

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

- Signs of *a new phase in the cycle beginning* are evident in some sectors of the global shipping industry, but how can this be evaluated more precisely? One way of measuring progress is suggested in item 1, showing that the bulk carrier and container ship categories are moving away from the bottom of the cycle, while tankers and gas carriers apparently are still in the trough.
- Although it is natural to see any additional major orders for new container ships as retrograde steps in a market which is still oversupplied with tonnage, there may be some justification from an individual operators' viewpoint (item 3).
- Over the years ahead *India's significance as a commodity importer* could become much more prominent, with positive implications for shipping activities. A new study (item 2) examines the outlook, suggesting that India's development path is likely to be different to that of China.
- The changing characteristics of the global *liquefied natural gas (LNG) market* are discussed in item 5. Maritime participation has broadened with employment of new floating liquefaction and regassification units located in exporting and importing countries respectively.
- A renewed focus on *decarbonisation in shipping* has emerged with the formation of a task force of senior professionals and academics, looking closely at industry leadership, technology, transparency, finance and carbon pricing (item 4).

Richard Scott MA MCIT FICS editor (email: bulkshipan@aol.com) ++++++++++++++ (1) Clarksons Research, 6 October 2017

Turning Around Yet? How Far To Go?

When shipping markets start to move into the next phase of the cycle following a downturn, sometimes the percentage increases in earnings can look very impressive indeed. But of course they're generally from a low base. With some of the shipping sectors now moving into a new phase, how else might the improvements be put into a helpful context?

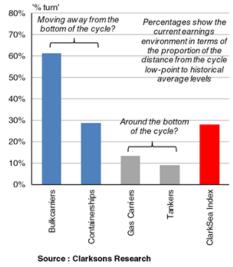
Turn Time?

Clearly the percentage increase in earnings in each sector doesn't really capture the essence of the relative position in the market cycle. Across September, earnings for a 2,750 TEU containership were up by 55% since Aug-16, and Capesize spot earnings were up by more than 800% since Mar-16. But of course that doesn't mean that these markets are in the rudest of health just yet.

Graph of the Week

Taking A Turn For The Better, Or Just Waiting One's Turn?

The bars on the graph show the "% turn' indicated by the average earnings indices in the four main volume shipping sectors and also the ClarkSea Index. The % 'turn' is defined here as the difference between the average index in the last 12 weeks and the most recent index low-point as a proportion of the difference between the historical average index level (back to start 2000) and the most recent index low-point i.e. the % of the 'way back' or 'turn' towards historical average levels. Weekly data up to end September 2017. A wide range of vessel earnings time-series is available on Shipping Intelligence Network.



A more helpful measure of the progress of the cycle might be to look at how far a sector has progressed on its possible journey (often not a smooth or complete one) between the 'low-point' in the cycle and the historical average level (potentially reflective of a greater degree of equilibrium). Here this is examined for four key market average earnings indices (basis historical average since start 2000=100), and the ClarkSea Index itself, to see what this '% turn' tells us.

A Turn For The Better?

Boxship charter earnings have increased in 2017 so far, with the earnings index averaging 61 in the last 12 weeks, up from 45 in Dec-16 at the bottom of the cycle. That equates to moving 29% of the way back to historical average levels, which seems like a fairly good guide to where the containership sector stands in the cycle. Bulkcarrier earnings have also increased this year with the earnings index averaging 70 in the last 12 weeks, up from 21 in Feb-16, a record low for many segments in the bulkcarrier sector. That is equivalent to moving 61% of the way back to historical averages. This seems a little aggressive, perhaps reflecting some additional seasonal impetus to the market recently, and of course the historically very low starting point. Taking the 2016 index average as the low point instead, earnings would be 51% of the way back.

