



# ***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**

- Dividing seaborne trade into **developed and developing countries** categories may no longer be as useful a concept as it once was, but it emphasises differences in the contributions (item 1).
- Based on a selection of trades, cargo volumes imported by **developing countries** (heavily influenced by China's activity), seem to have been performing much more strongly recently, compared with those of the developed world represented by North America and Europe. However, it is not altogether clear whether these latest changes in short term trends will persist.
- Controversy surrounding global **ship recycling** is still a prominent feature (item 7). A recent tragic major accident in Pakistan highlighted the ongoing need for improvements in worker safety, and environmental aspects are also at the forefront. Differences between the IMO regulations, awaiting implementation, and the EU's independent regime, have not proved reconcilable.
- The international supply of capital available for **ship financing** has been greatly diminished by the withdrawal of many banks. Bond and equity financing has also retreated and there were no initial public offerings (IPOs) of shipping companies in the past twelve months. Nevertheless, other lending sources have stepped into the void (item 2): alternative source of funding include debt and equity private placements sometimes incorporating export credit agency involvement.

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(1) Clarksons Research, 21 November 2016

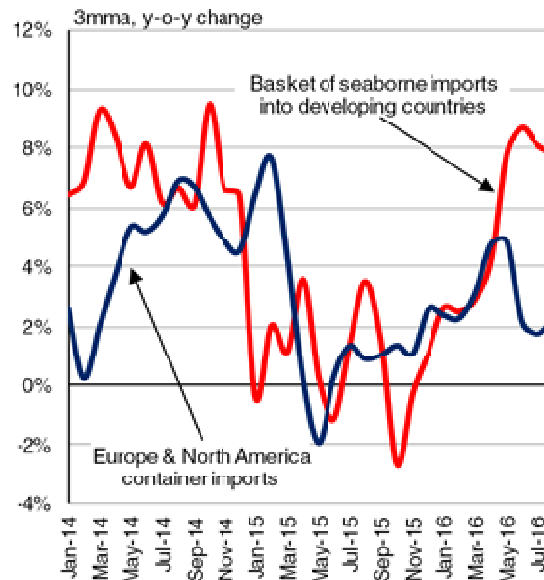
## The Trade Debate: Can Seaborne Trends Shine Any Light?

World seaborne trade, whilst still growing at a relatively steady pace, has seen a slightly less rapid rate of growth since 2015, compared to both the longer-term historical average, and the more recent 2011-14 period. Economists have spent a lot of time sifting through the factors that might be the drivers behind changes in trade growth. What might a look at more detailed seaborne trends add to the argument?

### Graph of the Week

#### Seaborne Trade In The Developed And Developing World : Tracking The Trends

The graph shows the 3-month moving average (3mma) of the y-o-y change in European and North American container imports (blue line) and a basket of developing world imports in tonnes (red line). The developing world basket is based on shipments of iron ore, coal, crude oil, oil products, LNG, LPG and chemicals into the top five developing world importing countries of each cargo in 2015 for which comprehensive monthly data is available.



Source : Clarksons Research

#### So, What's The Argument?

One element of the debate has been whether the slowdown in the rate of trade growth, or at least the apparent reduction of the multiplier over global GDP growth (the so-called 'trade beta'), has been the result of structural shifts in the emerging economies or if it is more closely related to the current sluggish performance of developed economies. Theorists suggest that the former would have a longer-term dampening effect on trade growth, whilst the latter would indicate something, that whilst still a highly negative impact, may improve with time.

Seaborne trade data could help to shine some light on the argument. The red line on the graph shows the 3mma of y-o-y growth in a basket of imports to developing nations (see notes). In 2014, imports rose 7.4%, but growth slowed to 0.5% in 2015 with China's coal imports falling and iron ore imports growing more slowly. But China's imports are far from stuck in the doldrums, and growth in the developing world imports featured here has bounced back to a robust 6.3% so far this year. On this basis, even with China's economy maturing, it does not seem that trade into developing economies is settling into a period of uninterrupted weaker growth.

#### Gone West?

But what about the western world? Well, trends in North American and European consumer imports could be a useful indicator. Growth in container trade into Europe and North America averaged 4.5% in 2014, but slowed to 2.1% in 2015, with European imports falling. In 2016 so far, growth has picked up slightly

(to 2.9%), but has still been fairly moderate. Maybe this supports the view that the more notable brake on trade growth is from soft developed world demand rather than sustained shifts in the developing world?

#### **Wider Trends**

But, in reality, there are other trends in seaborne trade to take into account. For instance, growth in the energy and construction industries in some developed nations has been subdued, and European coal and iron ore imports have fallen. Box trade into some developing nations has come under pressure from low commodity prices. Supply disruptions in exporting nations have also impacted trade, especially in crude oil and minor bulks.

