IAPH-WPSP Port Economic Impact Barometer

Authors : Professor Theo Notteboom (Shanghai Maritime University, Ghent University and University of Antwerp)
Professor Thanos Pallis (University of the Aegean and Universidad de Los Andes)

14 October 2020
Survey set-up

The IAPH-WPSP survey on the impact of COVID-19 is conducted with the aim of monitoring the current situation in world ports and trends compared to previous weeks. The first survey results were collected in week 15 of 2020 (April 6). The IAPH-WPSP Port Economic Impact Barometer Half Year Report was presented in mid-September, providing a detailed global and regional analysis of the impact of COVID-19 on ports in the period April to September 2020. Since September, the survey has been sent out on a monthly basis. The report presented here goes back to the regular barometer report format and deals with the situation in week 41 (October 8, 2020).

A total of 56 valid answers were received which is lower compared to the number of responses in September (85 responses for week 36), but comparable to the response rate in July (week 29). Europe strengthens its position as the leading region with 52% of the total, compared to a share of 33% in week 36. Six ports from Central and South America (11% of total) responded, which is the lowest number since the start of the survey. In week 36, 23 Central and South American ports (27% of total) responded to the survey. The responses from North American ports fell from 18 in week 36 to 8 in week 41, or from 21% to 14% in relative terms. Nine ports from North Asia, South East Asia and Australasia are included in this week’s results, which is a stable number compared to the July and September editions. African ports remain underrepresented with only 3 ports, while only one answer was received from ports of the Middle East and Central Asia.

Participating ports per region
(N=56; data collection: 9 October 2020)
### WPSP-IAPH COVID-19 Dashboard

This dashboard provides a visual summary of the results gathered from the IAPH-WPSP COVID-19 Port Economic Impact Barometer survey. The survey initially consisted of six identical questions, sent to port authorities and port operators with responses sent anonymously on a weekly basis. From week 23 onwards, the survey has been sent out on a bi-weekly basis and the number of questions has been reduced to four. The most recent surveys contained new questions, such as a question dealing with the status of crew changes in the ports (weeks 27 and 29), and a question on port infrastructure investments (week 36). This time a question was added dealing with the status of planned investments in environmental sustainability.

The percentages indicated in the blue bars of the Dashboard highlight the level of impact of COVID19 contagion on world ports based on the responses to the main four questions of the survey, subdivided into relevant categories (vessel, modal, cargo and port worker). The results on the investments in environmental sustainability will be discussed using a separate graph. You can find comprehensive data and more detailed explanations of responses to the five questions in this report.

### WPSP-IAPH COVID-19 Dashboard

<table>
<thead>
<tr>
<th>Week 15</th>
<th>Week 16</th>
<th>Week 17</th>
<th>Week 18</th>
<th>Week 19</th>
<th>Week 20</th>
<th>Week 21</th>
<th>Week 22</th>
<th>Week 23</th>
<th>Week 24</th>
<th>Week 25</th>
<th>Week 26</th>
<th>Week 27</th>
<th>Week 28</th>
<th>Week 29</th>
<th>Week 30</th>
<th>Week 31</th>
<th>Week 32</th>
<th>Week 33</th>
<th>Week 34</th>
<th>Week 35</th>
<th>Week 36</th>
<th>Week 37</th>
<th>Week 38</th>
<th>Week 39</th>
<th>Week 40</th>
<th>Week 41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container vessels</td>
<td>41%</td>
<td>41%</td>
<td>53%</td>
<td>45%</td>
<td>43%</td>
<td>53%</td>
<td>45%</td>
<td>48%</td>
<td>40%</td>
<td>40%</td>
<td>28%</td>
<td>35%</td>
<td>41%</td>
<td>40%</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other cargo vessels</td>
<td>41%</td>
<td>39%</td>
<td>47%</td>
<td>44%</td>
<td>42%</td>
<td>46%</td>
<td>51%</td>
<td>42%</td>
<td>33%</td>
<td>33%</td>
<td>37%</td>
<td>41%</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger vessels</td>
<td>77%</td>
<td>73%</td>
<td>76%</td>
<td>71%</td>
<td>65%</td>
<td>68%</td>
<td>73%</td>
<td>74%</td>
<td>78%</td>
<td>64%</td>
<td>70%</td>
<td>66%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trucks (cross-border)</td>
<td>41%</td>
<td>41%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trucks (in/out port)</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail services</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inland barge services</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foodstuff &amp; medical supplies</td>
<td>35%</td>
<td>34%</td>
<td>33%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer products</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid bulk</td>
<td>21%</td>
<td>22%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry bulk</td>
<td>45%</td>
<td>44%</td>
<td>38%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dock workers</td>
<td>16%</td>
<td>17%</td>
<td>13%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical-nautical services</td>
<td>7%</td>
<td>8%</td>
<td>4%</td>
<td>12%</td>
<td>11%</td>
<td>6%</td>
<td>8%</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>4%</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harbor master services</td>
<td>4%</td>
<td>4%</td>
<td>7%</td>
<td>10%</td>
<td>4%</td>
<td>8%</td>
<td>10%</td>
<td>5%</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port authority</td>
<td>28%</td>
<td>22%</td>
<td>22%</td>
<td>26%</td>
<td>15%</td>
<td>22%</td>
<td>12%</td>
<td>12%</td>
<td>21%</td>
<td>8%</td>
<td>7%</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck drivers</td>
<td>no data</td>
<td>no data</td>
<td>21%</td>
<td>16%</td>
<td>12%</td>
<td>9%</td>
<td>11%</td>
<td>10%</td>
<td>3%</td>
<td>7%</td>
<td>5%</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Results based on surveys of ports worldwide, thirteen survey weeks to October 8, 2020*
1. Impact of crisis on vessel calls