The story is clearly completely different in the tanker and gas carrier sectors. In both sectors earnings have in the main been easing back for some time now, and the most recent lows are very recent indeed. The average tanker earnings and gas earnings indices in the last 12 weeks lie very close to the most

recent market low points. The '% turn' at 9% and 13% respectively is not really the key feature of these sectors today.

Turn Again?

This 'relative' approach can provide an idea of how far the markets have moved into the next phase of the cycle (or not). The ClarkSea Index, which topped \$12,000/day for the first time since Jan-16 in September, is 28% of the way back to historical average levels. Although sentiment and earnings levels are looking more positive in some sectors, simple percentage gains don't tell the whole story. Volatility remains and there's likely to be some way and more re-balancing to go to arrive at potentially much happier times for investors. Enjoy the trip back (hopefully) and have a nice day! Source: Clarksons

(2) Hellenic Shipping News, 9 October 2017/ Bloomberg

A Commodity Superpower Asks What If India Really Is Next China?

India has the potential to boost consumption of everything from copper to iron ore as its economy expands over the next two decades and more people flock to its cities, according to projections from the Australian government that try to fathom whether the country will emulate China.

"Like China since the start of this century, India is in the midst of a huge wave of urbanization, the scale of which has few parallels in history," the Department of Industry, Innovation and Science said in a quarterly report on Friday. India's urban population may swell from about 439 million in 2016 to 642 million by 2035, or by 10 million people a year, it said.

The expansion of India's economy is drawing rising interest from resource-rich exporters including Australia, the worlds largest shipper of iron ore, as well as mining companies such as BHP Billiton Ltd. keen for new opportunities as the pace of China's growth cools. According to the Australian study, while India's development is likely to be less resources-intense than China's, there's still significant scope for increases in commodities consumption.

"As a highly populous and rapidly developing middle-income country, India's consumption of metals is likely to increase considerably," the department said. Still, its relatively low investment in manufacturing and construction compared with China is likely to see its path lie between the lower-intensity seen in Latin America and the high-intensity path of the mainland, it said.

Which Way?

To gauge possible outcomes over the period to 2035, the department listed demand projections for seven commodities under two scenarios, a low-intensity path based on the growth seen in Brazil, Argentina and Mexico, and a high-intensity track based on China's experience. The figures are reproduced below.

		LOW-INTENSITY SCENARIO	HIGH-INTENSITY SCENARIO
	2015	2035	2035
Copper	491	2,844	13,536
Aluminum	1,476	3,307	33,334
Nickel	37	27	1,044
Zinc	612	1,495	8,648
Steel	89,353	222,512	1,031,181
Iron ore	147,804	378,270	1,753,008
Metallurgical coal	100,600	133,507	618,709

(NOTE: Figures are in thousands of tons)

Prime Minister Narendra Modi has been seeking to jack up growth with a reform program that's prioritized infrastructure, as well as overhauling the nation's tax system. Still, gross domestic product in the \$2 trillion economy will expand 6.8 percent in the year through March, the slowest pace in four years, according to the median estimate in a Bloomberg survey late last month.

'It's Unlikely'

"Is India the next China?" Oxford Economics Lead Asia Economist Priyanka Kishore said on Bloomberg TV on Friday. "Unless we see the kind of reforms that were expected from the Modi government in terms of land and labor — factors of production which are essential for private investment to pick up to levels that have been witnessed in China historically — and manufacturing to become a very significant part of India's growth outlook, it's unlikely."

The trajectory remains central to the eventual level of demand, according to the Australian report. "Should India industrialize in a similar way to China and other East Asian countries, it has the potential to be larger consumer of minerals in 20 years' time than China is now," it said. "However, should India move more directly toward a services-based economy, its consumption by 2035 may be less than a third of China's current resource usage."

By some metrics, the South Asian nation is certain to eclipse Asia's top economy, according to the report. India's population is now on a par with China's, at about 1.32 billion, it said. However unlike China, India continues to grow, and it's projected to hit 1.6 billion people by 2035, it added. Source: Bloomberg

(3) Lloyd's List, 6 October 2017

Building up their arsenals

Is Cosco poised to challenge European lines' dominance of container shipping?