So, global trade growth is not in its prime, and there is debate over the relative impact of developed and developing world trends and their implications for the longer-term. At a glance, seaborne trade data might seem to point towards a bigger issue with western demand than with developing world imports. This is still painful, but the cycle might turn. But seaborne trade highlights that there are a range of other factors at play too. As ever, it is not simple, but as usual seaborne trade trends tell us something about the big debates. Have a nice day.

Source: Clarksons

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(2) Hellenic Shipping News, 28 November 2016/ Norton Rose Fulbright

## **Trends in capital market financing for the international shipping industry**

Capital markets financings have gained traction with the shipping industry in recent years. The issuance of bonds and equity by shipping companies more than doubled in value between 2008 and 2014, as banks, traditionally the industry's main source of funding, became more and more selective in their lending following the global financial crisis and particularly in light of increased regulations under Basel III and the upcoming implementation of Basel IV. The continuing difficulties in obtaining bank financing for the shipping industry can be seen in situations such as the bankruptcy of Hanjin Shipping, South Korea's largest shipping group, which entered into receivership in September 2016 as it was unable to find new financing or restructure its existing debt.

Since 2014 however, increasingly tough trading conditions in the shipping industry have stemmed the flow of capital markets transactions. The oversupply of ships, depressed freight rates, unsustainable debt and negative macroeconomic environment have led to a slowdown in capital markets activity. Bond and equity financing (excluding leasing, M&A and restructuring) dropped from \$23.2 billion in 2014 to \$10.3 billion in 2015. In the first eight months of 2016, approximately \$1.8 billion was raised through bond and equity financing. Given the dramatic reduction in the use of capital markets funding by the industry, where are the opportunities for shipowners now?

#### ***Recent developments in shipping capital markets***

Financing orders for new ships is often one of the initial drivers for capital markets financing. Orders for newbuild ships made in the years following 2008 have resulted in a flood of surplus ships as demand failed to keep pace with capacity, eventually, leading the shipbuilding industry to suffer considerable losses, and a dramatic drop in new orders.

The glut of vessels poses an overcapacity problem exacerbated by global economic conditions. In particular, the slowdown in the Chinese economy has led to a decrease in demand for goods, in turn reducing demand for shipping. Many of the fleets which commissioned new ships are now underutilized, which has simultaneously raised unit costs and reduced revenues. Shipping companies with leased ships have also suffered from the abrupt fall in freight rates in the last few years as many of their charter rates were fixed at high rates during previous boom times.

This toxic mix has affected profitability and the negative results are evident in the capital markets as many listed shipping companies continually trade below net asset value and shipping bonds increasingly default. No major shipping company has successfully pursued an Initial Public Offering (IPO) for over a year. Capital markets proceeds raised by US-listed ship owners in the first half of 2016 amounted to \$944

million, down 59 per cent from the same period in 2015 and down 80 per cent from the same period in 2014.

Regulators have responded to the industry's downturn. A review of recent US-SEC comment letters to shipping companies' filings reveals that the SEC now frequently challenges the use of 10-year historical average charter rates for impairment analysis. The shipping industry had commonly used moving 10-year historical average charter rates as a standard of comparison to capture the market's long-term cyclical highs and lows. However, SEC comment letters to shipping companies often note that because of the recent volatility of the market and the continued poor outlook, shorter term historical average rates may provide a better benchmark. Shifting to average rates over a shorter period of time results in decreasing the value of the ships, which in turn negatively impacts the companies' financial condition. Changes in disclosure practices for registered deals are often eventually adopted into Rule 144A and subsequently Regulation S deals. Increasing requirements for negative disclosure may have a discouraging effect on shipping companies concerned about releasing sensitive business information.

### ***Alternative financing options***

Despite the current gloomy market conditions, shipping companies are exploring a variety of alternative funding through different financing options as evidenced by our recent The way ahead transport survey. Export credit agency (ECA) financing has become one of the most popular sources of alternative funding in recent years. Before 2008, ECAs accounted for approximately 10 per cent of shipping and offshore-related debt finance. Since then, their contribution has increased to over 33 per cent.

One example of how ECAs are supporting capital markets financings is a \$200 million fixed rate bond offering by ICBC Financial Leasing. This transaction, which completed in February 2016, was a combination of a commercial facility, an ECA-backed facility and a bond offering. It was also a debut collaboration between a Chinese financial lessor and the Export-Import Bank of Korea, which guaranteed the bond as the ECA lender, to support the financing of high-end ships built in Korea for use by leading global operators. This deal demonstrated that even during downturns, the capital markets are still open for the right kinds of transactions. The stability provided by an ECA-backed bond with major banks as underwriters sparked sufficient interest to support a bond deal at favorable pricing terms.

