

Global Maritime Weekly Digest

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The **Global Maritime Weekly Digest**, based at **Southampton SOLENT University**, provides a regular flow of maritime news and analysis, of significance in a global context. Topics covered include shipping fleets and management, seaborne trade, ports, shipbuilding, ship recycling, maritime policy and regulations, and seafarers' labour.

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Editorial comments

- In 2017 *world seaborne trade growth* is expected to show an acceleration from relatively slow rates in the previous two years, according to some analysts (item 1). This performance is partly restoring confidence in the upwards trend, after past sluggishness had caused observers to question whether it is still realistic to expect further robust expansion.
- A new study of *global shipping emissions* reveals that growth of greenhouse gases produced by the industry (oceangoing vessels, domestic ships and fishing vessels) has resumed (item 5). But the published data from this source also shows that the industry's emissions, as a proportion of the global total from all origins, has remained stable in recent years.
- Amid the strategic and symbolic five-yearly party congress now ending in Beijing, figures measuring the output of *China's economy* show that third quarter GDP expansion was above target. This new data confirms that the earlier-anticipated further slowdown has not happened (item 6), although many economists continue to expect a slackening to be resumed next year.
- The specialised **world fleet of car and truck carriers** forms a substantial shipping segment and has an interesting history, reviewed briefly in item 3. While global motor vehicle production continued to grow last year, the number of cars transported by sea declined.
- Ideas about *how container shipping might evolve over the next half century* are offered by a consultancy firm, which was involved in the early days of containerisation fifty years ago (item 7). Whether autonomous container ships exceeding twice the capacity of the current largest megaships will be operating by 2070, remains to be seen.

Richard Scott MA MCIT FICS editor (email: bulkshipan@aol.com) (1) Clarksons Research, 13 October 2017

Bouncing Back...Fastest Trade Growth In Half A Decade!

A well-known football manager once commented on the "bouncebackability" of his team after they had followed a defeat with a victory. This year and last, global seaborne trade growth, following a weaker performance in 2015, has illustrated its ability to bounce back strongly, and on the back of a range of positive trends is currently expected to reach close to 4% in full year 2017.

Bouncing Back

Aggregate world seaborne trade is projected to grow by 3.9% in full year 2017. This follows on from growth last year of 2.8%, which itself was a major bounce back from the sluggish growth of 2.1% registered in 2015, which had triggered many to think twice about the general long-term health of seaborne trade. If this year does achieve the 3.9% mark, it would constitute the fastest year of seaborne trade growth for 5 years, since the 4.3% growth in 2012, a real bounce back to form.

As well as representing a healthy bounce back, the rate of expansion this year holds up well in historical terms. The average since the downturn in 2009 (when seaborne trade shrank by 4.0%) has been 4.2%. Excluding the year of 2010, which was a huge bounce back in its own right (9.3% growth) the figure would be a more modest 3.4%. The average in the 2002-08 boom was not too much higher at 4.5%.



A Game Of Two Halves?

The graph shows the monthly progress of seaborne trade based on a 'basket' which covers elements that can be tracked monthly (close to 60% of all seaborne trade in 2016). This currently shows two distinct parts to this year so far. The average year-on-year growth stood at 5% in Jan-Apr, whilst in May-Aug the rate averaged a slower 3%. However, as the graph shows, both compare favourably to full year 2016; in reality the more recent months saw greater volumes in 2016 than the early months of the year, easing the year-on-year growth rate down.

A Strong Season

There have been lots of supportive trends this year: resilient dry bulk imports to China, a return to coal trade growth, robust intra-Asian box volumes, rapid transpacific container trade growth and burgeoning gas volumes. Of course, downward pressures exists too (such as the OPEC cuts) and the future is not without risk (Chinese factory closures, Trump economics, Brexit, re-shoring or new technology).

