	28,196
<b>Chemicals</b>	97.9	93.3	92.2	101.5	78.6	90.5	91.2	87.9	93.3	86.0	104.8	114.4	24,886
<b>Foodstuffs</b>	98.9	100.1	97.0	106.0	89.5	97.0	100.0	92.1	109.5	94.0	102.1	113.6	24,463
<b>Agri Products</b>	134.7	154.1	112.2	125.8	126.5	131.1	152.4	149.1	158.7	150.0	148.2	135.0	23,234
<b>Building Mtrls.</b>	89.5	92.0	92.1	59.3	51.8	77.5	83.7	72.2	97.4	85.6	104.0	93.9	6,001
<b>Metal Products</b>	91.2	99.1	92.6	87.3	74.9	71.5	84.7	85.1	87.4	79.6	87.9	105.2	5,008
<b>OTHERS</b>	95.2	105.6	95.4	88.6	69.3	113.6	98.7	75.3	97.8	91.7	95.4	111.0	8,786

Table 6: Central European Containerised Imports, 2020 Index Values vs 2018/19

NST/R	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TONNES
<b>Manufactures</b>	111.4	99.7	98.4	103.0	88.4	97.6	91.4	99.6	111.6	102.6	104.9	103.4	45,808
<b>Chemicals</b>	93.7	104.9	96.4	95.9	79.7	96.6	79.4	78.2	89.0	84.0	93.0	92.3	18,273
<b>Foodstuffs</b>	94.5	99.2	106.1	96.6	93.6	99.2	93.9	85.6	103.7	92.3	92.3	98.9	13,243
<b>Agri Products</b>	95.6	91.7	101.4	92.2	84.1	102.9	101.3	91.2	99.9	90.4	97.6	134.2	9,908
<b>Building Matrils.</b>	91.6	72.1	87.8	93.9	73.7	79.4	92.2	68.4	83.6	84.9	89.4	102.8	6,251
<b>Metal Products</b>	91.9	82.9	80.5	74.2	51.5	77.4	66.6	72.1	61.0	68.9	74.6	85.9	4,216
<b>OTHERS</b>	109.7	63.9	77.6	105.7	86.6	43.1	58.2	69.2	131.6	70.5	73.6	62.7	5,528

Within this commodity sector analysis, imports of **manufactured goods** constitute the largest individual trade flow, and in Table 6 it can be seen that throughout the year,



2020 volumes have remained at 90% of their normal level or higher, for eleven of the twelve months, the main exception being in May 2020, when volumes were 12% down. It therefore appears that the relative strength of this important commodity sector has played a large role in limiting the negative effect of the crisis. Exports of manufactured goods have seen a greater negative impact than imports, with the index falling to 76 (-24%) in May 2020, but these volumes are lower in absolute figures than the import direction. Trade in **chemicals** declined more (relatively) than manufactured goods, and the sector remained low especially in the import direction during the middle of the year.

Imports and exports of **food products** and **agricultural goods** have been relatively strong in both directions, with food products staying close to their benchmark level, and agricultural products consistently registering gains in 2020 in the export direction. Within the category of agricultural products, much of the export cargo comes from the forest products, pulp and paper sectors. The growth seen in this sector is the continuation part of a longer-term trend, and does not appear to be specifically related to the unusual circumstances of 2020. Exported foodstuffs include animal feed, meat and dairy products, and beer.

Moving into the industrial (rather than consumer) oriented sectors such as trade in building materials (and other crude minerals), and metal products, the negative impacts of the crisis are more visible. Exports of **building materials** were more than 15% lower than the benchmark for five of the twelve months and at certain points coming close to 50% of their normal value. Imports of **metal products** were also severely affected with volumes at least 15% lower for ten of the twelve months, no doubt reflecting disruption in both European and overseas industrial production.

## Containerised tonnes per region

The same dataset was then analysed to look at the pattern of containerised trade with various world regions. Table 7 and Table 8 show the index values for 2020 compared to the average of the previous two years. As before, index values lower than 85 (-15%) are highlighted in red, with index values greater than 115 (+15%) highlighted in green, to show the more extreme variations in the index value.