Another recent trend is the use of debt and equity private placements to obtain financing. According to IHS Fairplay, in the first half of 2014 and 2015, private placements accounted for less than 1 per cent of proceeds raised in the capital markets by US-listed ship owners, whereas in the first half of 2016, private placements accounted for approximately 70 per cent of such proceeds. With public investors on Wall Street reluctant to invest in a volatile market, the shipping industry has turned to smaller and more targeted private placements, including private equity funds created by capital management companies focusing on the shipping industry. Debt capital markets transactions are also attractive to shipping companies since they provide longer maturities, fixed rates and higher flexibility in extending credit for riskier projects that banks do not finance.

### ***The future***

The shipping business is ultimately cyclical. Newbuilds have already dropped off and the surplus of ships will eventually diminish as older ships are retired and shipping demand picks up. A significant drop in oil prices in early 2016 increased oil tanker transport and helped keep freight costs manageable. However, dry bulk and container shipping markets remain in a slump which has not been fully mitigated.

The overall shipping market remains vulnerable due to the slowdown in global economic activity. Industry experts believe it will likely be a year or two before industry recovers and are generally not optimistic about the prospects of the IPO market in the near term. In the meantime, shipping companies will continue to seek financing through alternative capital markets options. Debt deals are possible for the right names and where the structure is robust, such as with the participation of a major ECA. The equity market will likely continue to be driven by private financing.

Source: Norton Rose Fulbright

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(3) Hellenic Shipping News, 28 November 2016/ Nikkei

## Shipping lines plunge into a war of attrition

In early September, disturbing reports emerged that ships owned by Hanjin Shipping, a big South Korean container line that collapsed in late August, were being kept at sea because of fears that their cargoes would be seized if they docked. The news came as a shock to Japanese shipping companies, in particular.

At the time, Japan's three major lines — Nippon Yusen, Mitsui O.S.K. Lines and Kawasaki Kisen Kaisha — were in talks about integrating their container businesses. Container shipping is the core of all three companies, accounting for 30% to 50% of total revenues. But at today's low shipping rates, they are expecting to post combined net losses of more than 500 billion yen (\$4.51 billion) for fiscal 2015 and 2016. The three companies knew they could no longer afford to operate separately.

The hardships of Hanjin, which was larger than any of the three Japanese lines, spurred their talks. On Oct. 31, they announced that they will split off and consolidate their container businesses in a joint venture in July 2017. The companies said they expect 110 billion yen worth of annual cost reductions. The new entity will have the world's sixth-largest container carrying capacity.

"Container [shipping] is the basis of world trade. It is an essential infrastructure for our customers," Mitsui O.S.K. President Junichiro Ikeda said when the deal was announced. "However, considering the current business environment, it is very difficult for us to carry out the mission."

The problems facing the shipping industry are a consequence of structural changes in world trade over the last few years that have reduced growth in demand for container capacity.

A good example is Taiwan Semiconductor Manufacturing Co.'s decision in March to build a factory in Nanjing, China, to avoid the cost of shipping chips from Taiwan to the Chinese plants that account for much of its production. Rival semiconductor makers Intel and Samsung Electronics already have factories in China, and are expected to make investments to boost production there, for similar reasons. Chinese manufacturers of liquid crystal display panels, used for TVs and smartphones, are also making large investments so that they will not have to rely on imports.

These developments — along with many others — have created the phenomenon of "slow trade," in which global trade volumes grow more slowly than the world economy.

Until the 2008 global financial crisis, trade growth outpaced economic expansion in most years. But since 2012, the two growth rates have been roughly similar. The World Trade Organization forecast in September that global trade volumes in 2016 will increase by 1.7% on the year, compared with projected global economic growth of 2.2%.

Improved manufacturing technologies and rising income levels in emerging economies have reinforced this trend. Companies have become better able and more inclined to make products locally. Narrowing wage gaps between developing and industrialized countries have made the conventional system of producing goods in countries with cheap labor and exporting them to richer nations less attractive. Economies have also become more dependent on online services, for which shipping capacity is irrelevant.

"The world's population is growing and people want to dress better, eat better and lead a more comfortable life," Nippon Yusen President Tadaaki Naito said. "These desires definitely support trade flows. However, the 'local production for local consumption' trend, and mass production in suitable places, may change the way goods are traded."

The growing trend toward anti-globalization is also likely to hinder physical trade. In the most dramatic example, U.S. President-elect Donald Trump has said that he will pull America out of the 12-country Trans-Pacific Partnership trade agreement. If protectionism leads other countries to shield themselves, or prompts them to create stronger regional trading blocs, global trade expansion could stall. Takashi Masuda, chief economist at Toray Corporate Business Research in Tokyo, said that Trump's protectionist economic policies will aggravate slow trade, if they are implemented.

But shipping lines have been investing heavily to expand their capacity, seeking greater cost efficiency.

