



WORLD PORTS TRACKER

EDITION 5
(Quarter 2, 2023)

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1 WHAT IS THE IAPH WORLD PORTS TRACKER?

We are pleased to present the fifth edition of the World Ports Tracker, an IAPH initiative to monitor and evaluate critical developments in the global port industry as they evolve. The IAPH World Ports Tracker provides ports with a timely understanding of the challenges that emerge regionally and globally.

The previous four editions of the tracker relied on a combination of two sources: survey-based results on cargo and passenger markets in ports and container port performance data. The first edition was released in May 2022, introducing this new data tool, which elaborated on the non-survey part of the tracker exercise based on four container port metrics. The second edition was released in July 2022 and presented the analysis of the first survey data, which had been collected in June 2022. The third edition of the IAPH World Ports Tracker was introduced in November 2022 and combined survey-based results with container port performance data for the first time. The fourth edition was released in February 2023 and considered both sources.

This fifth edition, for the first time, incorporates the UNCTAD-MDST Liner Shipping Connectivity Index (LSCI) on top of the IAPH survey data and S&P's container port performance data. The LSCI data provided by UNCTAD are aggregated to port regions to match the geographical classification of ports used in the survey part.

The IAPH survey part of this report presents the analysis of data collected in July 2023. The IAPH World Ports Tracker survey includes questions revealing the trends in the container market, the other cargo markets (breakbulk and bulk), and the passengers/cruise business. Some of these questions ask about the current status of the ports, while other questions reflect the short-term expectations of port managers for the next quarter or the next twelve months. Along with a question on staff availability, these questions are answered by ports during every quarter of the year.

The survey was sent out in July 2023 to all IAPH members. A total of 78 valid answers were received, two replies more compared to the February 2023 survey round and one reply more compared to the November 2022 edition. North Europe, the Mediterranean and North America are the leading regions, with 19, 15 and 10 responding ports, respectively. The Middle East offers the least responses in this edition (Figure 1).

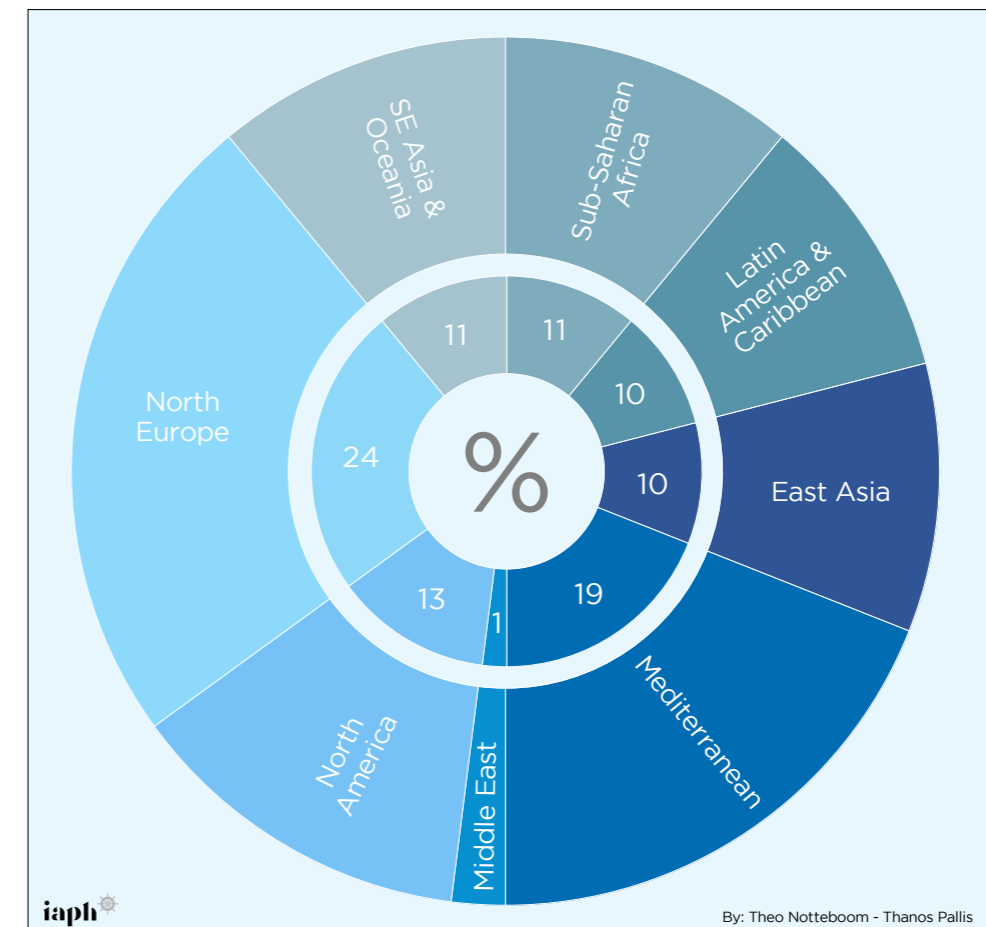
The non-survey part of the IAPH World Ports Tracker analyses quarterly container port statistics based on S&P Global Port Performance Program data. These statistics focus on four container port metrics, i.e., the number of vessel calls, the evolution of vessel size, the evolution of call size (number of TEUs handled per call), and port moves per hour, aggregated per region. This data report covers the period from Q1 of 2019 to Q2 of 2023, thus covering the last pre-pandemic year as well as the COVID-19 years of 2020 and 2021. The data analysis is based on an index-based evolution (Q1 2019 = 100) in nine port regions. This report presents the evolution of the respective indexes on a year-on-year basis per

region - comparing the calls in Q2 2023 with those of the same quarter of the year before, thereby avoiding any seasonality bias. This part of the analysis also discusses the trends per region, focusing on the changes in the most recent quarters of 2023 and the level of volatility that might have occurred in the four and a half years under examination.

The results are analysed and displayed in an aggregated manner per region and for the world as a whole. In view of analysing regional differences, each port is assigned to one of the following nine port regions: North America (the U.S. and Canada); Central and South America; East Asia; North Europe; the Mediterranean; Sub-Saharan Africa; the Middle East and Central Asia (including Arabian Gulf and Indian Subcontinent); and, South East Asia and Oceania (including New Zealand and Pacific Islands). All information obtained is treated confidentially, and only aggregated data is published. No reference is made to individual ports.

Revealing the most recent trends, the IAPH World Ports Tracker enables ports to understand better the available prospects and the challenges they might need to address. Via quarterly updates, the IAPH World Ports Tracker will guide ports and stakeholders in their efforts to improve services and develop their strategies. In addition, a summary of the report features in the IAPH Ports & Harbors magazine, with the full report circulated to the IAPH membership.

Figure 1
Replies to the Survey (in %)



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THE RESULTS AT A GLANCE

Before engaging in a more detailed analysis, the overall results of the survey and non-survey parts of the IAPH World Ports Tracker are summarized in dashboard-like tables.

Dashboards I to IV present the IAPH World Ports Tracker survey and non-survey results. The survey-based exercise covers the trends in world ports as of the end of the second quarter of 2023. The latest results for the world are also compared with the world results of the February 2023 survey (Q4 2022). The dashboards also report on the survey results at a regional level, using five responding ports as a critical threshold. You can find comprehensive data and a more detailed regional analysis of responses to the survey questions for cargo and passenger markets later in this report.

Dashboard I

Trends in World Cargo Ports (September 2023)



Dashboard I summarises the trends in the number of vessel calls in the different cargo markets. Compared to the February 2023 survey, fewer cargo ports report year-on-year growth in the number of vessel calls across all vessel types except for container ships. The decrease is the highest for bulk carriers (from 50% in Q4 2022 to 32% of respondents in Q2 2023) and tankers (from 45% to 27%). In general terms, North America and North Europe record the lowest shares of ports with a growth of more than 2% in vessel calls on a year-on-year basis, although significant differences can be observed between vessel types. Sub-Saharan Africa (across the board) and Central & South America (for other than bulk vessels) present the highest shares.

Number of vessel calls: Percentage of ports with >2% growth Q2 2023 vs. Q2 2022

Container vessel	53%	53%	80%	57%	58%	-	43%	31%	67%	67%
Bulk carrier	32%	50%	33%	29%	39%	-	33%	19%	33%	50%
Tanker and gas carrier	27%	45%	25%	17%	33%	-	0%	14%	43%	56%
Other cargo vessels	30%	38%	75%	50%	42%	-	0%	18%	17%	50%

Note: empty cells = less than 5 respondents

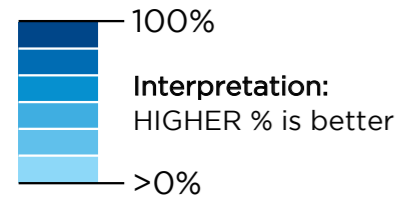
Ports around the world are, on average, less optimistic than half a year ago about the expected traffic evolution in the next twelve months. This is particularly the case in North America and North Europe.

Traffic volume expectations: Percentage of ports with >2% growth expectation in the next 12 months

Containers (TEU)	47%	49%	33%	57%	58%	-	38%	31%	50%	67%
Dry bulk (tonnes)	41%	53%	29%	43%	54%	-	33%	24%	43%	67%
Liquid bulk (tonnes)	31%	52%	60%	17%	46%	-	29%	20%	29%	22%
Other cargo (tonnes)	25%	50%	17%	17%	31%	-	10%	20%	33%	44%

Note: empty cells = less than 5 respondents

47% of ports expect a growth of at least 2% in the container throughput, while this figure amounted to 52% in the November 2022 survey, and 49% in the February 2023 survey. The traffic volume expectations dropped a lot stronger for the other cargo markets. The regional figures reveal that the shares of responding ports expecting traffic volume growth above 2% in the next year, across the board, are lowest in Central & South America (except for liquid bulk), North America and North Europe and, and the highest in Africa (again, except for liquid bulk) and the Mediterranean.



Region	Africa	Latin America & Caribbean	Mediterranean	Middle East & India	North America	North East Asia	Northern Europe	Oceania	South East Asia
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Dashboard II

Trends in Container Ports (September 2023)

Dashboard II covers two sets of data. The top part summarises the index-based changes in container ports per region between Q2 2022 and Q2 2023 for four indicators based on S&P Global Port Performance Program data. The index-based evolution of the vessel calls per region reveals that in Q2 2023 and on a year-on-year basis, all nine regions show significant growth in the number of container vessel arrivals compared with the calls of Q2 2022. In seven regions this growth has been of a double-digit percentage. The exemptions were the Mediterranean and Oceania, where vessel calls grew by 8% and 6% respectively. The increases in Northern Europe and South East Asia exceed 30%. From a longer-term perspective, vessel calls remain lower compared to Q1 2019 in five of the nine regions. A strong 10% growth in container vessel calls is recorded in Africa. North East Asia and North America recorded the steepest declines in container vessel arrivals compared to the pre-COVID-19 period.

The second quarter of 2023 brought a sharp increase in the number of vessel calls in all port regions compared to Q2 2022

Between Q2 2022 and Q2 2023, Africa (+20%) North America (+16%) reached double-digit growth in the share of calls by container ships of 8,501+ TEU capacity. A strong decrease in this share was recorded in North Europe (-8%), South East Asia (-7%) and Latin America (-6%). Oceania went from only 0.7% for 8,501+ TEU vessels of all container vessel arrivals in Q1 2019 to 8% in Q4 2022. In the same observation period, double-digit growth was observed in North America (+43%), North-East Asia (19%) and South East Asia (13%). In the past four and a half years, the share of 8,501+ TEU vessels decreased strongly in Africa (-13%) and North Europe (-7%).

On a year-on-year basis, the average call sizes show strong declines in all port regions.

This decline was a single-digit one in Africa (-9%), North East Asia (-9%) and the Med (-8%). The strongest declines are recorded in North America (-27%) and North Europe (-23%). The steep year-on-year increases in the number of vessel calls thus go hand-in-hand with much smaller call sizes.

Evolution: (year-on-year) in container ports (index based evolution / Q2 2023 vs Q2 2022)

Indicator	Africa	Latin America & Caribbean	Mediterranean	Middle East & India	North America	North East Asia	Northern Europe	Oceania	South East Asia
Number of Vessel Calls	22%	19%	8%	20%	20%	14%	31%	6%	31%
Share of Container ships of > 8.500 TEU capacity	20%	-6%	8%	7%	16%	6%	-8%	0%	-7%
Call Size	-9%	-13%	-8%	-15%	-27%	-9%	-23%	-12%	-18%
Port Moves Per Hour	10%	1%	0%	-13%	29%	20%	9%	-3%	-7%

Evolution: (Long-term) in container ports (index based evolution / Q2 2023 vs Q1 2019)

Indicator	Africa	Latin America & Caribbean	Mediterranean	Middle East & India	North America	North East Asia	Northern Europe	Oceania	South East Asia
Number of Vessel Calls	10%	4%	5%	7%	-11%	-9%	-5%	-8%	3%
Share of Container ships of > 8.500 TEU capacity	-13%	6%	8%	0%	43%	19%	-7%	*	11%
Call Size	-1%	7%	3%	-8%	4%	20%	-3%	8%	9%
Port Moves Per Hour	-3%	6%	-8%	-3%	2%	17%	5%	-25%	0%

Evolution: (year-on-year) in LSCI of top 5 countries (index based evolution / Q2 2023 vs Q2 2022)

Rank	Africa	Latin America & Caribbean	Mediterranean	Middle East & India	North America	North East Asia	Northern Europe	Oceania	South East Asia
Best-connected country in region	-3%	2%	5%	6%	2%	3%	4%	2%	4%
Second best-connected country in region	3%	5%	4%	8%	-5%	5%	0%	0%	4%
Third best-connected country in region	97%	7%	8%	3%		6%	2%	0%	9%
Fourth best-connected country in region	0%	25%	2%	13%		1%	-3%	6%	5%
Fifth best-connected country in region	54%	4%	4%	-8%		6%	2%	6%	12%

Evolution: (Long-term) in LSCI of top 5 countries (index based evolution / Q2 2023 vs Q1 2019)

Rank	Africa	Latin America & Caribbean	Mediterranean	Middle East & India	North America	North East Asia	Northern Europe	Oceania	South East Asia
Best-connected country in region	-2%	10%	12%	12%	6%	16%	5%	6%	6%
Second best-connected country in region	94%	10%	19%	35%	6%	13%	3%	5%	11%
Third best-connected country in region	103%	9%	14%	15%		1%	5%	40%	30%
Fourth best-connected country in region	9%	28%	17%	28%		7%	-1%	6%	41%
Fifth best-connected country in region	55%	21%	19%	-11%		-6%	1%	6%	-16%

* In Oceania the size of such calls in 2009 was very small, thus the increase of the index is not detailed.

Source: own compilation based on S&P Global Port Performance Program data (first two sections of the table) and LSCI data provided by UNCTAD and MDS Transmodal (last two sections)



When focusing on medium-term changes however the picture is different. Compared to Q1 2019, significantly smaller call sizes are observed in Africa, where the change is marginal (-1%), Northern Europe, where the percentage change is rather low (-3%) and Middle East & India (-8%). Overall, since 2019 the TEU handled per container ship call has increased, with major increases in average call sizes compared to the pre-pandemic year 2019 recorded in North East Asia (+20%), Oceania (+8%) and South East Asia (+9%)

The regional data on port moves per hour demonstrate that three of the nine world's port regions had to accept a decline in Q2 2023 compared to the same quarter in 2022. Port productivity levels saw a strong year-on-year growth in North America and North East Asia, while they remained relatively stable in the Mediterranean and Latin America & the Caribbean. When considering the trends in the past four and a half years, it becomes clear the number of port moves per hour saw a double-digit decline in Oceania (-25%) and a strong increase in North East Asia (+17%). The other regions witnessed much smaller changes in port moves per hour.

The bottom part of dashboard II summarises some of the findings related to the country-based LSCI data provided by UNCTAD, building on data supplied by MDS Transmodal from its Containership Databank. The five best-connected countries per region in terms of the LSCI values are listed. Both the year-on-year development as well as the Q1 2019-Q2 2023 evolution of the country-based LSCIs is shown.

The comparison of LSCI in Q2 2023 with the same period of 2022 illustrates the significant changes that took place during the last year in sub-Saharan Africa, where new countries are emerging among the best-connected ones in the region, and the considerable (i.e., double-digit percentage) LSCI improvements that occurred in South East Asia (with some exemptions), in Latin America and the Caribbean, and the Mediterranean Sea. The LSCI improved to a lesser extent in North East Asia and North America. Some internal shifts are present in North Europe, the region where changes occur at a slower pace. In Oceania and the Pacific, LSCI improvements were marginal.

Comparing the long-term trends, Dashboard II reveals a positive evolution of the LSCI in the best connected countries in all parts of the world. A significant LSCI growth was recorded in sub-Saharan Africa, Southeast Asia, the Middle East and the Indian sub-continent, the Mediterranean Sea, and Latin America and the Caribbean. The LSCI increases presented single-digit percentages in North America, North Europe, and most of Oceania and North East Asia. This is however a partial picture: as Dashboard II hints and the regional analysis of LSCI evolution in the forthcoming sections of the report reveals, the notable internal dynamics are present in all world regions – the most extended ones occurring in Africa and Latin America and the Caribbean.

Dashboard III

Trends in World Cargo Ports (September 2023)

Turning back to the survey results, the situation in hinterland transport shows very mixed results, although overall only a small number of ports face major disruptions (Dashboard III).

The situation further improved for container transport by rail and barge, while the share of ports facing delays in trucking in Q2 2023 remains at single-digit figures.

However, hinterland transport of bulk/breakbulk flows shows significantly more disruptions for rail and trucking. The inland transport situation for barges in these market segments has only marginally deteriorated, although the share of respondents referring to delays is relatively small. Ports in East Asia and North America reported the least disruptions in hinterland transportation. Inland barge delays in North Europe for the container segment remain on the table. A rather large share of the responding African ports faces some issues with trucking and rail transport of bulk and breakbulk cargoes.

The situation in warehousing and distribution facilities showed a sharp drop for containerised cargo in Q4 2022 compared to Q3 2022. However, Q2 2023 show a sudden increase from 16% to 26% with the Americas showing the highest shares (i.e., 50%). Also, in the dry bulk segment, the percentage of ports reporting underutilisation of facilities or capacity shortages has seen a rather strong increase. In the liquid bulk market, the situation improved. There is a strong variation across market segments when considering the regions having the biggest challenges in terms of underutilisation or capacity shortages in the warehousing and distribution market.

The situation in terms of the availability of truck drivers shows a major deterioration when compared to Q4 2022.

About 45% of all responding ports now report truck driver availability issues compared to 29% in Q4 2022. The figure now even surpasses the 37% figure recorded in Q3 2022 and the 40% figure of Q2 2022. Sub-Saharan Africa is the only region where truck driver availability concerns are minor. In Southeast Asia & Oceania three quarters of responding ports point to some level of trucker shortage. The availability of dock workers has significantly improved compared to Q4 2022, while technical-nautical staff availability issues have only slightly increased.



Hinterland transport: Percentage of ports with delays (6-24h) , major disruptions (> 24h) or discontinued operations

Container - Truck	9%	5%	20%	0%	9%	-	0%	7%	0%	25%
Container - Rail	11%	18%	25%	0%	22%	-	0%	10%	0%	0%
Container - Inland barge	16%	22%	-	0%	-	-	-	40%	-	-
Bulk/breakbulk - Truck	27%	6%	50%	0%	36%	-	0%	31%	17%	50%
Bulk/breakbulk - Rail	28%	12%	-	-	25%	-	13%	22%	-	40%
Bulk/breakbulk - Inland barge	15%	13%	-	-	-	-	-	20%	-	-

Note: empty cells = less than 5 respondents

Warehouses/distribution facilities: Percentage of ports with underutilised capacity or capacity shortages

Containerised cargo	26%	16%	50%	0%	27%	-	50%	20%	17%	22%
Dry bulk	31%	18%	67%	0%	27%	-	13%	38%	40%	33%
Liquid bulk	13%	18%	-	20%	9%	-	23%	17%	0%	11%
Other cargo	19%	19%	-	0%	36%	-	13%	13%	40%	11%

Note: empty cells = less than 5 respondents

Staff availability: Percentage of ports reporting moderate to severe shortages

Dock workers	19%	29%	17%	0%	21%	-	11%	16%	43%	33%
Technical-nautical services	23%	20%	17%	14%	29%	-	22%	26%	25%	22%
Truck drivers	45%	29%	50%	43%	50%	-	30%	53%	75%	11%

Note: empty cells = less than 5 respondents



Number of passenger vessel calls:
Percentage of ports with >2% growth Q2 2023 vs. Q2 2022

Cruise vessels	64%	65%	-	75%	60%	-	100%	44%	86%	-
Ferries	32%	49%	-	40%	63%	-	40%	8%	-	-

Note: empty cells = less than 5 respondents

Cruise activity expectations:
Percentage of ports with >2% growth expectation in the next 12 months

Cruise vessel calls	62%	65%	-	80%	50%	-	86%	61%	71%	-
Cruise PAX movements	68%	77%	-	80%	60%	-	86%	72%	71%	-

Note: empty cells = less than 5 respondents

Dashboard IV Trends in World Passenger Ports (September 2023)

In the passenger markets (Dashboard IV), the share of ports reporting an increase in cruise vessel calls remained fairly stable compared to Q4 2022, while this share decreased from 49% to 32% for ferry calls.

In September 2023, slightly fewer ports expected growth in cruise vessel calls in the next twelve months (62% in September 2023 vs 65% in March 2023, 69% in November 2022 and 71% in June 2022). Also, the share of ports foreseeing growth in cruise passenger movements in the next twelve months has declined slightly from 77% in March 2023 to 68% in September 2023 (note that it was 73% in November 2022 and 64% in June 2022).

3

**TRENDS IN CARGO PORTS:
EVOLUTION OF VESSEL CALLS**

What was the trend in the number of calls in the most recent quarter of the year (Q2 2023) compared to the same period of the past year (Q2 2022)? We asked ports to provide their estimation distinguishing between four merchant vessel categories: container vessels, dry bulk carriers, tankers and gas carriers, and other cargo vessels.



3.1. Overall survey results

Considering the global population of seaports, Q2 2023 revealed about 53% of respondents experiencing a positive trend in the calls of container ships, i.e., a year-on-year growth of more than 2%. For dry bulk carriers, tankers and gas carriers, and other cargo vessels, these figures amounted to 32%, 27% and 30% respectively.

16% of the responding ports realised a growth of more than 10% in container vessel calls. The percentage of liquid bulk and dry bulk ports recording in Q2 2023 a double-digit percentage growth is 14% and 12% respectively.

The number of ports that in Q2 2023 recorded a lower number of calls compared to the same quarter of the year before has remained significant. About 29% of the ports reported a drop in container vessel calls, slightly better than the conditions that occurred for the other vessel types. However, in the latter cases, the share of ports reporting a decline of more than 10% is much higher: 14% for tankers and gas carriers, and other cargo vessels, 20% for dry bulk carriers and only 8% for container ships.



Figure 2
Evolution of vessel calls (Q2 2023 compared to Q2 2022)

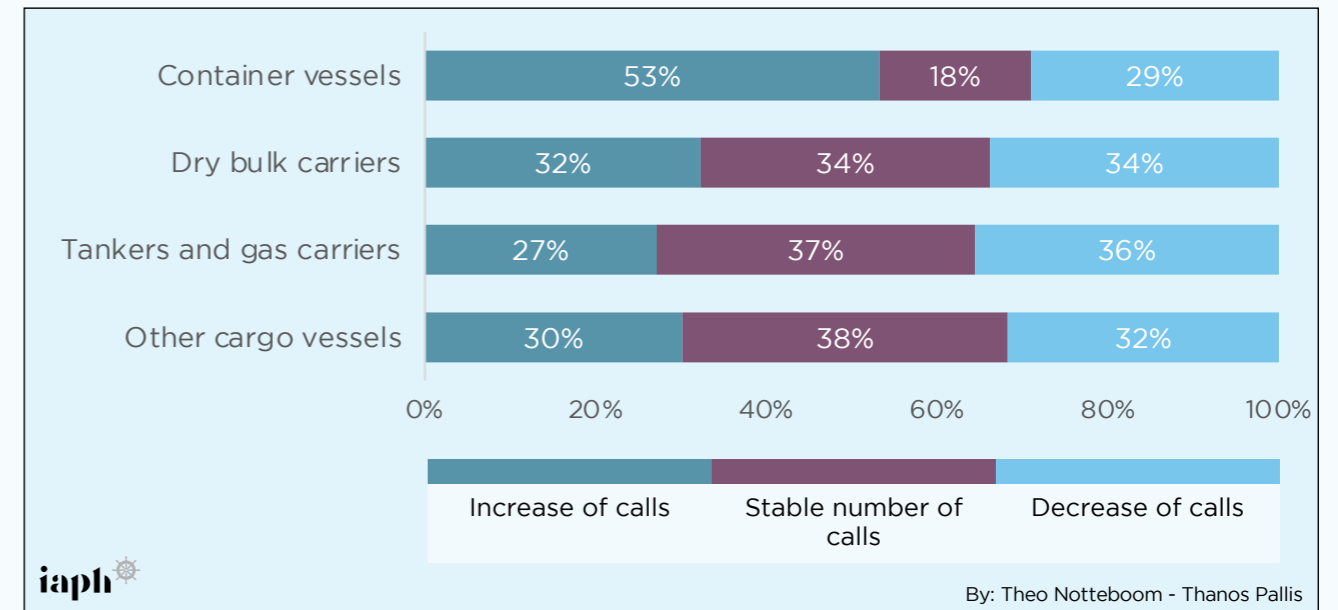
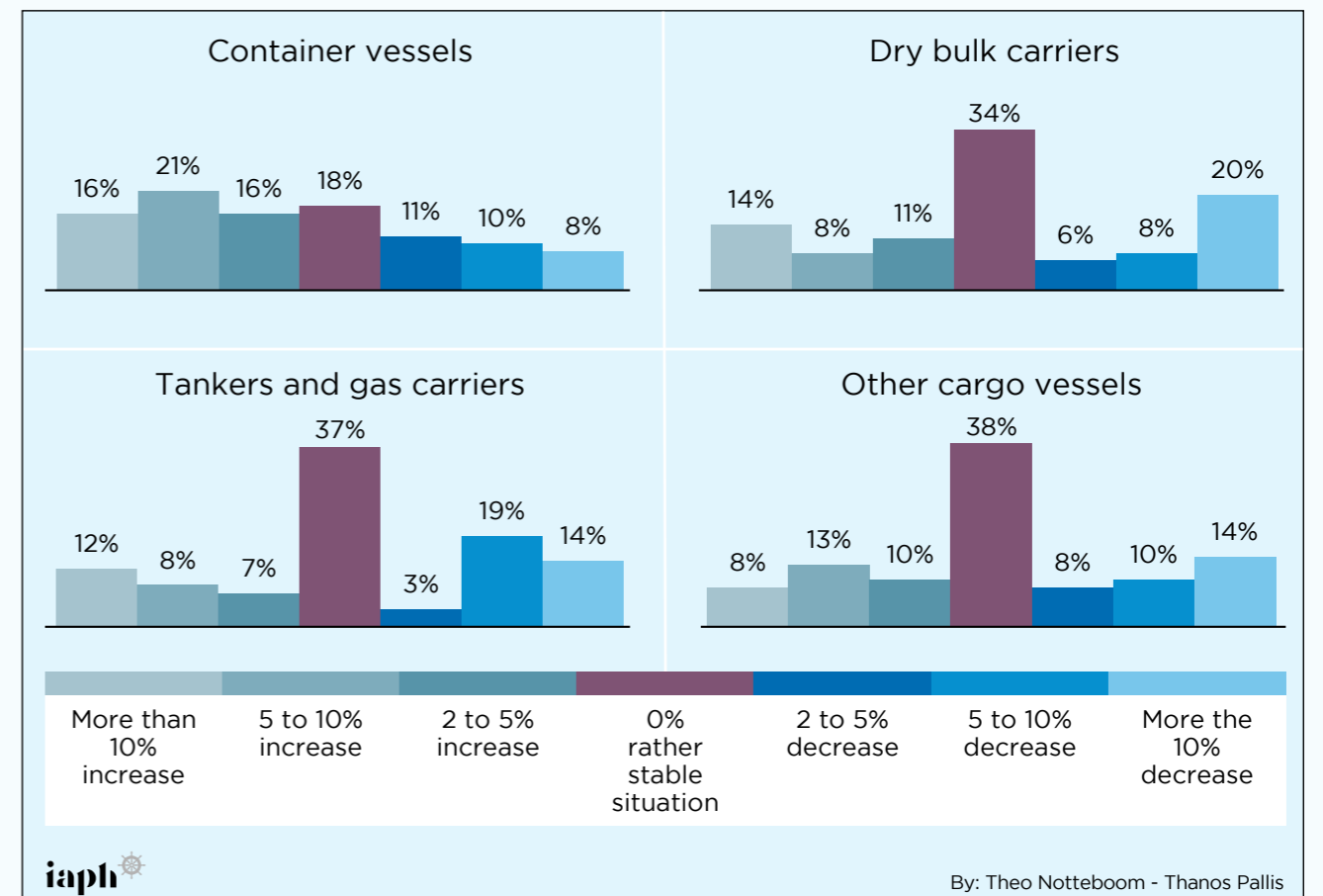


Figure 3
Evolution of vessel calls per type of vessel (Q2 2023 vs Q2 2022)



3.2. Regional Perspectives

The regional analysis focuses on the four regions with the highest number of respondents, i.e., North Europe, the Mediterranean, North America and Southeast Asia & Oceania.

