



# ***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.*

## **Contents**

- (1) Shipbuilders face rapidly diminishing order books for new ships
- (2) Ports and shipping: an argument for a closer relationship
- (3) Return to profitability in the bulk carrier sector approaching, perhaps
- (4) Bulk carrier fleet supply surging, temporarily
- (5) China's investment in Southern Europe's port facilities and infrastructure
- (6) UK seeking greater maritime collaboration with China
- (7) Global seaborne trade growth: how is it progressing?
- (8) Changing trade patterns in the liquefied natural gas (LNG) market

## **Editorial comments**

- Many **shipbuilding yards** in a number of countries have rapidly diminishing orderbooks and are approaching the end of their workload (item 1). Currently there are no obvious signs of a pickup.
- Changes taking place in supply chains suggest that **ports and shipping services** would benefit from more cooperation, adopting complementary technologies and business practices (item 2).
- What potential restraints on a return to **more robust seaborne trade growth** are visible? An analysis in item 7 points out that there is a wide range of seemingly threatening influences but, nevertheless, a few positive influences have emerged.
- In the **bulk carrier market**, a period of profitable freight rates could arise within the next two years (item 3), provided that fleet growth remains subdued. However, this prospect is not being assisted by the current brisk rate of supply side expansion, which may prove temporary (item 4).
- Among southern European countries, **Chinese investment in ports** and other transport links has been welcomed, enabling substantial upgrading to occur (item 5). Some aspects of this evolving pattern are proving controversial, though.
- Strenuous efforts to promote **UK maritime collaboration with China** are especially prominent currently, with a delegation of government ministers and maritime industry figures planning to visit China later this month (item 6).

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(1) Clarksons Research, 10 March 2017

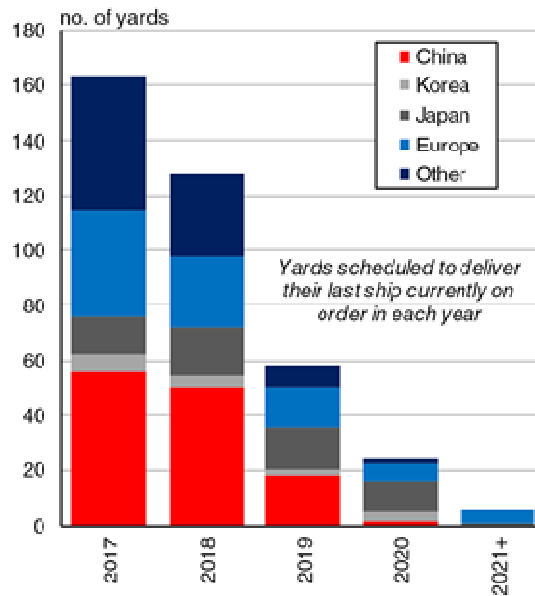
## Looking Ahead, But How Long For?

After a long cycle of build-up in capacity in the 2000s, shipyards hit a new peak in global output in 2010. Since then, the impact of reduced vessel ordering on shipbuilders worldwide has been a key issue for the industry, and it's clear that global output has dropped significantly and shipyard capacity has diminished. But how far can those shipyards still active look ahead today?

### Graph of the Week

#### Global Shipbuilders: How Long Will The Work Last For?

The graph shows the number of yards scheduled to deliver their last ship currently on order in each year. The 2017 total includes a small number of yards who have already delivered the last unit on their orderbook in the year to date. The data includes all yards with merchant and 'ship-shaped' offshore units 1,000+ GT on order.



Source : Clarksons Research

### Looking Forward

Forward cover' is one basic indicator of the volume of work that shipyards have on order, calculated by dividing the total orderbook by the last year's output (in CGT). Unsurprisingly, after a period of extremely low ordering in 2016, forward cover has shortened. Currently, global forward cover stands at 2.3 years having declined throughout 2016, as the orderbook shrank by 25% in CGT terms. Global forward cover was as low as 2.1 years at the start of 2013 (but delivery volumes in 2012 were 37% higher than in 2016) and peaked at 5.6 years in 2008.

Looking around the shipbuilding world, yards in Korea currently have the lowest level of cover at 1.5 years. European yards, meanwhile, bucked the trend in 2016, increasing their forward cover on the back of cruise ship orders (and falling production volumes) to 4.2 years.