The growth rate for supply in container shipping was 8% in 2015, compared with growth in demand of 2%, according to data collected by the United Nations Conference on Trade and Development. As of Nov. 9, a total of 224 ships were on the order books of the top 20 lines, according to shipping data provider Alphaliner.

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The gap between supply and demand has pushed down container rates, especially on major routes. The Shanghai Shipping Exchange's benchmark China Containerized Freight Index reached 1,300 in 2012. But the index has fallen to less than 1,000 since April 2015. "More shipments mean greater losses," said one shipping industry executive.

The collapse of Hanjin helped tighten the supply-demand balance by removing its ships from the equation, but the market outlook is unclear because Hanjin's assets are being absorbed by other lines. Rates for bulk carriers, which transport products such as iron ore and coal, have also remained low. The benchmark Baltic Dry Index hit a record low of 290 in February. The index recovered to 1,000 in mid-November, but it remains far below its peak of 11,793 in 2008.

### **New motivation**

Amid the structural changes in world trade, the driving forces behind industry consolidation have also changed. U.K. maritime and shipping industry research company Drewry said that consolidation before 2008 was driven by "a desire for growth." But mergers in the past few years have been "more about survival and the need to address structural industry problems."

The best example is Singapore's Neptune Orient Lines, which was sold earlier this year to France's CMA CGM, the world's third-largest shipping company.

Until 2008, NOL was expanding fast. It acquired American President Lines, the biggest operator in the Pacific container trade, in 1997. In 2008, the Singaporean company made a serious bid for Germany's Hapag-Lloyd, another major container transporter.

After eight months of talks, NOL walked away from that deal as the economic outlook darkened. But NOL failed to maintain cost competitiveness against other major lines, which reaped economies of scale by investing millions of dollars in huge new containerships. The company's acquisition by CMA CGM underscores the difficulties facing midsize container lines in the current protracted downturn.

Two other significant industry consolidations have occurred this year. In February, a pair of state-owned Chinese shipping lines merged to form China Cosco Shipping Group, now the world's fourth-largest operator. Hapag-Lloyd is merging with United Arab Shipping, the biggest player in the Middle East, becoming the world's fifth-largest.

At the same time, many companies are joining loosely structured containership partnerships in an effort to keep their vessels occupied. Denmark's A.P. Moller-Maersk and Switzerland's Mediterranean Shipping Company launched the 2M alliance in 2015. CMA CGM and China Cosco, among others, have agreed to form a partnership named the Ocean Alliance.

Governments are also stepping in to support their struggling shipping lines. On Oct. 31, the South Korean government announced that it will establish a state-backed ship financing company with initial capital of 1 trillion won (\$845 million). In July, Korea Development Bank swapped debts owed by Hyundai Merchant Marine for equity, becoming the largest shareholder in the company.

Not to be outdone, the Taiwanese government on Nov. 15 announced a financial relief package worth 60 billion New Taiwan dollars (\$1.87 billion) to help local shipping lines including Evergreen Marine and Yang Ming Marine Transport. Both are among the world's 10 largest shipping companies.

### **Scramble for scale**

With weak industry fundamentals likely to persist, the world's shipping lines seem to be entering a war of attrition, with a focus on achieving economies of scale through acquisitions. It is a war in which further casualties seem inevitable.

Even for the Japanese trio, the joint venture's success is not guaranteed. The new company will have capacity of 1.38 million 20-foot equivalent units, or TEUs. That amounts to 7% of the world market as of October, versus A.P. Moller-Maersk's 16% and Mediterranean Shipping's 14%.

Without effective growth strategies, the Japanese shipping lines may find themselves involved in an unwinnable battle for scale, which might trigger further mergers. In an early and unsettling sign, some Chinese clients have already begun to shift business to the new Chinese shipping company, which charges lower rates than the Japanese lines and presents no language or cultural hurdles.

After the announcement of the Japanese joint venture, Mitsui O.S.K.'s Ikeda said: "It is meaningful for us to be in the top six. I think the environment for container shipping will be different from what we have seen so far."

The conditions for the Japanese trio may not be as favorable as they think.

“Alliances, along with mergers and acquisitions, have been a response to the low-growth environment, where a significant number of carriers have not made money in the recent past,” Neil Dekker, Drewry’s director of container research, said after the Japanese announcement in October. “We anticipate further consolidation activity, but the industry may need to wait until the earnings impact of the consolidation becomes tangible.”

Amid the quest for greater scale, some shipping lines are also extending their reach beyond ports. Kawasaki Kisen, for example, has widened the scope of its auto transport business in Vietnam to include deliveries to dealerships. The company used to unload cars at the dockside and call it a day; now it handles customs clearance procedures, vehicle registration applications, storage, pre-delivery inspections and even simple component installations.

Building new businesses and cutting costs are both vital for growth in this harsh environment. Shipping lines’ ability to change tack will be put to the test.