But to many observers, with seaborne trade projected to expand at a multiple of 1.1 times global GDP growth this year, there's now a clear signal that some of the distress arising from much slower trade growth as recently as 2015 was actually more likely the passing of the low point in a cycle. The resilience of seaborne trade brings with it backing for more positive sentiment.

What's The Score?

Whether that's justified or not in the longer term remains to be seen; it will pay to keep a close eye on the statistics. But if this year's numbers (so far) show anything, it's to confirm that the seaborne trade growth environment still retains the ability to bounce back from difficult results. Have a nice day. Source: Clarksons

(2) Drewry, 17 October 2017

Cautious optimism remains the name of the game for multipurpose shipping

Recovering demand for multipurpose shipping combined with improved market conditions for competing sectors will result in rising market share for the multipurpose shipping fleet and a recovery in freight rates in 2018, according to the latest Multipurpose Shipping Market Review and Forecaster report published by global shipping consultancy Drewry.

Although China's plans to curb steel production in an attempt to clean-up the air pollution blighting its cities may well slow steel exports over the short term, the longer term outlook is still positive for the multipurpose and heavy lift sector. The clean-up campaign has resulted in a decision to cut some 50 million tons of steel production from 4Q17. Drewry expects that Chinese exports will become less competitive for their South East Asian customers, compared to the Middle East or Turkey, and trade volumes will shift accordingly.



Meanwhile, there are also signs that the longer term health of the competing sectors is improving. Freight rate forecasts for both the container and Handybulk carrier sector are showing upward movement in 2017 and 2018. This has already led one container line to announce that it is less interested in project cargo than previously, due to the extra time needed to stow this type of cargo.

Although there is still a significant level of overage tonnage in the multipurpose fleet, the majority of newbuilding deliveries over the last five years have been heavylift capable. This modern fleet of project carriers is well placed to take advantage of an upturn in this sector.

"The improvements in many other key drivers for this market mean we remain optimistic about its future. The expectations for global GDP, coupled with those for global PMI and the rising oil price, are likely to lead to improved investment and therefore increased demand for breakbulk and project cargo," comments Susan Oatway, lead analyst for multipurpose shipping at Drewry.

Source: Drewry

(3) Hellenic Shipping News, 16 October 2017/ Dynamar

Car Carrier Fleet Growth Slows Down, as Average Age **Drops to 12 Years says Dynamar**

In a recent report, Dynamar examines the development of the Ro/Ro and Car Carrier shipping segments. Beginning the latter, Dynamar said that while Japan's exports of passenger cars got substance in the 1950s already, the first Pure Car Carrier (PCC) was launched some 20 years later only. Before then, factory new cars were in the main loaded and discharged in the Lo/Lo-mode and transported in bulk carriers provided with hoistable decks in some of their holds. The Pure Car & Truck Carrier (PCTC) emerged in the second half of the seventies. It distinguishes from the PCC by having a heavier ramp and one or more reinforced and higher decks to accommodate higher and heavier vehicles and machineries. **PostPreviousPanamax**

The LCTC, short for Large Car and Truck Carrier, is a vehicle carrier with a minimum capacity for 7,000 CEU (Car Equivalent Units). The largest among them are PostPreviousPanamax (PPP), in other words these are too big to pass through the original (old) Panama locks. As of June last, 47 PPP Large Car and Truck Carriers were operating with another 45 on order. Hoegh Autoliners operates the largest of them all: six 8,500 CEU units. The guestion is, alike with 22,000 TEU container ships whether given recent market dynamics such huge vessels are not a bridge too far. While global production of motor vehicles continues to grow, by 4.6% in 2016, the number of cars carried declines: some 4% last year. The key driver of this is the expansion of car production closer to demand. This development, which started after crisis year 2009, has now led to a disconnect between expanding global car sales and seaborne trade volumes.