One of the most noticeable results on the export side is that EU containerised exports to East Asia, the largest world region as defined here, have exceeded 2018 and 2019 levels for the majority of 2020, with relatively high volumes seen in the third and fourth quarters of 2020, meaning that the total volume on this route was net positive for the year. Other regions show decreases compared to previous years, and follow a similar pattern to each other, with the biggest decreases in the middle of the year (April-August), with stronger performance in the final months, building up to the end of the year.

Table 7: Central European Containerised *Exports*, 2020 Index Values vs 2018/19, 2020 Tonnes (000s)

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TONNES(K)
<i>N. Africa</i>	99.0	104.4	96.4	80.9	76.7	86.7	92.5	85.5	103.5	88.3	86.9	90.3	6,190
<i>Oth. Africa</i>	100.7	110.1	94.4	91.7	75.5	110.8	89.0	92.5	100.8	86.9	106.7	106.4	10,528
<i>Middle East</i>	93.9	107.7	91.7	96.8	91.4	97.0	95.6	88.9	103.0	87.8	102.0	112.3	11,419
<i>Central Asia</i>	86.2	70.3	82.9	46.5	57.7	102.4	123.4	88.5	99.9	89.1	93.3	98.5	1,733
<i>East Asia</i>	108.8	103.2	91.5	104.1	95.7	105.3	115.4	111.7	120.1	109.3	120.7	118.6	50,532
<i>N America</i>	95.7	110.0	109.5	96.2	73.3	84.9	89.5	85.2	104.4	98.3	105.8	112.4	25,163
<i>C&amp;S Amer.</i>	88.8	112.0	99.5	83.4	64.6	95.5	91.2	72.5	101.1	105.4	105.7	125.5	10,370
<i>Oceania</i>	108.3	103.2	122.8	91.8	85.2	91.5	86.7	83.5	82.5	107.2	86.3	119.4	3,715
<i>Other</i>	69.7	71.1	76.6	60.7	75.4	61.1	69.7	67.9	103.9	88.3	87.1	91.2	920

More detailed analysis of the data shows that the most important trade flow explaining the increase in Central European exports to the Far East is from the NST commodity '05.1', which is paper, pulp and wood. Most of the trade is from Germany and Belgium to China. Other key exports which have grown in 2020 are machinery, food products and metal products. The traffic growth does not appear to be a 2020 data spike, related to the COVID crisis, but a continuation of a growth trend in the EU-China market that had already been established a few years earlier.

Table 8: Central European Containerised *Imports*, 2020 Index Values vs 2018/19

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TONNES
<i>N. Africa</i>	128.1	124.2	120.3	99.6	78.5	99.3	95.4	105.4	114.6	102.2	110.5	109.7	2,566.74
<i>Oth. Africa</i>	106.1	109.6	121.4	64.1	119.2	100.3	90.9	97.7	76.5	89.8	95.0	99.9	9,615.65
<i>Mid. East</i>	72.2	73.7	99.9	112.6	67.7	137.3	73.6	78.5	147.2	113.6	76.5	93.7	5,043.88
<i>Cent Asia</i>	68.5	90.5	124.0	106.4	63.0	75.8	84.6	82.3	77.9	102.0	86.5	110.8	1,027.20
<i>East Asia</i>	104.6	95.5	88.6	91.9	82.1	91.4	92.5	89.0	104.3	92.0	102.6	107.7	52,557.97
<i>N America</i>	127.4	96.8	107.6	141.7	83.0	68.0	77.2	84.5	101.5	84.9	78.7	71.8	15,553.38
<i>C&amp;S Amer</i>	80.8	91.1	89.7	93.0	77.9	97.8	75.7	83.8	93.2	89.4	99.1	106.5	12,969.34
<i>Oceania</i>	87.2	32.9	87.0	62.3	84.0	105.6	85.7	50.9	173.4	68.4	65.0	94.8	1,266.74
<i>Other</i>	80.2	83.9	87.9	96.3	78.2	93.4	90.9	85.9	96.2	99.5	105.9	102.2	2,627.13