Source: Nikkei

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(4) Clarksons Research, 25 November 2016

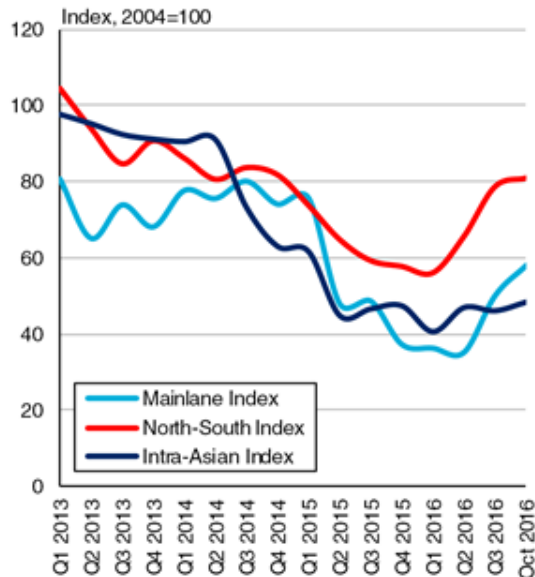
## Trekking The Trade Lanes: Exploring Freight Rate Trends

For most of the last two years, spot container freight rates have generally remained under significant pressure, falling to historically depressed levels in 1H 2016. However, in the last few months, freight rates seem to have bottomed out, with improvements apparent on some routes. Despite this, the freight market environment overall still has a way to climb before fully leaving challenging landscapes behind.

### Graph of the Month

#### Precarious Paths For The Container Freight Market

The lines show the quarterly average of composite container freight rate indices for mainlane routes (basis peak leg Far East-Europe and Transpacific) and a 'basket' of North-South and intra-Asian routes. Indices derived from component regional freight rate data and calculated using fixed trade volume weights, basis 2004 average=100.



Source : Clarksons Research

#### Meandering Mainlanes

In early 2016, freight rates on the key Far East-Europe and Transpacific routes fell to historical lows. The mainlane freight rate index averaged 35 points in Q2 2016, down from 76 points in Q1 2015. So far this year, the lowest SCFI rate on the Shanghai-Europe route was just \$205/TEU in March, while the Shanghai-USWC rate fell to \$725/FEU in April. However, in Q3, rates on the mainlanes began to climb.



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Average rates in Q3 on the Shanghai-Europe and Shanghai-USWC routes rose 60% and 75% q-o-q respectively, albeit from a low base.

One key driver of this improvement was the collapse of Hanjin Shipping and subsequent withdrawal of deployed capacity at the end of August. Hanjin operated vessels accounted for 6% of capacity deployed on the Far East-Europe route and 9% on the Transpacific at the start of August. As a result, with limited capacity immediately replaced by other operators, estimated running capacity on both routes fell during Q3. Improvement was sustained into Q4, with SCFI rates from Shanghai to Europe and the USWC in October averaging \$825/TEU and \$1,955/FEU respectively. Despite the recent improvement, mainlane rates remain volatile and still at lower levels than in 2013-14, with major operators reporting weak financial results in Q3.

#### **North-South Scramble**

Meanwhile, freight rates on the North-South trades languished at historical lows throughout 2015 and early 2016, largely reflecting weak trade growth. However, the featured freight rate index for North-South trades picked up in Q2 2016 and climbed sharply to 81 points by October. However, two separate trends have been apparent. The rise largely reflects the Far East-Latin America component, where operators have withdrawn a significant amount of deployed capacity. Meanwhile, other North-South rates have recently bottomed out, but remain at weak levels.

#### **Intra-Asian Amble**

On the intra-Asian routes, rates faced sharp declines throughout 2014-15 partly reflecting a slowdown in trade growth last year, and the intra-Asian freight rate index fell from 91 points in Q2 2014 to 46 points in Q3 2016. However, rates bottomed out in 1H 2016, with slight improvement on some intra-Asian routes in recent months. The intra-Asian freight rate index stood at 48 points in October, up marginally from 39 points in January.

#### **Not Out Of The Woods Yet**

So, while rates on some routes appear to have improved, the freight rate environment still remains challenging. However, further gains may still be achieved, although they will be hard won. With significant pressures remaining, for many operators navigating the freight market will still be far from a walk in the park.

Source: Clarksons

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(5) Hellenic Shipping News, 22 November 2016/ China Daily

## **Shanghai: Global shipping center by 2020**

The development of digitalized shipping services, economic initiatives and Pilot Free Trade Zone will push Shanghai to the status of an international shipping center by 2020.

It will thus compete with other established rivals like Singapore and Tokyo in the Asia-Pacific region, said officials.

The central government in 2009 set a target of developing Shanghai as an international shipping center in 2020.