Top 5 Vehicle Carrier operators

As of 1 June 2017, world's five largest Vehicle Carrier operators (including sisters and subsidiaries) combined deployed a fleet of 501 PCC. PCTC and LCTC units, with a total carrying capacity of 2.827.000 CEU. Their fleet then constituted a CEU share of 72% of the World Vehicle Carrier fleet

Rank	Vehicle Carriers	Exis	ting fleet	On Order		
	(PCC/PCTC) Operator	Ships	Total CEU	Ships	Total CEU	
1	WWL	120	812,000	4	32,000	
2	NYK	127	647,000	_	-	
3	MOL	114	580,000	4	27,000	
4	"K" Line	88	452,000	4	30,000	
5	Hoegh Autoliners	52	336,000	_	_	
Top 5 Vehicle Carriers fleet		501	2,827,000	12	89,000	
Worldfleet Vehicle Carriers		795	3,952,000	65	444,000	
Share 7	Гор 5	63%	72%	18%	20%	

Given the specifications of the PCTC and the LCTC, it will not come as a surprise that formidable breakbulk carriers are concerned here. Actually, car carrier operators started lifting non-car cargoes on the way back to their car loading areas in North East Asia. As such cargoes could reach a proportion of 30 to 40% of the roundtrip liftings, it factually induced the development of the Pure Car and Truck Carrier. The manufacture or assembly of cars has meanwhile become much more diverse, it nowadays taking place in more than 50 countries worldwide. This at the same has greatly increased the number of destinations to which additionally breakbulk cargoes, including projects and heavy-lifts. The ships of the Top 15 Vehicle Carrier operators in Dynamar's report are calling at 340 ports in 150 countries worldwide.

Double in common

Conventional Deepsea Ro/Ro ships and Vehicle Carriers have two things in common: a shrinking fleet, and a ramp.

For the first time since 2010, the number of Vehicle Carriers reduced by -just- twelve units in the 18 months between January 2016 and June 2017. In the same period, i.e. from the first month of 2010 onwards, the Conventional Ro/Ro deepsea and shortsea fleet fell by no less than 170 ships...

Deepsea Ro/Ro

Meanwhile, Deepsea Ro/Ro Shipping is rather a specialisation that emerged in the 1960s as one of the offshoots from the once one-concept-fits-all general cargo deepsea vessel. Actually, this was driven by the container, or more particularly by the high degree of cargo unitisation the rectangular box offers.

A combination of two

Indeed, it was the combination of a Container ship and a Ro/Ro vessel, the ConRo, which was the initial dominant Deepsea Ro/Ro carrier. She was in particular connecting with destinations where handling costs were high, port turnaround slow or port facilities limited. Not needing extensive shore-side handling facilities made the ConRo the ideal ship for serving such trades.

It has above all been Scandinavian operators taking the challenge to invest in the relatively high capital costs of this type of tonnage.

Early Deepsea Ro/Ro-container trades

Australia was such a destination where militant port workers accounted for high handling costs and a prolonged port stay. In 1972, East Asiatic, Transatlantic Steamship and Wilh. Wilhelmsen launched their joint venture ScanAustral, deploying five 22,000-dwt ConRo's incorporating an angled stern ramp. Wilh. Wilhelmsen also partnered with Swedish Broström and Blue Funnel Line (Alfred Holt) of the UK to form Barber Blue Sea Line, operating between Far East and Central and North America, initially with six 1,800 TEU ConRo's, of which the first ones were introduced in 1979. Ten years later, Barber Blue Sea became a 100% owned Wilhelmsen Line venture, alike the ScanCarriers consortium.

The first ever ConRo trade

However, it was Atlantic Container Line (ACL) launching the first ConRo in 1967. The "Atlantic Span" could transport 1,000 TEU plus 1,100 cars. Nowadays, ACL is a subsidiary of the Grimaldi Group, world's largest Ro/Ro operator. Its 1965-founding fathers were all Scandinavian: Incotrans (Holland America Line), Swedish America Line, Transatlantic Steamship and Wallenius. Later on, Compagnie Générale Transatlantique (one of CMA CGM's predecessors) and Cunard Line of the UK joined.