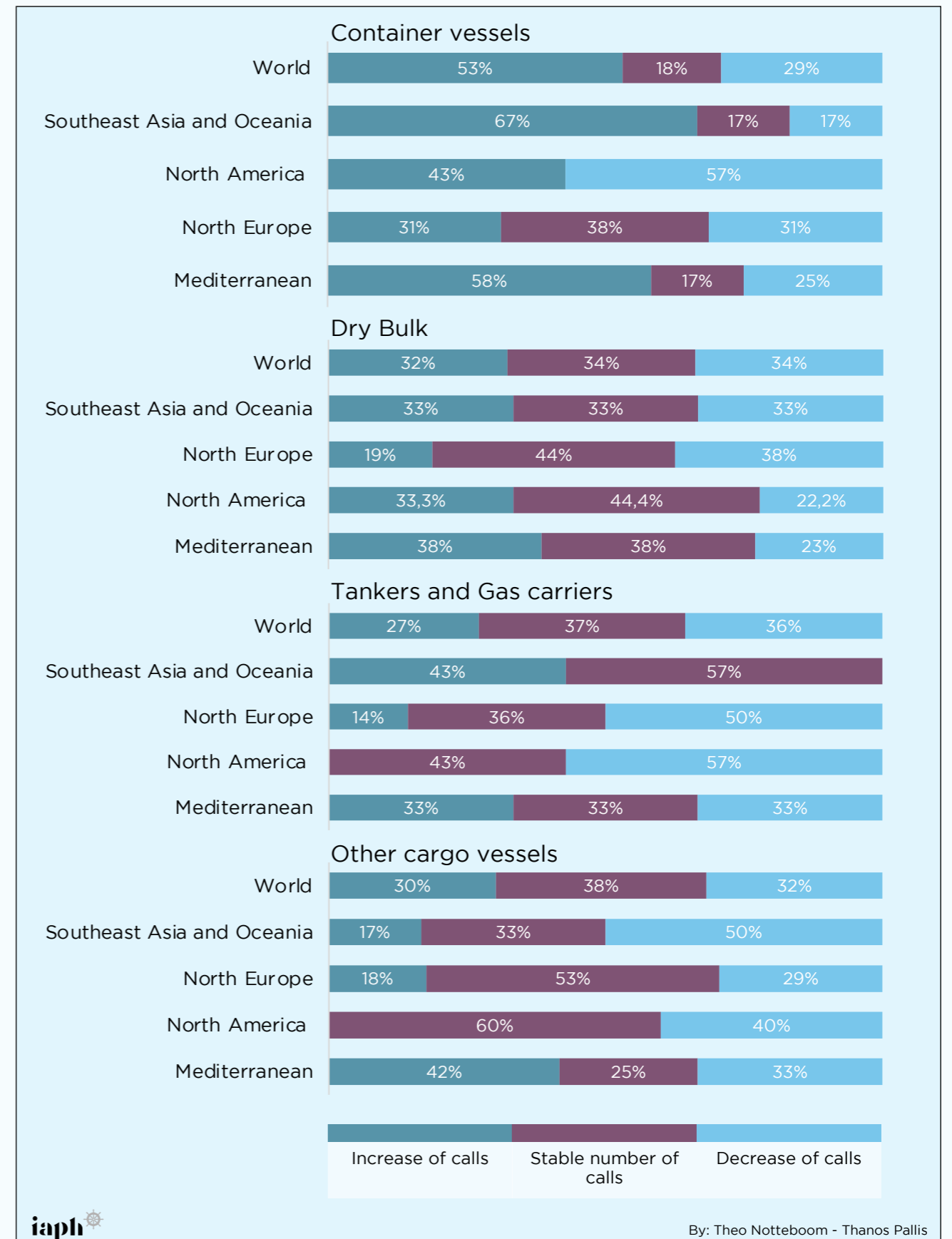
The Southeast Asia & Oceania port region shows the most positive figures for container vessel calls, with about 67% of the ports expecting growth above 2%. North Europe offers the least promising figures regarding trends in the number of containership calls: less than one-third of North European container ports record more than 2% growth, mainly caused by a decline in Europe-Far East trade volumes.

For dry bulk vessels, all regions, except for North Europe, show fairly similar results regarding the share of ports, indicating an increase in vessel calls. Some differences are observed regarding the share of respondents reporting a decline in vessel calls of more than 2%, ranging from 22% in North America to 38% in North Europe.

For tankers and gas carriers, 43% of the respondents in South East Asia & Oceania realised an increase in liquid bulk vessel calls, compared to only 14% for North Europe and even zero percent in North America. The share of ports expecting a (sharp) decline is the highest in North America (at 57%) and North Europe (half of all responding ports).



Figure 4
Evolution of vessel calls per type of vessel in selected world regions (Q2 2023 vs Q2 2022)



4

TRENDS IN CARGO PORTS:

VOLUME EXPECTATIONS IN THE NEXT TWELVE MONTHS

One of the survey questions aims to reflect the short-term prospects for cargo volumes in world ports for the next twelve months: “In the next twelve months, do you expect the cargo throughput at your port to increase or decline?”. The answering scale includes three positive growth categories (>10%; +5 to +10% and +2 to +5%), three negative growth scales (-2 to -5%; -5 to -10%; and < -10%) and one reflecting a rather stable cargo traffic situation (-2 to +2%). Also, a distinction is made here between containerised cargo, dry bulk, liquid bulk and other cargo (conventional general cargo and breakbulk). The traffic expectations use TEU as a basis for container volumes and metric tonnes for the other goods categories.

4.1. Overall survey results

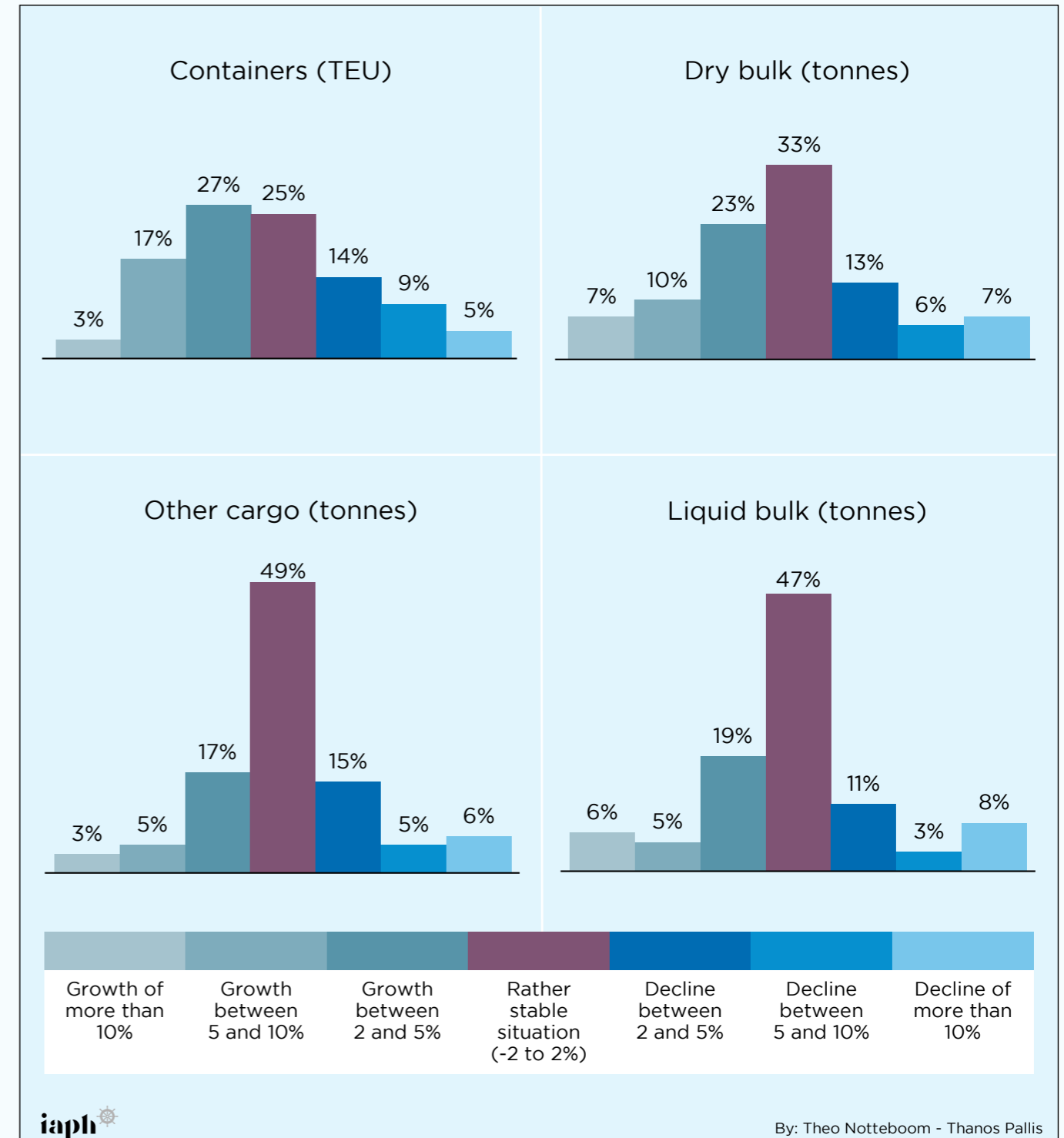
The overall results show that 47% of respondents expect a year-on-year annual growth rate in container volumes of more than 2% for the next twelve months. About one quarter of ports do not expect major changes in the handled TEU volume, while about 28% are preparing for a volume decline.

In the dry bulk market, about 41% of the ports expect growth in calls over 2%, with more than one quarter of ports forecasting a mostly modest volume decline. For liquid bulk flows, 31% of ports forecast growth of more than 2% in the next twelve months, with about 23% predicting a volume decline. In the 'other cargo' category, quite a few ports expect a positive volume development for project cargo, mainly related to energy transition projects.



Figure 5

Cargo volumes in world ports for the next twelve months: Expectations as of September 2023.



4.2. Regional perspectives

The regional analysis reveals that the port system in Sub-Saharan Africa shows the highest share of respondents counting on a minimum container volume increase of 2% over the next twelve months, closely followed by the Mediterranean and East Asia. None of the responding ports of the latter region expects a TEU drop of more than 2% in the next twelve months.

The bleakest prospects can be found in North Europe and North America, where about two thirds of the respondents see TEU volumes stagnating or even slightly declining over the next twelve months.

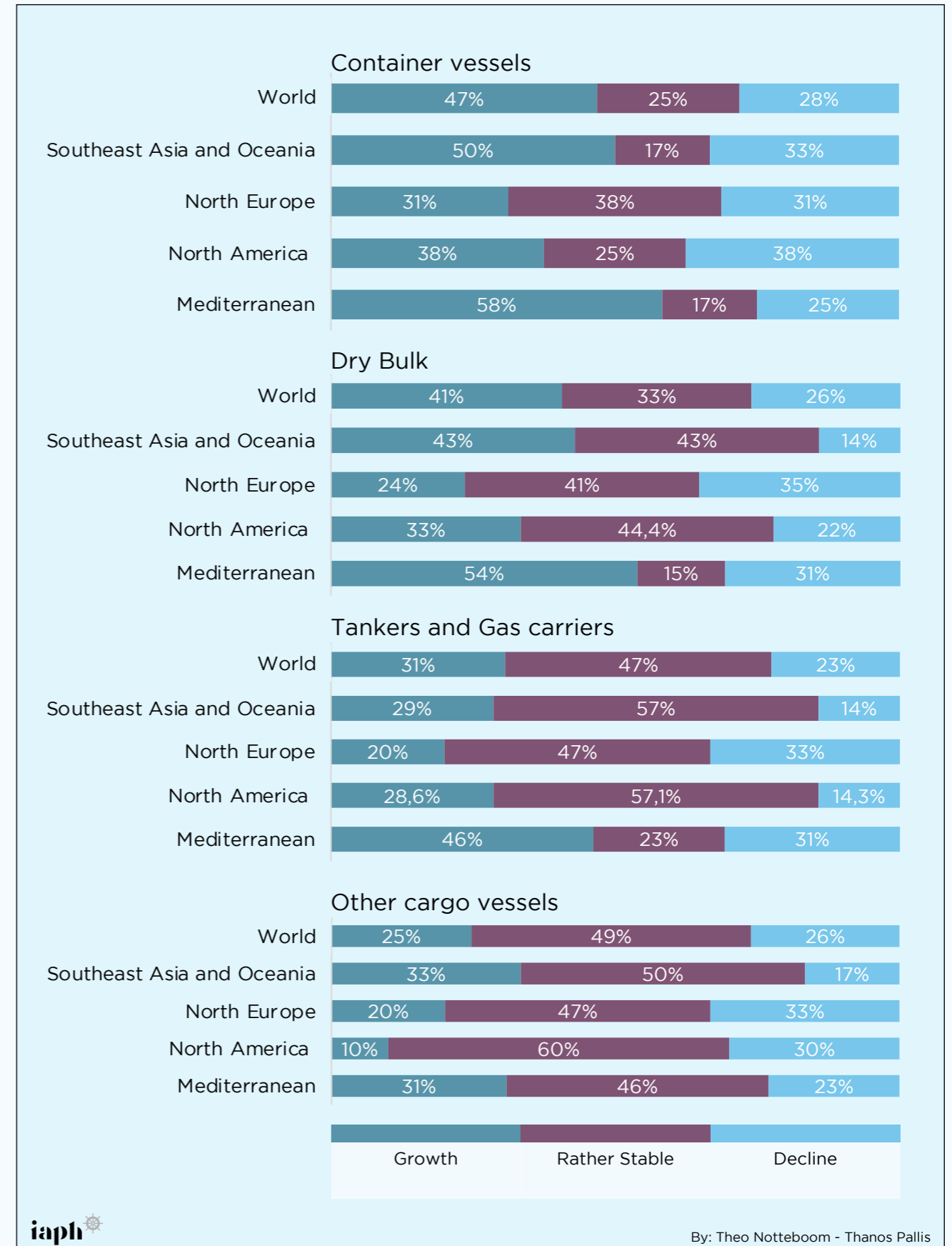
The Mediterranean port region has the highest volume expectations in the dry bulk market. North Europe has the highest share of ports expecting a decline in dry bulk volume in the next 12 months. Except for North Europe, there are significantly more ports expecting volume increases in dry bulk compared to those counting on volume drops.

In the tanker and gas carrier market, only the Mediterranean shows a high share of ports expecting a volume growth of at least 2%. The vast majority of East Asian ports count on a stabilization of volumes, while the expectations in Central & South America are fairly evenly split between growth and decline. North Europe is the only region where there are more ports expecting a volume decline than volume growth.

The “other cargo” category includes mainly breakbulk and conventional general cargo. This category thus consists of a myriad of different cargo flows such as project cargo (for example, power generation equipment, equipment for the oil and gas industry, mining equipment, and heavy machinery), iron and steel products, non-containerized forest products, reefer vessel trades and break-bulk shipments of smaller lots such as big bags, skidded, and palletized cargoes. This diversity in goods, and the different market prospects that go with each specific commodity and trade flow, might explain why the spread in growth expectations is relatively large when comparing port regions.



Figure 6
Cargo volumes in world ports for the next twelve months:
Expectations in selected port regions as of September 2023.





5

TRENDS IN CARGO PORTS:

VESSEL ACTIVITY AND PRODUCTIVITY IN PORTS

This section of the report provides an in-depth analysis of vessel activity and productivity in container ports. The analysis is based on quarterly container port statistics compiled as part of the S&P Global Port Performance Program. We focus on four container port metrics covering the period from Q1 of 2019 to Q2 of 2023, i.e., the number of vessel calls, the evolution of vessel size, the evolution of call size (number of TEU handled per call), and port moves per hour, aggregated per region. We start the analysis with an 'in focus' discussion of container port productivity expressed in port moves per hour, followed by a regional analysis of the non-survey data results.

5.1. In focus: Port Moves Per Hour

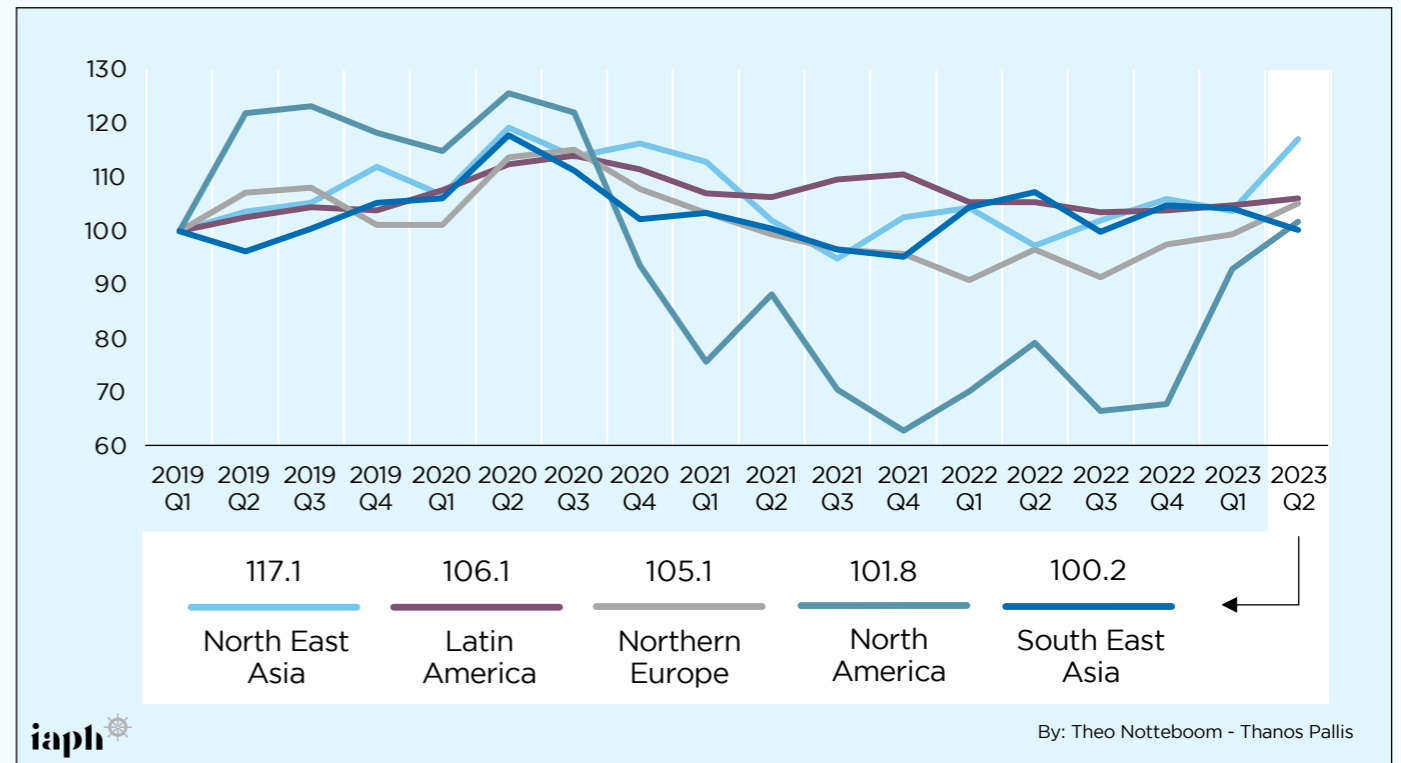
On a year-on-year basis, port productivity in Q2 2023 increased in five of the nine world regions. The most substantial growth in average port moves per hour was recorded in North America (+29% compared to Q2 of 2022), followed by North East Asia (+20%), Africa (+10%) and North Europe (+9%).

The year-on-year productivity drop was the biggest in the Middle East and India (from an index of 116 to 101 or -13%) and South East Asia (-7%). The long-term picture is somewhat different. Compared to the beginning of 2019, the number of port moves per hour stands higher in North East Asia (+17%), Latin America & the Caribbean (+6%), North Europe (+5%) and North America (+2%). Some regions have recorded significant drops in average port moves per hour.

The situation remains particularly concerning in Oceania (-25% compared to Q1 of 2019). The productivity in North America shows major changes during the observed period. During 2021 and 2022 the average port moves per hour in this region dropped to an index as low as 62.9 due to port congestion and the supply chain crisis, before recovering strongly to an index of 101.8 in Q2 2023. Productivity in Northern Europe, South East Asia and Latin America remained relatively stable compared to Q1 2019.



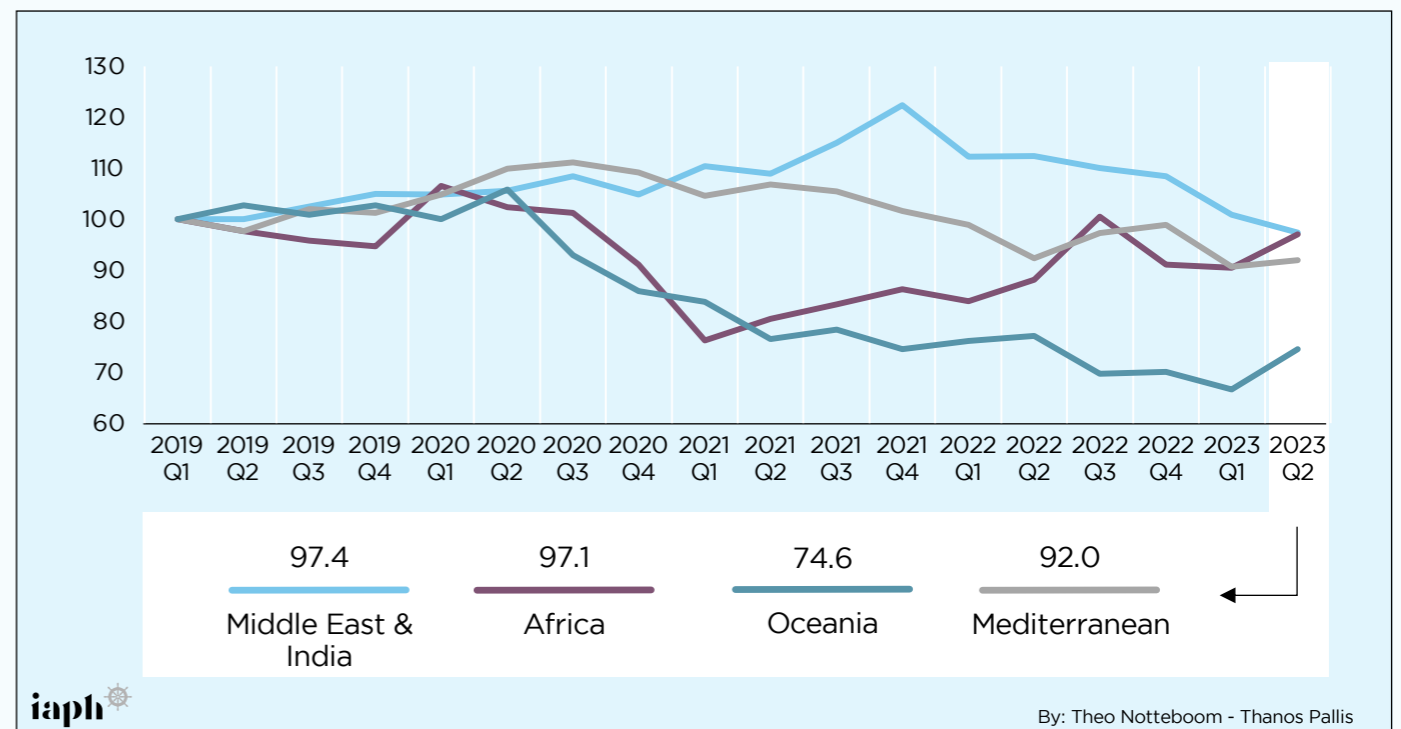
Figure 7
World Regions where container ports productivity increased since 2019 (Q2 2023 vs Q1 2019; Port Moves Per Hour per region)



Source: Data collected and provided by S&P Global Port Performance Program.



Figure 8
World Regions where container ports productivity decreased since 2019 (Q2 2023 vs Q1 2019; Port Moves Per Hour per region)



Source: Data collected and provided by S&P Global Port Performance Program.

5.2. Regional focus: Africa

The African container port network includes large gateway ports and an extensive array of small and medium-sized ports in the East, West, and South of the continent. The large-scale transshipment hubs in Northern Africa are not considered here as they have been included in the Mediterranean region.

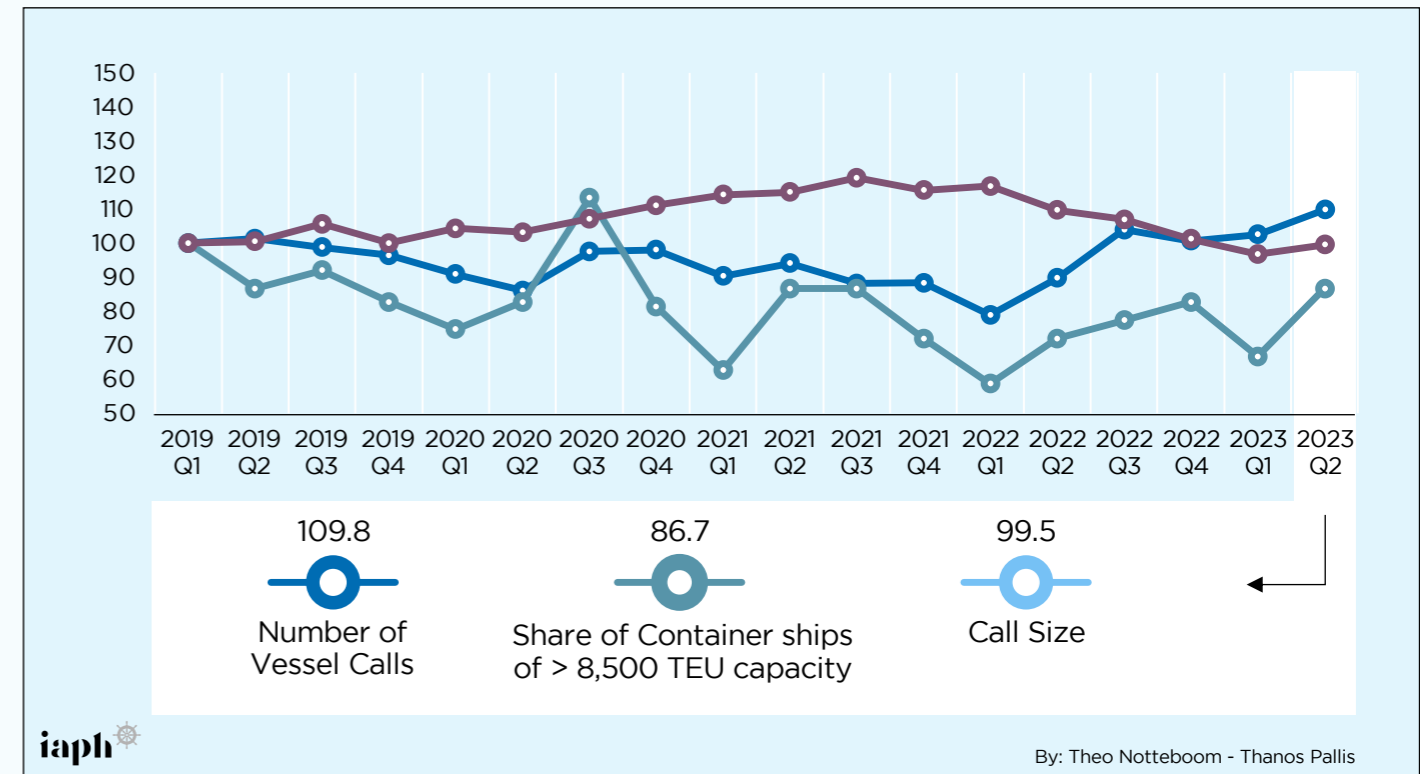
A strong increase in the number of container ship calls in African ports marked the second quarter of 2023. The number of vessel calls reached the level of Q1 2019 in Q4 2022 before jumping to an index of 109.8 in Q2 2023. The number of calls had gradually decreased to reach its lowest point during Q1 2022. The share of 8,501+ TEU vessels in total vessel calls increased on a year-on-year basis: 5.4% in Q2 2022 versus 6.5% in Q2 2023. However, the longer-term trend reveals that since 2019 the larger vessel share has declined by 13.3%.

Compared to Q1 2019, the average call sizes in African ports in Q2 2023 were at the same level. The average call sizes peaked at +19.2% in Q3 2021 compared to early 2019 but shows a downward trend since then. On a year-on-year basis, the size of vessel calls in Q2 2023 was 9.4% lower than in the same quarter of 2022.