The city will be allocated shipping resources on a global scale. This will help send goods from in and around Shanghai to many more destinations using shipping services. Soon, Shanghai will likely emerge as a key logistical part of the world's supply chain.

Zhen Hong, secretary-general of the Shanghai International Shipping Institute, said trade via shipping services will help the finance integration of information technology and digital solutions into the industry. Shanghai's share of high value-added shipping services will rise, thanks to the development the Yangtze River Economic Belt and the 21st Century Maritime Silk Road.

Shanghai currently ranks sixth among the world's top shipping centers like New York, London and Dubai, according to the Xinhua-Baltic Exchange International Shipping Center Development Index.

Its container throughput continued to rank first in the world, rising to 36.54 million twenty-foot equivalent units, or TEUs, in 2015, while international container transfers were up at 2.53 million TEUs.

"However, we are aware there are many difficulties that need to be overcome," said Zhen.

He said space at the port is scarce for future development, structural contradictions are obvious, while collection and dispatch systems need further optimization.



Besides, the highways-railways ratio is skewed with highways excessively large compared to railways, which could affect the city's ability to reach its goal by 2020.

"As a shipping services cluster, Shanghai today is mainly focused on supporting Chinese shipowners and those who charter vessels. It has a successful mix of home-grown businesses and a growing number of international firms that have regional offices in the city," said Jeremy Penn, chief executive officer of the London-based Baltic Exchange.

The next big step for Shanghai is to establish a competitive environment that attracts the head offices of global companies, and provide a standard of service that is comparable with the more established maritime cluster hubs of London, Singapore and New York.

There are currently nearly 1,700 international marine transport and related business units in Shanghai. The world's nine classification societies have all opened branches in the city.

Source: China Daily

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(6) Hellenic Shipping News, 24 November 2016/ Shanghai Daily

## Automation transforms operations at ports

Chinese ports, which once thrived on coolie labor to lade and unload cargo, are increasingly turning to mechanization that will create modern ports with small workforces and fully computerized operations.

Automated ports can operate around the clock, handling cargoes according to strict schedules. It gives ports a competitive advantage in a world where container shipping has slowed. Shanghai, the world's largest container port, is at the vanguard of change.

Shanghai International Port Group, China's largest port company, released a video last week promoting its upcoming automated operations at the Yangshan Deep-Water Port in the southeast of the city.

China has been a bit of a latecomer in mechanized ports, but it is catching up rapidly. The new control systems operate 30 percent faster and more efficiently than conventional ports and reduce the workforce by up to 70 percent. As labor costs in China rise, that's an important factor in cost competitiveness.

The changes will add 6.3 million TEUs a year to the Shanghai port system, enabling it to reach 40 million TEUs a year. TEU stands for twenty-foot equivalent units, and one standard container equals one TEU. The goal, once reached, will mean that Shanghai is handling cargo equivalent to the annual tonnage at all ports across the US and 10 percent of global cargo a year.

"Ports all over the world are upgrading," said Wang Chen, an engineer at Shanghai Zhenhua Heavy Industries Co, an equipment and systems provider at Yangshan and also the world's biggest crane producer. "It's getting more difficult to recruit and retain port workers."

Two years ago, Shanghai International Port announced plans to link up with Zhenhua to automate cargo handling. The company is in hot demand up and down the eastern coast of China to help modernize ports, including cargo operations in Xiamen, Qingdao and Tangshan.

"Port managers tell me that young people in China nowadays don't want to do the repetitive, tough work at ports," Wang said.

Freed labor

Yan Yunfu, executive director at Zhenhua, said crane operators in particular work under hard, stressful conditions that can lead to serious back problems. It takes at least half a year to train such operators and many just stay a year or two, making good money before they move on for health reasons.

According to job-hunting websites in China, a novice quay crane driver in Tianjin two years ago could earn 6,000 yuan (US\$871) a month, while today it's hard to find applicants for the same position in Guangzhou at less than 10,000 yuan per month.

That's where automation becomes a godsend. At Singapore's Pasir Panjang, Terminal 5, crane operators sit in air-conditioned control rooms where they remotely guide cranes on the quay.

By maneuvering joysticks and pressing buttons, the operators can look at screens that give them real time pictures of moving containers.

Siemens, the German-based industrial giant, has helped make work at the Singapore port even easier by freeing up the truck drivers who normally convey containers to storage areas after unloading.

The vehicles and gantry cranes run automatically, handling 30 containers an hour, according to Christian Kogl, senior vice president of Siemens' crane business.

The process eliminates human error and safety risks, with a record of 20,000 hours of operations without any breakdowns or injuries.

Last year, PSA Singapore terminals handled 30.62 million TEUs, ranking just behind the 36.5 million TEUs in Shanghai. Singapore remains the world's biggest trans-shipment hub, while Shanghai leads on throughput.

Next year, fully automated operations will begin at Yangshan.