DOES it make sense for Mediterranean Shipping Co and CMA CGM to embark on a new round of ship ordering just when container trades began to look in better shape because of a healthier supply and demand balance? Yes, it does, on several levels.

These orders, collectively worth about \$3bn, reflect a mixture of power play and preparation for what is almost certainly coming.

Take the first point.

Confirmation that MSC was to order a series of 22,000 teu ships came despite reported advice from its 2M partner Maersk not to do anything that could jeopardise the fragile recovery now under way in the container trades.

But MSC is a company that expands through ship acquisitions, not via corporate takeovers like the rest of the industry, including Maersk. Furthermore, for that relationship to work, Maersk and MSC have to be equal partners and that means roughly similar-sized fleets, which is what these new ships would achieve.

MSC chief executive Diego Aponte went public with the decision just hours after CMA CGM chief executive Rodolphe Saadé signed an order for up to nine ships of the same size. In an industry driven by big personalities and fierce competition, MSC would not want CMA CGM to seem to have the upper hand.

Another element here is Robert Uggla, grandson of the legendary shipowner Maersk Mc-Kinney Moller, who is also starting to show his hand. As chief executive of AP Moller Holding, the investment arm of AP Moller-Maersk's majority shareholder, he has a big influence over the future direction of Maersk Line as it evolves into an integrated transport and logistics business.

Please note: this publication is intended for academic use only, not for commercial purposes

Key players

Together, the Mc-Kinney Moller, Aponte and Saadé families, and three men who have been steeped in shipping from a very early age, are in a strong position to shape the future direction of container shipping.

But will they concentrate on their own rivalries with each other, or focus on the growing challenge to their market shares from China?

For China is the true threat to the European trio, which is probably the main reason why they are building up their arsenals.

Consider this latest round of ship ordering.

The macro economics of investing in a new series of outsize boxships, and potentially putting the recovery at risk, probably was not the main concern here. This was also all about preserving the power of individual players, and in the container world, Maersk, MSC and CMA CGM all want to be in pole position. The same applies to Cosco Shipping. Nor should Japan be discounted in this race.

From that standpoint, the logic behind MSC's orders is sound.

CMA CGM is in a different situation. Its fleet is relatively light in terms of ships in excess of 18,000 teu, so it needed to play catch-up.

But it also has to watch alliance partner Cosco Shipping. CMA CGM is currently the largest member of the Ocean Alliance, but could lose that position, and influence, when the Chinese line completes its takeover of OOCL.

Watching China

Indeed, those at the top of the European lines that currently head the rankings must all be keeping an eagle eye on China. They will be anxious to see what Cosco Shipping does next.

Will Cosco, now number four in the world in terms of fleet capacity, be tempted to order more big ships as well so as to squeeze into the top three, regardless of whether that eventually triggers another price war in the freight trades?

For Cosco, it is probably a question of how much money it — or the Chinese government — is willing, or able, to spend. The group is already paying a hefty price of \$6.3bn for OOCL, while MSC's new ships are costing about \$160m apiece, although the final price will depend on engine design and the type of fuel to be used. CMA CGM ships are probably a bit cheaper because of the decision to build them in China. Cosco would likely follow suit if it joins in the ordering splurge.

There is, though, another option being mentioned in shipping circles.

CMA CGM shareholder Robert Yildirim wants to sell his interest in the French group to help fund his US port expansion ambitions. Could that stake fall into Chinese hands, and in so doing, start to weaken European lines' grip on container shipping?

In the early years of containerisation, it was US carriers that dominated the industry. Power then shifted to Europe as the likes of Sea-Land and American President Lines were swallowed by foreign buyers. Is it now China's turn to move into the driving seat?

Let battle commence.