A positive change in the port moves per hour in African ports was recorded in Q2 2023. This key indicator was 10% higher on a year-on-year basis and only 3% lower compared to Q1 2019. This key performance indicator was significantly lower during each quarter of 2021 and early 2022 than at the beginning of 2019.



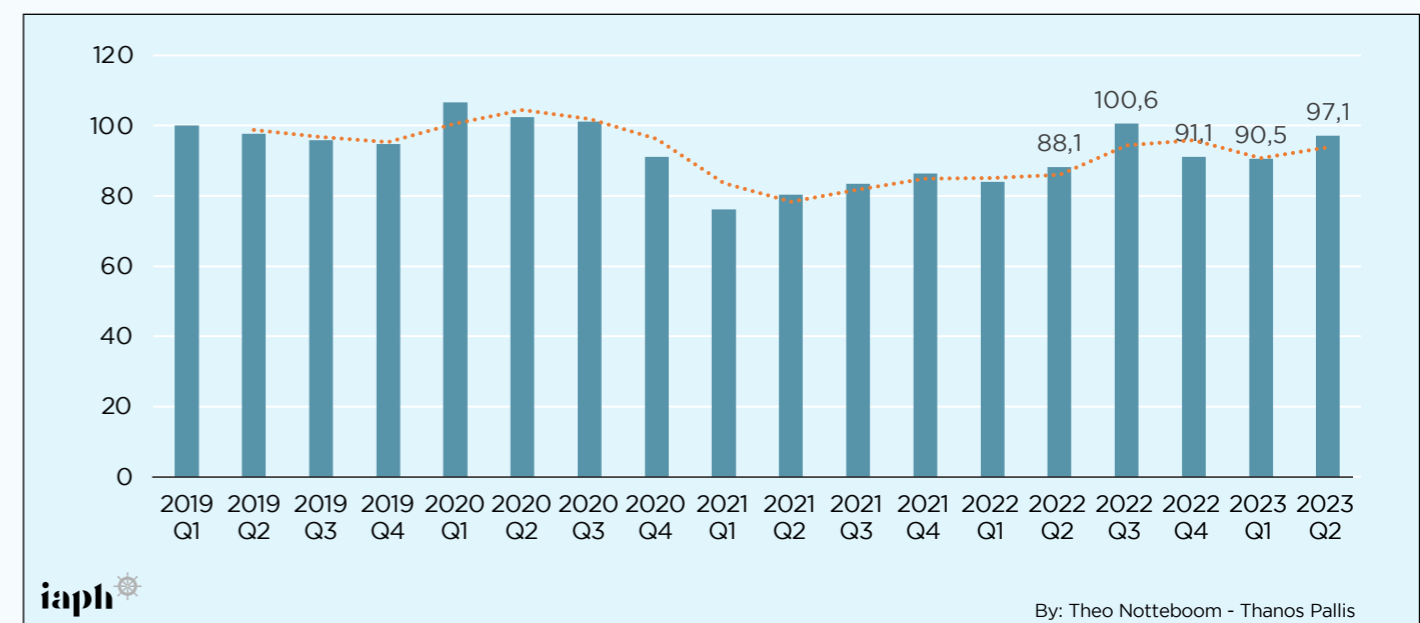
Figure 9
Evolution of Number of Vessel Calls, Share of Container ships of > 8.500 TEU capacity, and Call Size (Ports in Africa; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.



Figure 10
Evolution of Port Moves per Hour (Ports in Africa; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.3. Regional focus: Latin America

The number of container ship calls in Latin America saw an upward tendency in Q2 2023. The index of the total number of calls surpassed the 100 index level for the first time since late 2020. In late 2020, the number of calls in Latin America started to decline gradually to reach a bottom in Q1 2022. In Q2 2023, the number of container ship calls was 4% above the level of early 2019.

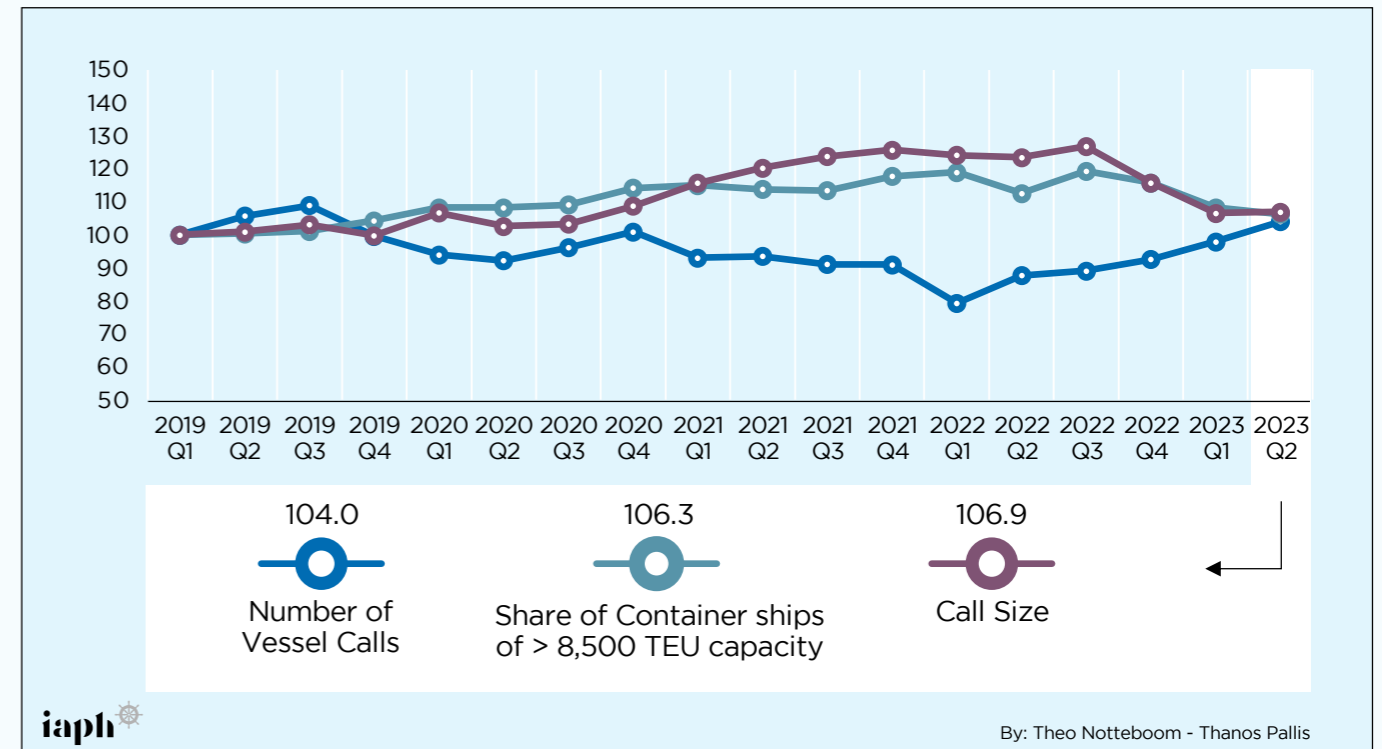
Latin American ports do not receive calls from the largest container ships in the world (i.e., vessels over 20,000 TEU capacity), as such vessels are deployed in other regions. Yet, the share of 8,501+ TEU vessels, as a percentage of the total container vessel calls in the ports of the region, increased to reach an index of 119.4 in Q3 2022. However, since then the index dropped to reach 106.3 in Q2 2023.

The average call sizes at Latin American ports saw a gradual increase to reach an index of 126.8 in Q3 2022. Since then, call sizes dropped significantly to an index of 106.9 or a mere 6.9% above the Q1 2019 level. Thus, both the share of 8,501+ ships and the average call sizes are now slightly above the figures for Q1 2019, but far below the levels observed in late 2022.

Despite these substantial changes in the frequency, size of vessels, and call sizes, Latin American ports managed only marginally to increase their productivity. This is reflected in the evolution of the average port moves per hour recorded in the region since early 2019. This average has been modestly higher than in Q1 2019 in each quarter of 2019-Q2 2023. The index of the average port moves per hour in Latin America reached 106.1 in Q2 2023, slightly below the record of 114 realized in Q3 2020.



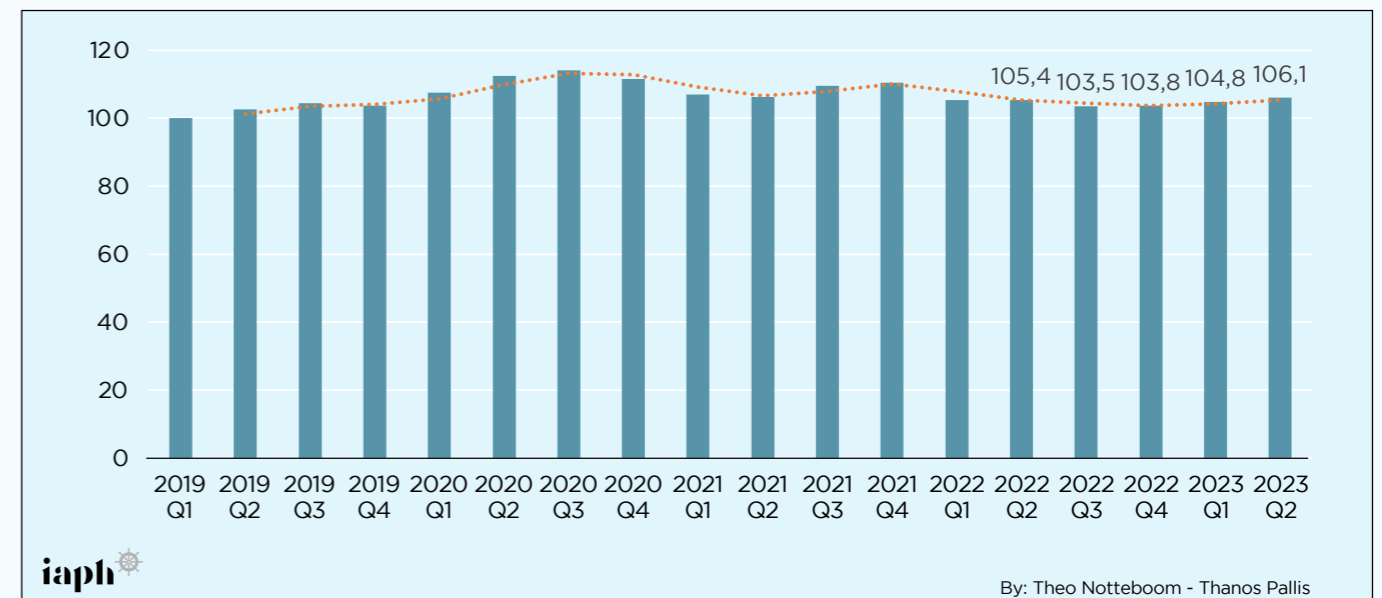
Figure 11
Evolution of Number of Vessel Calls, Share of Containerships of > 8.500 TEU capacity, and Call Size (Ports in Latin America; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.



Figure 12
Evolution of Port Moves per Hour (Ports in Latin America; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

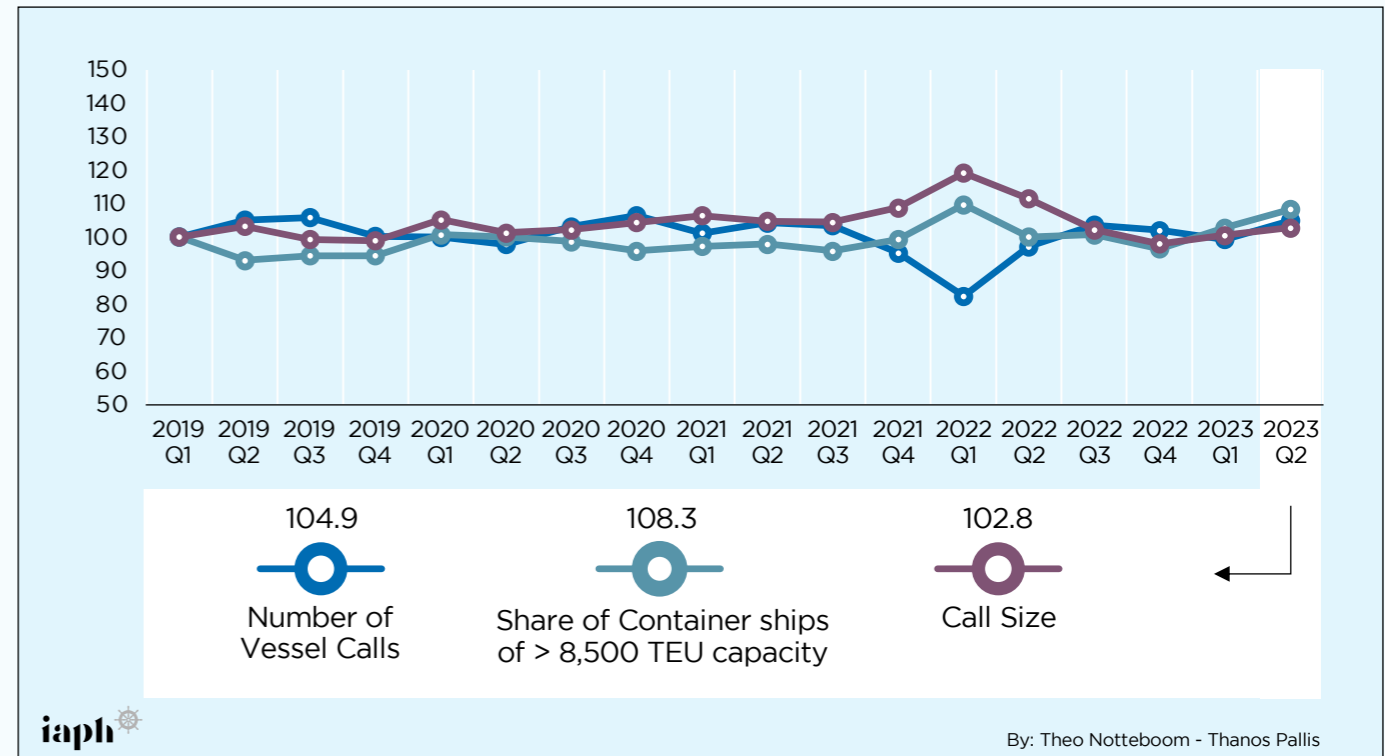
5.4. Regional focus: The Mediterranean Sea

Since the beginning of 2019 and until Q3 2021, the number of container ship calls, the call size, and the share of 8,501+ TEU vessels in ports of the Mediterranean Sea remained almost stable with a small upward move in Q2 2023. In Q1 2022, some divergence could be observed, combining a decline in vessel calls with an increase in the other two indicators. However, by Q4 2022 the three indicators converged again close to the index 100 level. In Q2 2023, the number of vessel arrivals increased to reach an index of 104.9, the highest index level since late 2020. The average call size saw only a very small change compared the past four quarters, while the percentage of the calls made in Mediterranean ports by container ships of 8,501+ TEU capacity saw a stronger increase to reach an index of 108.3, nearly as high as the record level of 109.7 achieved in Q1 2022.

Despite the disruptions in the maritime and other supply chains in the region following the outbreak of the COVID-19 pandemic, Mediterranean ports have managed to keep their productivity at more or less the same level. The port moves per hour in Q2 2023 in the Mediterranean ports reached an index of 92 in Q2 2023, a status quo on a year-to-year basis.



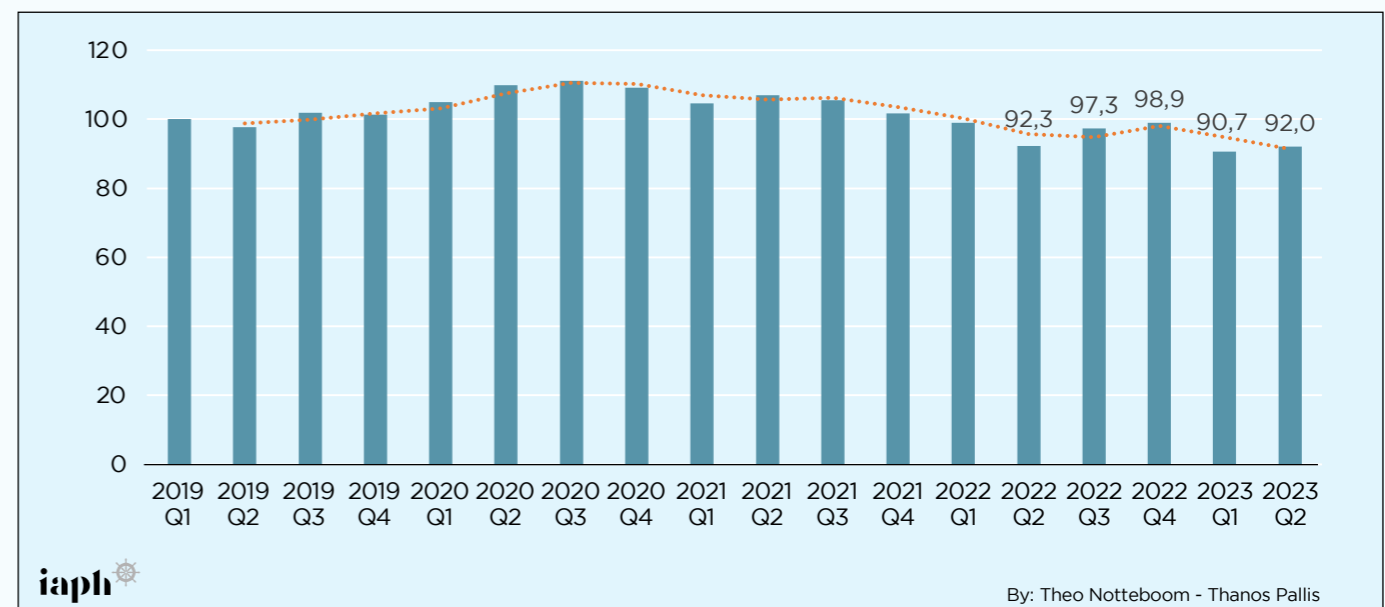
Figure 13
Evolution of Number of Vessel Calls, Share of Containerships of > 8.500 TEU capacity, and Call Size (Ports in the Mediterranean Sea; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.



Figure 14
Evolution of Port Moves per Hour (Ports in the Mediterranean Sea; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.5. Regional focus: Middle East & India

The container port network of the Middle East and India spans a large number of Arabian, Persian and Central Asian countries, as well as seaports in Pakistan, India, Sri Lanka and Bangladesh. In addition, the region is home to transshipment and many small, medium-sized and large gateway ports.

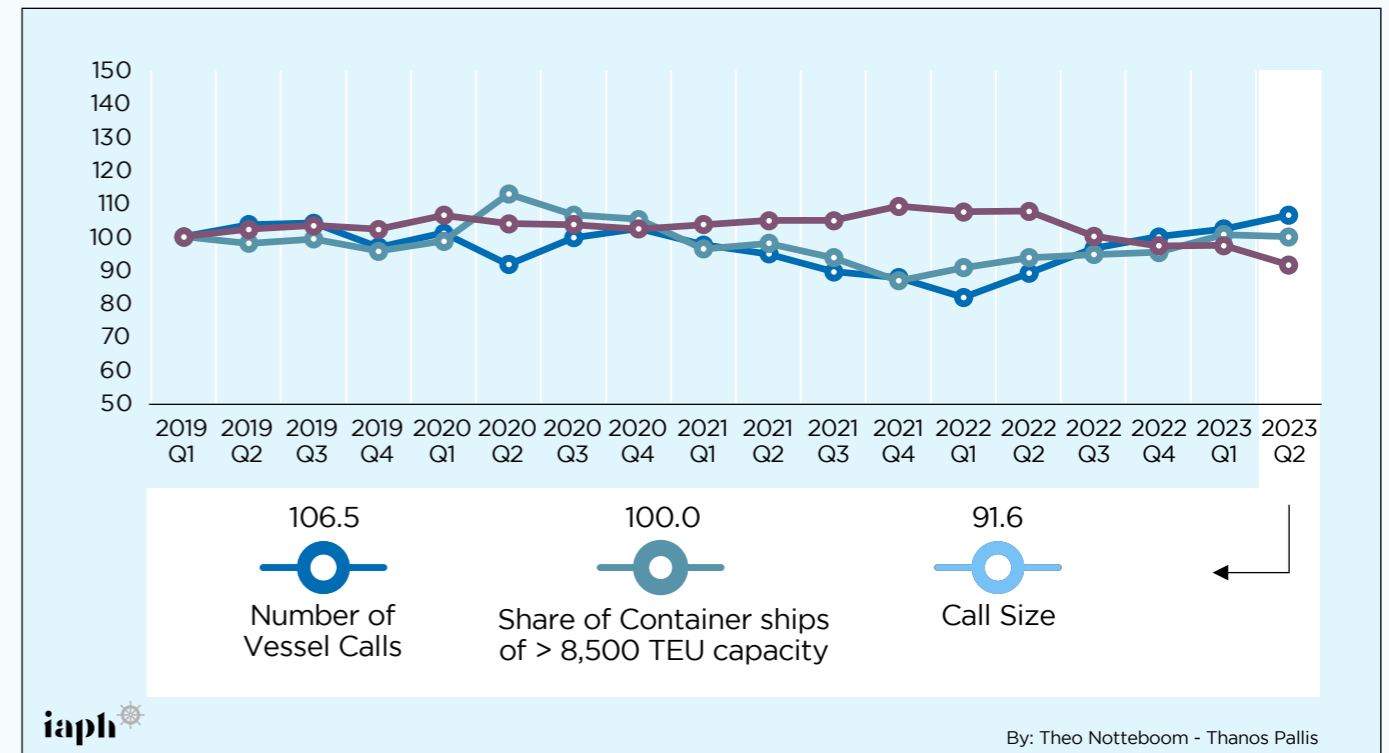
In 2021, a gradual decline was observed in the number of vessel calls and the share of the larger container ships. This trend reversed in 2022 and early 2023 with the number of vessel calls becoming 6.5% higher in Q2 2023 compared to Q1 2019. The index of the call sizes stayed above the 2019 level till late 2022 before showing a downward tendency to reach an index of 91.6 in Q2 2023.

The Middle East and India is the only region in the world that managed to substantially increase the port moves per hour in 2021 compared to the base quarter Q1 2019 (+22% in Q4 2021). These are relative figures showing the development path. These figures say nothing about container handling productivity in absolute figures compared to other regions. Thus, in contrast to most other regions, COVID-19 and the associated supply chain crisis - on average - did not result in lower moves per hour figures in container ports located in the Middle East and India region. However, after an upward trend in the period 2019-2021, productivity levels declined in 2022 and 2023 with a year-on-year change from a record index of 122.4 in Q4 2021 to 97.4 in Q2 2023. This implies the average moves per hour for the first time stay below the Q1 2019 level.



Figure 15

Evolution of Number of Vessel Calls, Share of Containerships of > 8,500 TEU capacity, and Call Size (Ports in the Middle East and India; index-based: Q1 2019 = 100)

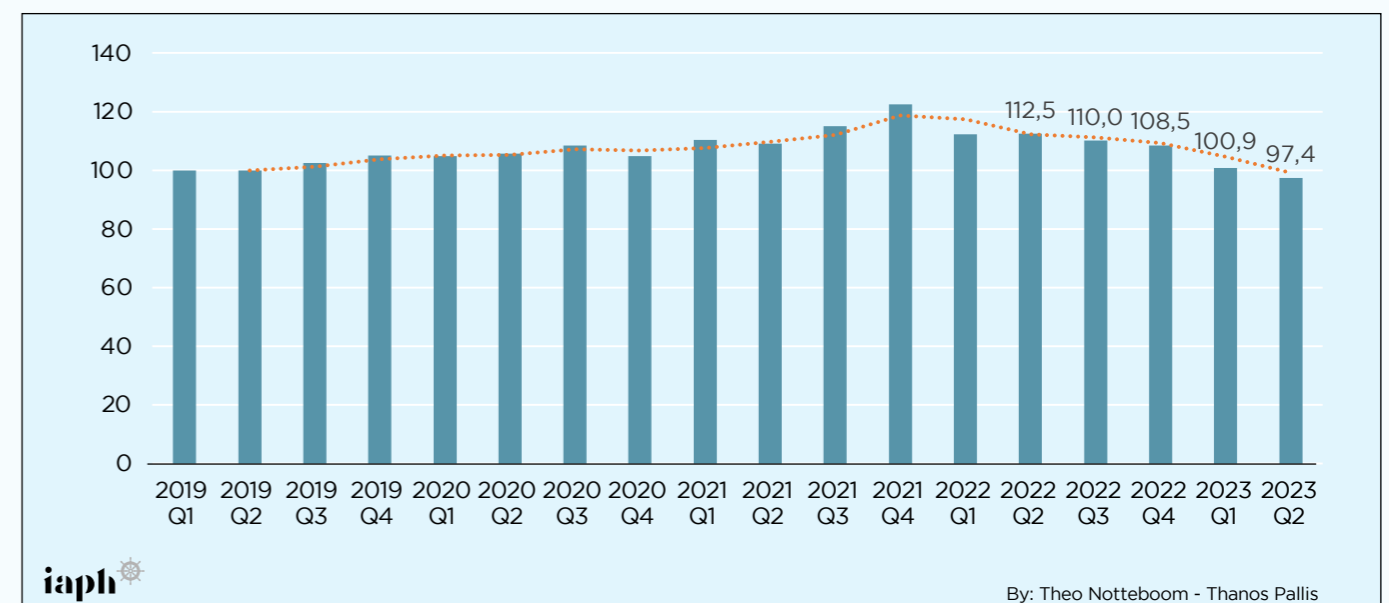


Source: own compilation based on S&P Global Port Performance Program data.



Figure 16

Evolution of Port Moves per Hour (Ports in the Middle East and India; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.6. Regional focus: North America

The North American container port system consists of gateway ports in the United States and Canada along the West Coast, the East Coast and the U.S. Gulf Coast. In the period early 2019 to early 2022, this port system has witnessed a combination of larger vessels and bigger call sizes, with significant drops in vessel calls and port moves per hour. However, each variable followed its distinctive path. Vessel arrivals only started to decline in late 2019. In early 2020, the decline in container demand in relation to North America led to blanked sailings and idled vessels, particularly on the trans-Pacific route. Since the summer of 2020, container throughput figures in most North American ports strongly recovered following the start of a period characterised by strong demand. However, the number of vessel calls continued to drop. In Q1 2022, the number of vessel calls was 33.6% lower than in Q1 2019. Since then, the curve has been moving upward to reach an index figure of 88.6 in Q2 2023 and thus getting closer to the level of early 2019.

Growing terminal capacity issues at some of the continent’s major gateway ports combined with the emergence of a global supply chain crisis prevented a rise in the number of vessel calls and triggered a sharp decline in the port moves per hour between late 2020 and late 2022. Port moves per hour started to recover strongly in 2023.

With port congestion in the region easing at the end of 2022, terminal productivity figures started to recover strongly in the first half of 2023. Port moves per hour evolved from an index of 62.9 in Q4 2021 to 101.8 in Q2 2023, thus slightly above the average productivity levels of early 2019.