Zhenhua, with 80 percent of the global market, said it relishes the challenge of arming Chinese ports with advanced digital software that links all the equipment into one integrated control system.

"Although Siemens has excellent electric components and reliable systems, we have developed top-tier industrial know-how," Yan said.

Ports in progress will be essentially unmanned in the future.

"We will trim down time significantly," Yan said. "We are making decisions for the future that will have long-term positive effects."

Source: Shanghai Daily

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(7) Lloyd's List, 23 November 2016

## Ship recycling torn between looming regulations

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- by Anastassios Adamopoulos

Life-threatening risks persist within shipping's unregulated frontier as governments weigh their options

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A FATAL accident and reports of questionable working conditions have highlighted ship recycling's unregulated state and have reignited the debate on the best path forward for both shipyard workers and the environment.

The perils of ship recycling were propelled to the forefront when [a fire at the Gadani shipyard](#) in Pakistan caused by the explosion of an oil tanker killed 21 people and injured many more in early November. The incident has raised renewed questions about the best way to ensure safety during the process of ship recycling.

Recent revelations that Maersk Line sent two vessels to be scrapped at ship recycling facility Shree Ram, in Alang, India, where it knew worker safety and environmental standards were proven to be [below par](#), have added fuel to the fire.

Amid heightened debate, shipowners and shipyards are faced with two regulatory regimes: the International Maritime Organization's Hong Kong Convention and the European Union's Ship Recycling Regulation. The two regulatory pieces impose obligations for shipowners and ship recyclers to ensure vessels are recycled safely and in an environmentally friendly way.

Although the EU's regulation largely incorporates the IMO's regulations, such as an inventory of the hazardous materials on board vessels destined for recycling, there are differences between the two treaties.

One main difference is that the EU regulates for the protection of intertidal zones and calls for recycling facilities to handle hazardous materials and waste only on 'impermeable floors', essentially banning beaching, whereby the IMO rules contain no such provision.

Additionally, while both treaties call for the transport of waste to correct treatment facilities, the EU also demands that recyclers report the specific method of waste treatment. Moreover, the EU mandates that independent inspectors, aside from national authorities or surveyors entrusted by them, must examine shipyards outside the European bloc to assess eligibility for inclusion on a list of EU-approved shipyards.

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Panama's recent adoption of the HKC and the anticipated implementation of the EU Ship Recycling Regulation raise questions about how the industry will be governed in the future.

Ship cash buyer GMS president Anil Sharma, who has been in ship recycling for around 25 years, told Lloyd's List that the greatest challenges the industry faces today are in fact regulatory, particularly with regards to the direction countries are considering taking.

Dr Sharma praised the HKC for being the first global regulatory piece to really consider responsible recycling, and sees it as a great leap forward for the industry. GMS pushes for the application of the Hong Kong Convention in the shipyards it deals with.

Adopted in 2009, the treaty so far has five signatories: Belgium, Congo, France and Norway, with Panama [being the latest to endorse](#) in September. Participation is significantly below the 15-country minimum required for it to come into effect.

Panama's ratification raised the global merchant shipping tonnage backing the treaty to 20.34%, just over half of the 40% that is required to trigger the convention. Meanwhile, Denmark has signalled its desire to jump on board as well, saying it is planning to sign the treaty in 2017.

Another stipulation is that signatories must in total recycle at least 3% of their shipping tonnage on an annual basis. China, Pakistan, India, Bangladesh and Turkey account for 95% of global ship recycling, according to GMS. None of these countries have ratified the treaty thus far.

IMO media and communications officer Natasha Brown told Lloyd's List the organisation understood that a number of countries were considering ratifying the convention, but did not name any.

"One of the major barriers for major ship recycling countries in acceding to the HKC may be the fact or the perception among their ship recycling industry that they may not have the necessary capacity to meet the requirements of the convention, thus affecting their competitiveness," she said.

"Some other major barriers might be the limited capacities within these countries to undertake the relevant legal, policy and institutional reform process to move towards accession and implementation of the convention."

Dr Sharma echoed this sentiment, noting that GMS was invited by the Indian Ministry of Shipping to help explain why the HKC would be beneficial for India. He said that the government was confused with the introduction of the EU regulation and wondered whether HKC would be a negative thing for India.

The EU Ship Recycling Regulation, ratified in 2013 and expected to go into effect in 2018, mandates that shipowners with vessels using EU flags recycle these vessels only at EU-approved shipyards that will be included in the aforementioned list, the first version of which is expected to be published by no later than the end of 2016.

### **Easier in the Indian subcontinent**

The headline risk, that is owners being reluctant to send their vessels to shipyards in the Indian subcontinent out of fear of the negative connotations that these shipyards have, is still a prevalent problem in the sector, Dr Sharma noted. However, from a technical point of view it could actually be easier to introduce new safety and environmental standards into these shipyards than those in Europe or North America.