(4) Hellenic Shipping News, 12 October 2017/ Global Maritime Forum

Industry-led task force pushes for decarbonization urgency

Global Maritime Forum, Carbon War Room, the Carbon Pricing Leadership Coalition (CPLC), and University College London (UCL) today announced the launch of a Task Force on Decarbonizing Shipping. This industry-led initiative will develop tangible pathways for shipping's decarbonization through five working groups, each focussed on a key area of the industry. Outcomes of the task force will be presented at the Global Maritime Forum's inaugural summit in October 2018.

The Task Force on Decarbonizing Shipping will bring together leaders and experts from across the maritime industry to develop and mobilise the industry along tangible pathways aligned with ambitious, science-based emission reduction targets. It will focus on five areas key to effectively addressing the maritime industry's climate challenge: industry leadership, technology, transparency, finance, and carbon pricing. These areas were identified as central to decarbonizing shipping at an exploratory industry workshop held in London in June 2017.

The task force will develop a vision for collaborative innovation on low carbon technologies; toolkits and guidance to increase transparency about operational efficiency; a best practice guide for incorporating climate risk assessment in ship finance; and recommendations on the role of carbon pricing in tackling emissions. All outcomes will be presented at the Global Maritime Forum's inaugural summit in October 2018.

Niels Smedegaard, CEO, DFDS commented:

"At the 2016 Danish Maritime Forum, industry leaders concluded that the shipping industry needs to adopt a leadership role in addressing the climate challenge. We as an industry must step up. We need to be a part of the solution. This calls for a common platform that delivers forward-looking collaboration to support the long-term sustainability of the global shipping industry – economically as well as environmentally."

Alastair Marsh, CEO, Lloyd's Register commented:

"The later we leave decarbonization, the more rapid and potentially disruptive it will be for shipping. This task force will enable industry leaders to come together to determine possible decarbonization pathways, and to promote innovation, collaboration and investment."

The five working groups of the task force are:

- Industry Leadership This working group will connect and mobilize CEOs and other high-level decision-makers and thought leaders to determine an ambitious and achievable vision for decarbonizing shipping.
- 2. Technology This working group will accelerate the uptake of clean technology solutions by addressing the challenges facing owners and innovators alike. It will develop a toolbox to help technologies overcome the high-cost, low-revenue valley of death so that they can achieve viable commercial uptake. The group will focus on proven breakthrough technologies currently entering the market and outline a vision and roadmap for how the industry can work together on the development of low carbon technologies.
- Transparency This working group will determine how information transparency can be improved to reduce information asymmetry and allow for effective decision-making on efficient and profitable operations.

- 4. Finance This working group will develop principles for integration of climate risk into lending decisions as well as foster development of best practices and tools to support their uptake. This will be achieved through one-on-one work with leading capital providers and a series of industry workshops.
- 5. **Carbon Pricing** This working group will explore the role of carbon pricing in tackling shipping's greenhouse gas emissions. Key policy options will be summarised for business leaders as a basis for the discussion of industry recommendations.

Source: Global Maritime Forum

(5) Hellenic Shipping News, 10 October 2017

The technology of turning gas into a liquid, transporting it by tanker, converting it back into a gas is a bit like magic

The technology of turning gas into a liquid, transporting it by tanker, rail or truck and then converting it back into a gas is a bit like magic. But like all industrial innovations, it has human paternity and can be credited to two scientists: Godfrey Cabot, who patented a method of storing liquid gases at very low temperatures in 1915, and Lee Twomey, who patented the process of large-scale liquefaction in 1937. Their work laid the foundation for the subsequent commercialization of the process for converting natural gas into liquid natural gas (LNG)...

Odorless, colorless, non-toxic, non-corrosive and non-flammable, LNG is a form of methane gas chilled to about – 260 degrees Fahrenheit and colder than Antarctica on the winter solstice. LNG is compressed to 600 times its original volume and, like Doctor Who's Tardis, a LNG tanker can store a greater volume than seems credible at first sight.