### Less To Go Round

Fewer fresh orders have also led to a greater number of yards ending the year without receiving a single contract. During 2005-08, the number of yards to take at least one order was on average equivalent to 87% of the number of yards active (with at least one unit on order) at the start of the year. In 2009-15, with ordering generally lower, the figure averaged 49%. In 2016 this fell further to 28%, with just 133 yards receiving an order. In China, 48 yards (26 of which were state-backed) won an order in 2016 compared to 284 yards in 2007. In Japan, 22 yards took an order in 2016 compared to 60 as recently as 2015. In Korea, 11 shipyards took an order last year.

### Out Of Work?

Whilst many yards have tried to cope with the lower demand environment by slowing production or working outside their traditional product range, the statistics clearly point to huge challenges. In 2016, 117

yards delivered the final unit on their orderbook. The peak production level of these yards, many of them smaller builders, totals around 4m CGT. However, 163 yards are scheduled to deliver their current orderbook by the end of 2017 (although in reality slippage may mean some of the work runs on past the end of the year). Statistically, this represents 43% of the number of yards active at the start of the year. Although these yards have been reining back capacity and outputting less in recent years, the peak production level of this set of yards totals as much as 12m CGT. Offshore builders of course face huge pressures too, with about half of those active scheduled to deliver their final unit on order this year. Global shipyard output and capacity have fallen significantly since the peak years. However, many remaining yards still don't need to look too far ahead to see the end of their current workload. The shipbuilding industry will be hoping to see a return to a more active newbuilding market sooner rather than later.

Source: Clarksons

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(2) Hellenic Shipping News, 13 March 2017/ Port Strategy

## Innovate and standardise

The global shipping industry faces a series of challenges that together have the power to re-shape some strongly-held assumptions about its future growth and direction. The global ports community is no different; the potential for changes in demand, to business relationships and infrastructure development is considerable.

Shipping and ports form crucial links in a supply chain that is also becoming increasingly digital and ever more transparent. In order to prosper in the long term there is an emerging understanding that they must work much more closely, adopting complementary technologies and business practices.

The industry downturn that began in 2008 made clear that shipping had the potential to operate at a much higher level of efficiency than previously. The classical response in such circumstances is to cut costs and seek 'low-hanging' improvements. This may have removed some short term pain but it is clear that the more fundamental problems have not been solved.

This inefficiency means that, for sectors which are highly commoditised and for the most part debt-financed, there is a real threat of disruption and transformation from 'asset-light' players. In both shipping and ports sectors, there is a huge amount of finance and capacity at risk.

### **Better and faster**

Whether supply chain newcomers really view shipping and ports as lucrative markets ripe for disruption is open to question. Just as likely is that larger shippers simply want the existing arrangements to work better and faster than they have in the past.

Information and Communications Technology is key to this conversation because it reflects the potential for exponential advances in adoption, a wave that will quickly overwhelm the industry's traditionally slow attitude to technology take-up.

Advances not just in processing power and mobility, but also battery performance, bandwidth and network deployment are fundamentally affecting our relationships to ICT.

We spend a lot of time talking with the market leaders across shipping and ports to help them understand that investment in ICT not only provides short term efficiency, but can also optimise their business and enable them to be future-ready.

It is true that large ports and shipping companies often have big IT budgets but the majority is for consumables rather than for strategic investments. Our understanding is that few players in the industry are yet to fully understand that ICT can be one of the key factors for much more fundamental change.

There is very little opposition to the argument that the information and operational links between ship and ports and terminal need to be increased and improved. To begin that process requires an engagement on a number of levels.

### **Standardise first**

The first principle to grasp is that the application of standardisation in ICT will allow technology adoption and therefore collaboration to occur at an accelerated rate.

With standardisation comes the ability to properly analyse business needs and get a real understanding of the value of data residing within an enterprise. Once this is done it is possible to create new tools to unlock that value and create collaborative relationships.

The obstacles to this approach are not all, as one might assume, all financial. The biggest barrier tends to be the industry's home-grown IT environment which has created a protectionist approach towards standardised, open systems.

But ports and shipping companies alike are coming to understand that a system that stops at the terminal gate or that fails to give their customers access and cannot respond to changing demands, is going to put them at a disadvantage.

In Greece, Ericsson has provisioned port and terminal customers with ICT for automated gate access, in-motion weighing and systems integration, transforming a range of manual processes into a fully automatic system, with information shared across the ecosystem of terminal users.