In the import direction, East Asia to Europe is the largest single trade flow, accounting for close to 40% of total containerised imports. For this segment, it can be seen that the year began with an increase of 5% in January, but then with the start of the pandemic affecting Chinese exports (and therefore European imports) there was a sequence of months up to April 2020 with approximately a -10% decrease in trade volume. As the impact spread the largest impact was then recorded in May 2020 with an -18% decrease in volume, recovering somewhat in June, and staying close to 90% of its normal level up



to August. However from September onwards East Asian import volumes have been close to or in excess of their historical levels, ending the year nearly 8% higher for December 2020. Conversely, imports from North America were strong in the first quarter, but they have remained under the 85% level for most of the rest of year. Amongst the smaller geographical markets, North Africa has out-performed previous years, and the rest of Africa was also been close to 2018 and 2019 levels, helping to offset losses in other regions.

## 2020 Port Traffics

Having looked at the pattern of trade flows for containerised goods, we compare the trends with port traffic data. Our trade data analysis for this geographical region of eight Central European countries showed that although the year started on a positive note in terms of trade in containerised goods, it began recording negative changes in February 2020, building up to a significant drop in May 2020, followed by a partial recovery in the summer, moving into positive territory after September.

Overall, applying this trade-related methodology for identifying containerised trade flows, we measured a -3.4% decrease in containerised tonnes cumulatively for 2020, relative to 2019, with most of the negative impact happening in the second quarter. The reason that the recorded decrease is apparently less severe than might have been expected in the (extreme) circumstances is that key sectors i.e. manufactured goods traded with East Asia have remained close to their normal levels for most of the year, compensating for larger negative trends in other geographical and product sectors. Moreover, exports from Central Europe to East Asia and especially to China have continued to grow in 2020.

Currently it is not possible to use the trade data, and the existing methodology to predict flows through specific ports, but the aggregated results can be compared with recorded results from the largest ports serving this central hinterland region.

Table 9 shows the 2019 container volumes for the largest ports serving the hinterland region represented by the eight selected Central European countries. Port traffic volumes are measured in total TEU: loaded and empty, shortsea and deep sea, import, export and transshipment as recorded by Eurostat in 2019<sup>1</sup>. This table has been used as the basis for selecting the largest ports serving this hinterland.

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<sup>1</sup> Eurostat port throughput figures differ from the statistics published by the ports in certain instances, but the sum across these selected ports is similar according to both sources.

Table 9: Container traffic through main container ports (NL, BE, DE, IT, FR)

Port		Total TEU 2019
Rotterdam	NL	13,492,837
Antwerp	BE	11,676,076
Hamburg	DE	9,281,987
Bremerhaven	DE	4,849,676
Gioia Tauro	IT	4,154,239
Le Havre	FR	2,762,743
Genoa	IT	2,326,173
La Spezia	IT	1,478,883
Marseille	FR	1,454,530
<b>TOTAL 9 Ports</b>		<b>51,477,144</b>

Source: Eurostat.

According to the latest reports from these ports, the following outcomes in terms of container throughputs, have been recorded in 2020:

<b>Rotterdam (NL)</b>
<i>Half year results:</i> 2020 half year container throughput (in tonnes) was down 3.3% compared to the same period in 2019, and 7% down in TEU.
<i>Nine month results:</i> The volume of containers handled in Rotterdam up to and including Q3 2020 fell by 2.1% in tonnes compared to the same period in 2019, and by 4.7% in TEU.
<i>Final 2020 results:</i> Rotterdam's total container throughput for the year was 3.2% lower in 2020 than in 2019, measured in TEU. Containerised tonnage was down by 1.2% and the number of containers fell by 3.9%.
<b>Antwerp (NL)</b>
<i>Half year results:</i> 2020 half year throughput in containerised tonnes was down 0.3% compared to the same period in 2019, and up 0.4% in TEU.
<i>Nine month results:</i> Throughput for the first nine months of 2020 was down 0.2% in container TEU, and down 1% in containerised tonnes.
<i>Final 2020 results:</i> Antwerp's total container throughput was up by 1.3% in 2020, compared to 2019, and containerised tonnes were up by 0.2%.
<b>Hamburg (DE)</b>
<i>Half year results:</i> Based on figures published by HHLA, 2020 half year container throughput (in TEU) was 12.4 percent down at 4.1 million TEU. Eurogate figures for Hamburg show a decrease of 11.5% to 960,000 TEU.