Facilitated by investment in large scale liquefaction export plants, dedicated tankers now deliver LNG to regasification facilities in worldwide import markets. LNG has grown rapidly in importance since the first shipments in 1964, reaching 10 percent of global natural gas consumption and 31 percent of worldwide natural gas trade today.

LNG is compressed to 600 times its original volume and, like Doctor Who's Tardis, a LNG tanker can store a greater volume than seems credible at first sight

LNG tankers cost around \$200 million and are available for charter for periods of five years or more. The first commercial LNG tankers, the Methane Princess and Methane Progress, left Algeria for Britain and France in 1964. These first ships, fitted with Conch independent aluminum cargo tanks, had a capacity of 27,000 cubic meters and used LNG for fuel.

Of the 370 ocean-going LNG tankers currently in operation, 260 have steam turbines able to burn heavy fuel oil or boil-off gas. Another 60 are dual-fuel. Also, LNG tankers have grown in size — the largest in the Q-Max series reaches 345 meters in length, 53.8 meter in width and 34.7 meters in height and has a capacity of 266,000 cubic meters. Now there are also ship-to-ship LNG bunker vessels — small LNG tankers with a capacity of between 1,000 cubic meters and 3,000 cubic meters that deliver small quantities of LNG. Such shipments are suitable to serve the power needs of Indonesia and the Philippines's many island communities.

LNG Producers and Markets

Rising LNG production owes much to the increasing number of suppliers of natural gas particularly in Qatar, Oman, Australia, Malaysia, Nigeria, Indonesia and Norway. The US has also become a major LNG exporter based on the spectacular boom in unconventional shale oil and gas production. Until a recent slowdown, rising LNG output was meeting demand for gas by industry and power generators in Japan, China and South Korea. New markets for LNG, especially in Latin America, are this year being served by US LNG and nascent markets such as India, Pakistan and South Africa. The recent large investments in LNG tankers, liquefaction plants and regasification facilities has turned what was primarily a regional gas market limited by pipeline access, into a global market.

Export Liquefaction Terminals and increasing supply

From the first LNG export plant in Algeria, the number of operating liquefaction plants has grown to 40 shared amongst 20 countries with an estimated output of 270 MT. There are currently an additional 12 plants under construction of which, five are located in the US, including Cheniere Energy's Sabine Pass with two of its six trains in operation. By the end of 2017 the five export plants are expected to liquefy 3.2 billion cubic feet a day, almost as much gas as NY state uses a day in 2015.

LNG Trade Routes

Other such plants around the world include San Vicente de Cañete in Peru, Gorgon in Australia and Ras Laffan in Qatar. Although LNG export plants can cost at least \$30 billion each or \$1.5 billion per 1 million metric tons annual capacity, more than 50 billion cubic meters per year of new LNG liquefaction capacity has been commissioned since 2014 at the peak of oil and gas prices. Not only have the number of export plants multiplied, innovation and economies of scale have driven up output from a single-train from 1 million metric tons per annum in 1960 to 5 million metric tons per annum in 2001. An ancillary development, "Floating liquefaction natural gas units" (FLNG) will further augment future LNG supplies. In 2017, Petronas's offshore field near Sarawak in Malaysia and Shell's Prelude and Concerto gas fields in the Browse LNG Basin off Australia will come online direct into a FLNG. Shell's Prelude FLNG will be longer than four soccer fields. Notwithstanding capital costs of as much as \$30 billion, it is pointed out that FLNG technology is flexible, allowing access to smaller and more remote offshore reserves relatively cheaper and guickly with a reduced environmental footprint. Overall, new LNG capacity is expected to reach an additional 150 bcm by 2020 of which 90 percent will come from Australia and the US.