About 30% of the ports are still reporting that the number of container vessel calls fell by 5% to 25% compared to a normal situation. This figure is much lower than the 45% in weeks 21 and 25, and also below the 38-39% in the first weeks of the survey in early April. The share of ports facing a significant drop (in excess of 25%) in container vessel calls reaches 5%, a figure that is about 5 percentage points below the results of weeks 17, 18 and 20, but still significantly higher than what we could observe in weeks 15 and 16. Overall, slightly more than one third of all respondents are observing a drop in container vessel calls of more than 5%, up from 28% in week 36. On the positive side, more ports are reporting an increase in container vessel calls: in weeks 36 and 41, around 14 to 16% of respondents see a more than 5% growth in container vessel calls, compared to a typical 6 to 8% in the first four months of the barometer exercise. Several ports are certain that in the current conditions and given the numbers of blank sailings of coming weeks they will soon head towards an almost similar or even higher numbers of calls compared to the same period the year before.

The share of ports reporting reductions in other cargo vessel calls of more than 25% gradually decreased from 16% in week 21 to 4% in week 25, which is also far below the 12 to 15% observed throughout weeks 16 to 20. However, in weeks 27 and 29 the figure was up again to reach 9%. In weeks 36 and 41 the figure dropped below 5%. Globally, some 45% of the ports are now reporting that the number of calls by other cargo vessels is rather stable compared to a normal situation.

The cruise/passenger market remains the most affected by the COVID-19 contagion, although the results in the past months showed some improvement. In week 41, 51% of respondents indicate that passenger vessel calls are down more than 50%, in many cases even down more than 90%. In the period from week 20 to week 25 this figure was 61-62% while in weeks 15 to 18 this figure amounted to two thirds of respondents with a peak of 76% in week 19. Since late August, only a few cruise operators have resumed some cruise activity, albeit on a very small scale compared to normal activity levels. For some ports, this implies that cruise ship calls will no longer remain at almost zero levels.

Although the decrease in volumes is still present the overall situation continues to improve. While dry bulk remains at lower levels, liquid bulk heads to what would be normally expected, while new car traffic figures are getting better. Ferry calls are almost back to normal schedules but with fewer passengers onboard; some ports testified that even though passenger vessel calls are at reasonably decent levels, the number of passengers is as low as -70 to -80%. Cruise passenger numbers are remarkably lower than any past year of the 21st century, not least because in a number of countries, notably the U.S., cruise vessel sailing remains banned.
How would you describe the number of vessel calls in your port in the past week, compared to activity during normal conditions?

![Vessel Calls Chart]

By: Theo Notteboom - Thanos Pallis
2. Impact of crisis on hinterland transport

The situation in hinterland transport has significantly improved. None of the ports currently report delays (6-24 hours) or heavy delays (> 24 hours) in cross-border road transportation. This figure was still 11% in week 36 and even 18 to 20% in weeks 18 to 19. In early April (week 15), only 57% of the ports were experiencing normal cross-border trucking operations.

For trucks arriving or leaving the port, there is also an improvement overall: 94% of ports report normal activity versus some 88% in weeks 29 and 36, 78% in week 21 and only 63% in week 15.

Only 4.9% of ports still face disruptions in rail services, the lowest figure to date. Rail services to/from ports are increasingly returning back to normal, and for the third time the percentage of ports facing less rail service delays than in the same period last year has reached a single digit.

The situation for barge services is also positive: 96% of ports are reporting normal operations, compared to 87% a month ago, 91% in July and only 59% at the start of the survey.

In summary, expressed in percentages, the number of ports experiencing delays in cross-border trucking services, rail services, and barges are down to very low single digits for the first time. Inland transport volumes are moving towards recovery, reflecting the continuation of the reopening of markets. However, there are still no expectations on reaching pre-crisis volumes in the short term.

How has hinterland transport been affected by the COVID-19 situation compared to normal activity during the past week?
3. Impact on capacity utilization including warehousing and distribution activities

Warehousing and distribution activities in ports have in some cases seen changes due to the fall in demand for consumer products or the closure of factories in countries with partial or full lockdown measures still in place. Utilization levels such as tank storage parks for liquid bulk, and oil products in particular, have to some degree been impacted by the sharp decline in the oil price at the start of the COVID-19 crisis.