Our work with an Asian bulk carrier operator applying deep change processes and improving communications has resulted in internal efficiency improvements and a way to break the 'collaboration boundary', promoting connectivity with partners and suppliers.

Transformations such as these are an iterative process, designed to continue developing as the industry evolves. The reason is clear: shipping and ports will continue to confront challenges for which ICT is an opportunity to draw the supply chain closer together, drive efficiencies and create better ways of working. We believe it is an opportunity not to be missed.

Source: Port Strategy

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(3) BIMCO, 17 March 2017

## Is the dry bulk industry still on track for profitability in 2019?

The industry remains well on target for profitable freight rates in 2019! This relies however, on the projected fleet supply growth rate of 0% in 2017 continuing. The handymax segment may even see profits in 2018 as demand may go beyond 2% in 2017 – before reverting to 2% in 2018 onwards. In 2016, the supply side grew by 3.0% and the demand side grew by 2.4% – measured on a tonnemile basis.

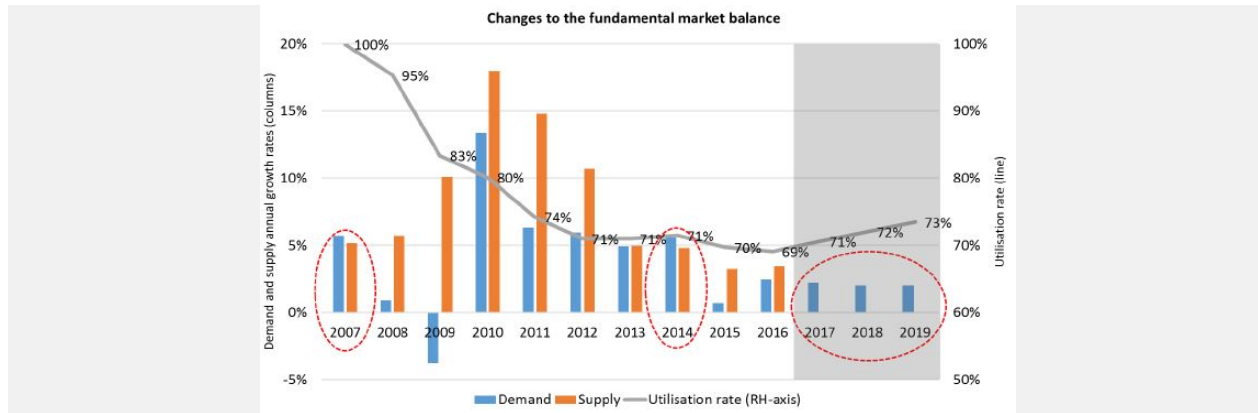
This resulted in a worsening of the fundamental market balance. However, as the original "Road to Recovery" in May 2016 projected an even worse fundamental deterioration in 2016 – we are today, in a relatively better position than anticipated nine months ago.

BIMCO's Chief Shipping Analyst Peter Sand comments:

*"Estimating a return to profitability in the dry bulk industry remains a moving target, and one that differs from one company to the next. But by projecting a course for profitability, everyone in the industry can use it as a reference."*

*The fact that the first half of February 2017 was a troublesome period came as no surprise and it makes the strong comeback in the following month stand out as even more remarkable. During that time, the BDI went from 688 to 1,147.*

*This lift in freight rates is certainly positive, but there is still work to be done on the supply side. A significant level of demolition activity must be maintained, and increasing focus must also be on keeping slow steaming around".*



Source: BIMCO estimates (2017-), BIMCO utilisation est. (2007-2023), Clarksons demand growth rates (2007-2017)

Note: Net supply growth of 0 million DWT in 2017. Demand growth rate of 2.2% in 2017. Note: The years circled are where demand growth outstrips supply growth = improving the market.

What has changed? Besides a relatively better fundamental balance, mostly the daily running costs! The drop in OPEX more than makes up for the fundamental deterioration of the freight market. Speed may also be a factor coming into play as renewed optimism and upwardly moving freight rates are often followed by a less intense focus on maintaining slow steaming.

In total, freight rates will be slightly higher than originally projected for the coming years. Combining the relatively better freight market, with a 10-year-low OPEX level in 2016 – the dry bulk industry remains on the road to recovery.