An important consideration for the creation of ACL, a Transatlantic ConRo service, was not so much handling costs, port turnaround or inadequate port facilities. It rather was (and is) the quite important number of cars and agricultural machinery moving in this trade.

A congestion beating transport system

Investment in Conventional Ro/Ro tonnage, ConRo's in particular, peaked in the 1970s when the developing world was not as developed as it is today. Congestion in poorly equipped ports then was the order or the day. Roll-on roll-off ships can load and discharge quickly, taking up a minimum of quay space. The ships usually carry their own forklift-trucks, tugmasters, trailers and so on to handle the cargo, including containers, on board and ashore. It made the Ro/Ro the ideal congestion beating transport system.

Only 13 smaller ships built during the 1970s still exist. The present Conventional Deepsea Ro/Ro vessel fleet consists of an estimated 210 units. Although exactly 100 of these were built since 2000, the average age of these 210 Ro/Ro's is 18 years. In additional to a few non-operating owners, it is a limited number of vessel operators having invested in Ro/Ro's for deepsea employment. In alphabetical order, they include Bahri, Grimaldi including ACL, Kyowa Shipping, Messina, Nordana (no longer active), NYK Bulk & Projects and Wallenius Wilhelmsen (Mark IV and V units).

Source: Dynamar B.V

(4) Hellenic Shipping News, 19 October 2017/ Seas At Risk

Regulating ship speed could cut emissions by a third

Greenhouse gas emissions from three ship types – containerships, bulkers and tankers – could be reduced by a third, on average, by reducing their speed, according to a new independent study that will be presented to the International Maritime Organisation (IMO) next week. The cumulative savings [1] from reducing the speed of these ships alone could, by 2030, be as much as 12% of shipping's total remaining carbon budget [2] if the world is to stay under the 1.5°C global temperature rise, the CE Delft study for NGOs Seas At Risk and Transport & Environment, founding members of the Clean Shipping Coalition (CSC), found.

Reducing operational speed would also provide a boost to jobs and growth in shipbuilding nations, where the study concludes production would have to grow by over 30% in order to maintain transport capacity for global trade. The study also concludes that the additional costs of slow steaming on exports such as oilcake and beef from Latin America would be marginal, and this without accounting for lower transport fuel costs [3].

Bill Hemmings of T&E said: "Shipping is the only international sector that has yet to commit to a global emissions reduction target or measures. Talks at the IMO are expected to be challenging as the industry body, ICS, is on record as opposing every reduction measure so far put forward – including binding reduction targets, the need to tighten design standards or have operational efficiency measures. But industry itself showed clearly that slow steaming works. It proved effective in weathering the economic crisis, so the IMO should now agree mandatory speed measures to achieve substantial emissions reductions needed to start decarbonisation."



The analysed ship types cumulatively account for around 52% of global shipping's carbon footprint. Substantial additional savings will be made when the speed of the remainder of the fleet is also reduced. The findings will be discussed by the IMO next week when it meets for the second time to develop its initial 2018 greenhouse gas reduction strategy. The UN discussions in London will concentrate on a global emissions reduction target and potential measures for the sector. Regulating ship speed is one of the short-term measures on the table that can be implemented immediately. The IMO is under huge pressure to deliver an effective and adequate response to the Paris agreement and global climate efforts. John Maggs of Seas At Risk and President of Clean Shipping Coalition: "A new regulation to reduce ship speed will be key to the success of the IMO GHG strategy. Only reduced speed can give the fast, deep short-term emissions reductions that are needed for shipping to meet its Paris Agreement obligations. Significant early emissions savings are essential for the long-term decarbonisation of the sector as they preserve shipping's carbon budget and buy the industry time to develop longer-term decarbonisation solutions. Recent suggestions by industry that no new short-term measures are needed is misguided and reckless, and threatens to undermine the IMO strategy right from the start."