Demand for LNG

Natural gas is seen as the fuel of the future by BP, who predicts that gas will become the main fossil fuel by 2035 since it is cleaner than coal and oil, and is plentiful and affordable. Natural gas consumption by the electrical power sector is expected to increase until 2040 and the industrial and power generation sectors combined will account for 73 percent of the total increase in the world's natural gas consumption predicts the IEA International Energy Outlook 2016. The current supply glut raises the question of which markets and sectors will absorb increasing amounts of LNG? Management consultants Mckinsey, forecast that Cuba, Morocco, South Africa and the Philippines will become new customers for LNG. Morocco, Egypt, Jordan, Kuwait and Dubai had a combined current import capacity of around 39.1 billion cubic meters at the start of 2016. In future years, Middle Eastern countries with rapid population growth, economic development plans, and need to conserve their oil and gas for export, represent a significant growing market for imports of LNG. Between February and early October 2016, 34 LNG cargoes left the Sabine Pass export plant, of which two thirds were destined for Latin American ports namely, Argentina, Brazil, Chile and Mexico. Columbia is expected to be a new buyer in 2017 when an FSRU is in place. However, owing to increased pipeline supply availability of US natural gas to Mexico, improved hydroelectric power generation in Brazil and shale development in Argentina, rising demand for LNG may be relatively short-lived.

Pakistan offers good prospects, since it is under pressure to meet rising demand for electricity and compensate for its declining local gas supplies. It is currently seeking bids for 60 cargoes through to 2020 and anticipates demand of 60 million tons of LNG by 2025 making it the second largest importer of LNG in the world after Japan. Imports will be facilitated by an existing FSRU, completion of three more in 2018, totaling 7 FSRUs in operation by 2020 with capacity to import 30 million tons a year. India's transport sector is also a distinct possibility, since gas is competitive with more expensive gasoline and diesel, and running costs could be over 60 and 32 percent cheaper at current prices. As oil minister, Dharmendra Pradhan said on November 10, " If we are able to convert heavy long-haul vehicles to run on LNG, it will help cut pollution and also lower costs." Petronet LNG, India's biggest importer of LNG and Indian Oil Corporation, a top fuel retailer, are currently trialling running long-haul buses fueled by LNG.

Regasification Terminals — Facilitating Imports of LNG

Approximately, 33 countries have regasification or LNG import terminals, according to The IGU (International Gas Union). Onshore terminals are expensive costing over \$1 billion, of which construction accounts for around 35 percent. Examples of onshore facilities are the Grain Terminal near London, Gas Access to Europe (GATE) at Rotterdam and the Adriatic LNG Terminal near Venice. As of January 2016, 15 new terminals (of which, eight are located in China) are set to increase global import capacity by 73 million tons per annum by 2019.

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A cheaper and recent innovation are floating regasification and storage units (FSRU), costing around \$200 to \$300 million, of which 20 units are currently in operation, most notably in Egypt, Italy and Chile, Jordan, Pakistan and Japan. For countries seeking fast LNG-to-power, FSRUs avoid the cost and planning permissions of a land-based facility since they can be chartered and towed into position. It has taken LNG only fifty years to develop from a local product to one satisfying energy customer requirements worldwide. During that period, the technology has matured and adapted to meet changing energy market conditions. The industry now faces the challenge of tackling a global LNG surplus. Source: Nico Bezuidenhout, Business Development Executive at Phunga Holdings | Consulting Engineering, Building Construction, Oil/Gas & Energy

(6) Lloyd's List, 9 October 2017

Understanding people

by Michael Grey

New book offers good practical advice on how organisational resilience can be built in the face of all potential human failings

WHAT on earth could they have been thinking of when they behaved in such a fashion? How could the ship have altered course so disastrously? How could an experienced bridge team have collectively contributed to such an accident?

The answer to all these questions, asked by incredulous observers in the aftermath of a collision, stranding or some other spectacular and expensive maritime occurrence, probably concludes that it was something to do with human error. What persuaded the master of the container-trailer ship *El Faro* to shape a course into the eye of a hurricane?