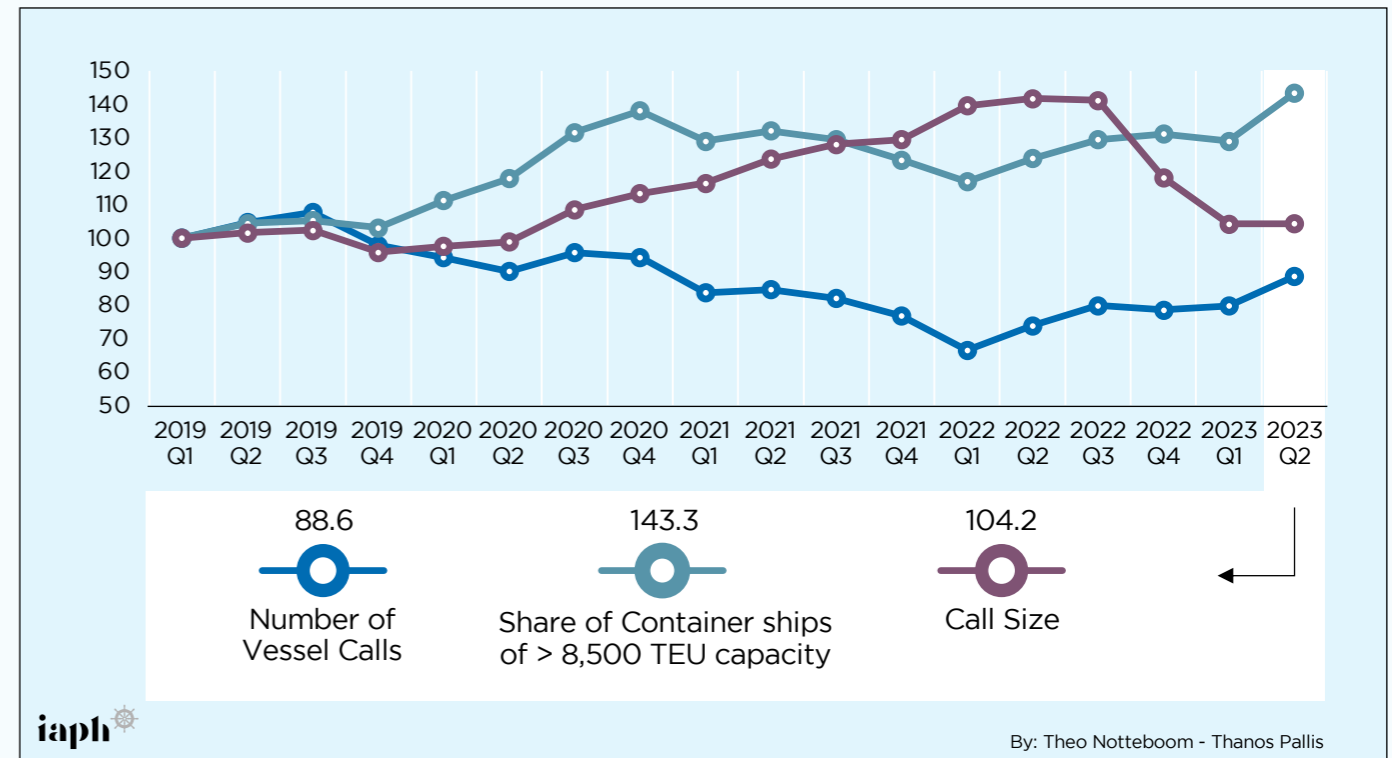
At the same time, North American ports are welcoming more large container vessels in relative terms. The share of 8,501+ TEU vessels reached a first peak in late 2020, with an upward trend observed in 2022 and early 2023 to reach a record index of 143.3 in Q2 2023. In the last quarter of observation, 33.1% of all container vessels calling at North American ports were larger than 8,501 TEU. In Q1 2019, this figure was 23.1%. Only North East Asia records a higher share of such large vessels, i.e. 36.9% in Q2 2023.

Call sizes have been rising strongly since late 2019 with many ports announcing records in this field. In the first three quarters of 2022, the average call size levelled off at some 40% above the Q1 2019 figure. However, this was followed by a sharp drop since Q4 2022, bringing the average call size almost back to the level of Q1 2019 (an index of 104.2 in Q2 2023). This sudden decline is one of the most remarkable observations with respect to North America, as it coincides with an upward trend in the number of vessel calls and a strong recovery of port moves per hour.



Figure 17

Evolution of Number of Vessel Calls, Share of Containerships of > 8.500 TEU capacity, and Call Size (Ports in North America; index-based: Q1 2019 = 100)

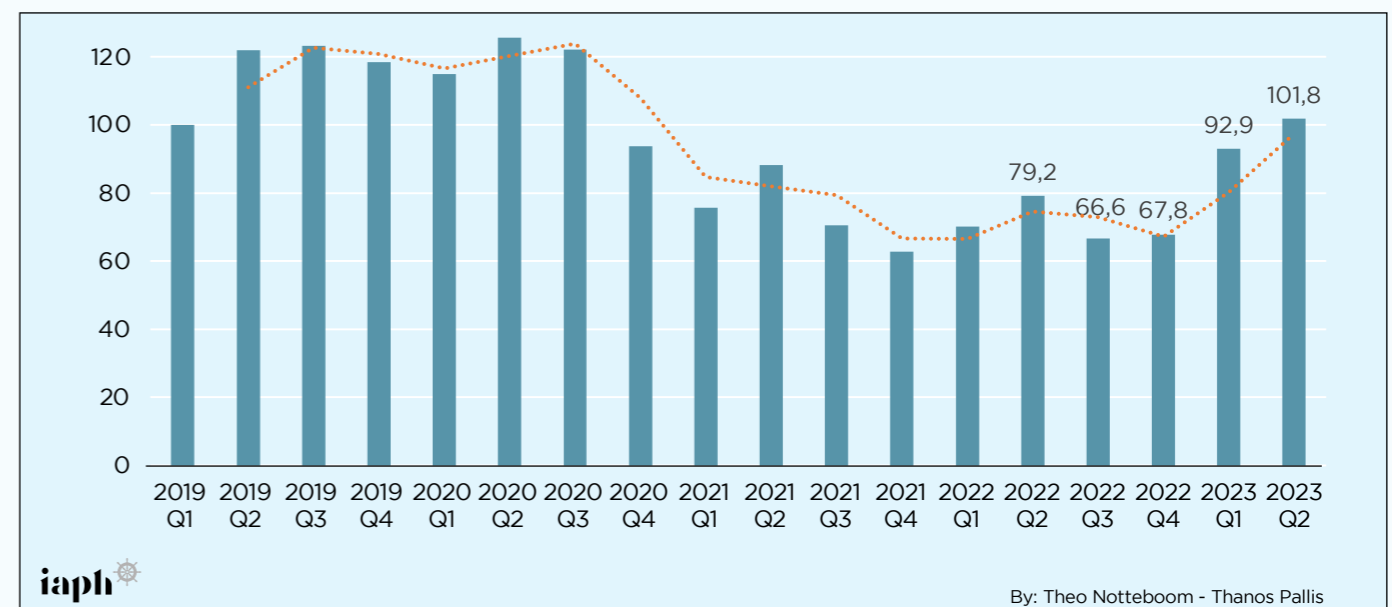


Source: own compilation based on S&P Global Port Performance Program data.



Figure 18

Evolution of Port Moves per Hour (Ports in North America; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.7. Regional focus: North East Asia

The North East Asian container port system covers Japanese, South Korean, mainland Chinese and Taiwanese ports. While ports in mainland China serve a vast hinterland through long-distance inland transport corridors, the cargo generating effect of the coastal provinces still forms the backbone of the ports' container throughput. Japan, the Republic of Korea and Taiwan are island or quasi-island economies, implying a significant role in short-distance inland corridors, coastal shipping and sea-sea transshipment. North East Asia is home to several major port clusters with some of the largest gateway ports in the world.

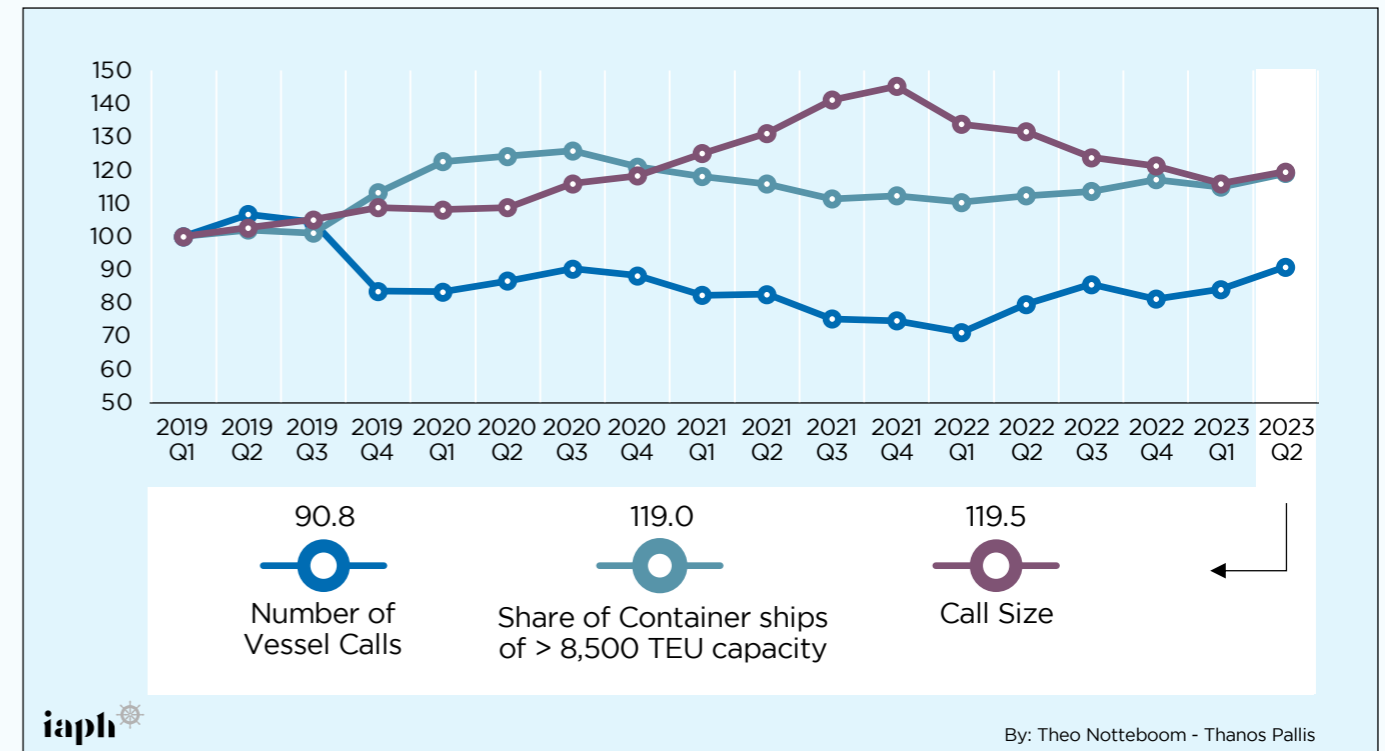
The number of vessel calls in North East Asian ports has dropped about 9% since early 2019, but the changes have remained relatively small since late 2019 with some recovery kicking in in late 2022 and early 2023. The call sizes increased significantly to peak in Q4 2021 (+45.2% compared to Q1 2019). Throughout 2022, call sizes have gradually dropped before levelling off at an index of 119.5 in Q2 2023. The share of 8,501+ TEU vessels in Q2 2023 was 19% higher than in early 2019, with a peak of +26% in mid-2020. In relative terms, the share of 8,501+ TEU ships in total container vessel calls amounted to 36.9% in Q2 2023 compared to 31% in Q1 2019, the highest share of all port regions around the world.

The port moves per hour in North East Asia fluctuated only mildly throughout the analysed period. A gradual decline followed an initial 20% increase by mid-2020 to below the 100-marker in Q3 2021. In the second half of 2022 and Q1 2023, productivity levels remained 2 to 6% above the Q1 2019 level. The index got a boost in Q2 2023 to reach a productivity level which is 17% higher than in early 2019.



Figure 19

Evolution of Number of Vessel Calls, Share of Containerships of > 8.500 TEU capacity, and Call Size (Ports in North East Asia; index-based: Q1 2019 = 100)

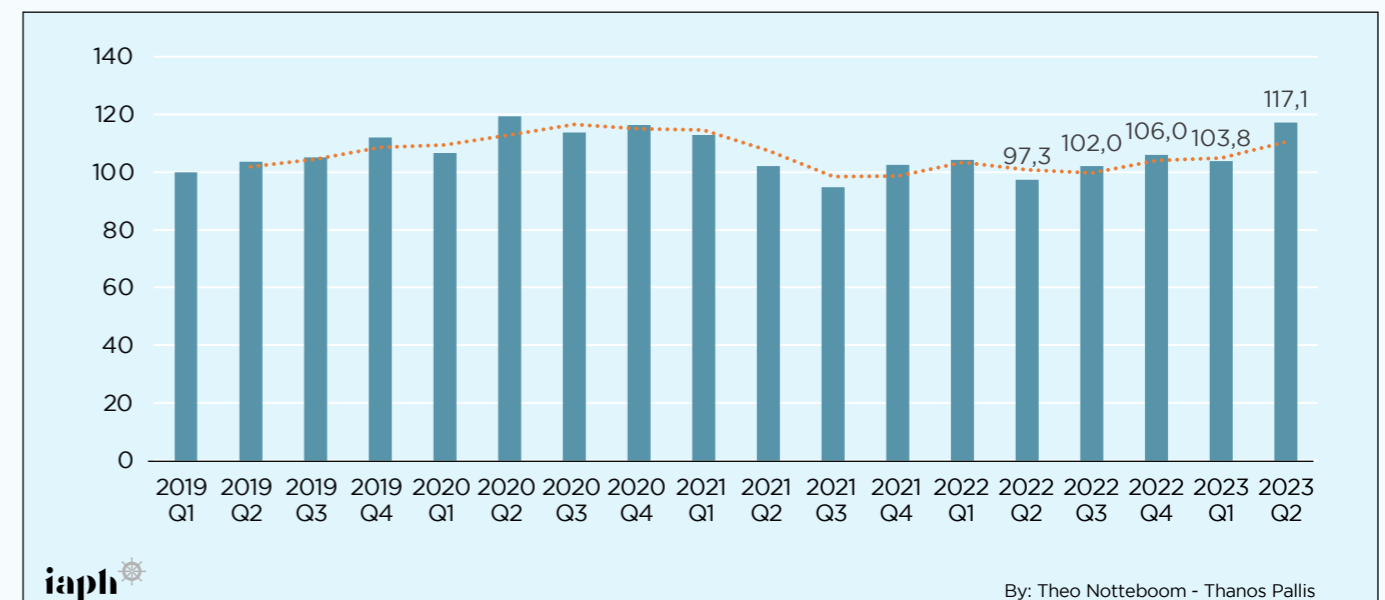


Source: own compilation based on S&P Global Port Performance Program data.



Figure 20

Evolution of Port Moves per Hour (Ports in North East Asia; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.8. Regional focus: Northern Europe

The North European port system features established large ports, as well as a series of medium-sized to smaller ports. Each of these ports has specific characteristics in terms of hinterland markets served, nautical conditions and location. The large container ports in mainland Europe have a cargo mix combining large gateway flows with substantial sea-sea transshipment volumes in relation to the Baltic, U.K./Ireland and the Mediterranean. Also, the U.K. is home to some large container ports as well as a large number of smaller container facilities.

The clear strong rising trend in the average call sizes was abruptly reversed in Q4 2022. In Q1 2022, average call sizes were 27.7% above the Q1 2019 level, while by Q2 2023 this figure had dropped significantly to 2.6% below Q1 2019. The growth in average call sizes over the past few years was mainly caused by a significant rise in call sizes of over 6000 TEU after the outbreak of COVID-19. Particularly for vessels in the 20,000+ TEU class, a few North European container ports reported records of close to 25,000 TEU handled during a vessel call. This temporary effect seems to have vanished in the past 12 months.

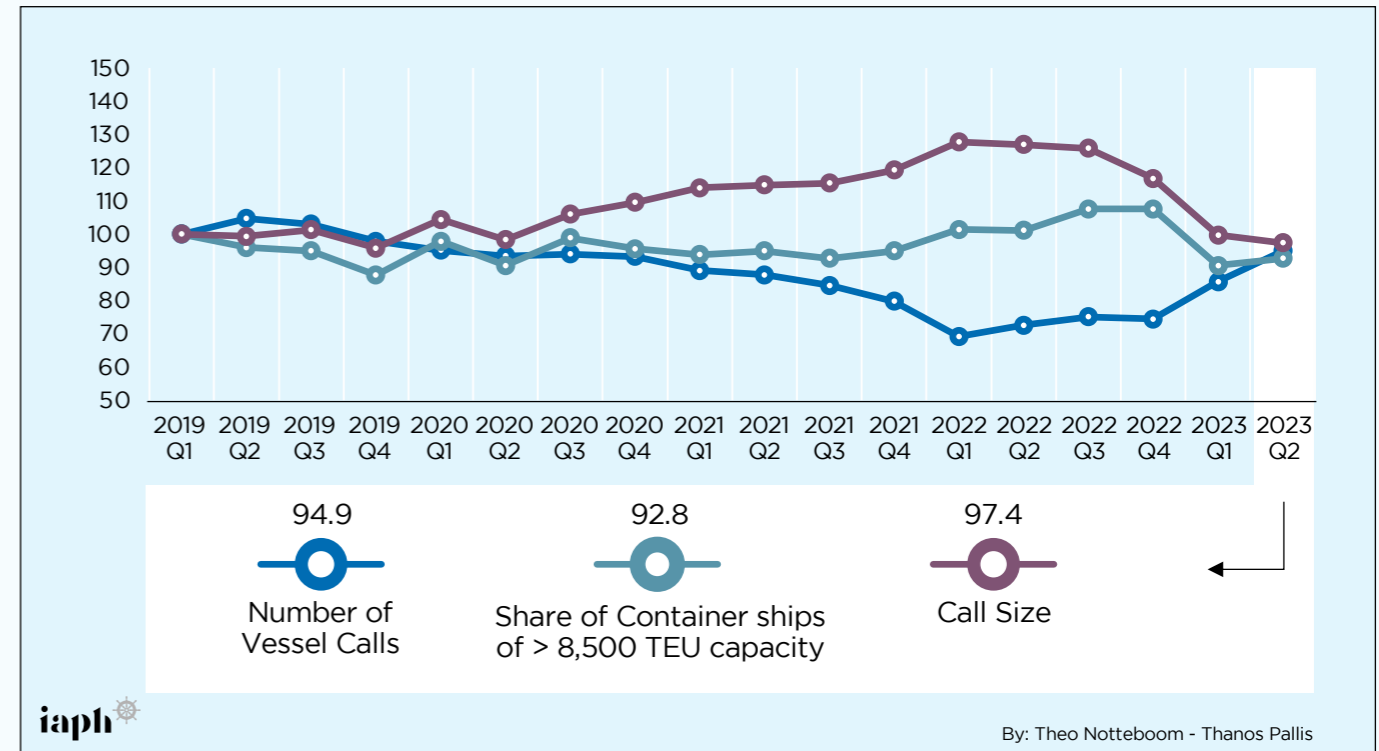
Weakening trade volumes on some main east-west trade routes (particularly in relation to the Far East) did not result in fewer vessel calls but implied fewer containers handled per call.

The share of the larger container ships remained fairly much the same in North Europe, fluctuating between 24 and 30% of all vessel calls. In Q2 2023, 25.6% of all container vessel calls involved ships of over 8,501 TEU capacity. The share peaked in late 2022 (+8% compared to Q1 2019) to reach an index of 92.8 in Q2 2023.

The rise in call sizes since Q2 2020 went hand-in-hand with a gradual decline in the port moves per hour. This development suggests that productivity in North European ports (primarily in the bigger hubs) has been negatively affected by poor schedule integrity of the vessels, longer container dwell times and overall terminal capacity shortages as observed from late 2020 till early 2022. However, the decrease in port moves per hour remained relatively small compared to the North American situation. Q2 2023 brought a strong recovery in port productivity with the index now back above 100 for the first time since early 2021.

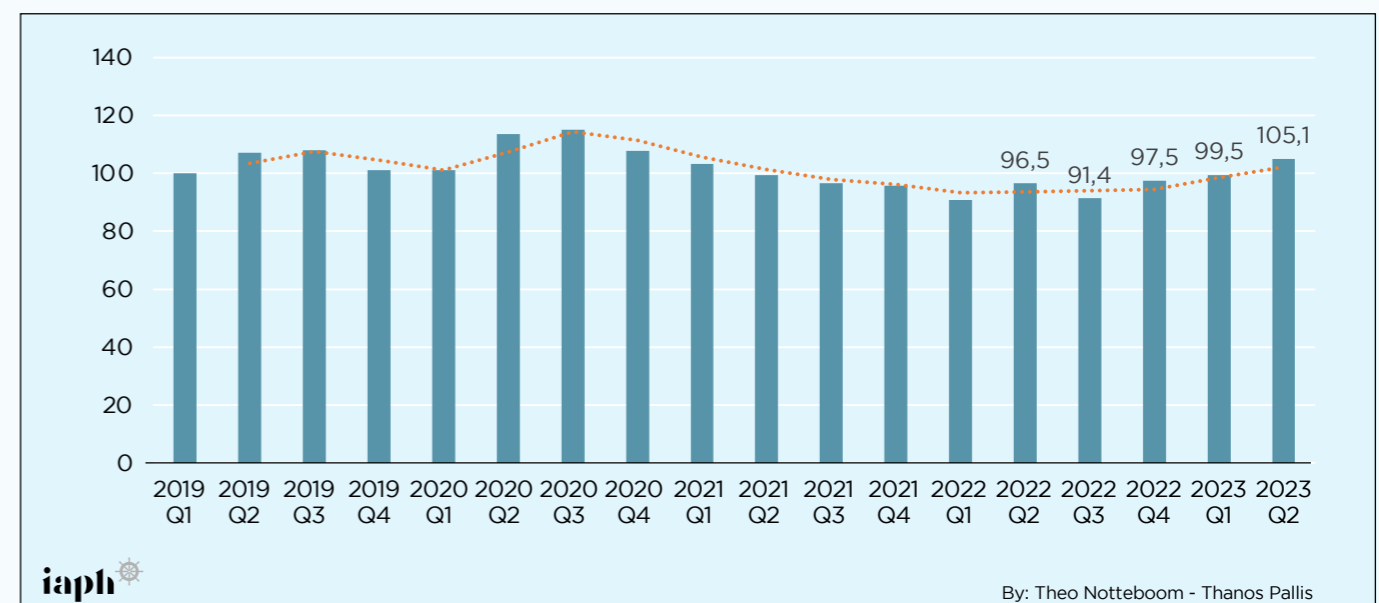
Vessel calls have gradually decreased between mid-2019 and 2022, with some stabilisation at an index value of 70 to 75 throughout 2022. In 2023, the number of vessel calls saw a strong recovery: with an index of 94.9 in Q2 2023 the index is approaching the Q1 2019 level. Thus, in the past 12 months we observe a combination of a strong increase in vessel arrivals, a decreasing share of the larger container vessels in the total vessel arrivals, a strong downward trend in call sizes, and a fairly strong recovery in the moves per hour.

Figure 21
Evolution of Number of Vessel Calls, Share of Container ships of > 8.500 TEU capacity, and Call Size (Ports in Northern Europe; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

Figure 22
Evolution of Port Moves per Hour (Ports in Northern Europe; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.9. Regional focus: Oceania

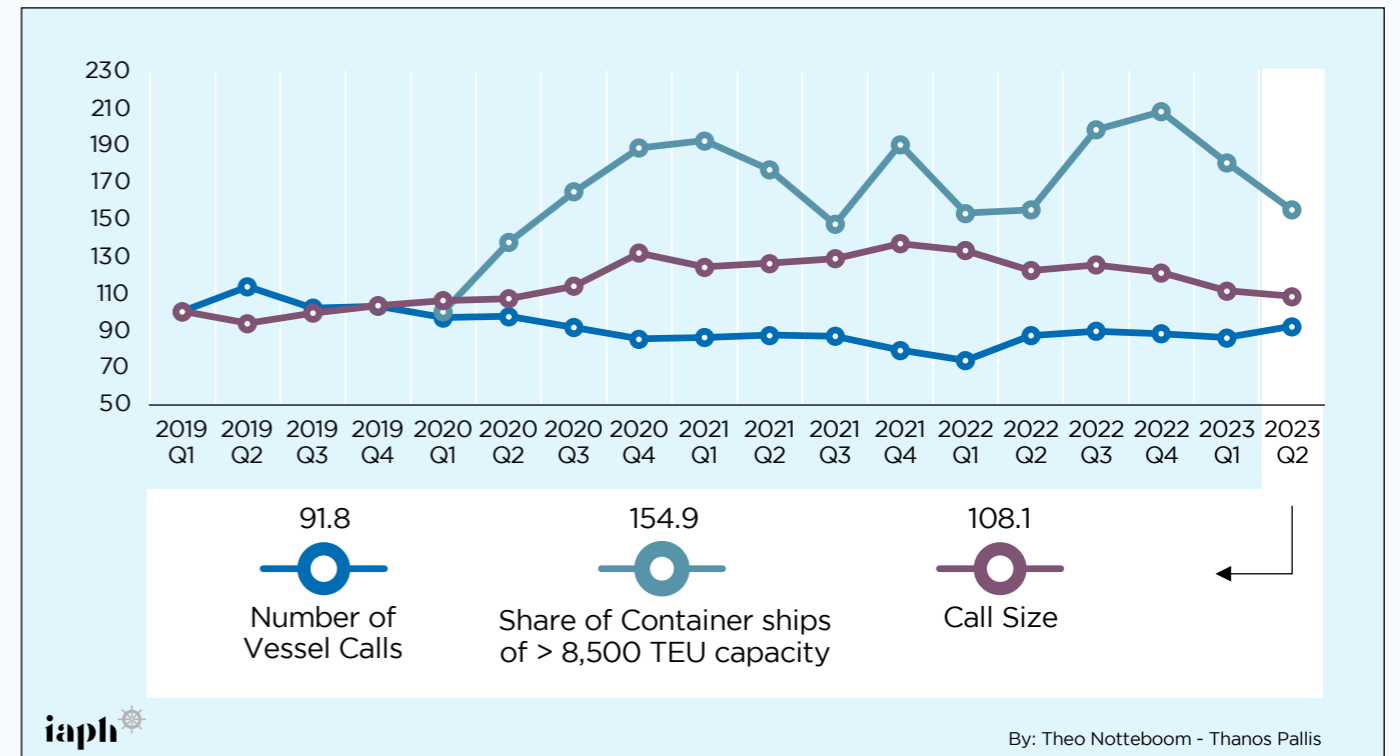
The container port system in Oceania includes the ports in Australia, New Zealand and some smaller port facilities in Pacific Island economies. The share of 8,501+ TEU vessels saw a significant increase from 0.7% (index 100) in Q1 2019 to 10.6% in Q4 2022 (index 1514) of all container vessel calls, showing that this ship class is finding its way to Oceania. The index fell to 1129 in Q2 2023, or 7.9% of all container vessel calls. Given the exceptionally strong increase in 2019 of the share of larger vessels calling ports in Oceania, the index evolution included in the figure uses Q1 2020 as index 100, while for the other indicators Q1 2019 acts as the base year. The index of the share of 8,501+ vessels spiked to 192.2 in Q1 2021 compared to Q1 2020. A new record index value was reached in Q2 2022 (207.8). Since then the index dropped to 154.9 in Q2 2023.

In Q2 2023, both the number of vessel calls and call sizes saw only minor changes. The number of vessel calls increased slightly but remains about 8% below the Q1 2019 level. The average call sizes remained above the index of 100 for the first time since Q3 2019 despite a clearly declining trend since early 2021.

The ports in Oceania recorded a strong fall in port moves per hour since the second half of 2020. Such a development can also be seen in some other regions such as North America. However, while the North American port system saw a strong recovery in port moves per hour in the past year, Oceania struggles to get productivity up again. Productivity levels in Q2 2023 were still about 25% below the Q1 2019 level.



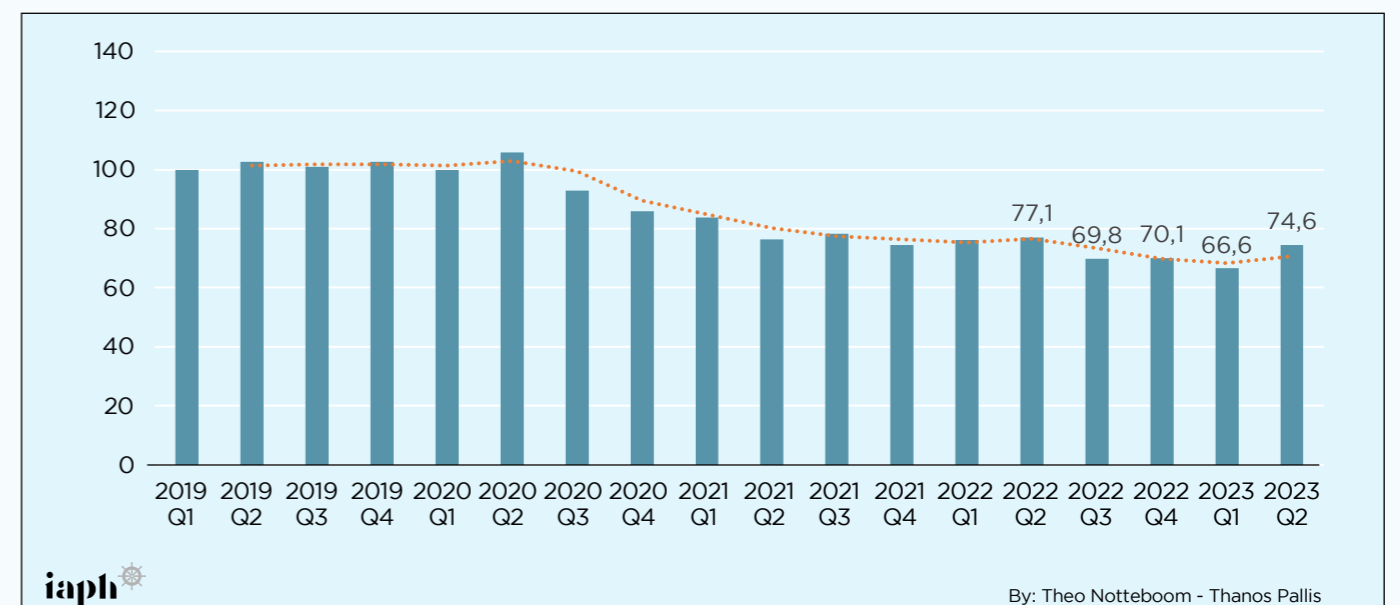
Figure 23
Evolution of Number of Vessel Calls, and Call Size (Ports in Oceania; index-based: Q1 2019 = 100) and Share of Containerships of > 8.500 TEU capacity (index-based: Q1 2020 = 100)



Source: own compilation based on S&P Global Port Performance Program data.