[1] Cumulative emissions reductions from a 30% speed reduction amount to over 2.5Gt between 2018-2030. This would put shipping emissions on a downward path even in the absence of other measures. [2] 1.5°C carbon budget for international shipping is 18Gt. Given that international shipping accounts for on average 84% of global shipping, the carbon budget for global shipping can then be extrapolated to be around 21.5Gt.

[3] It takes on average 22 days to transport oilcake from Buenos Aires to Rotterdam via bulk carriers. With slow steaming the journey would take up to 9 days longer, leading to additional expenses (associated with additional sailing days) by up 0.31%. The impact of these additional costs on Argentinean GDP would be insignificant, amounting to no more than a tenth of a percent of the GDP of South American countries. It is unlikely that other countries would experience higher impacts. However, since slow steaming would also reduce fuel costs, net additional expenses could be zero or negative for shipowners. Similarly, if these savings were passed on to the price of exported oilcake sold in Europe, slow steaming would lead to an insignificant impact on Argentinean GDP. Source: Seas At Risk

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(5) Hellenic Shipping News, 18 October 2017/ International Center for Clean Transportation

Global shipping emissions rise as IMO meets to discuss climate action

Emissions of greenhouse gases (GHGs) from global shipping are on the rise again, according to a study released today by the International Council on Clean Transportation (ICCT). This finding increases pressure on policymakers gathering at the International Maritime Organization (IMO) headquarters next week to take action on climate change.

The new study combines state of the art global ship operations (AIS) data with detailed vessel characteristics for more than half a million ships to estimate GHG emissions and air pollution from shipping. Overall, maritime fuel consumption increased from 291 to 298 million tonnes (+2.4%) from 2013 to 2015, compared to a 7% increase in shipping transport work. Accordingly, carbon dioxide (CO2) emissions from global shipping (oceangoing vessels, domestic ships, and fishing vessels) increased from 910 to 932 million tonnes over the same period.

	Third IMO GHG Study (million tonnes)					ICCT (million tonnes)			
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Global CO ₂ Emissions	31,959	32,133	31,822	33,661	34,726	34,968	35,672	36,084	36,062
International Shipping	881	916	858	773	853	805	801	813	812
Domestic Shipping	133	139	75	83	110	87	73	78	78
Fishing	86	80	44	58	58	51	36	39	42
Total Shipping % of global	1,100 3.5%	1,135 3.5%	977 3.1%	914 2.7%	1,021 2.9%	942 2.6%	910 2.5%	930 2.6%	932 2.6%

Table: Shipping CO2 emissions compared to global CO2 emissions

The study highlights that three ship classes and six flag states (country of registration) are responsible for the majority of emissions (Figure). Container ships (23%), bulk carriers (19%) and oil tankers (13%) accounted for more than half of CO2 emissions. In terms of flag states, ships registered to Panama (15%), China (11%), Liberia (9%), Marshall Islands (7%), Singapore (6%), and Malta (5%) were the largest emitters. These flags account for 66% of the global shipping fleet's deadweight tonnage.



Figure: Share of CO2 emissions by ship class (left) and flag state (right), 2013–2015

The study shows that improvements in ship efficiency were outpaced by increases in transport supply over the period studied, driving GHGs and air pollution higher. One contributing factor to this trend is that the biggest ships are speeding up and emitting more. While average speeds remained largely flat between 2013 and 2015 for most ships, the largest oil tankers and container ships sped up nearly 4% and more than 11%, respectively. The study also identifies black carbon as the second most important climate pollutant after CO2, representing between 7 and 21% of the total climate impact of shipping.

"When IMO last looked at this in 2014, shipping emissions had dropped after the Great Recession," said Naya Olmer, the lead author on the report. "We now know that the pendulum has swung back, with emissions again on the rise as global trade expands." "This study shows that business as usual improvements in shipping efficiency will not be enough to reduce GHG emissions from ships," said Dan Rutherford, the ICCT's program director for marine and one of the paper's coauthors. "Concerted action is needed from IMO to promote low and even zero carbon technologies if the shipping industry is to pull its weight in protecting the global climate," he added.