#### Even small changes matter

Using the assumptions already mentioned above for the supply and demand side, a further drop in OPEX of 5% will also bring profits for the handysize sector in 2018. This will then mean a justprofitable industry in 2018 overall. However, not profitable for all the sub-sectors, as the panamax and capesize sectors are estimated to remain in the red.

Moreover, a higher supply side growth rate than 0% in 2017, which BIMCO expect to be the case, may not completely wipe out recovery in 2019. As demand is expected above 2% as a target growth in 2017, 'damage' from a slip on the supply side is reduced by a stronger demand side.

Source: Peter Sand, Chief Shipping Analyst; BIMCO

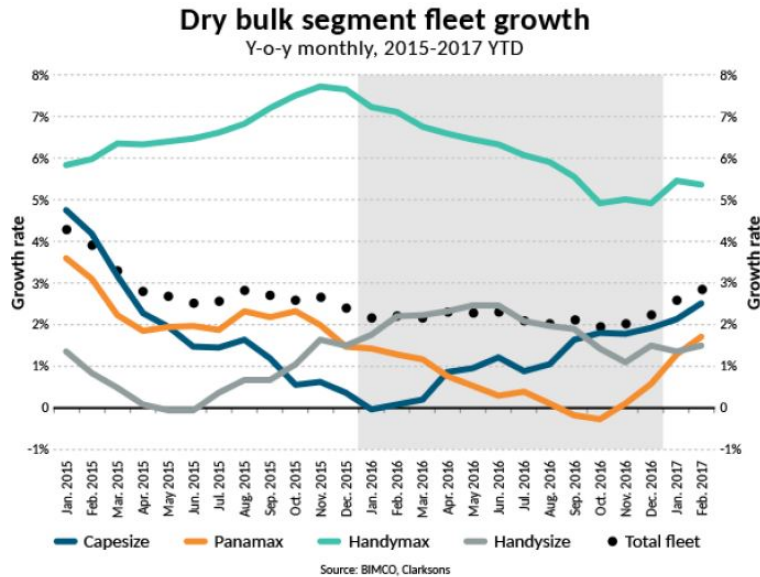
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(4) BIMCO, 9 March 2017

## Dry bulk fleet exceeds 800 mill DWT as supply surges

As the dry bulk fleet grew by 2.6% year on year in January 2017 it exceeded 800 mill DWT. This was due to dry bulk demolition being half of what it was in January 2016, while total dry bulk deliveries reached its highest level since January 2013.

In February 2017, fleet growth reached 2.8%. If the fleet growth remains above 2%, the dry bulk shipping industry cannot rely on global demand to cure the oversupply caused by this fundamental imbalance in the market. Therefore, industry actions, such as demolition, need to get back to the activity levels seen in the first half of 2016, where demolition figures balanced out close to 80% of the inflow of new dry bulk ships to the market.



### Fleet growth expected to settle at 1.6% in 2017

BIMCO's Chief Shipping Analyst Peter Sand comments: "We expect to see an increase in the fleet across the board for dry bulk shipping in the first quarter of 2017, in part because this is always the quarter with the most deliveries of newbuilt ships.

The continued slowdown in scrapping and the lower level of demand in Q1, means that the supply side growth will exceed the growth in demand on a short-term basis and lead to lower dry bulk earnings in that given period.

Despite an uneasy start to 2017, fleet growth will start to stagnate and BIMCO expects to see a supply growth of 1.6% for the whole of 2017.

BIMCO expects 19 mill DWT to be scrapped in 2017, which is lower than the previous two years of demolition activity – around 30 mill DWT annually. With BIMCO's "Road to Recovery" update due for publication mid-March, a revised projection of when the industry will turn profitable again, will be reviewed"

### Segmented demolition and delivery activity

The capesize segment breached the 2% fleet growth barrier in January 2017, after a constant increasing growth rate during 2016, since a 0% fleet growth rate in January and February 2016. This increasing capesize fleet growth is a result of capesize deliveries exceeding demolition activity. H1 2016 saw net capesize fleet growth of 0.3 mill DWT and 5.6 mill DWT in H2 2016. In the first two months of 2017, the capesize fleet has grown by 2.2 mill DWT.

The panamax segment experienced a stall in fleet growth in the first three quarters of 2016, which led to a decrease in the growth rate. As H2 2016 delivered the lowest number of panamax bulkers in seven years, the demolition activity also stalled and the year on year fleet growth went from -0.3% in October 2016 to 1.7% in February 2017.