Figure 24
Evolution of Port Moves per Hour (Ports in Oceania; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.

5.10. Regional focus: South East Asia

The South East Asian container port system stretches from major economies such as Indonesia, Thailand, Malaysia, Singapore, and the Philippines, to small island economies. Moreover, given the region's distinct geography, South-East Asia is home to some large transshipment hubs connecting intercontinental services to intra-regional container services and major gateway ports.

Until late 2021, South East Asia witnessed a significant decrease in the number of vessel calls. This drop was already initiated in late 2019 but further deepened during the COVID-19 years. However, the vessel call number is on the rise in 2022 after reaching its lowest index level of 66 in Q1 2022. The index growth accelerated in 2023, bringing the number of vessel calls almost back to the Q1 2019 level by Q2 2023.

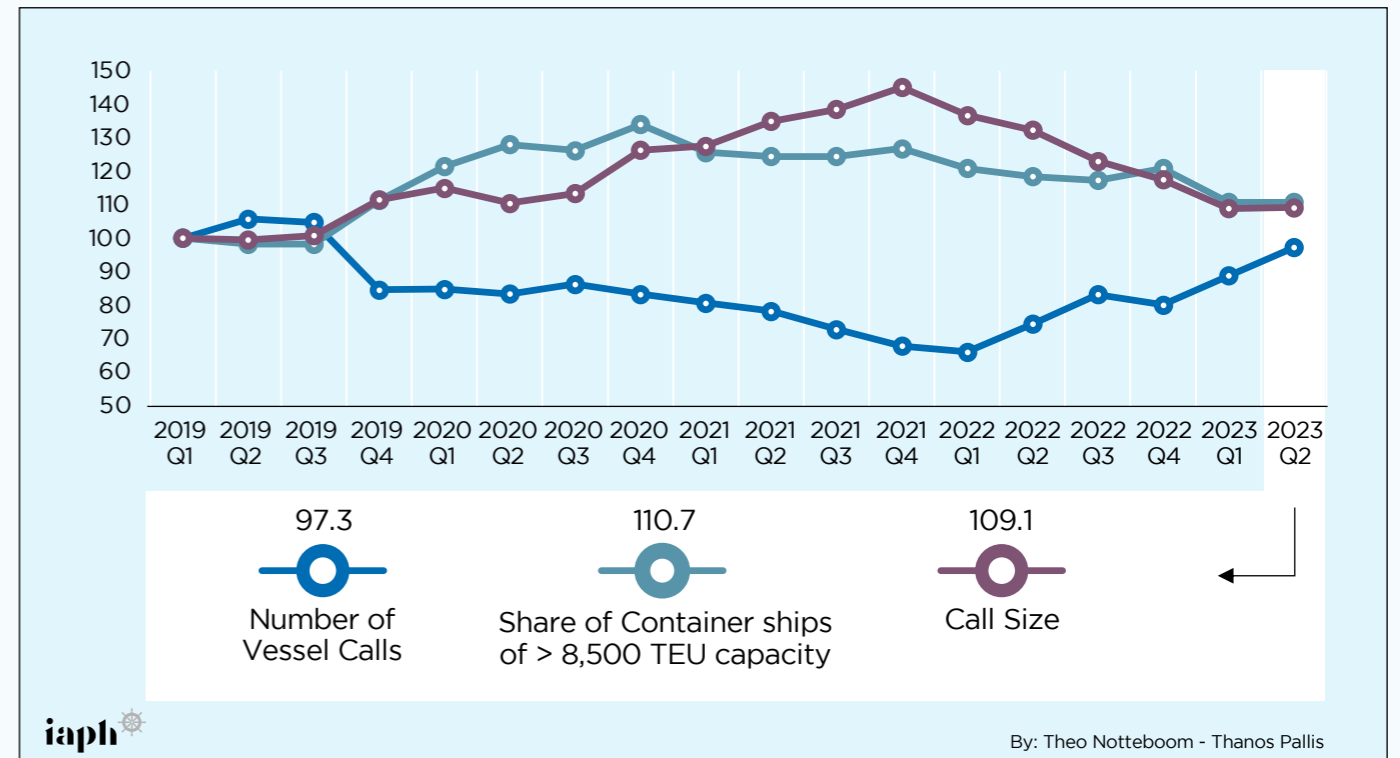
As observed in many other regions, the call sizes saw a strong upward trend throughout 2020 and 2021 (+45% by Q4 2021). However, average call sizes started to decline in early 2022. This downward trend somewhat levelled off in Q2 2023 to reach an index of 109.1, thus slightly above Q1 2019.

In early 2019, about 17% of vessels calling at the South East Asian port system were larger than 8,501 TEU. By late 2020, this share had risen to 22.5%. In Q2 2023, the share of 8,501+ TEU vessels in total container vessel calls decreased slightly to 18.6% or 10.7% higher than in early 2019.

The port moves per hour went up in the early months of the pandemic (+18% between Q1 2019 and Q2 2020). However, the global supply chain crisis resulted in small decrease in productivity figures in late 2020. The year 2021 closed with a 4.8% decrease in port moves per hour compared to the first quarter of 2019. Terminal productivity improved in 2022, although the figures for that year were only marginally above the Q1 2019 level. In Q3 2022 productivity levels decreased slightly to end up just below the 100 index line.



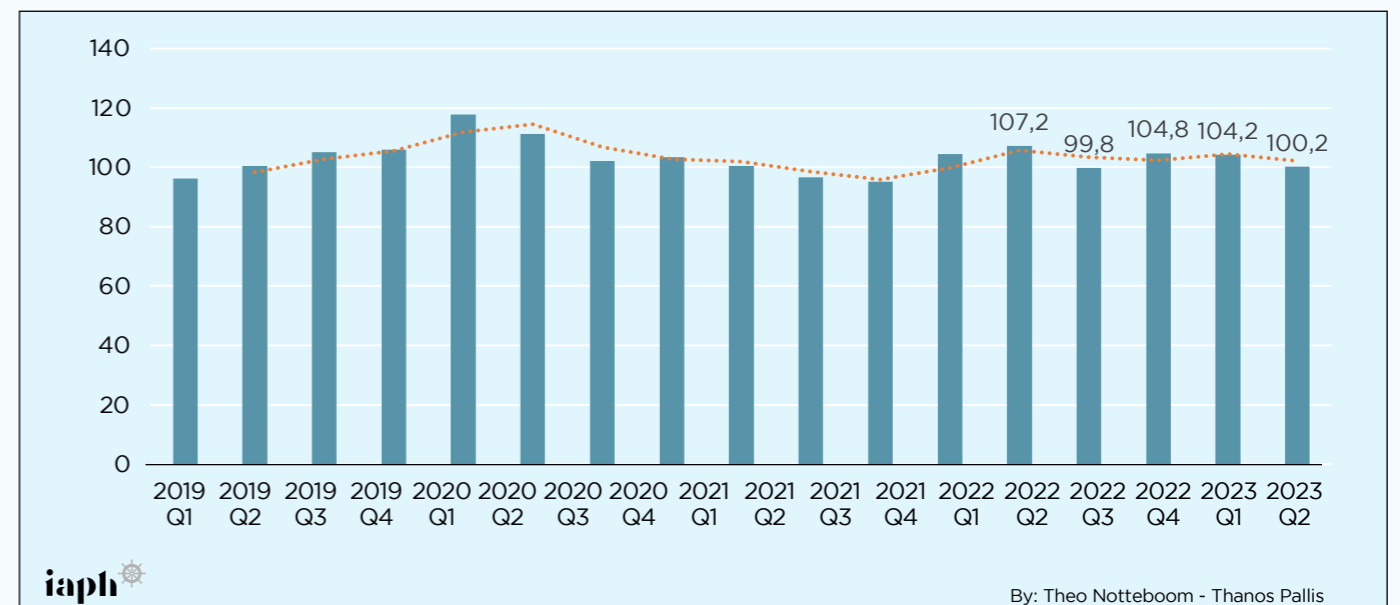
Figure 25
Evolution of Number of Vessel Calls, Share of Containerships of > 8.500 TEU capacity, and Call Size (Ports in South East Asia; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.



Figure 26
Evolution of Port Moves per Hour (Ports in South East Asia; index-based: Q1 2019 = 100)



Source: own compilation based on S&P Global Port Performance Program data.



6

TRENDS IN CARGO PORTS:

LINER SHIPPING CONNECTIVITY

This fifth edition of the World Ports Tracker, for the first time, incorporates UNCTAD data on the Liner Shipping Connectivity Index (LSCI) on top of the IAPH survey data and S&P's container port performance data.

The LSCI aims to capture the level of integration into the existing liner shipping network by measuring liner shipping connectivity. It can be calculated at the country and the port level. LSCI can be considered a proxy for accessibility to global trade through the container shipping network. The higher the index, the easier it is to access a high capacity and frequency global maritime containerised freight transport system and effectively participate in international trade, especially of manufactured goods. It is not relevant for dry and liquid bulk cargo, which is not containerised. Given the importance of container shipping for global value chains, the LSCI can be jointly considered as a measure of connectivity to maritime shipping and as a measure of trade facilitation. The index is calculated based on six components:

- Scheduled ship calls: the number of ships that are calling on a weekly basis.
- Deployed capacity: the total capacity of the liner services
- Number of shipping companies. This relates to how many shipping companies are servicing the country or the port
- How many scheduled services carriers are using to provide this coverage.
- Maximum vessel size. The size of the largest ship deployed on services to the country or port as a proxy to the available economies of scale since they convey lower shipping costs per TEU.
- Directly connected ports. This is the number of ports directly connected to the reference port.

The country or port that received the highest score in the reference year of 2006 is assigned a value of 100, which serves as a benchmark to assign value to other ports and countries. The LSCI data per port provided by UNCTAD was aggregated to port regions to match the geographical classification of ports used in the survey part of the report.

6.1. In focus: LSCI evolution for the ten best connected countries in the world

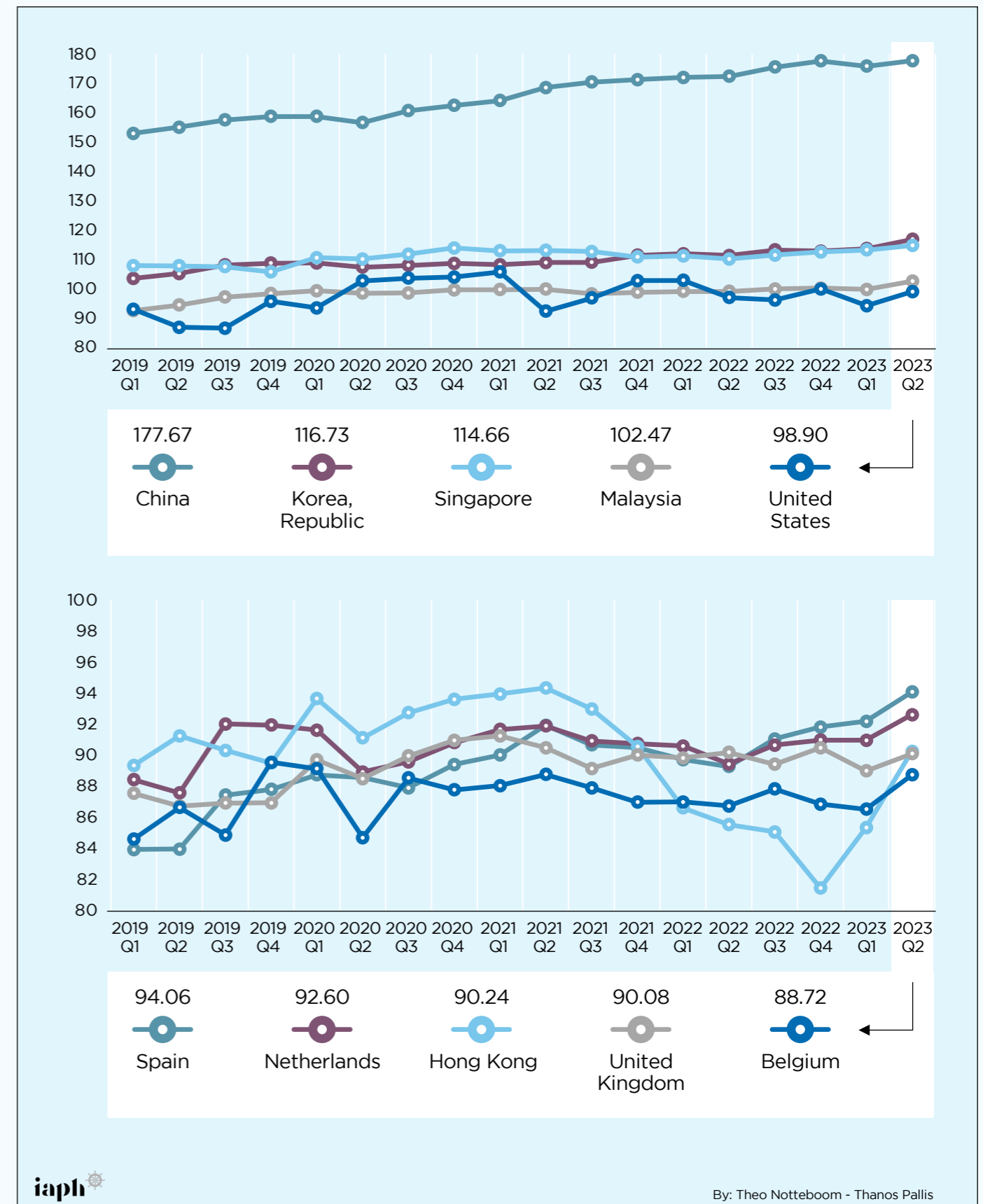
The evolution of LSCI reveals notable improvements in the best-connected countries around the globe. This list includes five Asian countries, the U.S. and four European countries. China (LSCI=177.6), South Korea (116.7), Singapore (114.7), and Malaysia (102.4) top the list, followed by the U.S. (98.9). Spain is the best-connected European country and the 6th best connected globally. Compared to the same period of 2022, in Q2 2023, the percentage increase of LSCI in all five Asian countries, as well as the LSCI increase in Spain (94.1), exceeded the improvement that took place in the U.S. and the other three European countries, i.e., the Netherlands (92.60), the United Kingdom (90.08) and Belgium (88.72) that are also part of the ten best-connected list. The United Kingdom is the only case of the ten where in Q2 2023, liner shipping connectivity was marginally lower than a year before. The only change in the ranking of the world's best-connected countries is the rise of Hong Kong (90.24) from the 12th best-connected location in the world to position eight.

The Liner Shipping Connectivity Index (LSCI) increased in nine of the ten best-connected countries. LSCI continues to rise faster in China and South Korea, and these two countries that top the list have increased the gap with the rest.

The LSCI evolution in the best-connected economies that was observed in recent times continues the longer-term trends in liner shipping connectivity. Comparing the latest LSCI of Q2 2023 with Q1 2019, LSCI has improved in all the best-10. The gap between China, where LSCI increased by 25%, South Korea (+13%), to a lesser extent Malaysia (+10%) and Singapore (7%) and the countries listed in the rest of the world, i.e., the U.S. (+6%) Netherlands (+4%), the U.K. (+2.5%) and Belgium (+4%), increased. The exceptions in this comparison are Spain (+10%), the non-Asian country on the list where the evolution of LSCI since the beginning of 2019 has been dynamic, and Hong Kong (1%), where the LSCI increase over that period has been marginal.



Figure 27
LSCI trends in the 10 best-connected countries of the World (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.

6.2. Regional focus: Africa

The five best-connected countries in sub-Saharan Africa in Q2 2023 were South Africa (LSCI=39.3; the 45th best connected in the world), Ghana (LSCI=39.2; 46th), Côte d'Ivoire (38.3; 48th), Togo (38.0; 50th), and Congo Republic (36.1; 53rd).

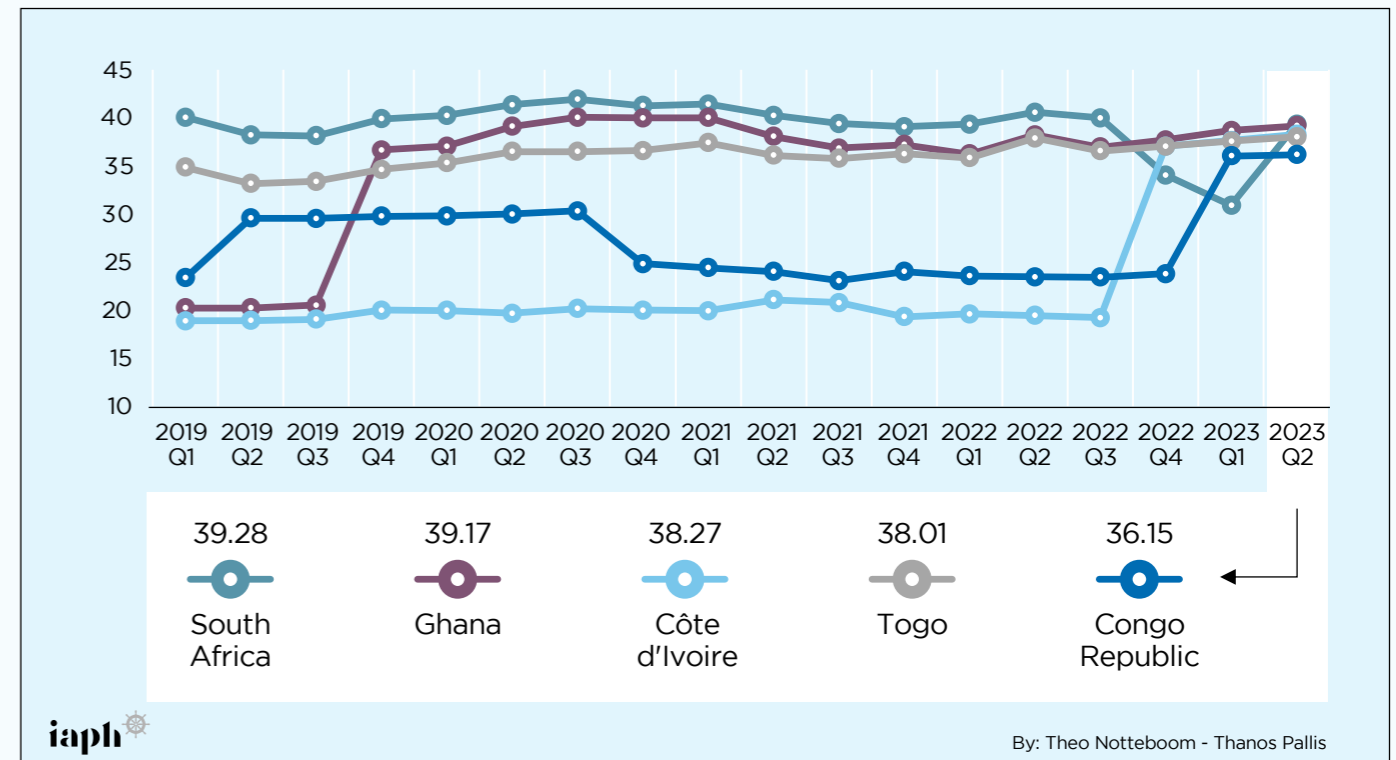
Following a 3.2% decline compared to Q2 2022, South Africa lost ten positions in the ranking of the best-connected countries in the world. Ghana, where LSCI recorded a 2.5% increase on a year-on-year basis, stands seven places lower in the global rankings than a year ago. Yet the rise in the country's connectivity levels since 2019 is notable: the country improved its global positioning as regards its connectivity by 27 positions. Côte d'Ivoire almost doubled its LSCI level within one year. This is the most dynamic development in sub-Saharan Africa over this time. Since Q1 2019, the country has emerged 24 positions higher in the global rankings and the 3rd best connected in Africa. Togo continues to be among the best-connected countries in Africa, though following a marginal LSCI increase in Q2 2023, it ranks ten places lower globally than a year before. At a regional scale, Togo stands two places lower. The Republic of Congo is the second most improved country in Sub-Saharan Africa regarding liner shipping connectivity. Following the remarkable progress of the LSCI in Q2 2023, it stands 12 positions higher in the global ranking than a year earlier and is included in the five best-connected African countries. In Q2 2022, it was the 11th best-connected country in the region.

In 24 Sub-Saharan African countries, the recorded LSCI was higher in Q2 2023 than in Q2 2022. Beyond Côte d'Ivoire, and Congo Republic, which top the percentage growth list, notable increases occurred in Guinea-Bissau, Sierra Leone and Comoros. The first four of these countries improved their positioning both locally and globally. On the other hand, in Q2 2023, the LSCI was lower than in the same quarter of 2022 in 9 Sub-Saharan African countries. Major declines were observed in Namibia, Gambia, Mayotte, Seychelles, and to a lesser extent Sudan. They all lost 20 (Namibia) or more positions in the global rankings. The LSCI remained unchanged on a year-on-year basis in two African countries.

Comparing to Q1 2019, Côte d'Ivoire (+102%; improved its global ranking by 26 positions and its regional one by nine positions), Ghana (+94%; improved its global ranking by 27 places globally and its regional one by 9), Republic of Congo (+55%; improved its global ranking by 17 positions), Mozambique (+55%; 16), and Sierra Leone (+30%; 24 positions), are the five countries that experienced a major improvement of their liner shipping connectivity levels. A total of 13 countries recorded, in the second quarter of 2023, an LSCI that was higher than in the first quarter of 2019. On the other hand, LSCI stands today lower than in Q1 2019 in 20 African countries and/or territories. Notable decreases occurred in two countries that dropped out of the five best connected countries in Africa, i.e., Kenya (-29%; dropped 13 positions globally and nine positions regionally) and Mauritius (-25%; dropped 19 positions globally and four positions regionally), as well as in Tanzania (-29%), and Liberia (-29%).



Figure 28
LSCI trends in the five best-connected countries in Africa
(LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.



Table 1
Countries with major LSCI increase in Africa in Q2 2023 (LSCI evolution)

Country	LSCI Q2 2023	Δ Q2 2023/ Q2 2022	Global Ranking LSCI, Q2 2023	Change in Global Ranking Q2 2023 vs Q2 2022	Change in Global Ranking Q2 2023 vs Q1 2019
Côte d'Ivoire	38.27	97.0%	48	↑ 21	↑ 26
Republic of Congo	36.15	54.1%	53	↑ 12	↑ 17
Guinea-Bissau	5.37	32.4%	149	↑ 1	↑ 11
Sierra Leone	9.25	28.1%	107	↑ 15	↑ 24
Comoros	5.42	19.4%	148	↓ 3	↓ 4

Source: Analysis of data provided by UNCTAD and MDS Transmodal; Countries/territories with an LSCI > 5.00

6.3. Regional focus: Latin America and the Caribbean

The five best-connected countries in LAC in Q2 2023 were Panama (LSCI = 51.9; 27th best connected in the world), Colombia (LSCI=50.5; global rank: 29th), Mexico (49.3; 30), and Brazil (41.9; 53rd). The first two countries are among the 30 best-connected countries in the world.

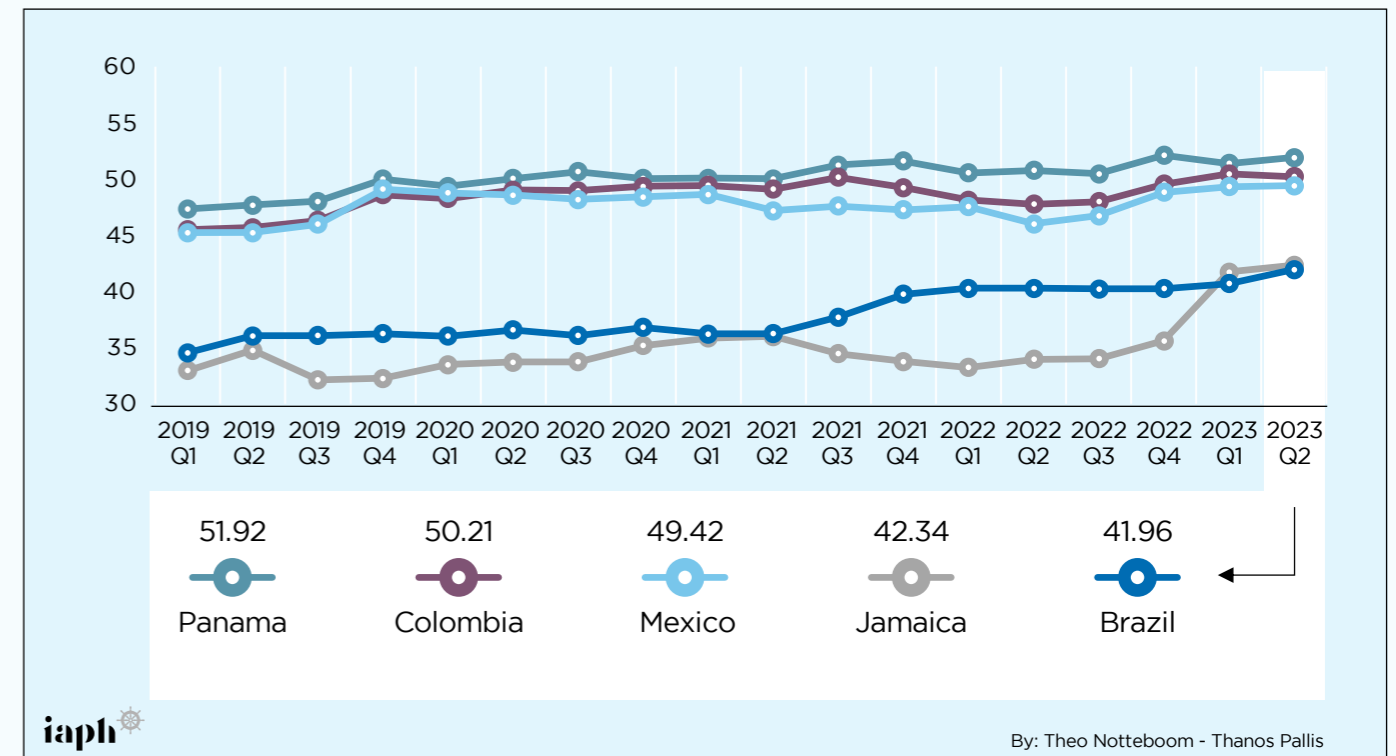
All five best connected in LAC improved their levels of connectivity compared to a year before, now standing in the 40 best connected countries of the world. Panama, Colombia, and Mexico improved their rankings, recording in Q2 2023 an LSCI that stands higher than the year before by 2.3%, 5.1% and 7.4%, respectively. In Jamaica (38th), the substantial improvements in liner shipping connectivity in Q3 2023 were enough for its global ranking to stand 13 positions higher than in the same quarter of 2022. Brazil (40th) might not have emerged higher in global rankings, yet the LSCI increased by 4.1% on a year-on-year basis. The country sustained its position among the five best connected countries in LAC. At the beginning of 2019, this list included Peru (then 4th, now 6th best connected country in the region) and the Dominican Republic (then 5th, now 8th) at the expense of Jamaica and Brazil.

Twenty-seven LAC countries and/or territories improved their liner shipping connectivity levels in Q2 2023 compared to Q2 2022. Jamaica recorded a major increase (24.6%), Grenada improved its global ranking by 6, and Guyana was the third LAC country with an LSCI standing higher by a double-digit percentage compared to the same quarter of the previous year. Honduras and Puerto Rico improved their connectivity levels by almost 10% on a year-on-year basis without improving their standings in the global or regional rankings. In 11 countries in LAC, liner shipping connectivity stands lower than in Q2 2022. However, in seven of these cases, the decline was marginal and, in two other cases, reflected a very low, and thus very sensitive, LSCI (< 5.00). A notable decrease was noted in Maldives (-24%, ranked 11 positions lower at a regional scale compared to a year before), where the levels of connectivity continue to deteriorate since Q1 2019. The regression of liner shipping on a year-on-year basis exceeded 2% in one more case only, Sint Maarten (Dutch part). To list five LAC countries with an LSCI decrease, we had to include Guatemala, Martinique and Costa Rica. In these three countries, the decline was so marginal that they improved their global ranking by 8, 23, and 15 positions, respectively. There was no LSCI change between Q2 2022 and Q2 2023 in six LAC countries.

Compared to the beginning of 2019, LSCI increases of over 20% took place in Martinique (+70%; improved its global ranking by 23 positions and its regional one by 6), Costa Rica (+59%; improved its global ranking by 15 positions), Guadeloupe (+41%; improved its global ranking by 12 positions), Guatemala (+54.9%; improved its global ranking by 12 positions), Jamaica (+28%), Ecuador (+22%), and Brazil (+21%). 27 LAC countries recorded in Q2 2023, an LSCI higher than in Q1 2019. On the other hand, LSCI stands today lower in 16 LAC countries and/or territories. Notable declines occurred in Belize (-32%; dropped 34 positions globally and ten positions regionally), Aruba (-31%; dropped 24 places globally), Venezuela (-27%; dropped 22 positions globally), El Salvador (-19%; dropped 14 positions globally) and Cuba (-14%; dropped 11 positions globally).