The shipping industry is a major emitter of climate pollution. If it were a country, the global marine transportation sector would have ranked 6th in terms of carbon dioxide (CO2) emissions in 2015, just below Germany and well above Korea. Marine CO2 emissions are projected to double by 2050 as international trade expands unless effective policies are developed to constrain emissions growth. Countries, industry representatives, and non-governmental organizations will gather the week of October 23rd in London to develop IMO's comprehensive GHG strategy for ships, which could include a cap on ship GHG emissions. International shipping was not included in the landmark 2015 Paris climate agreement.

(6) Hellenic Shipping News, 19 October 2017/ Bloomberg

China's Economic Growth Remains Intact as Party Leaders Meet

Robust factory output and consumer spending kept China's economy humming in the third quarter, giving President Xi Jinping a firm footing to rein in excess capacity, curb pollution and shift to a more sustainable growth path.

Key Points

Gross domestic product rose 6.8% in third quarter from year earlier, matching estimate in Bloomberg survey, after 6.9% growth in first half. Retail sales jumped 10.3% in September from a year earlier

Industrial production rose 6.6% last month. Fixed-asset investment climbed 7.5% in first nine months of this year



Big Picture

Enduring economic growth is a welcome tailwind for Communist Party leaders gathering in Beijing this week to map policy for the next five years, with Xi telling delegates that China is transitioning from a rapid growth model to one more focused on high-quality development. The durability of the expansion will be tested after the conclave as leaders press on with their plans to tackle swelling debt, cut excess capacity and clean up pollution.

China will continue with its plan to deleverage and cut capacity, Xi said during his speech at the twice-adecade Communist Party Congress in Beijing, adding that the country will continue opening its doors to foreign businesses, defend against systemic risks, strengthen financial sector regulation, and better coordinate fiscal and monetary policy. Economists in recent months have raised estimates for full-year growth, projecting a 6.7 percent expansion that would match last year's pace, the slowest in a quarter century.

Economist Takeaways

"The growth outcome this year should offer a window for President Xi to push reforms," said Raymond Yeung, chief Greater China economist at Australia & New Zealand Banking Group Ltd. in Hong Kong. "A set of good numbers mirrors a slew of challenges, notably credit growth."

"It's more like a stable growth picture rather than a slowdown," Cui Li, head of macro research at CCB International Holdings Ltd. in Hong Kong, said in a Bloomberg Television interview. "Manufacturing is still under pressure. There are other areas in the economy that are still doing quite well. We still have quite a strong service sector, infrastructure is doing well. These areas are offsetting the weakness in the industrial sector."

"Consumption is the stabilizing factor of the economy, and industrial output actually quickened in September, which was also reflected in the PMI reading," said Grace Ng, an economist at JPMorgan Chase & Co. in Hong Kong. "Growth in the fourth quarter could moderate a bit mainly due to possible slower investment, but in general this year is quite stable. And the emphasis on quality, efficiency and sustainability in President Xi Jinping's party congress speech also would benefit China's development in the long run."

"External demand this year is quite solid, which supports growth, and consumption also is robust," said Wen Bin, a researcher at China Minsheng Banking Corp. in Beijing. "Investment slipped a bit, due to the campaigns to clean up overcapacity and environment, but in general China's economy is showing good momentum."

"We project a further cooling of growth through 2018 amid less accommodative monetary policy," Louis Kuijs, head of Asia economics at Oxford Economics in Hong Kong, wrote in a note. "We expect global demand to ease further in the coming six months, amid cooling import growth in Asia, which should more than offset the improvement in demand growth from the U.S. and Europe."