The handymax achieved the largest drop in fleet growth rates of all four segments, as it decreased from 7.2% in January 2016 to 4.9% in October 2016. However, it is still the highest fleet growth rate across all dry bulk segments, but shows an increasing willingness towards scrapping, as 4.3 mill DWT of demolished handymax tonnage in 2016 was the second highest ever.

The handysize segment saw the lowest amount of DWT entering the market in eight years, while demolition activity also dropped to the lowest amount of DWT in six years. Thereby, the dry bulk shipping industry didn't reap the full benefit of the reduced handysize deliveries, although handysize fleet growth decreased from 1.7% to 1.5% during 2016.

### What to watch out for

As the capesize segment represents 40% of the total dry bulk fleet (measured in DWT), it represents the biggest share of the four ship types in DWT and is thereby also the main driver for total fleet growth. This



is highlighted by total fleet growth stabilising around 2% during 2016, as the declining growth rates from panamax, handymax and handysize were absorbed by a growing capesize fleet.

Source: Peter Sand, Chief Shipping Analyst; BIMCO

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(5) Hellenic Shipping News, 16 March 2017/ Nikkei

## China builds clout with boatloads of cash for Greece

China is pouring money into Greece's infrastructure sector, viewing the cash-strapped country as a strategic gateway to Europe.

From the Greek government's perspective, Chinese investment offers hope for keeping the economy afloat. The European Union, though, is increasingly alarmed at Beijing's growing influence.

About 10km southwest of Athens, the flags of China and Greece flutter outside the headquarters of the Piraeus Port Authority. Some 16 million passengers pass through the port, the country's largest, each year. China Cosco Shipping, China's largest shipping company, in April 2016 agreed to purchase a 67% stake in the port operator from the Greek government.

Greece is required to cut government spending and privatize state-run businesses under the terms of its EU and International Monetary Fund bailouts. It has been relying on such help to cope with its debt crisis since 2010. Austerity measures, however, have prolonged the country's economic slump, keeping it locked in a vicious cycle.

Foreign investment may be the best hope for breaking that cycle. And China has thrown Greece a lifeline as part of its Belt and Road Initiative — Beijing's plan to build an economic zone stretching all the way to Europe and Africa by land and sea.

Cosco has been at the vanguard of the march to Europe since it acquired operating rights for the Port of Piraeus container terminal in 2008. The company hired more than 1,000 new workers and invested 600 million euros (\$634 million at current rates) to introduce state-of-the-art cranes and construct a new quay, among other projects.

The big push is paying off. The port's container-handling volume surged more than fivefold in seven years, totaling 3.47 million twenty-foot equivalent units, or TEUs, in 2016.

When the terminal was still state-run, the Port of Piraeus did not even crack the global top 100 in terms of container volume. Today, it ranks among the world's 50 biggest container ports.

"Win-win deal"

At one point, European companies showed interest in taking over the facility. But by the final round of bidding, Cosco was the only player still in the game.

Under the 368.5 million euro purchase agreement reached last April, the Greek government initially sold Cosco a 51% stake. The additional 16% is to be transferred provided the Chinese company invests 300 million euros in the facility over the first five years.

"This time, it was a win-win deal for both sides," said Nektarios Demenopoulos, an official at the Piraeus Port Authority.

Gradually, the port is becoming a truly Chinese operation. Seven Greek members of the port authority's 11-member board have left, and seven Chinese executives have filled the vacancies. Last October, China Cosco Shipping Chairman Xu Lirong attended an opening ceremony for new passenger ship dock space. According to Greek media reports, the port authority's management team will soon announce new investment plans. The pillars are expected to be a new cruise ship terminal — aimed primarily at wealthy Chinese tourists — and a vessel repair center. One Cosco source said investment over the next five years will "exceed 600 million euros."

Greece's expectations for Chinese investment grow ever higher, and Beijing is only too happy to oblige. In December, State Grid Corp. of China, a power transmission company, agreed to acquire a 24% stake in a subsidiary of Greek state utility Public Power Corp.

Greek Prime Minister Alexis Tsipras is likely to attend a Belt and Road summit in the Chinese capital in May. There is speculation that he might hand Chinese President Xi Jinping a wish list of priority projects. Even Greeks who oppose the privatization of state-run businesses are starting to wave the white flag, recognizing that China has overwhelming financial resources.