**Nine month results:** Based on figures published by HHLA<sup>2</sup>, container throughput for the first nine months (in TEU) was 11.2 percent down at 5.1 million TEU.

**Final 2020 results:** Hamburg's total container throughput was down by 7.9% in 2020, measured in total TEU.

#### **Bremen/Bremerhaven (DE)**

**Half year results:** 2020 half year container throughput (in tonnes) was down 1.7% to 26.4 million containerised tonnes, compared to the same period in 2019, and down 4.8% in TEU at 2.36 million TEU. (Eurogate Wilhelmshaven figures were down 38.5% to 222,000 TEU)

**Nine month results:** Container throughput for the first nine months of 2020 are down 5.6% to 3.528 million TEU.

**Final 2020 results:** Final results for Bremen/Bremerhaven in 2020 show a decrease of 1.8% compared to 2019 TEU volume.

#### **Gioia Tauro (IT)**

**Half year results:** 2020 half year container traffic was up 17% in TEU (comparing the Assoport figure for the first half 2020 with half of the annual figure for 2019. The Assoport figure for 2019 is 2.5 M TEU, whereas Eurostat recorded 4.1 M TEU over the same period).

**Nine month results:** Not yet available for third quarter.

**Final 2020 results:** Gioia Tauro recorded an increase of 26.6% in TEU throughput for 2020, compared to the (Assoport) figure for 2019.

#### **Le Havre (FR)**

**Half year results:** 2020 half year container traffic was down 27%, to 1.1 M TEU (10 million containerised tonnes).

**Nine month results:** Figures for (note) the first *eight* months of 2020 show a decrease of 28% in tonnage to 13.72 million containerised tonnes, and a 25% decrease in the number of containers to 1.4 million TEU.

**Final 2020 results:** Haropa figures for 2020 showed a decrease of 14.4% compared to 2019, ending the year with a throughput of 2.4 million TEU.

#### **Genoa (IT)**

**Half year results:** 2020 half year container traffic was down 8.3% in tonnes at 11.8 million tonnes, and 10.5% down in TEU at 1.213 million TEU.

**Nine month results:** results for the first nine months of 2020, show that Genoa's container traffic was down 7.7% in tonnes, at 17.6 million tonnes, and down 10% in TEU at 1.819 million TEU.

**Final 2020 results:** 2020 full year traffic at Genoa was down 10% in TEU, reaching 2.35 million TEU.

<sup>2</sup> HHLA operates the largest container terminals in Hamburg. These figures also include volumes for HHLA terminals in Odessa(UA) and Tallinn (EE).

<b>La Spezia (IT)</b>
<i>Half year results:</i> 2020 half year container traffic was down by 22% in TEU (comparing the Assoport figure for first half 2020 with half of the annual figure for 2019).
<i>Nine month results:</i> Not yet available for third quarter.
<i>Final 2020 results:</i> 2020 full year traffic was down 16.7%, reaching 1.2 million TEU at the end of the year.

<b>Marseille (FR)</b>
<i>Half year results:</i> 2020 half year container traffic decreased by 15.7% at 1.108 million containerised tonnes, compared to the same period 2019, and by 16.3% in TEU, to 621,253 TEU.
<i>Nine month results:</i> Not yet available for third quarter.
<i>Final 2020 results:</i> 2020 full year traffic was down by 9.4% in TEU, reaching 1.3 million TEU at the end of the year.

Applying these 2020 impacts to the TEU throughputs for the nine ports, implies that in total the combined decrease in TEU volume for the full year is close to (-)1.5 million TEU or a 3% decrease overall for the year. Measured changes in containerised trade for 2020 and in total container handling at ports can then be compared<sup>3</sup>. See below.