The survey results for week 41 show the COVID-19 crisis has resulted in 17% of ports reporting an increase in utilization of warehousing and distribution facilities for foodstuffs and medical supplies, a doubling of the figure compared to week 29 and slightly below the 20% of week 36. This figure is higher than between mid-May and mid-July but still far below the 35% in week 15. At the other side of the spectrum, we see a small decrease in the share of ports facing an underutilization of storage capacity for foodstuffs and medical supplies. This figure of 8.5% remains far below the peak share of 18% in week 27.

For consumer goods, 8% of ports faced underutilized facilities in week 41 and 17% of ports report increases in utilization. In weeks 15 to 17 only 10 to 14% of respondents witnessed underutilization and 25 to 28% of ports mentioned an increased usage of facilities or even capacity shortages. From week 19 to week 27 (six survey weeks in a row), more ports faced underutilization than higher utilization levels. The figures reached a balance in week 29 (10% each), but since week 36 the balance tilted again towards increased usage of facilities.

In the liquid bulk market, 65% of the respondents have seen no changes in utilization levels, a higher figure compared to the 59-63% range in weeks 15 to 25. About 19% of ports are reporting underutilization of liquid bulk storage facilities in October 2020, a doubling compared to week 29 which was the lowest figure since the start of the surveys recorded. The share of ports with increased utilization levels in liquid bulk storage facilities has remained stable at 16-18% since week 23 and reached 16.7% in week 41.

In the dry bulk sector, 18% of the ports reported an underutilization of facilities in October 2020. The share of ports with increased utilization levels in dry bulk storage reached 16% compared to 10% in week 29. Overall, this indicator has been going up and down in a narrow band of 10 to 20% since the start of the survey with no clear observable trend.
4. Impact on availability of port-related workers

The COVID-19 crisis is now having a very limited impact on the availability of port related workers as measures have been relaxed in many countries around the world. Only 7.3% of the ports mention that they face shortages of dockworkers, a figure that is just above the record low of 5% in week 29 and far below the 12-13% range in weeks 23 to 27. In week 18, 22% of ports still faced dock worker availability issues. Only 3.6% of the sample face shortages for the delivery of technical-nautical services, the lowest figure up to now. Some 3.6% of ports are short of personnel in the harbor master division.

Only 7.3% of the port authorities report a moderate to more serious decline in staff availability, far below the figures of the first weeks of the barometer (i.e. 26% in week 18, 22% in weeks 16 and 17 and 28% in week 15). In several countries, a percentage of port authority staff members remain at home-office stage working online. This is not caused by the illness or isolation but is due to the formula of organisation endorsed during the pandemic situation (e.g. one person per office room). As a result, more online meetings/webinars instead of physical contacts continue to take place. Notably In some emerging markets, ports reported that, although there are no shortages, the COVID 19 test capacity of regional health authorities remains limited – with this implying that workers have to wait for a few days (longer than would be ideal) for test results before they can start working again in case of a negative result. The availability of truck drivers remains good with only 7% of the ports facing truck driver shortages compared to 21% in week 17.
5. Investments in environmental sustainability

With the presence of COVID-19 affecting world economies and trade for over six months, the Barometer continues to measure the potential long-term impacts of the pandemic on world seaports. In this October edition, the Barometer focuses on the trends observed in planned investments in environmental sustainability, and the extent that these investments have been revisited, advanced earlier or later than had been initially scheduled, even cancelled and/or replaced by new ones that emerge as essential with the newly-developed conditions.

The survey reveals a positive picture as regards the commitment of ports to advance the plans that they had made before March 2020: 45% of the surveyed ports reported that there have been no delays and planned investments in environmental sustainability projects are executed as had been foreseen. A further 32% reported that as a result of the COVID-19 pandemic delays in such investment has occurred but, at least for the moment, they are only minor. Even though conditions are challenging, and as a result the percentage of the ports reporting that investments have incurred major delays is not insignificant (15%), only a few ports (2%) have decided to shelve or cancel existing investment plans. Rather than this, some ports (4%) have already decided to accelerate and execute such investments faster than initially scheduled while some others (2%) that have decided to proceed with additional investments. Evidently, the industry is standing devoted to advancing its sustainability even in conditions of crisis.

By: Theo Notteboom - Thanos Pallis

6. Further information

This report will now be published on the World Ports COVID19 INFORMATION PORTAL under the FAQ section “WHAT IS THE ECONOMIC IMPACT ON THE GLOBAL PORT SECTOR?”

For a detailed analysis of the survey results obtained in week 15 to week 36, we refer to the IAPH-WPSP Port Economic Impact Barometer Half Year Report which is also available on the World Ports COVID19 INFORMATION PORTAL.

For further information email: covid19@sustainableworldports.org