"We must adapt to reality," said Giannis Lagoudakis, the mayor of Perama, the Piraeus suburb that is home to the port. He had previously called for keeping the port in the government's hands. Now, he is lobbying the port authority's new management to award expansion contracts to local companies. George Tzogopoulos, a lecturer at the Democritus University of Thrace specializing in Chinese diplomacy, stressed the importance of Greece for China. "Greece is a cornerstone of China's strategy toward Europe," he said. "Therefore, China has strengthened its presence in Greece carefully and gradually."

That strategy is starting to raise alarm bells as China looks beyond Greece, to the rest of Europe.

#### **Crossing the line?**

China Merchants Port Holdings, a port company formerly known as China Merchants Holdings (International), has acquired Turkey's third-biggest port operator.

Beijing has also reached into the European railway business. China Railway Group, a construction company, has embarked on a project that will result in a 350km rail line linking Serbia with Hungary — an EU member.

These moves reflect China's desire to expand its political influence and cultivate new markets for its products. But the Financial Times reported recently that the European Commission, the EU's executive arm, has launched an investigation into whether the Serbia-Hungary railway runs afoul of an EU law requiring open bidding for large-scale transport projects.

Some in the EU warn that China, through its massive state corporations, could gain excessive influence in central and Eastern Europe.

Such concerns clash with calls in Greece for closer ties with China, including efforts to increase the number of Chinese tourists to the country from the current 50,000 a year.

Greece once stood at the brink of leaving the eurozone, after clashing with the EU over its financial crisis. Differences of opinion over China could be seen as another example of the union's fraying bonds in the wake of Britain's vote to withdraw.

Source: Nikkei

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(6) Lloyd's List, 16 March 2017

## **UK seeks closer collaboration with China**

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High-level delegation to promote companies from across the UK maritime sector, including ports, marine, and business services

MARITIME UK and the Department of International Trade will lead a three-day trade mission to Shanghai at the end of March to promote the UK as a place to do maritime business.

Shipping and Ports Minister John Hayes and Trade Minister Mark Garnier will join Maritime UK chairman David Dingle to meet industry and government counterparts to discuss business opportunities post-Brexit.

The high-level delegation will help promote companies from across the UK maritime sector, including ports, marine and business services.

Mr Dingle said in a press release that the maritime sector had a "unique and critical role in ensuring the country makes a success of Brexit".

Maritime UK and the DIT will be collaborating with the Pudong New Area to identify new maritime trade and investment opportunities for both the UK and China, he said.

The delegation will also visit Hong Kong for a meeting with the Hong Kong Shipowners Association.

The mission has been timed to coincide with a visit by *Queen Mary 2* to Shanghai during its East Asian tour.



The vessel will be used to promote UK excellence across shipping, ports, marine, and business services and will play host to companies from across the maritime sector, a number of which will be visiting China for the first time.

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(7) Clarksons Research, 17 March 2017

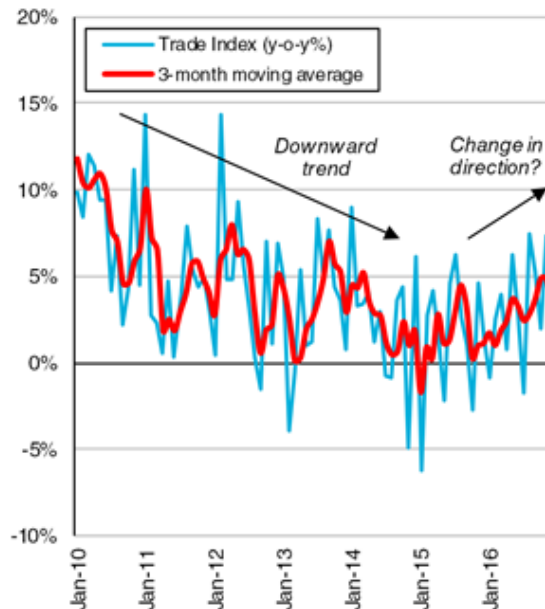
## Thinking About Trade? Try To Put It Into Context...

In the last few decades, the shipping industry has generally been able to rely on seaborne trade as a fairly steady performer. However, the slowdown in volume growth since the financial crisis has focussed the industry's thoughts on potential barriers to healthy long-term trade growth, so all eyes are on signs of a potential return to faster expansion in volumes...