What sequence of events led *Costa Concordia* into its fatal manoeuvre off the Italian coast that night? How on earth? How did two enormous bridge teams on a couple of US destroyers end up with their ships crushed by meagrely manned merchant ships?

On the other hand, what was good about the decision-making processes on the bridge of a very large crude carrier that neatly avoided a potentially awful encounter with a sandbank in Southampton Water, when the steering played up? Maybe it was the same combination of expertise, experience, training and judgement that was to be found on that flight deck when Captain Sullenberger landed his engineless Airbus on the Hudson River.

Whether it is human error or human expertise doing something right, there is a great deal to try to understand about how our behaviour is so crucial, often in matters of life and death. "How people create safety, what stops them and what to do about it" is the sub-title of Being Human in Safety-Critical Organisations, a new and important book that does exactly what it says on the cover.

Written by Dik Gregory and Paul Shanahan, the book was commissioned by the Maritime & Coastguard Agency, BP, Teekay and the Standard Club, sponsors, it might be recalled, who brought us The Human Element some years ago.

Dig a lot deeper

This is a big, dense book, exceedingly readable, that develops some of the themes introduced in the earlier volume and shows how a terse dismissal of an accident as caused by "human error" is just the start of an investigatory process that ought to dig a lot deeper into psychology, resilience engineering, complexity theory and cybernetics.

The book is aimed at all organisations in which safety is critical, bringing examples from healthcare, aviation, chemical, defence, nuclear, space, rail, highways and, of course, maritime.

The two authors, who are organisational psychologists, provide a clear explanation of why people behave the way that they do; why they mostly get it right, but sometimes disastrously get it wrong. They also suggest practical ways that organisations, which would rather avoid the latter and encourage the former, can change their assumptions about people and reinforce their safety systems. But if you are to reach this desirable objective, first, you have to understand people.

The authors reinforce their arguments using examples, some of which will be familiar, such as the Tenerife aircraft disaster that is still the worst yet recorded; the *Herald of Free Enterprise*; the Concorde crash at Charles de Gaulle. Others will be less well known and less catastrophic, but provide perfect illustrations of how human behaviour and complex situations combined to shred metal and wreck careers.

But it is all about understanding people, how people create safety and then somehow bypass or ignore it, how context can make people blind to reality, how perception can sometimes be illusory and the real roots of what we like to call "complacency". The reader, who may well be familiar with fatigue, stress and boredom, may appreciate an analysis of what happens to humans facing these problems. We may say that we cannot understand why so many people die in gassing tragedies in oxygen-depleted compartments and spaces — there are some very sensible and rational reasons why these completely avoidable accidents happen.

Layers of safety

It has become perceived wisdom that in the handling of ships or work in the engine room, two heads are better than one and teamwork really matters. But the authors make a distinction between good teams creating layers of safety and those in which wrong assumptions are mutually reinforced and the collective decision making is the route to a casualty. The terrible case of the *USS Vincennes*, which shot down an Iranian airliner after identifying it as an attacking enemy, is one cautionary lesson.

Our senses, the authors point out, can deceive us no end and we very often fatally rely on them, rather than reality of evidence and proper judgement. And of course culture; which might include the unwillingness or inability to challenge senior people when we think they have made an error, can be an important contributor.

The book gives good practical advice on how organisational resilience can be built in the face of all these potential human failings. It is about attitude, motivation, a better understanding of human nature and capitalising on what is best about human behaviour. It is more than just following procedures and regulations, more than fear of getting it wrong and a "blame culture". It is common sense in a complex world that flows from the pages of this valuable book, with our understanding of people the key.

Being Human in Safety-Critical Organisations, by Dik Gregory and Paul Shanahan, ISBN 9780115535352, is available from The Stationary Office *www.tso.co.uk*.