Figure 29
LSCI in the five best connected countries in LAC (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.



Table 2
Countries with major LSCI increase in LAC in Q2 2023 (LSCI evolution)

Country	LSCI Q2 2023	Δ Q2 2023/ Q2 2022	Global Ranking LSCI, Q2 2023	Change in Global Ranking Q2 2023 vs Q2 2022	Change in Global Ranking Q2 2023 vs Q1 2019
Jamaica	42.34	24.6%	38	↑ 13	↑ 13
Grenada	6.48	12.4%	137	↑ 6	↑ 11
Guyana	7.70	11.1%	126	↑ 3	↓ 10
Honduras	13.60	9.9%	91	↓ 2	↓ 5
Puerto Rico	13.64	9.0%	90	→ 0	↓ 3

Source: Analysis of data provided by UNCTAD and MDS Transmodal; Countries/territories with an LSCI > 5.00

6.4. Regional focus: The Mediterranean Sea

The five best connected countries in the Mediterranean Sea in Q2 2023 were Spain (LSCI=94.1; 6th best connected in the world), Italy (78.4; 15th), Egypt (72.5; 21st), Morocco (72.1; 22nd), and Turkey (65.7; 24th).

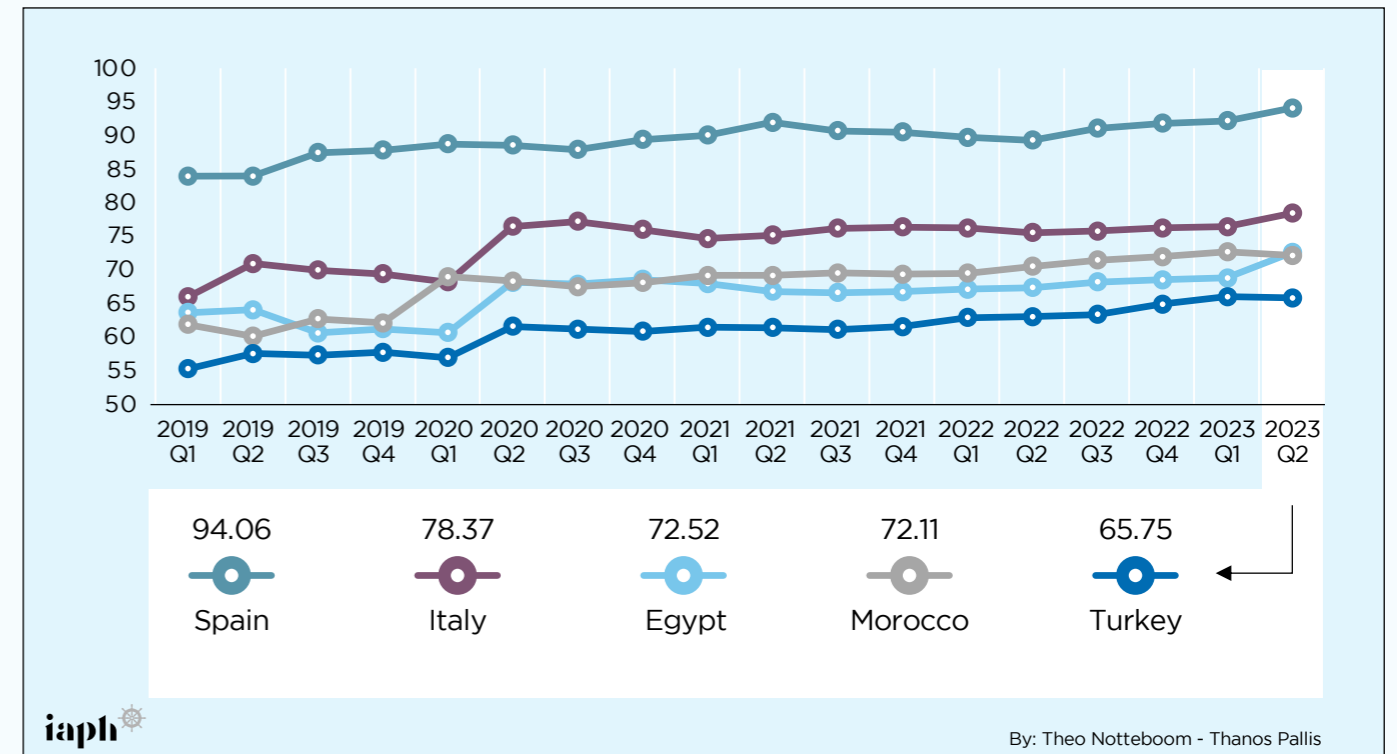
All five best-connected Mediterranean countries have recorded a double-digit percentage improvement in their LSCI since the beginning of 2019, with this improvement also being present when comparing Q2 2023 and Q2 2022. For Spain, LSCI stands at 12% higher than in Q1 2019 and 5.4% higher than in Q2 2022. The respective percentages for Italy are +19% and +3.8%. In Egypt, LSCI improved since 2019 by 14%; most importantly, the 7.7% LSCI growth on a year-on-year basis improved Egypt's ranking to the third best connected in the region. Morocco recorded an LSCI growth of 17% since 2019 and 2.3% over the last year, and Turkey recorded an increase of 19% since the beginning of 2019 and 4.4% over the previous year. Still, none of the five countries improved their global rankings last year. This ranking remained stable for Spain and Egypt, while Italy and Turkey stand two lower positions, and Morocco stands four lower than a year before. These five countries, along with Portugal and Greece, are among the 30 best-connected countries in the world.

Liner shipping connectivity levels in Q2 2023 were higher than in Q2 2022 in almost all countries in the Med and the Black Sea. Cyprus tops the list with a percentage increase on a year-on-year basis (+45%), leading to 9 positions higher in the global rankings, though in absolute numbers, its LSCI remains lower than in early 2019. Algeria (19.5%), Lebanon (+12.2%), Malta (11.5%), and Montenegro are also on the list of the Mediterranean countries where liner shipping connectivity improved substantially in Q2 2023. On the other hand, only two Mediterranean countries recorded a lower LSCI in Q2 2023 than in Q2 2022, Croatia (-0.4%), Libya (-4.8%) and Albania.

Notable increases since 2019 include the best-connected countries, along with Montenegro, Bulgaria, which following a 20% LSCI increase, stands 16 positions higher in the global rankings than in early 2019, Algeria (17%) and Slovenia (16%). Apart from Ukraine in the Black Sea, which has suffered enormously due to the conflict and only essential services were recorded, Tunisia (-22%) and Cyprus (-18%) are the only countries in the region where since the beginning of 2019, the LSCI declined by a double-digit percentage.



Figure 30
LSCI trends in the five best connected countries in the Mediterranean Sea (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.



Table 3
Countries with major LSCI increase in the Mediterranean Sea in Q2 2023 (LSCI evolution)

Country	LSCI Q2 2023	Δ Q2 2023/ Q2 2022	Global Ranking LSCI, Q2 2023	Change in Global Ranking Q2 2023 vs Q2 2022	Change in Global Ranking Q2 2023 vs Q1 2019
Cyprus	15.00	45.3%	84	↑ -9	↓ 8
Algeria	13.53	19.5%	92	↓ 5	↑ 2
Montenegro	5.16	16.5%	153	↓ 7	↑ 12
Lebanon	41.94	12.2%	41	→ 0	↓ 3
Malta	45.80	11.5%	34	→ 0	↓ 4

Source: Analysis of data provided by UNCTAD and MDS Transmodal; Countries/territories with an LSCI > 5.00

6.5. Regional focus: Middle East and Indian Sub-continent

The five best connected countries in the Middle East and the Indian sub-continent in Q2 2023 were United Arab Emirates (LSCI=79.6; 14th best connected in the world), Saudi Arabia (39.2; 16th), Sri Lanka (72.9; 20th), India (69.2; 23rd), and Oman (49.3; 31st)..

In the first four of these countries, liner connectivity has improved considerably. Since Q2 2022, LSCI increased in UAE by 6% and in Saudi Arabia by 8%, with the country improving its ranking in the list of the best-connected countries in the world by one. In Sri Lanka LSCI increased by 2.7%, and in India by a substantial 12.9%. On the contrary, in the case of Oman LSCI stands in Q2 2023 lower by 8% compared to the LSCI a year before.

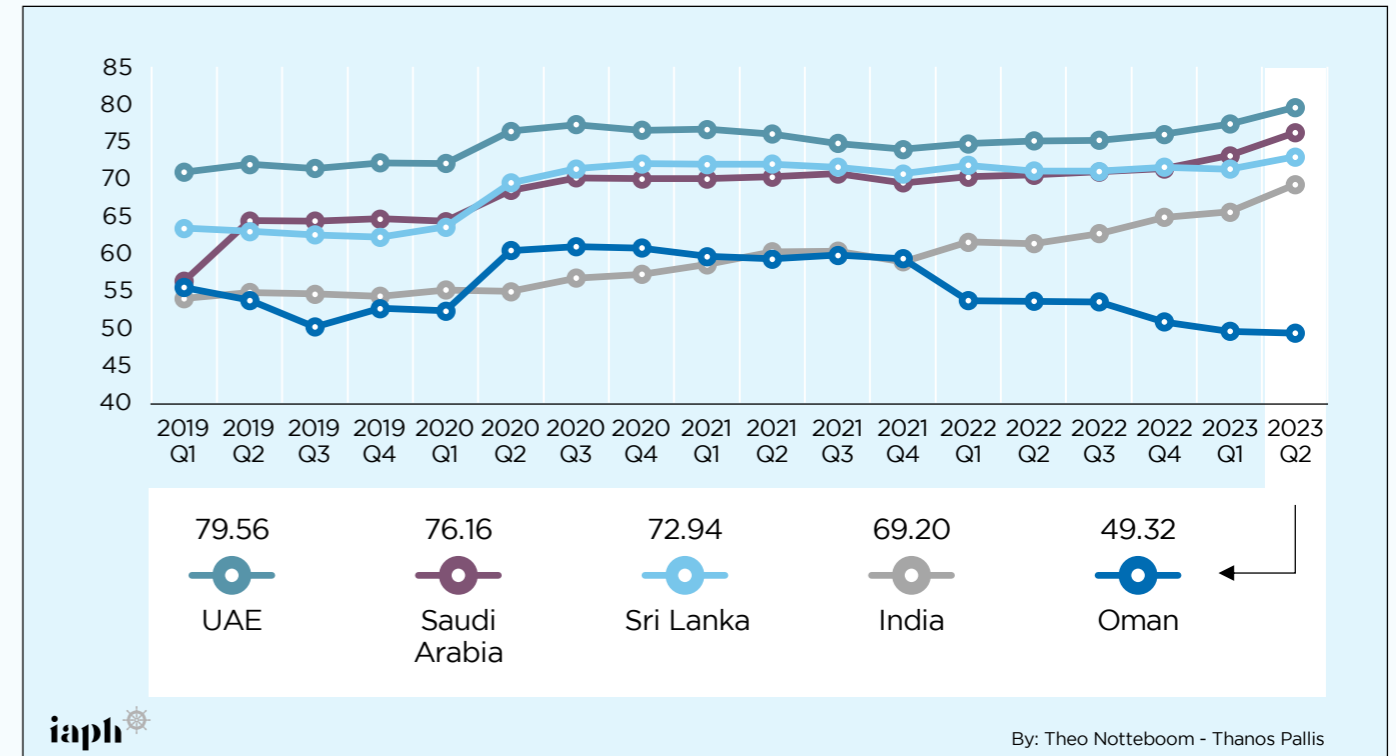
Liner shipping connectivity levels in Q2 2023 were higher than in Q2 2022 in 11 countries in the Middle East and the Indian sub-continent. In Kuwait (+54.5%; improved its global ranking by 13 positions), Pakistan (+20.7%; improved its global ranking by ten places), Iraq (+17.4%), India and Qatar (+12.8%) LSCI recorded a double-digit percentage growth. An LSCI decline occurred in three countries, i.e., Bahrein (-54.4%; its global ranking standing 35 positions lower than the year before), Oman, and marginally in Iraq (-0.5%).

Notable LSCI increases since 2019 are too many; a double-digit percentage growth occurred in 11 countries and a single-digit growth in 12 with all these countries improving their standings in the list of the best-connected countries of the world. Iran (+71%; improved its global ranking by 14 positions), Iraq (+42%; improved its global ranking by eight positions), Saudi Arabia (+35%), Pakistan (+32%; improved its global ranking by 14 positions) and Kuwait (+30%; improved its global ranking by ten positions) top this list. On the other hand, Bahrein (-34%) and Oman (-8%) are the only countries in the Middle East and the Indian sub-continent that LSCI in Q2 2023 is lower than in Q1 2019, with Syria (-7%) being a particular case due to the experienced tensions.



Figure 31

LSCI trends in the five best connected countries in the Middle East and Indian Sub-continent (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.



Table 4

Countries with major LSCI increase in the Middle East and Indian Sub-continent in Q2 2023 (LSCI evolution)

Country	LSCI Q2 2023	Δ Q2 2023/ Q2 2022	Global Ranking LSCI, Q2 2023	Change in Global Ranking Q2 2023 vs Q2 2022	Change in Global Ranking Q2 2023 vs Q1 2019
Kuwait	15.35	54.5%	82	↑ 13	↑ 10
Pakistan	43.49	20.7%	36	↑ 10	↑ 14
Iraq	34.11	17.4%	59	↓ 1	↑ 8
India	69.20	12.9%	23	↑ 1	↑ 3
Qatar	42.10	12.8%	39	↑ 3	↑ 9

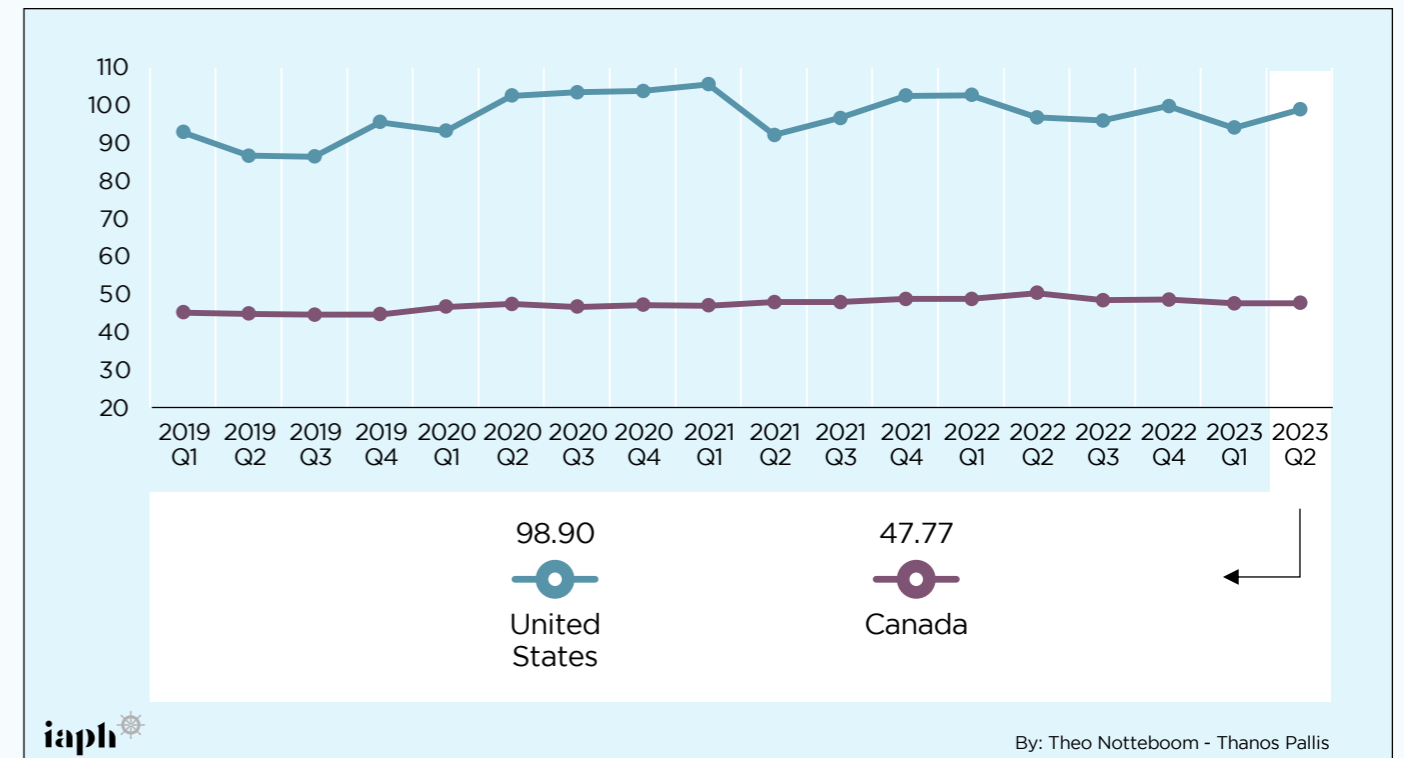
Source: Analysis of data provided by UNCTAD and MDS Transmodal; Countries/territories with an LSCI > 5.00

6.6. Regional focus: North America

Following a 2.1% improvement of its liner shipping connectivity on a year-on-year basis, the U.S. (LSCI = 98.9) remained in Q2 2023 as the 5th best-connected country globally. Since Q1 2019, the LSCI growth in the U.S. has been 6%. Despite this growth, however, since then, the U.S. position in the global connectivity rankings stands one position lower. In Canada (LSCI= 49.8) since early 2019, LSCI also increased by 6%. When comparing the second quarter of 2023 with the same quarter a year before, liner shipping connectivity levels declined by 5.1%. Today Canada is ranked in the 33rd position on the list of best-connected countries, i.e., five positions lower than a year before, yet two positions higher than in Q1 2019.



Figure 32
LSCI trends in North America (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.

6.7. Regional focus: North East Asia

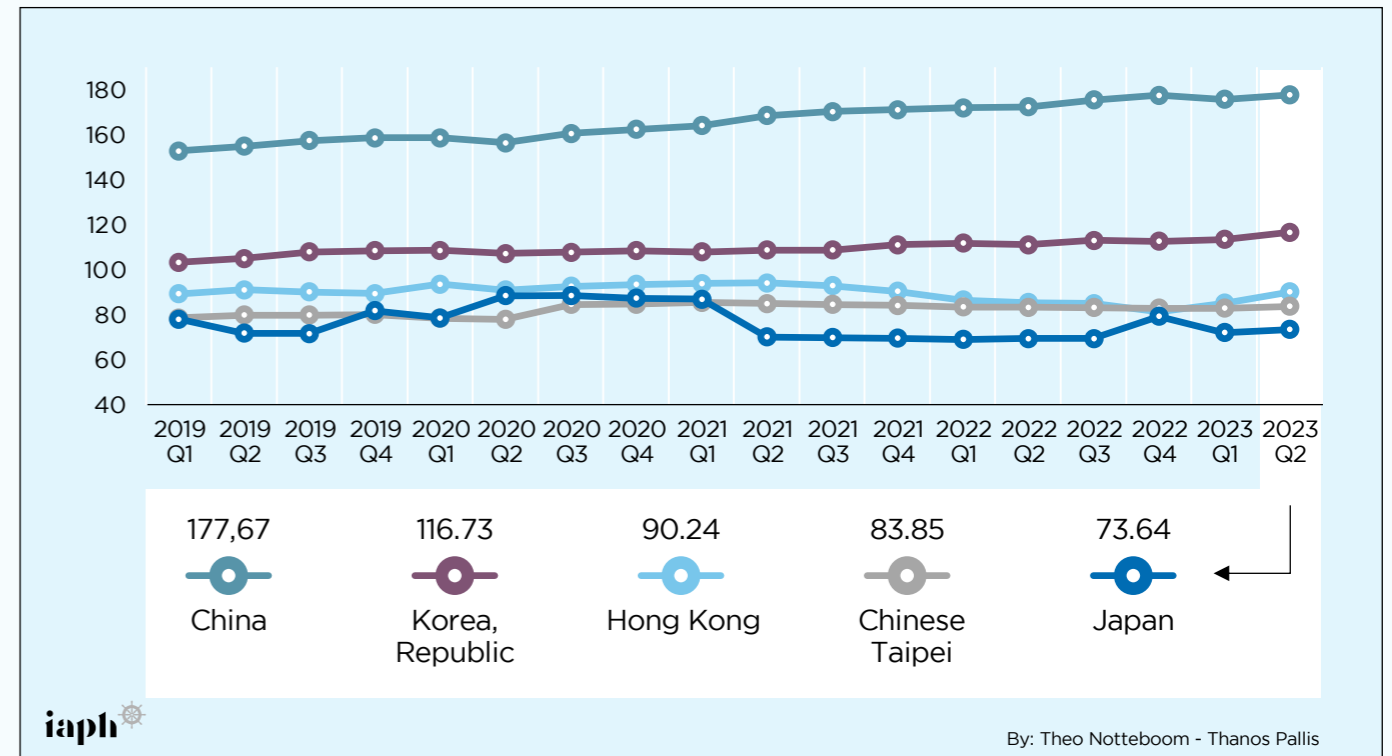
The list of five best-connected countries in North East Asia in Q2, 2023 includes the two best-connected countries in the world, China (LSCI=177.7;), and South Korea (LSCI=116.7), Hong Kong (LSCI=90.2 ; 8th best connected in the world) and Chinese Taipei (83.8; 10th best connected in the world) and Japan (73.6; 12th).

Since Q2 2022, the LSCI of the best-connected economy of the world, i.e., China, increased by 3.1%. In the same period, the increase in South Korea stood at 5% and in Hong Kong at 5.5%. In the latter case, the improvement was enough for Hong Kong to emerge at the position eight of the relevant global rankings. In the case of Taiwan, the levels of liner shipping connectivity remained almost unchanged. In Japan the LSCI improved on a year-on-year basis by 6%.

In both China (+16%) and South Korea (+13%) the LSCI increased since 2019 by a double-digit percentage. As a result, China reinforced its positioning as the best-connected country in the world, and South Korea moved from the third best-connected country to the second one. Since Q1 2019, the LSCI increased in Hong Kong, though marginally (+1%), and Chinese Taipei (+7%). During the same period, Japan's LSCI declined by 7%, with the country standing in Q2 2023 five positions lower in the global rankings compared to Q1 2019.



Figure 33
LSCI trends in the five best connected countries in North East Asia (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.



Table 5
Countries with major LSCI increase in North East Asia in Q2 2023 (LSCI evolution)

Country	LSCI Q2 2023	Δ Q2 2023/ Q2 2022	Global Ranking LSCI, Q2 2023	Change in Global Ranking Q2 2023 vs Q2 2022	Change in Global Ranking Q2 2023 vs Q1 2019
Japan	73,64	6,0%	12	↑ 2	↓ 5
Hong Kong	90,24	5,5%	8	↑ 2	↓ 2
South Korea	116,73	5,0%	2	↑ 1	→ 0
China	177,67	3,1%	1	→ 0	→ 0
Chinese Taipei	83,85	0,5%	18	→ 0	→ 0

Source: Analysis of data provided by UNCTAD and MDS Transmodal; Countries/territories with an LSCI > 5.00

6.8. Regional focus: North Europe

The five best-connected countries in North Europe in Q2 2023 were the Netherlands (LSCI=92.5; 7th best connected in the world), United Kingdom (90.1; 9th), Belgium (88.7; 10th), Germany (81.6; 13th), and France (75.8; 24th). Poland (LSCI =53.3) is also listed among the 30 best-connected countries in the world.

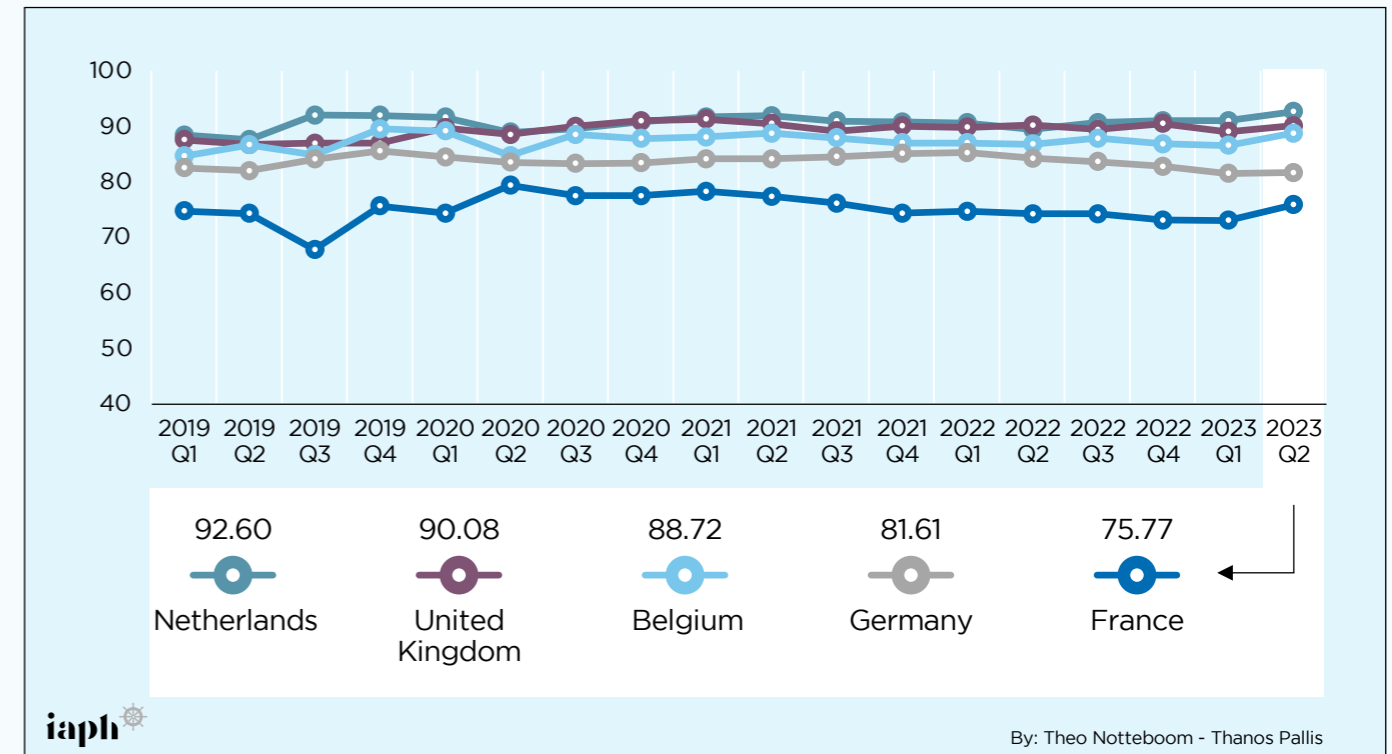
Overall, the LSCI levels in the region remained relatively stable. In the Netherlands (+3.6%), Belgium (+2.3%) and France (+2.2%) the LSCI in Q2 2023 stands higher than in Q2 2022, but the change has been minor. The decline in the same period in the United Kingdom (-0.1%) and Germany (-3.1%) was also marginal. Latvia and Estonia are the two countries in the region where the growth of liner shipping connectivity increased substantially on a year-on-year basis, with their positioning in the global rankings being improved in Q2 2023 by 11 and 25 positions respectively. Other countries where the LSCI in Q2 2023 is lower than in Q2 2022, though at marginal levels, include Sweden (-0.9%), Denmark (-1.2%) and Poland (-0.8%).

The LSCI increases since 2019 have occurred mainly in some of the least connected countries of the region. Latvia, Faeroe Islands, Estonia and Iceland have improved connectivity levels by one-third or more. The LSCI recorded an increase of 12 in Lithuania. On the other hand, the only country where the LSCI is today notably lower than in Q1 2019 (-7%) is the Republic of Ireland. In all other countries of North Europe changes in LSCI since 2019 are of a minor scale (i.e., less than +/-5%)



Figure 34

LSCI trends in the five best connected countries in North Europe (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.