### Graph of the Week

#### Barriers To Trade Or Time For A Turn For The Better?

Not all elements of world seaborne trade can be monitored on a monthly basis, but the graph shows the monthly trade growth index ('Trade Index'), which represents the year-on-year rate of change in the aggregate of a 'basket' of seaborne trade flows in tonnes across a number of major seaborne cargoes which can be measured monthly. The 3-month moving average of the trade growth index is also shown. The total volume of seaborne trade covered by the index amounted to 5.9 billion tonnes in 2016, equivalent to 53% of estimated global seaborne trade during the year.



#### Steady As She Goes

From 1988 to 2008 growth in world seaborne trade averaged an estimated 4.2% pa, a fairly robust level underpinning long-term demand for ships. Sure, the markets at times felt the impact of oversupply, but sustained weakness of demand growth wasn't generally the problem. However, since 2009 the growth rate has slowed, averaging 3.2%, and just 2.8% since 2013. This still equates to significant additional volumes (1.8% growth in 2015 added 194m tonnes) but it's still enough to get market players worrying.

#### Could Be Worse?

But should it? Maybe it depends on how you put the trend into context. Cycles can be long; Martin Stopford has famously identified 12 dry cargo cycles of more than 10 years back to the 1740s! The current cycle certainly feels like it has dragged on; it's now more than eight years since the onset of the financial crisis. However, there are interesting historical comparisons. Between 1929 (the year of the Wall Street Crash) and 1932, the value of global trade dropped by 62% and didn't get back to the same level until the post-war years. Now that really would have been a time to worry!

#### Getting Serious?

Today perhaps some of the anxiety is amplified by the seemingly wide range of factors that look threatening to seaborne trade's supportive historical record. Protectionist tendencies, whether they be

from the Trump presidency or the UK's Brexit vote, slowing growth in China, 'peak trade', robotics and 3D printing: no-one really knows how things will pan out but everyone's watching closely for anything to allay at least some of the fears.

### **Basket Case**

So that brings us back to our old friend the 'monthly trade basket' (see graph and description). Six months ago we reported that this appeared to be showing a pick-up and this time round things are still looking positive. The 3-month moving average shows a generally upward trend since autumn 2015 with an average of 4% in the second half of 2016, hinting that the bottom of the demand cycle may finally have been passed. The current projection for overall seaborne trade in 2017 is still less than 3% with plenty of scenarios possible, but both market sentiment and the momentum right now feel a little more positive than that.

### **Feeling Any Better Yet?**

So, while it's quite right to try to assess the range of factors which appear to be lining up against a return to more robust levels of trade growth, it's also far from incorrect to look for signs of a turn in the trend. Cycles in shipping can be long and sometimes it can take a while to identify them. That may not be helpful to hear but you can have a nice day trying...

Source: Clarksons

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(8) Hellenic Shipping News, 9 March 2017/ Bloomberg

## **Tanker's U-Turn Shows How Shale Is Changing World Gas Trade**

A cargo of chilled natural gas hauled from Louisiana in late December has become a symbol of how global trade is changing for a fuel increasingly seen as a cheap, cleaner-burning option for countries from Latin America to China and India.

The tanker Maran Gas Achilles passed through the Panama Canal and was headed toward Asia at a speed of 20 knots when, suddenly, it made a sharp u-turn in the Pacific. Next stop: Mexico's Manzanillo terminal on the southwest coast, where it unloaded.

The abrupt route change shows how the U.S., which began shale gas exports just last year, is creating a new paradigm in an industry that once revolved almost entirely around long-term contracts with set destinations. As the new kid on the block, exporters of U.S. liquefied natural gas — led by Cheniere Energy Inc. and Royal Dutch Shell SA — are seeking the best price at any given time. As U.S. exports grow, it's a strategy that could shift the economics of LNG toward an emerging spot market akin to oil.

"The U.S. puts gas into places on short notice at a good price," said Jason Feer, head of business intelligence at ship broker Poten & Partners Inc., in a telephone interview. "It's been flexible. The market's becoming more short term and the U.S. has been very effective at meeting those needs."

### **Sharp Turn**

A tanker carrying U.S. LNG from Asia to Mexico in January suddenly changed course.



The U.S. stands to become the world's third-largest exporter by 2020, when it's expected to ship about 8.3 billion cubic feet a day of capacity, or 14 percent of the world's share, according to London-based consultant Energy Aspects Ltd. That growth is a testament to the power of the shale boom of the last decade, helping to reduce the country's reliance on foreign energy sources.