Table 10: Comparison of trade data and port data, full year 2020

Item	Quantity	Comment
<b>Trade Data</b>		
2019 Full Year	231.6 million tonnes	(Estimated by this study based on COMEXT trade data)
2020 Full Year	223.8 million tonnes	
2020/2019 Change	-7.8 million tonnes	
2020/2019 % Change	-3.4%	
<b>Port Data</b>		
2019 Full Year	51.6 million TEU	(Based on ports' own statistics)
2020 Full Year	50.1 million TEU	
2020/2019 Change	-1.5 million TEU	
2020/2019 % Change	-3.0%	

<sup>3</sup> Note that port traffic data and trade data definitions do not correlate perfectly. This port traffic data includes all container movements, including empty containers, short-sea flows, ship to ship container movements, and only for the selected, larger ports. This trade data only includes trade with non-EU countries, and it also includes trade flows arriving at smaller ports serving the same hinterland, as well as other ports such as Barcelona, which are not covered, but which partially serve the study area. The same goes for New Silk Road rail flows which are counted in trade data but not in port statistics. However, the two methods overlap to a great extent, picking up the main, equivalent traffics, so the trends can be compared.

In conclusion, it can be seen that both of the available data sources suggest that the net impact on container trade for Central Europe in 2020 is between -3% and -3.4%. Both sources are approximately in agreement.

It can also be seen that the method used here for analysing containerised volumes based on trade data has correlated well with port data throughout the year.

Table 11: Comparison of Traffic and Trade Data Results : Q2-Q4 2020

Item	2020 Q2 Result	2020 Q3 Result	2020 Q4 Result
<i>Trade Data</i>	-5.1%	-6.3%	-3.4%
<i>Port Data</i>	-5.4%	-6.1%	-3.0%

At the half year point traffics were around -5% year on year using both methods. By the end of Q3 the deficit had increased to around 6%, but then with high volumes in the final quarter, as observed from both the trade data and port statistics, the deficit narrowed to just 3% at the end of the year. See [5] and [6] for previous sets of results.

## Conclusions

The aim of this article was to investigate and quantify the impact of the COVID crisis on container traffic to and from Central Europe (eight EU countries: Belgium, Netherlands, Luxembourg, France, Germany, Italy, Austria, and Czech Republic).

Using a combination of data from port authorities and from trade statistics, and applying our model of containerisation rates, we conclude that the net impact on container volume for 2020 was between -3% and -3.4%. The largest negative monthly impact was in May 2020, but volumes started to recover in the summer of 2020 and by the final quarter, volumes were higher than previous years.

One of the main reasons that the impact was limited to low single-digit levels was that containerised import trade from East Asia remained close to 2019 levels, especially for consumer products, and exports to East Asia have actually exceeded previous years. Trade in food products for all world regions was also relatively unaffected by the negative effects of the crisis. However, the overall picture was quite mixed with larger impacts on industrial commodities, and different timings for the peak impact for different world regions.

The performance of the largest ports serving the region was also quite mixed, reflecting the findings from the trade data, that there was not “an impact” but rather a succession (or domino effect) of impacts which coalesced and reached peak magnitude in Q2. In some cases the downturn was exaggerated by local issues such as strikes or changes to shipping line schedules and port calls, and these localised patterns may have helped

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ports such as Antwerp to maintain and even exceed 2019 throughput levels, while others have experienced double digit decreases. Overall it is quite a remarkable outcome that end-of-year 2020 volumes have been so close to 2019 levels, given the grim outlook at the beginning of the crisis, and considering that GDP estimates<sup>4</sup> for the Eurozone in 2020 are still in the region of -7.5%. 2020 has been anything but “business-as-usual” and these results illustrate a degree of resilience in the maritime supply chain that would not have been visible under normal market conditions.

Looking ahead, it seems that after the fourth quarter performance, the sector is more optimistic for 2021. However, the crisis is still far from over, and the shipping sector is still experiencing a considerable level of operational disruption, resulting in high freight rates. We will continue to monitor trade, using this method, and continue to report our findings.

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<sup>4</sup> See OECD: <https://www.oecd.org/economic-outlook/>



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