Bloomberg Intelligence

"China's economy moves into the final months of the year with growth remarkably robust," Bloomberg Intelligence economists Tom Orlik and Fielding Chen, wrote in a report. Even so, "the market's focus on

tighter policy and slower credit expansion as the main channel for reducing financial risks is likely off base. Given a reluctance to sacrifice GDP growth, the emphasis is more likely to be on write-offs of bad loans."

The Details

Consumption, which includes some government spending, contributed 64.5 percent to GDP growth in the first nine months. The economy expanded 1.7 percent from the prior quarter, matching forecasts. Quarter-on-quarter growth for the first three months was revised to 1.4 percent from 1.3 percent, and revised to 1.8 percent from 1.7 percent for the second quarter 10.97 million new jobs were created in the first nine months, putting the labor market on pace to meet the government's full-year job growth target of 11 million early, a spokesman for the statistics bureau said at

government's full-year job growth target of 11 million early, a spokesman for the statistics bureau said a briefing in Beijing

Bloomberg Intelligence's monthly GDP tracker rose to 7.19 percent in September

Growth of private fixed-asset investment slowed to 6 percent in the first nine months from a year earlier, the slowest pace this year

Source: Bloomberg

(7) Hellenic Shipping News, 21 October 2017/ McKinsey Insights

How container shipping could reinvent itself for the digital age

In 1967, the British Transport Docks Board (BTDB) commissioned McKinsey to assess a recent development from America: container boxes.1 The first ships built expressly for this new way of shipping goods had recently been launched, and a few US lines carried them on their regular service. Our report advised the BTDB to rethink everything in light of this new disruption. Today the industry is roiled by another one: digital technologies, big data, the Internet of Things. Let's imagine it 50 years from now:

-Autonomous 50,000-TEU2 ships will plow the seas—perhaps alongside modular, dronelike floating containers—and the volume of container trade will be two to five times what it is today.

-Short-haul intraregional traffic will increase as converging global incomes, automation, and robotics disperse manufacturing footprints. Container flows within the Far East will remain huge, and the second-most significant trade lane may link the region to Africa, with a stopover in South Asia.

-After multiple value-destroying overcapacity and consolidation cycles, three or four major containershipping companies might emerge: digitally enabled independents with a strong customer orientation and innovative commercial practices, or small subsidiaries of tech giants blending the digital and the physical. Freight forwarding as a stand-alone business will be virtually extinct, since digital interactions will reduce the need for intermediaries. All winners, closely connected through data ecosystems, will have fully digitized customer interactions and operating systems.

-A fully autonomous transport chain will extend from loading, stowage, and sailing to unloading directly onto autonomous trains and trucks, with last-mile deliveries by drones.

-Some customers prepared to pay a premium will want container-logistics providers fully integrated into their supply chains. Others will continue to demand the cheapest sea freight. Both will expect transparency and reliability to be the norm, not the exception.

Container-trade growth has slowed since the financial crisis.

Global TEU¹ trade and real GDP growth



¹Twenty-foot equivalent unit. ²Compound annual growth rate.

³Ratio of TEU growth to GDP growth.

McKinsey&Company | Source: Alphaliner; McKinsey analysis

For an industry enduring a deceleration in trade growth (exhibit), this is a daunting agenda. What can executives do to realize it?

First, shipping companies should invest in digital technologies to differentiate their products, disintermediate value chains, improve customer service, raise productivity, and cut costs. The risk is that tech giants and digital disruptors will capture most of the value from customer relationships by moving faster than incumbents.

Second, integrate. Next-generation innovations will have to be orchestrated across the entire value chain. Carriers and terminal operators share an especially rich agenda: bigger vessels paired with infrastructure investments for terminals, transparent ship arrivals and berthing, and larger containers. Integrated logistics providers could make freight forwarders irrelevant by mastering the complexity and the customer interface

Finally, be bold. The shipping industry was built on the vision of strong leaders who dared to sail through the storms. Although it now once again faces a period of disruption—this time from digital technologies—there is a path forward for companies willing and able to seize the day. Container shipping: The next 50 years [PDF] Source: McKinsey Insights