#### Supply Glut

U.S. natural gas futures were up 3.2 percent to \$2.913 per million British thermal units at 9:54 a.m. on the New York Mercantile Exchange, compared with the latest assessed spot LNG price in Singapore of \$5.652 as of Monday.

Drilling technologies such as hydraulic fracturing have made it profitable to tap vast resources of carbon fuels trapped in rock thousands of feet below the surface. The results: A natural gas supply glut stuck stubbornly in place since mid-2015, and billions of dollars redirected toward new export facilities by Cheniere, Dominion Resources Inc., Kinder Morgan Inc. and others.

Breanne Dougherty, a natural gas analyst for Societe Generale SA in New York, calls the U.S. push into the global LNG market "an inarguable game changer."

Having gas delivery that isn't fixed by destination represents a new type of supply that will undoubtedly lead to more flexible contracts being signed elsewhere around the world, according to Dougherty. U.S. terminals made another key break from the global norm by pricing LNG off of the country's benchmark Henry Hub in Louisiana instead of tying it to the price of oil, she said.

#### First to Ship

Cheniere, which built the Sabine Pass terminal in Louisiana, was the first to ship shale gas abroad. The Houston-based company is now in the process of starting up its third plant and is expected to own 7 percent of the world's export capacity in 2020, according to Energy Aspects.

In its debut year, Cheniere shipped 56 cargoes to 17 countries, including Mexico, China, and India. Last week, it reported its first quarterly earnings gain since 2010.

"We continue to be pleasantly surprised by the speed and magnitude" of demand, said Anatol Feygin, Cheniere's chief commercial officer, during a conference call last week. "China and India underscored their potential to quickly increase LNG demand and tighten global markets."

Just a year ago, Cheniere was at CERAWEEK by IHS Markit, the energy industry's yearly get-together in Houston, to talk about the launch of its first tanker from Sabine Pass.

Feygin is scheduled to present at this year's meeting on Wednesday, a week after the company's announcement that it has secured its first deal to tap Canadian shale to supply its LNG production, expanding its influence as one of North America's largest gas buyers.

#### Sailing Ahead

The U.S. will become the world's third largest LNG exporter with 14% of the capacity in 2020



Source: Energy Aspects Ltd.

Bloomberg

Prior to the start of U.S. exports last year, Asia and Europe were seen as the likeliest customers. Gas production in Europe is declining as demand grows and, in some cases, countries have expressed a desire to displace pipeline imports from Russia, seeking to diversify their supply at a time of unsettled geopolitics, according to Dougherty, of Societe Generale.

However, while analysts and traders watched whether Europe would emerge as a big buyer, Mexico, which already imports the most U.S. gas by pipeline, quickly became the largest importer of shipped-in LNG from the U.S., followed by Chile. China, South Korea and Japan boosted buying during the winter.

Perhaps the most unexpected customers were in the Middle East, as Jordan, Egypt and the United Arab Emirates took in tankers in the backyard of the world's largest supplier, Qatar.

Dominion is expected to join the fray as a U.S. exporter by the end of this year, with its Cove Point terminal in Maryland bringing the nation's export capability to about 3.2 billion cubic feet a day, according to Energy Aspects data.

For natural gas, it's "a new world order" that not only promises to establish the U.S. as the swing provider, but also allows emerging countries to take advantage of low prices, said Ted Michael, an LNG analyst with Genscape Inc.

#### Floating Factories

Egypt, Jordan and Pakistan are already taking advantage of the change by using tankers docked at their shores that are basically floating factories, able to convert chilled fuel shipped into the country back into gas so it could be distributed on their pipelines. Outfitting ships with regasification plants are a third of the cost of building an onshore facility, and can be installed in a quarter of the time.

"The revolution has many moving parts," Michael said. The broadening of outlets for exported gas could "easily" help boost U.S. gas output by about a third to 100 billion cubic feet a day in the next five years, he said.

The real test for U.S. LNG will be in 2018 when Dominion's Maryland terminal begins operating along with Gulf Coast terminals planned by Freeport LNG Development LLC and Cameron LNG, said Madeline Jowdy, senior director of global gas and LNG at Pira Energy Group in New York.

"U.S. LNG has come on fairly quickly without any glitches," Jowdy said by phone. "That's great. You can't take that for granted in terms of LNG production. I'm a little surprised they were able to place all the cargoes they were able to place."

Source: Bloomberg

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