6.9. Regional focus: Oceania and the Pacific

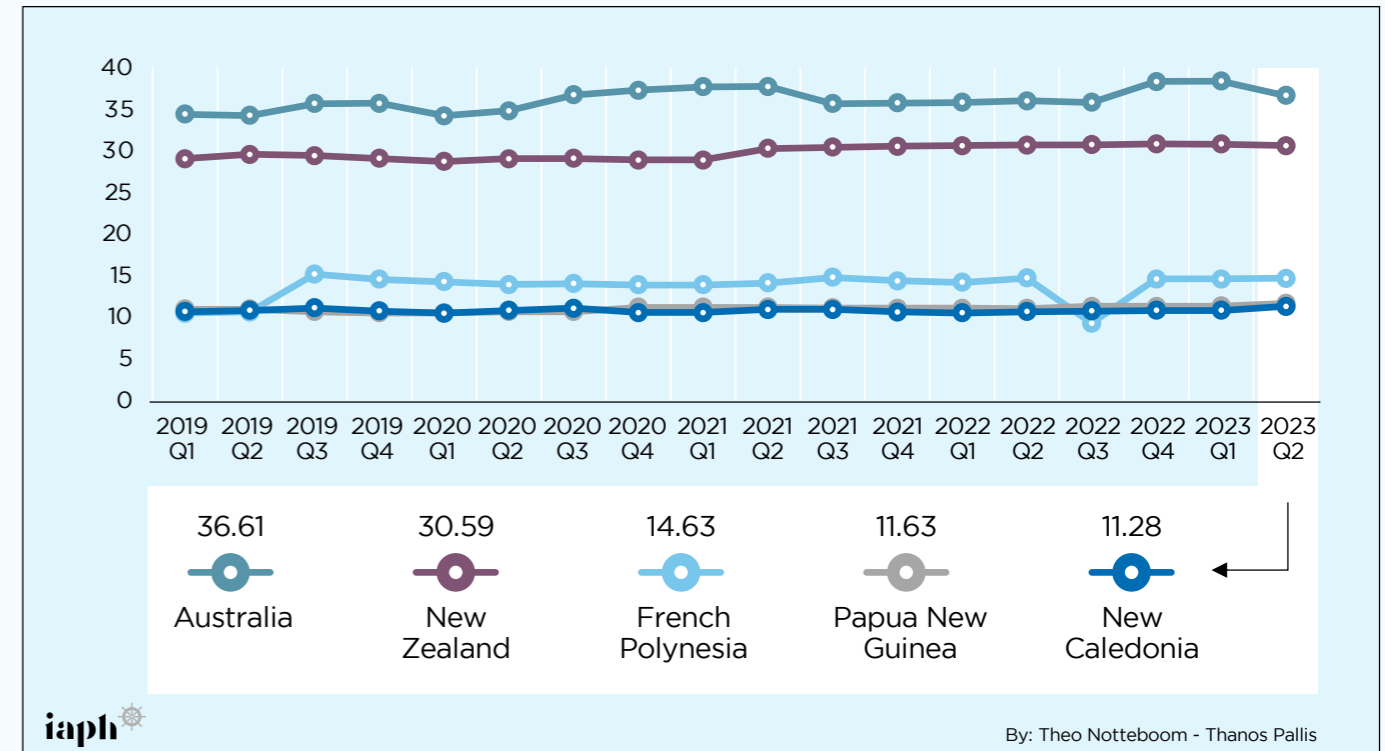
In Oceania and the Pacific in Q2 2023, Australia's LSCI (36.6) was 1.7% higher than a year before, with the country standing as the 51st best-connected country in the world. The change in New Zealand was marginal. Following a 0.3% decline (LSCI=30.6), the country has dropped from 57th to 63rd best connected globally. As regards the other best-connected countries/territories in the region, the shifts in French Polynesia (LSCI=14.7) were also marginal. Improvements of 5.5% have been recorded in Papua New Guinea (14.6) and 6% in New Caledonia (11.3). A notable LSCI improvement also occurred during the last year in the Solomon Islands (LSCI=11.3), the only country/territory in the region that has improved its global ranking (by two positions) since Q2 2022. On the other hand, there were no countries and/or territories in the region where a significant LSCI decrease occurred in 2023.

Focusing on the longer-term trends, the current LSCI in each region stands higher than the respective LSCI in Q1 2019. However, the LSCI increases in Australia (+6%) and New Zealand (+5%) still lead to a drop in the global ranking by five and four positions respectively. The picture is more positive in the several small island states in the region, as the LSCI has increased in most of them by double-digit percentages since 2019 (with significant increases recorded in the Marshall Islands and French Polynesia), or single-digit ones that exceed the growth that happened in Australia and New Zealand.



Figure 35

LSCI trends in the five (5) best connected countries in Oceania and the Pacific (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.

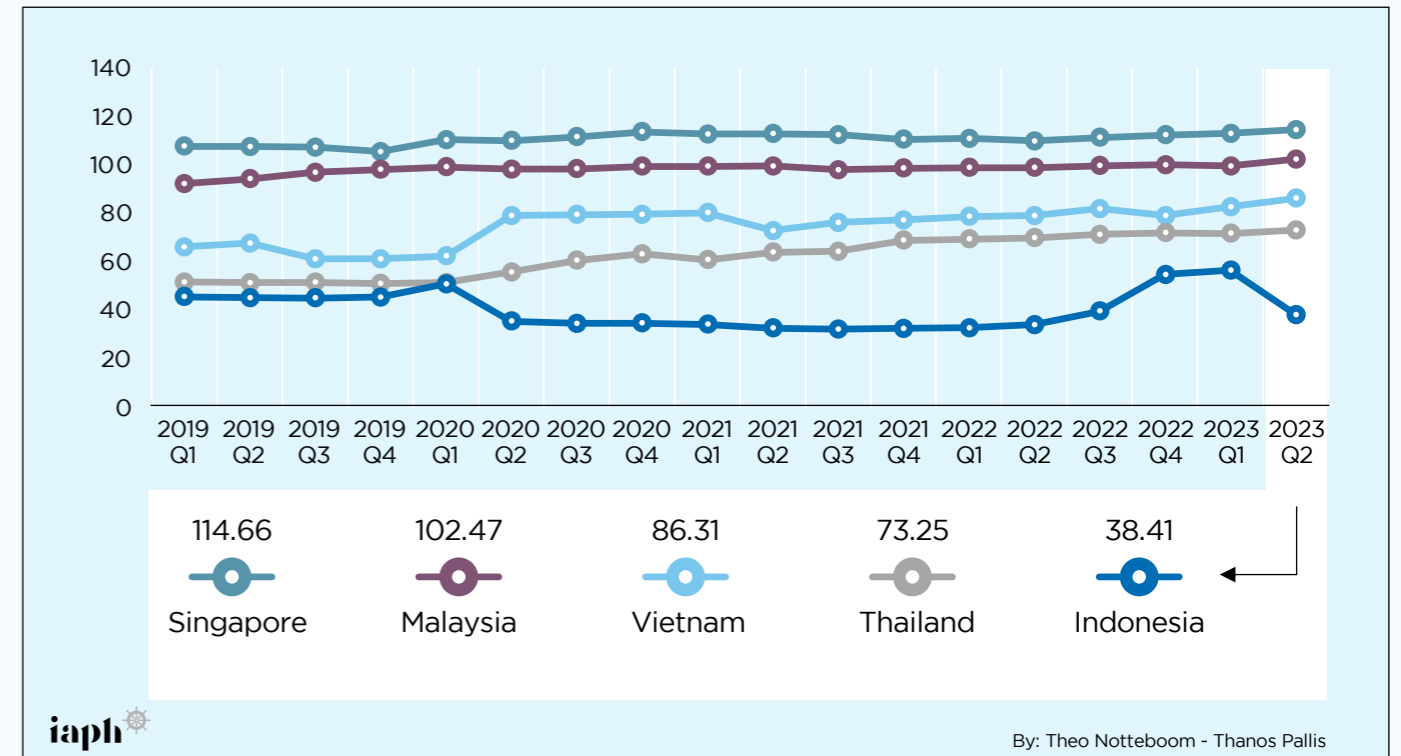
6.10. Regional focus: South East Asia

Singapore (LSCI=114.7) and Malaysia (102.5), which are the 3rd and 4th best-connected countries in the world, top the list of the best-connected countries in South East Asia in Q2 2023. They are followed by Vietnam (86.3; 20th best connected in the world), Thailand (73.2; 19th), and Indonesia (38.4; 47th).

The LSCI of these five countries in Q2 2023 stands higher than in Q2 2022. The LSCI of Singapore increased by 4.2%, and Malaysia by 3.5%. In the latter case, the growth was enough to result in the rise of Malaysia from the 5th best connected one in the world in Q2 2022 to the 4th best connected one in Q2 2023. The LSCI increases in Vietnam and Thailand were 8.9% and 4.6%, respectively. The improvement on a year-on-year basis was even more significant in Indonesia, as LSCI increased by 12.2%, with the country improving its positioning in the global rankings by four. Yet the country is marked by a volatile LSCI: in late 2022 and early 2023 there were indications that Indonesia's LSCI was returning to the higher levels of 2019. Yet in Q2 2023, LSCI is higher only to the lows of the period Q3 2020 - Q2 2022. The most notable growth in the last year occurred in the Philippines and Myanmar, the 6th and 7th best-connected countries in the region. The only case showing an LSCI decrease since Q2 2022 is Brunei, and in this case the decline was marginal (-1.4%).

The long-term picture does not differ. Singapore's LSCI growth since Q1 2019 is 6%, and that of Malaysia is 11%. Since the beginning of 2019, Vietnam and Thailand emerged five and eight positions higher in the global rankings due to an even more impressive LSCI growth, i.e., 30% and 41% respectively. The situation however is somewhat different in the case of Indonesia, where the recent LSCI improvement does not reflect a reverse of the negative trends that occurred during 2020-2022. With an LSCI down by 16%, Indonesia has dropped 14 positions in the global ranking. Brunei is the other country where the LSCI has declined since 2019 (-8%), while in the Philippines the LSCI of Q2 2023 is similar to the one of Q1 2019.

Figure 36
LSCI trends in the five best connected countries in South East Asia (LSCI evolution, Q1 2019 - Q2 2023)



Source: Analysis of data provided by UNCTAD and MDS Transmodal.

Table 6
Countries with major LSCI increase in South East Asia in Q2 2023 (LSCI evolution)

Country	LSCI Q2 2023	Δ Q2 2023/ Q2 2022	Global Ranking LSCI, Q2 2023	Change in Global Ranking Q2 2023 vs Q2 2022	Change in Global Ranking Q2 2023 vs Q1 2019
Myanmar	11,58	30,5%	98	↑ 5	↑ 29
Philippines	31,52	24,6%	62	→ 0	↓ 8
Indonesia	38,41	12,2%	47	↑ 4	↓ 14
Vietnam	86,31	8,9%	11	↑ 1	↑ 5
Thailand	73,25	4,6%	19	→ 0	↑ 8

Source: Analysis of data provided by UNCTAD and MDS Transmodal; Countries/territories with an LSCI > 5.00

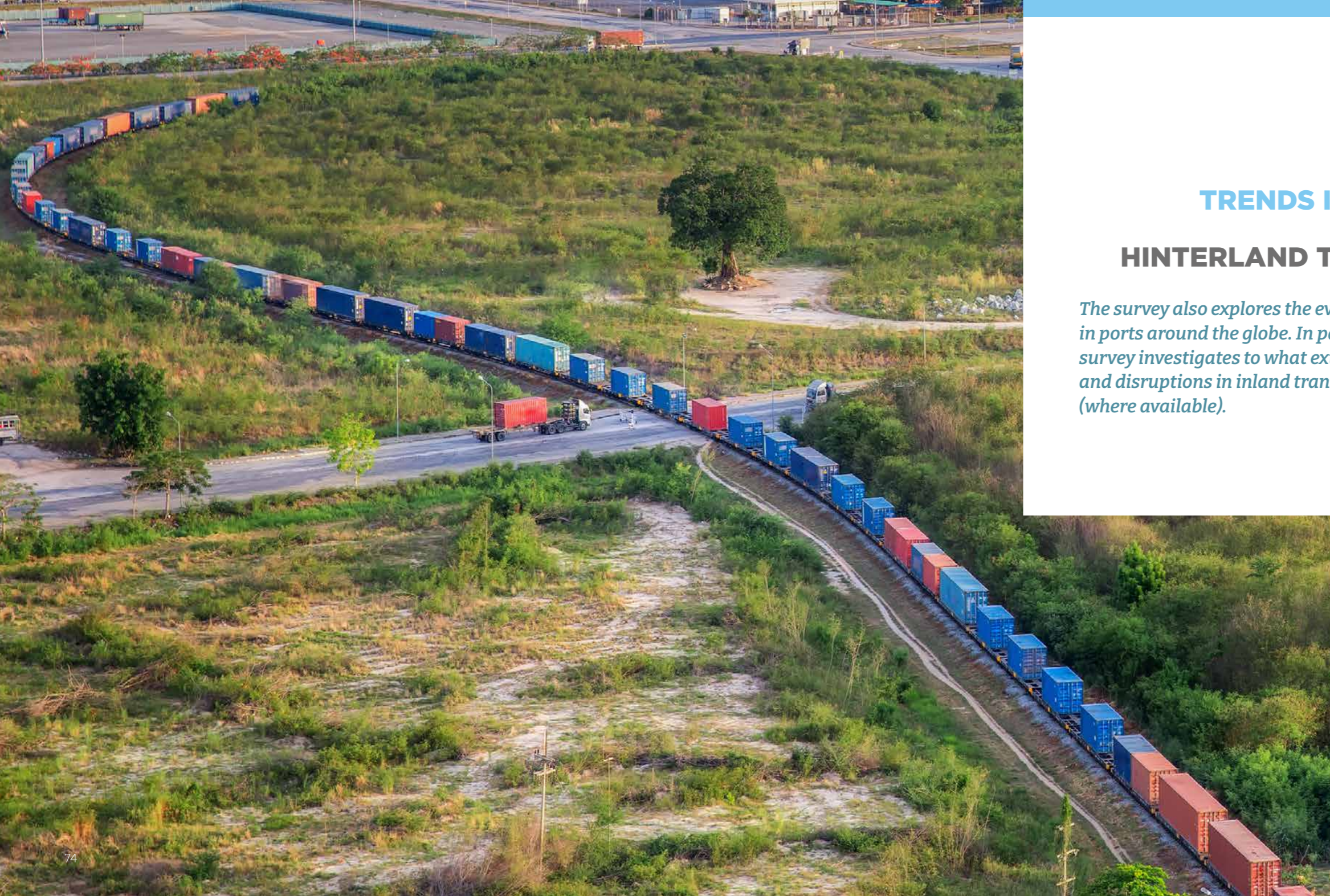


7

TRENDS IN CARGO PORTS:

HINTERLAND TRANSPORT SITUATION

The survey also explores the evolution of hinterland transport conditions in ports around the globe. In particular, the IAPH World Ports Tracker survey investigates to what extent the responding ports are facing delays and disruptions in inland transport operations by truck, rail, and barge (where available).



Multiple causes produce these delays or disruptions in inland transport, including low availability of transport equipment such as containers, chassis, or wagons; congestion or disruptions in terminal operations; low availability of personnel such as truck drivers; and heavy congestion/capacity issues in the inland transport network. These can negatively affect inland transport operations in/out of the port and hinterland areas. In view of recognising potential differences in market dynamics per cargo type, the survey distinguishes between container transport and bulk and breakbulk cargo transport.

The hinterland transport of containers continues to gradually normalise after incurring major disruptions during the COVID-19 period.

Container supply chains seem to face less pressures today than those recorded in early 2022, thus bringing the market closer to conditions in which both users and service providers can plan and better predict the length of maritime supply chains. When it comes to inland container transport, only 3.4% of the responding container ports report delays (6-24 hours) in road transportation, and less than 2% of ports are facing major disruptions (> 24 hours). In Q2 2023, 22% of container ports experienced some minor delays (< 6 hours) in road transportation to/from the port. The percentage of ports that did not register delays continues to be well above 60%. In Q2 2023 it reached 69%.

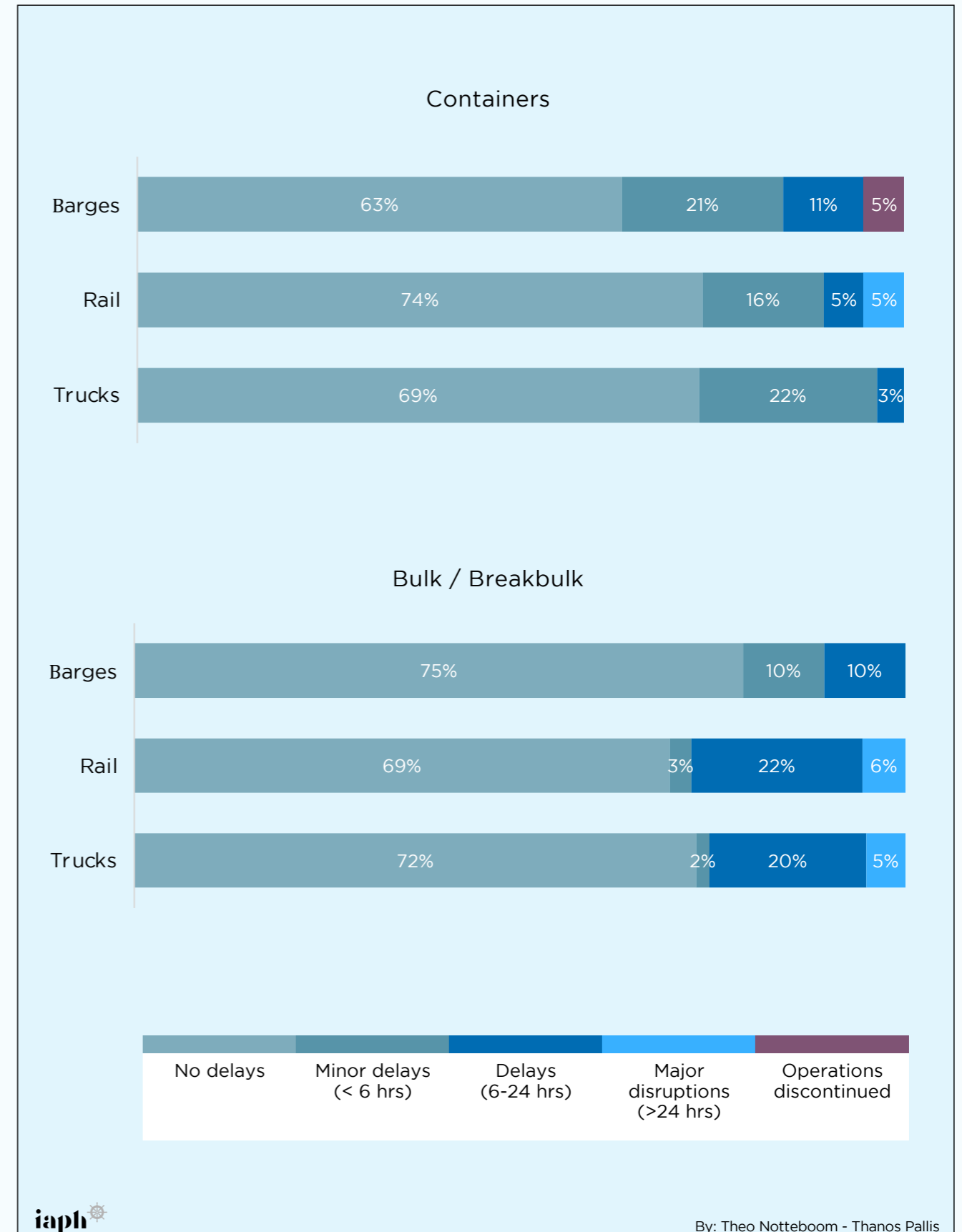
Major delays and disruptions continue to be present in some rail services and are more evident in the barge markets linked with ports. Yet, compared to 2022, rail services in world ports improved considerably in Q2 2023: 74% of the responding ports' trains serve trade exchanges without any delays (+4% compared to Q4 2022 and +18% compared to Q3 2022). Delays (6-24 hours) or major disruptions (>24 hours) happened in approximately 10% of ports, again lower percentages compared to the previous reporting period. Minor delays (<6 hours) occurred in 16% of all responding ports.

The collected data suggest a deterioration of hinterland conditions in the bulk and breakbulk markets compared with the last three months of 2022, although the overall disruption levels are still relatively low.

The picture is quite different in the case of inland transportation activities for bulk and breakbulk cargo, particularly in the case of trucking and rail. The good news is that over 72% of respondents are not facing truck transport delays, over 69% show no problems in rail operations, and 75% reported no delays in inland barge transportation in Q2 2023. However, breakbulk/bulk inland transport is hampered by delays of over six hours for 25% of ports in the case of trucking (a steep increase compared to the 5% of Q4 2022), 28% for rail (up from 19% in Q4 2022), and 15% for barge transport (slightly up from 13% in Q4 2022).

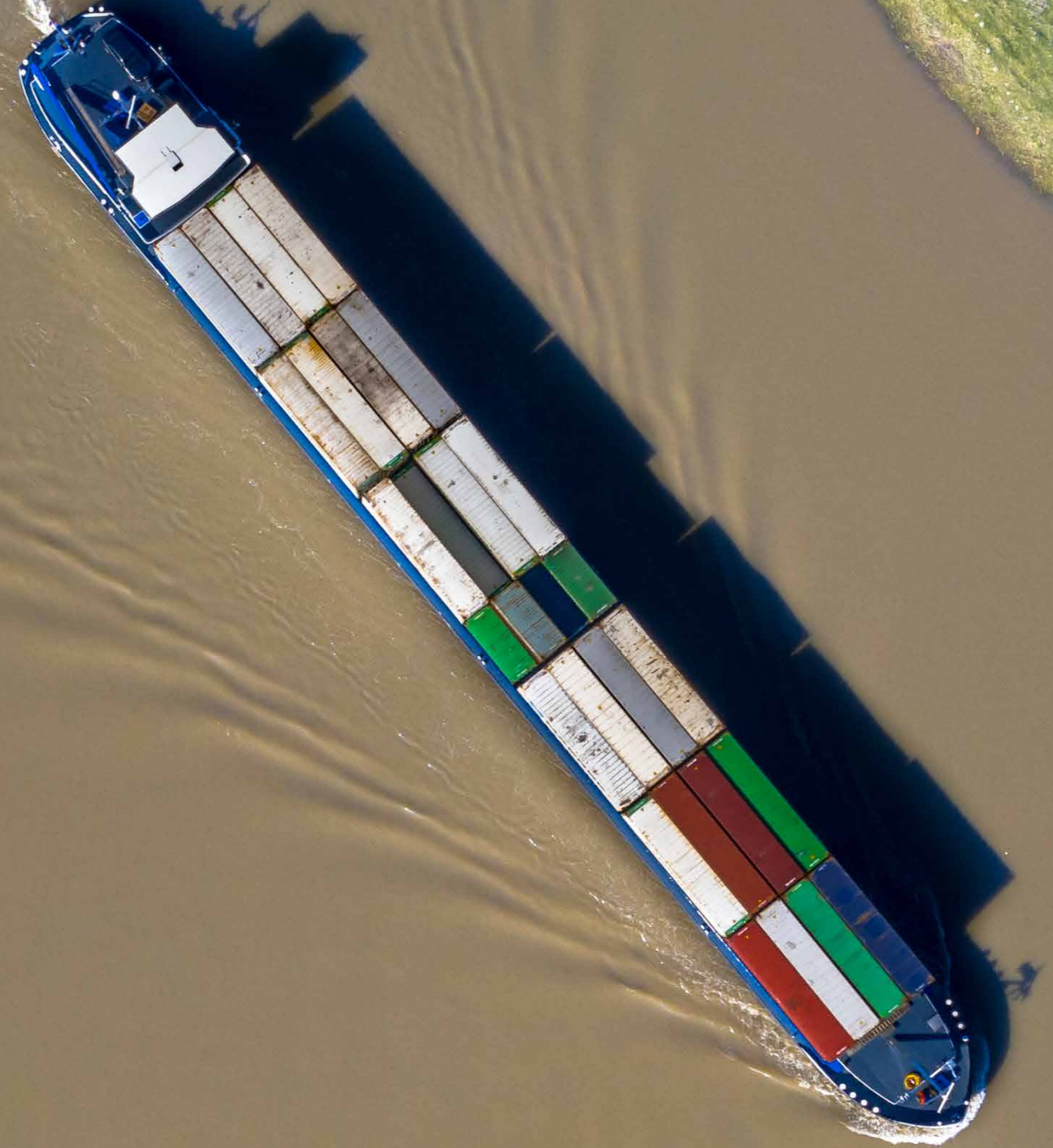


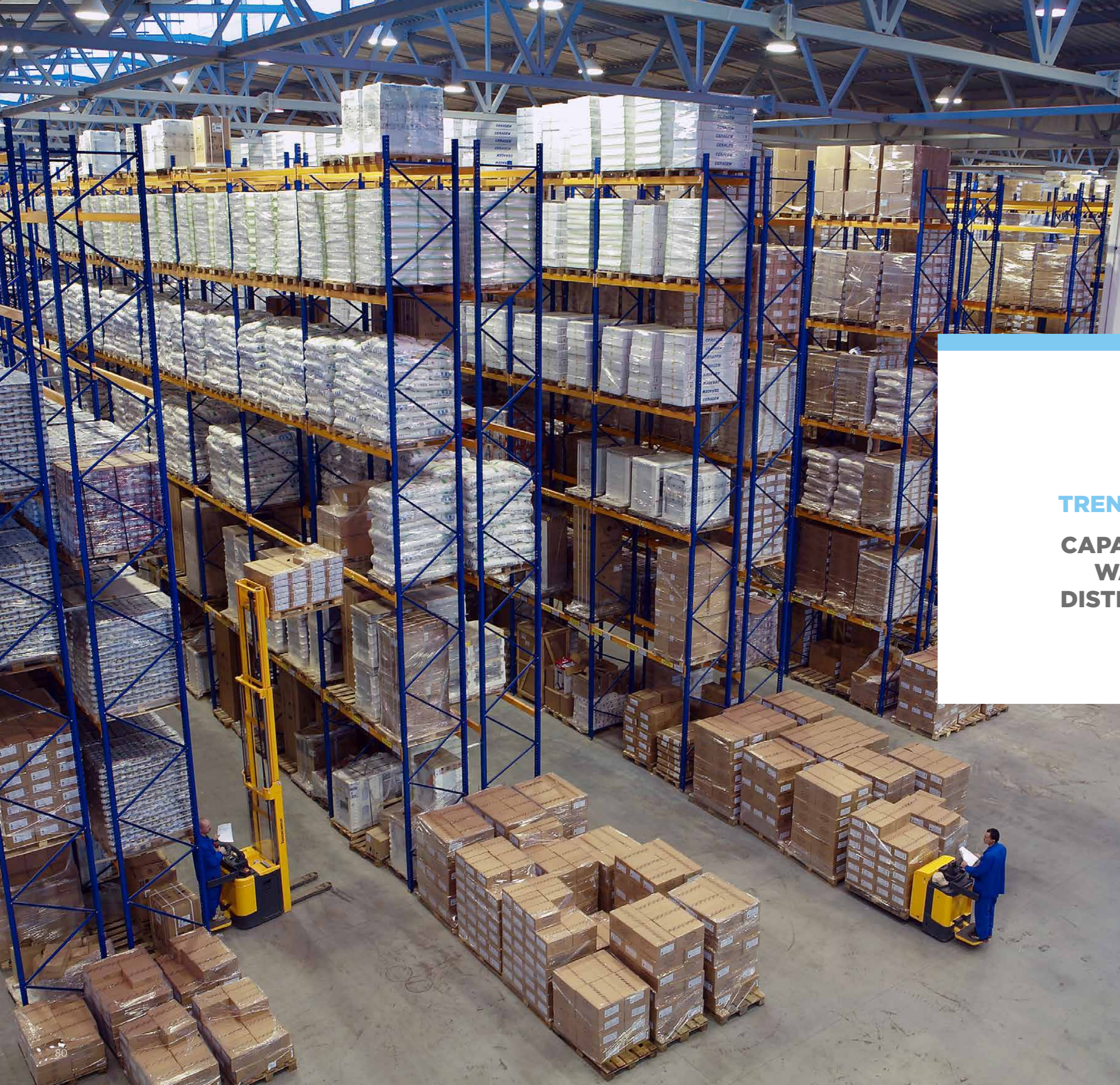
Figure 37
Hinterland transport conditions in ports (Q2 2023)



Nonetheless, there are rather significant differences among the port regions, as indicated in the related Dashboard III. Central & South America and Sub-Saharan Africa are where the most challenges occur when considering inland container transport by truck, although disruptions levels are quite moderate. Mediterranean ports have avoided major disruptions, while the share of ports reporting minor delays (< 6hrs) went from half of the ports in Q4 2022 to less than a quarter in Q2 2023. The number of responses per region for rail is, in some cases, low, yet overall ports are facing fewer minor disruptions as regards such container services. One out of five ports in North Europe reported minor delays in barge operations (only where available) and 40% major disruptions. Thus, the inland barge situation in North Europe has not normalised yet after a very disruptive COVID-19 period. On the positive side, none of the responding ports in East Asia, Southeast Asia & Oceania and North America point to any form of delays in the hinterland transport of containers.

The situation for breakbulk/bulk cargo shows some regional differences, though it has to be noted that the sample is relatively small for reaching definite conclusions in all regions. Half of the ports in Central & South America and Sub-Saharan Africa report minor delays in trucking. In the other regions, these percentages are much lower and reach even zero in East Asia and North America. Sub-Saharan Africa is the region where most issues with rail-related services were experienced, yet these have been of a minor scale, i.e., delays ranging between 6-24 hours. One fifth of North European ports reported delays in inland waterway transport of breakbulk and bulk cargoes.