(7) Hellenic Shipping News, 11 October 2017/ Dow Jones

IMF Raises Global Economic Outlook for This Year and 2018

The world economy's acceleration so far this year has been stronger than earlier estimates, with an upswing under way across nearly all the world's major economies, the International Monetary Fund said ahead of a meeting of the world's finance chiefs in Washington this week.

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In its flagship report, known as the World Economic Outlook, the IMF raised its forecast for growth to 3.6% this year and 3.7% next year, an acceleration from the 3.2% growth recorded in 2016.

That is up 0.1 percentage point in each year from the most recent round of forecasts, released in July. The upturn has been heralded by many policy makers and economists. The IMF agreed that in the short-term, the global economy has achieved a degree of momentum that has eluded the world for many years. "The current global acceleration is also notable because it is broad-based — more so than at any time since the start of this decade." said the IMF's chief economist, Maurice Obstfeld.

But the organization also cautioned that recovery from the financial crisis of 2007-09 remains incomplete, and that latent risks could return within a few years.

"Policy makers should seize the moment: the recovery is still incomplete in important respects, and the window for action the current cyclical upswing offers will not be open forever," Mr. Obstfeld said.

With only three months remaining, it has become clear that 2017 will be a year that bucks the trend of the past decade, in which economic forecasters repeatedly started the year optimistic about growth prospects but then continually marked them down.

The improvements haven't been large, but have been witnessed nearly everywhere, with increases of 0.1 or 0.2 percentage points in the U.S., euroarea, Japan and China. Canada's growth forecast has notched up 0.5 points since the July estimate, and other advanced economies were up 0.3 points.

This year will likely be the strongest since 2014, with most of the world's major economies strengthening. Enough may strengthen again in 2018 that it could be the strongest year for growth since 2011, when the world was enjoying a strong but fleeting snapback from the financial crisis, according to IMF projections. Among the world's 10 largest economies, the U.K. is the only one expected to see growth slow in both 2017 and 2018, weighed down by depreciation of the pound following the U.K.'s decision to exit from the European Union.

Despite this portrait of a widely improving global economy, the IMF kept its report focused on lingering risks.

The inflation outlook has softened since the spring. The IMF lowered inflation forecasts to 1.7% in advanced economies over the next two years, below the 2% rate most advanced countries target and below forecasts earlier this year. The report cautioned that wage growth is likely to remain weak around the world.

Financial markets could quickly reverse, especially given how far stocks have risen. The IMF also cautioned about risks of monetary tightening: The Federal Reserve has been raising interest rates and other central banks are pivoting away from stimulus.

The report also cited two key political risks, though it didn't dwell on them: The risk of "an inward shift of policies" in the form of protectionism that might reduce international trade, and the risk of "noneconomic factors" including geopolitical tensions and domestic political discord, among others. Both could be interpreted as references to fears about U.S. policy.

While there is no doubt the global economy has strengthened, a debate over risks is shaping up as a recurring theme of this year's annual meetings of the IMF and World Bank, which will last through Saturday.

On the one side, synchronized growth can be mutually reinforcing. That could be one factor that stymied the world economy from stabilizing earlier in the decade.

"I'm very optimistic," said Adam Posen, the president of the Peterson Institute for International Economics, in an interview before the IMF's report was released. "There's no reason we can't have continued balanced growth in the majority of the world's economies."

Yet others may view this moment of broad-based growth as fragile and, quite possibly, fleeting. In speeches last week, IMF managing director Christine Lagarde and World Bank President Jim Yong Kim urged countries that being outside of a major crisis presents a rare moment for action.

"The set of policies currently in place may be ones that boost the stock market, but not necessarily the real economy," Cornell University's Eswar Prasad, who is also a senior fellow at the Brookings Institution, said in an interview before the IMF's report. The monetary and fiscal policies that many countries have relied on over the past decade "are useful at propping things in the short-run, but not at fixing things that are wrong with these economies in the long-run."

Source: Dow Jones