"It's much easier to teach responsible recycling to yards which already are providing the best bang for the buck than to go to a country or to a yard which can do responsible recycling but the economic fundamentals don't justify the higher price," he said.

In the context of promoting responsible ship recycling and the HKC, the IMO has been in close contact with the government of Bangladesh to upgrade Bangladeshi shipyards.

"The project is aimed at improving the safety and environmental standards within the Bangladesh ship recycling industry and assisting the industry to meet the requirements of the Hong Kong Convention. In the long term, the Government of Bangladesh may be in a position to accede to the Hong Kong Convention," the IMO said.

The plan, launched in 2015 and dubbed SENSREC (Safe and Environmentally Sound Ship Recycling in Bangladesh), includes environmental and economic studies, plans for hazardous waste management and training in different fronts, among other policies. The project's first phase will conclude by the end of this year.

But not everyone perceives the HKC to be the antidote to the sector's struggles. Brussels-based NGO Shipbreaking Platform warned that the convention did not address the main problems surrounding ship recycling safety today.

"The Hong Kong Convention has no clear recommendations on moving away from the tidal beaches. So the requirements can be interpreted in a way to still allow for ocean-going vessels full of a ship paints that contain heavy metals and all residues to continue to be broken in the intertidal zone," NGO Shipbreaking Platform policy director Ingvild Jenssen told Lloyd's List.

Ms Jenssen also claimed that the convention did not consider the ways that waste is dealt with downstream, and thus did not ensure high enough standards for workers. She further accused the treaty of being completely devoid of any real enforcement mechanisms as the ship recycling states and the individual flag vessel nations would be responsible for applying the regulation.

While the IMO falls short of what the Shipbreaking Platform would deem adequate, the EU Ship Recycling Regulation will do the trick.

"If you compare the Hong Kong convention with the EU Ship Recycling Regulation, I would say any shipowner that wants to truly be sure that the vessel is broken in a sustainable way should opt for an EU-listed facility," she said, adding that she sees interest from shipyards around the globe eager to get on the EU list.

While Dr Sharma argued that the EU regulation impeded the HKC's progress as it led to debates within countries about which path to take between the two, Ms Jensen said that the EU's regulation included most of the HKC's provisions and thus was not a barrier but goes beyond it in environmental and safety requirements, as well as in auditing and shipyard certification.

Ms Brown noted that as far as the EU was concerned, the IMO deals with the bloc only when it receives a request for assistance. The EU is an independent body that has its own decision-making process, she said.

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(8) Hellenic Shipping News, 24 November 2016/ First Post

## India far behind in port related development than China

Underlining India's inability to optimize on its richly endowed maritime advantages in the last half a century, the report says that China leads India by a factor of seven times to 16 times on the measured parameters.

The report says that between ports and power production stations, India requires linkages that would optimize the cost of fuel transportation, a lack of which has caused high energy production cost. Energy costs 19 cents per kilo watt hour in India whereas it costs 11 cents per kilowatt hour in China.

Electricity production is also higher in China due to aggressive port-led development carried out by it in the recent past. When the neighboring nation produces 5,000 billion kilo watt hours of power, India generates only 1,000 billion kilowatt hours.

China fares seven times higher in number of petro-chemical crackers those have come up due to port-led development. The neighboring country has established as many as 46 petro-chemical crackers in comparison to only 7 in India.

Cheaper raw materials made possible by port-led development has triggered 823 million ton of steel production in China. In India raw materials travel long distances to production centres, which is time consuming, as a result of which the country produces only 87 million tons of steel.

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For the same reason cement production is as high as 2,480 million ton per year in China due to port-led development and India lags behind at 280 million ton.

The report further says that, despite having 7,500 kilometres of coastline, none among the 200 Indian ports figure in the list of global top 20.

Lack of seamless connectivity high transportation costs in India in terms of both time and money. Export Import containers travel a distance of 700 to 1000 kilometres between production centre and ports in a stark contrast to 150 to 300 kilometres in China.

A container travels around 7 to 17 days from the hinterland to vessel as compared to 6 days in china.

Moreover, Indian ports are generally small where vessels of the size of 5,000 TEUs can call at, whereas in China the average size is 12,000 TEUs. This has led to increase in transshipment cost for India.

The report says that 25 percent of transshipment is carried in Singapore and Srilanka, resulting to a huge loss in business.

Even as India coughs up 14 percent of it's GDP in freight expenditure, only Yangtze river system in China equipped with as many as 92 ports and 13 waterways generates a whopping 20 percent of the country's GDP.

This very study done by Ministry of Shipping underlines what it takes to be a economic power house that China is.

The much talked about Sagarmala project initiated by the ministry of Shipping aims at plugging these lacunas in India's coastal and inland transport system by a multi-pronged approach.

Source: First Post

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