8

**TRENDS IN CARGO PORTS:
CAPACITY UTILISATION IN
WAREHOUSING AND
DISTRIBUTION ACTIVITIES**

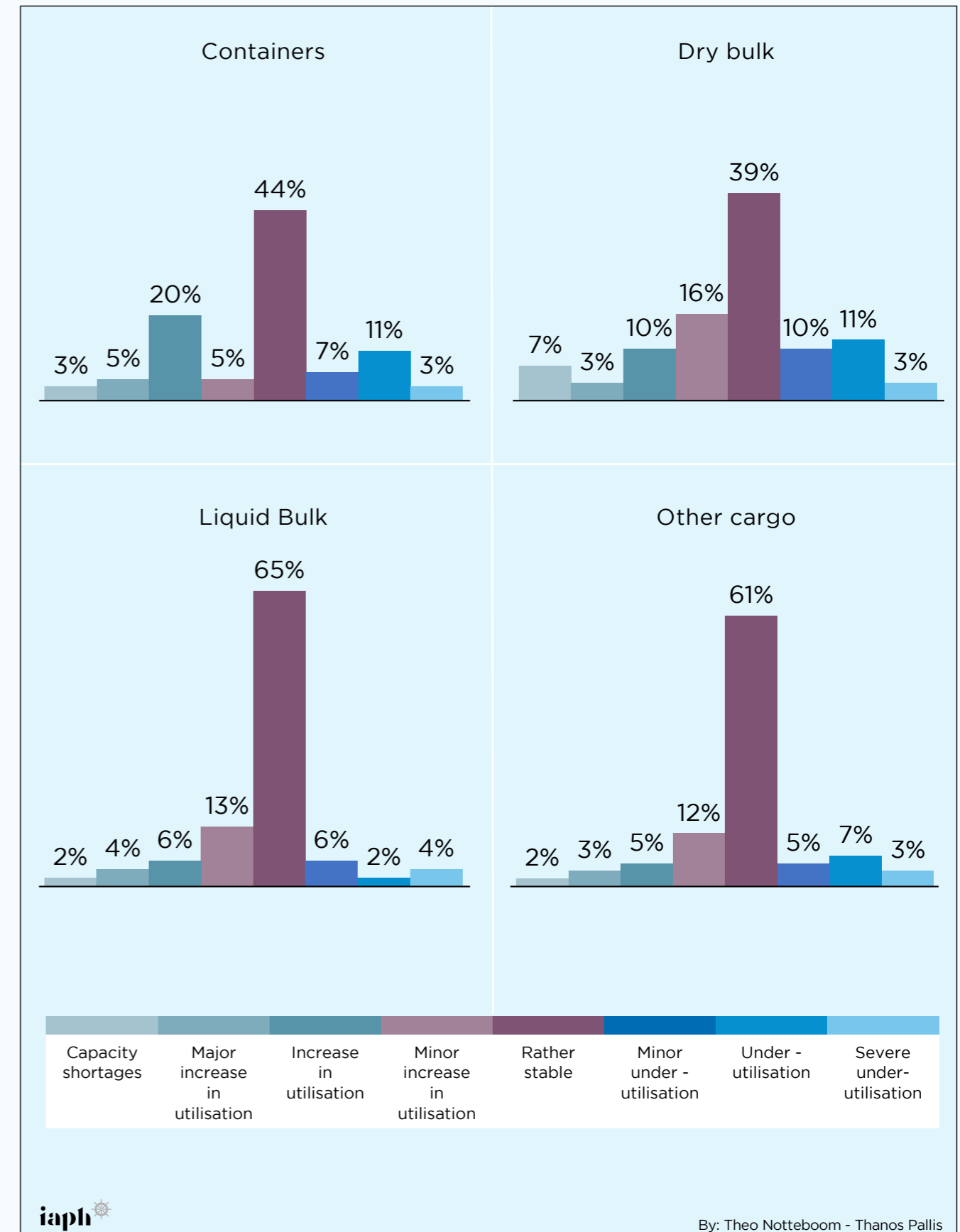
Another question of the survey zooms in on the current capacity utilisation of warehouses/distribution facilities in world ports. In view of capturing the particularities associated with different goods flows, this part of the survey distinguishes between the warehousing/distribution situation for containerised goods, dry bulk, liquid bulk, and other cargo (conventional general cargo and breakbulk). Warehousing and distribution activities in ports may change due to demand and inventory (re)stocking of traders, importers, and retailers. Tank storage parks for liquid bulk, and oil products in particular, might see shifts in their utilisation degree caused by changes in oil prices, the demand for oil products, and the strategies of major traders.

There is an improvement overall in storage availability for containerised cargo. The survey results show 25% of ports reporting an increase or major increase in the utilisation of warehousing and distribution facilities for containerised goods, and a further 5% reported minor increases.

Only 3% reported capacity shortages, which is the same figure as in Q4 2022 and substantially lower than the percentage of ports that reported such shortages in Q3 2022 (13%). The percentage of respondents reporting an under-utilisation of warehousing and distribution facilities has increased from 11% in Q3 2022 and 14% in Q4 2022 to 21% in Q2 2023. Only 7% was minor under-utilisation.

In the other goods categories, the share of ports with underutilised capacity shows mixed results compared to Q4 2022. This share is down for liquid bulk to 12% in Q2 2023, up for dry bulk (now 31%) and stable at 15% for other cargo. While 13% of the ports observes an increase or major increase in the utilisation degree of dry bulk storage facilities, 7% of ports face capacity shortages. The latter percentage is 1% less than the respective one recorded six months earlier. In the liquid bulk market, 10% of surveyed ports face (major) increases in facility use, with another 2% confronted with a lack of warehousing and distribution services capacity (down from 4% in Q4 2022).

Figure 38
Warehousing and Distribution Services: Capacity Shortages and Under-Utilisation per market (Q2 2023)

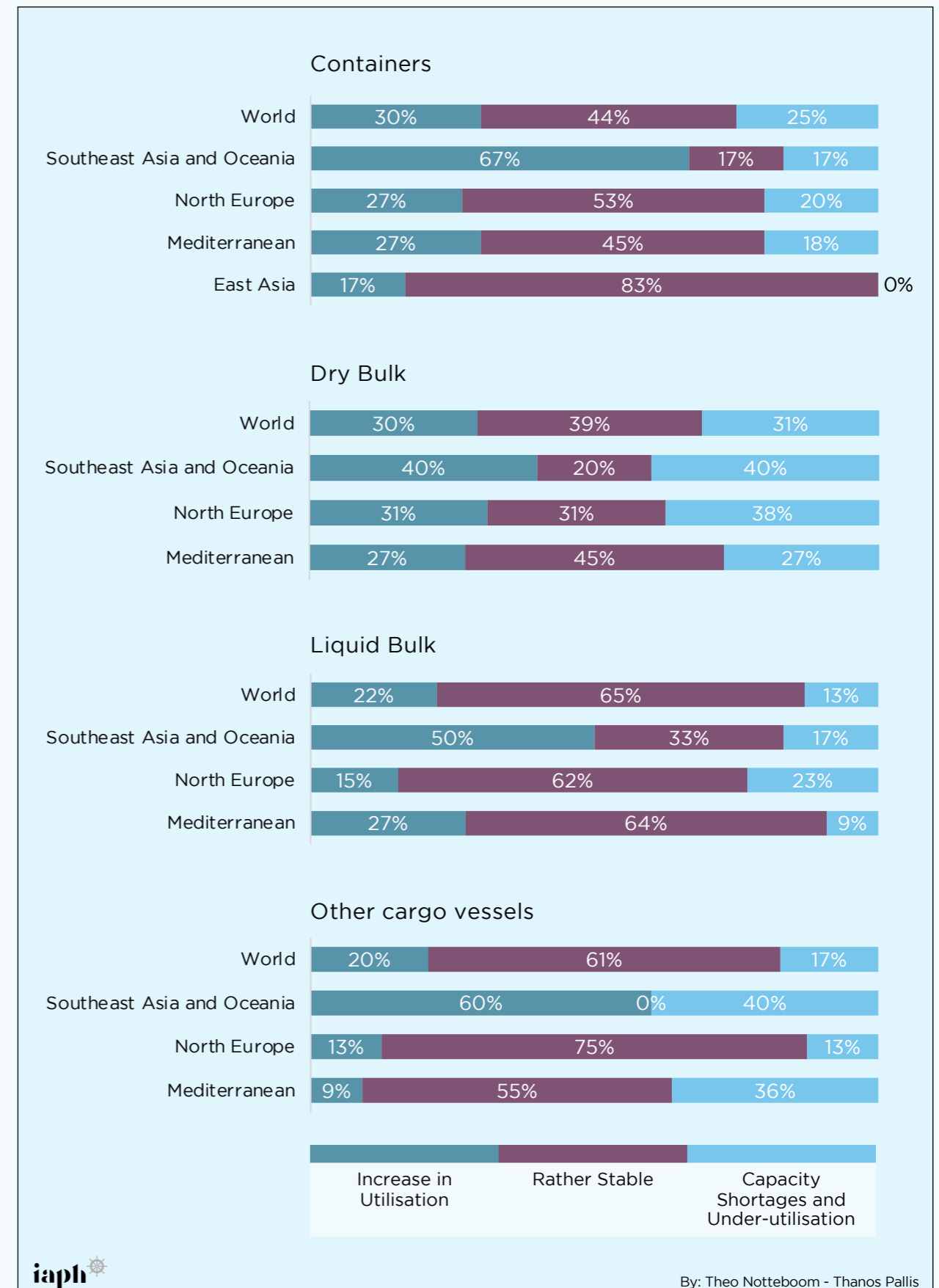


When it comes to containerised cargo, the regional analysis reveals a rather stable situation in East Asia, and an increase in utilisation in two thirds of ports in Southeast Asia & Oceania. In the dry bulk sector, the situation is fairly similar across the selected regions. Southeast Asia & Oceania shows an even distribution between capacity shortages/under-utilisation and increase in utilisation with few ports facing a stable situation. The same even balance can be found in the Med but in that case with a much larger share of ports pointing to a stable situation. North Europe is slightly leaning towards capacity shortages/under-utilisation although the differences with the other bars are small.

Any phenomena of underutilisation of liquid bulk storage facilities are present in North Europe and Southeast Asia & Oceania. The latter region shows the highest share (i.e. 50%) of ports facing an increase in utilisation of liquid bulk storage facilities. Two thirds of ports in North Europe and the Med have not encountered major changes in utilisation levels. For the very diverse “other cargo” category, few changes have taken place in three quarters of North European ports. Utilisation levels in ports of Southeast Asia & Oceania are very dynamic, with 60% of ports reporting an increase in utilisation and the remainder facing underutilisation or capacity shortages.



Figure 39
Warehousing and Distribution Services: Capacity Shortages and Under-Utilisation in selected Regions: (Q2 2023)





9

TRENDS IN WORLD PASSENGER PORTS

In this section of the tracker, questions are raised to those ports receiving cruise and passenger vessels around the world. The cruise and ferry sectors were the shipping segment most impacted by the COVID-19 pandemic, so measuring sentiments and trends of cruise and ferry ports around the world in the post pandemic period gauge the degree of recovery this sector is experiencing.

Passenger ports continued to surge following the collapse in all passenger-related activities in 2020 and 2021 due to the COVID-19 pandemic. As a result, traffic growth in passenger ports in 2022 has been almost widespread.

With the resumption of cruise activities in the post-pandemic period, the number of cruise vessel calls in most world cruise ports continues to increase.

Compared to the same quarter of the previous year, in Q2 2023, 34% of the ports participating in the survey experienced a double-digit percentage growth of such calls. A further 25% of the responding ports experienced single-digit growth. The speedy return to pre-pandemic levels is slowly starting to level off as the number of calls in world cruise ports has strongly recovered over the past year.

On the other hand, the ‘re-booting’ of cruise shipping has happened for most but not all cruise ports. For 18% of the reporting ports, the number of calls in Q2 2023 was lower than in the same period of 2022 by more than 10%. Furthermore, a single-digit contradiction in the number of cruise calls was observed in 7% of the participating ports. This seems to suggest the post COVID-19 era brought some level of redeployment of cruise ships by cruise lines and a respective restructuring of the itineraries offered to cruise-passengers, thereby intensifying competition between cruise ports.

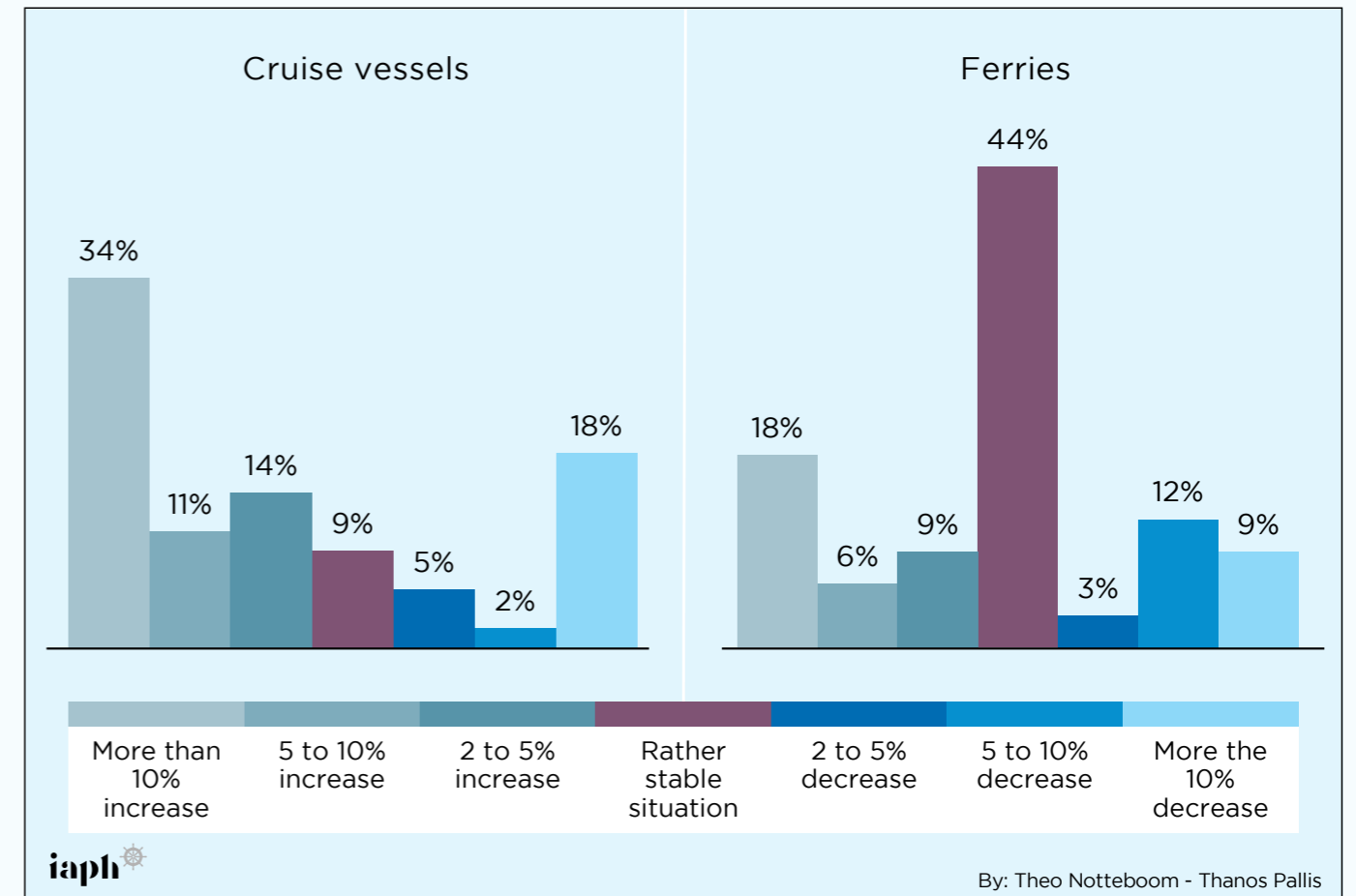
Cruises in Asia re-started later than in other cruise markets worldwide as the post-pandemic opening of several Asian economies happened later than elsewhere.

Turning to the regional analysis, increases in cruise calls occurred in all parts of Asia. The two European cruise markets, the Mediterranean and North Europe, respectively, are the two cases where some ports experienced a double-digit percentage decline in the number of cruise ship calls on a year-on-year basis.

Another positive trend is revealed when observing the evolution of ferry calls. Of the responding ports, and within the period under examination, 18% realised a more than 10% growth in ferry calls. A further 15% experienced single-digit growth. However, the percentage of passenger ports recording a decline in ferry calls in Q2 2023 is 24%, with 9% of all reporting ports realising a drop in ferry calls exceeding 10%.



Figure 40
Evolution of cruise and ferries calls in passenger ports (Q2 2023 compared to Q2 2022)





10

EXPECTATIONS IN CRUISE PORTS FOR THE NEXT TWELVE MONTHS

The tracker includes a question for ports on prospects for cruise and ferry traffic in the coming twelve month period, in order to gauge fleet deployment, seasonal changes between regions and potential redeployments depending on demand.

The industry-wide estimation is that the positive trend of cruise activities in 2022 will continue in 2023, though at a slower pace due to the ironing out of rapid restart effects post COVID-19.

In September 2023, the percentage of cruise ports that are expecting the number of cruise vessel calls they will serve in the next 12 months to increase has reached 62%. This percentage is slightly lower than in February 2023 (66%) and November 2022 (68%). Most importantly, one quarter of ports participating in the survey expect the scale of this growth to be a double-digit percentage. The respective share in the previous issue of the IAPH World Ports Tracker reported stood at 29% in February 2023 and 40% in November 2022. This decline in the share is an expected evolution given that cruise shipping is close to the activity level of before COVID-19, and the rapid restart period of the industry is now behind us. At the same time, 28% of the ports expect the number of cruise ship calls to remain relatively stable (i.e., between 2% growth and 2% decline), five percentage points higher than in February 2023. Only one out of ten ports expect fewer cruise calls in the next twelve months, an additional hint that the return of cruise operations continues to generate a rethink of the itinerary programs of cruise lines or even the deployment of some cruise vessels in different regions than before.

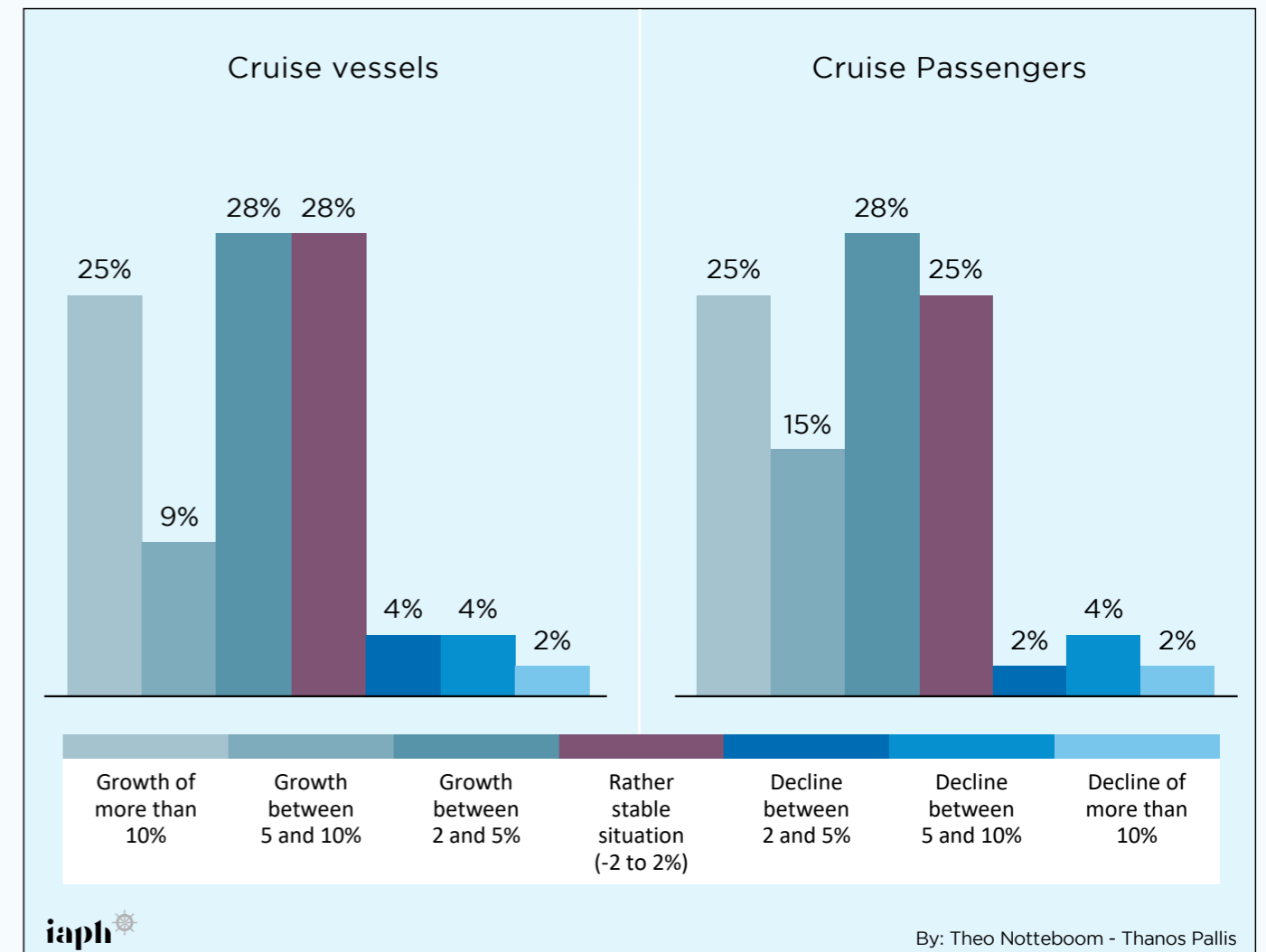
The optimism is also present when the focus turns on the number of cruise passengers that are expected to visit the responding cruise ports in 2023.

The magnitude of the anticipated growth of cruise passenger movements is more or less in line with the expectations for the number of vessel calls. More than two thirds of the respondents expect growth of cruise passengers to be hosted in the next 12 months, with one quarter of ports anticipating this growth to be more than 10%. Thus, expectations of growth in the number of cruise passengers visiting the respective ports are slightly higher than those referring to cruise ship calls. A key reason for this is that in 2022 the operating capacity of cruise vessels was around 65% of the original capacity. This figure increased in 2023, and thus some of the reporting ports estimate that the amount of cruise calls might not increase, but the calling cruise ships will carry more passengers. Only 7.5% of cruise ports expect the number of cruise passenger movements in the next twelve months to be lower.

The survey revealed that ports in the more traditional major cruise markets (i.e., the Latin American and Caribbean, Mediterranean, North Europe and, to a lesser extent, North America) show very mixed outlooks when it comes to the growth of cruise passengers for the next 12 months. About 43% of the North American ports who have responded to the survey expect double-digit growth, while in North Europe and the Mediterranean this figure is only 17% and 10% respectively. This implies these regions show different growth prospects after the restart of these markets in 2021. Six out of ten East-Asian ports predict double-digit growth figures in cruise PAX movements, implying that structural growth is on the horizon in this region after cruise activities resumed in late 2022.



Figure 41
Cruise ship calls and passenger movement in world cruise ports for the next 12 months: Expectations as of September 2023.





11

STAFF AVAILABILITY

The survey also addresses the staff availability issues in world ports by focusing on three categories of port-related workers: dock workers, truck drivers and staff working in nautical-technical services (technical personnel of towage companies, pilots, mooring specialists, lock operators, etc.).

The availability of the needed port-related workers is an important strategic and operational consideration in world ports. The importance of monitoring gaps in the availability of port workers, administrative personnel, and related workers – such as truck drivers- was further highlighted by measures to fight COVID-19 that affected the availability of all different types of port-related workers. However, the IAPH-WPSP Port Economic Impact Barometer on the impact of COVID-19 on world ports in the period April 2020 to April 2021 demonstrated that by the end of that period, the level of impact limiting ports’ capacity to operate was relatively small: initial shortages were addressed. Since then, shortages have been decreasing. However, staff availability issues resurfaced in early 2021 in some parts of the world, contributing to supply chain disruptions.

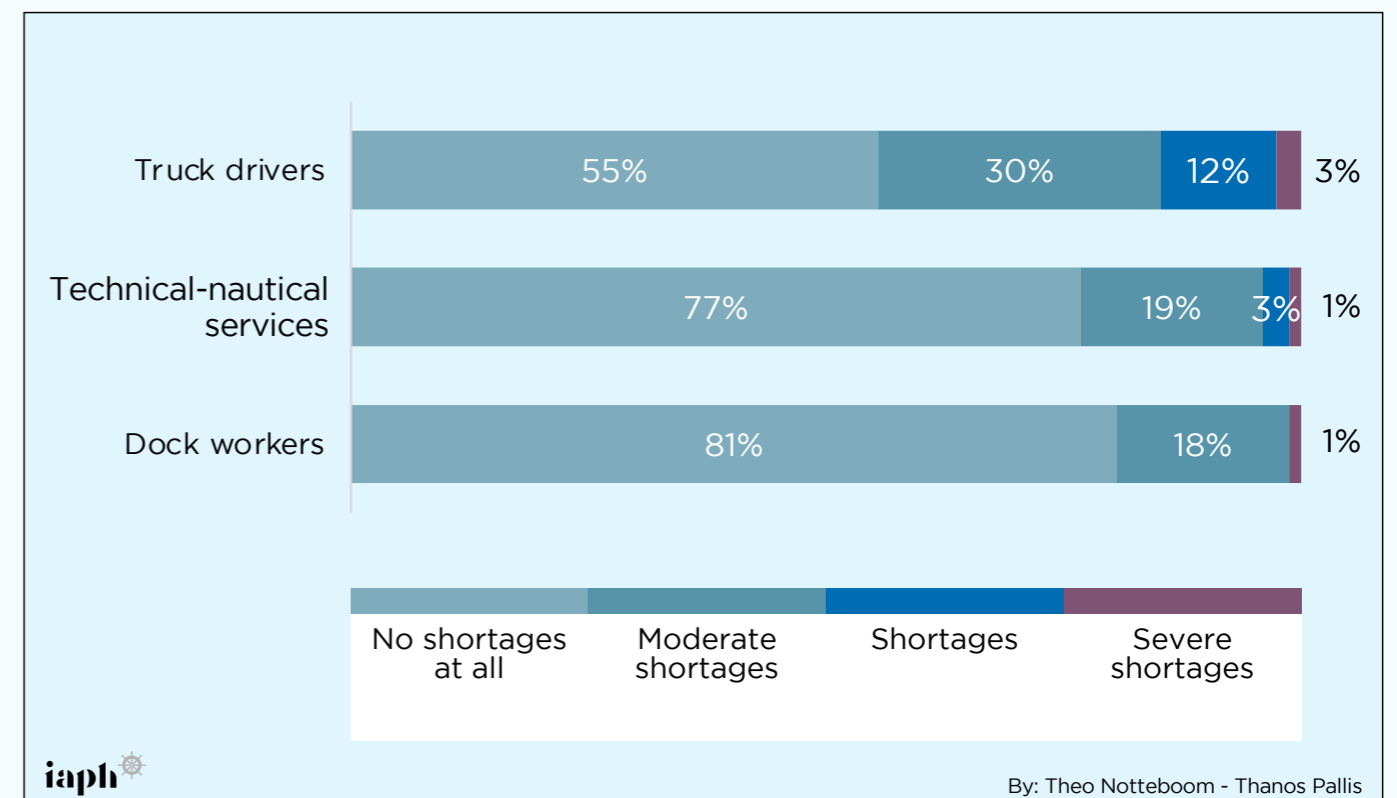
The Q2 2023 survey results reveal that the vast majority of responding ports face insignificant shortages of dock workers and operational workers in the technical and nautical field. The total of responding ports that recorded no shortages in the case of dock workers increased to 81% (compared to over 70% in Q4 2022) and 77% of the responding ports recorded no shortages in the case of personnel offering technical-nautical services. This implies the share of ports facing minor or major shortages declined from 29% in Q4 2022 to 19% in Q2 2023 for dock workers, while it slightly increased from 20% to 23% for technical-nautical staff. Some ports reported that due to the increasing number of projects and activities, skilled technical workers are brought from outside the port on a daily/project basis.

A significant negative development is noted regarding the availability of truck drivers in ports worldwide. In Q4 2022, 71 % of ports reported the absence of shortages of truck drivers. In Q2 2023, this figure declined to 55%.

The situation in terms of the availability of truck drivers shows more drastic changes. About 45% of all responding ports now report availability issues compared to 29% in Q4 2022. The figure now even surpasses the 37% figure recorded in Q3 2022 and the 40% figure of Q2 2022. However, those facing severe shortages were fewer (3% compared to 7% in Q4 2022). Sub-Saharan Africa is the only region where truck availability concerns are minor. In Southeast Asia & Oceania three quarters of responding ports point to some level of truck driver shortage.



Figure 42
Staff availability in World Ports (Q2 2023)



12

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