



SINGAPORE SHIPPING FORUM 2024: DISRUPTION, DECARBONISATION AND DIGITALISATION – A RESET

THURSDAY, 18 APRIL 2024

Disruption, Decarbonisation and Digitalisation, are the 3D's that are at the forefront of shipping challenges. This was the conclusion and focus of discussion at the Singapore Shipping Forum 2024, jointly organised by Moore Stephens LLP and BNP Paribas, held from 10am to 5pm on Thursday, 18 April 2024, at the Raffles Hotel. This forum is held in conjunction with the annual Singapore Maritime Week organised by the Maritime and Port Authority of Singapore.



(From Left to Right): Ms. Karrie Trauth, Senior Vice President, Head of Shipping & Maritime, Shell, and Mr. Mick Aw, Board Member of Moore Global.

Mr. Mick Aw, Board Member of Moore Global, delivered the opening address, noting that the seminar, now in its 15th year, has, in the past, managed to deliver timely, useful insights to participants, and it will continue to do so. Mr. Aw recounted that in 2013, seminar speakers discussed the implications of shipping sulphur emissions, which foreshadowed the IMO 2020 fuel oil sulphur limit. In 2019, seminar speakers provided a comprehensive analysis on the use of LNG, including an analysis of the bunkering network, and Mr. Aw observed that participants who acted appropriately may have reaped benefits. This year, the seminar will focus on delivering insights into the 3D's of shipping.



Ms. Karrie Trauth, Senior Vice President, Head of Shipping & Maritime, Shell, on topic - Navigating the Revised Ambitions to Net Zero.

The keynote address, "Navigating the Revised Ambitions to Net Zero" was delivered by Ms. Karrie Trauth, Senior Vice President, Head of Shipping & Maritime, Shell. Ms. Trauth shared detailed insights into the technological initiatives undertaken by the industry in moving to net zero, by industry players including Shell. These involve the use of both futuristic technologies, as well as short-term lower carbon fuel solutions such as LNG. Ms. Trauth opined that it is critical that the industry takes care, not to "dismantle" any current energy system faster than the industry can develop the low and zero-carbon technologies of the future. Such zero-carbon technologies include software that optimises carbon emissions, wind propulsion technologies, fuel cells that can operate on multiple types of fuel, modular technologies that allow ships to be fitted with abilities to use different fuels as the fuel technologies develop, and many

others. In the conclusion of the session, Mr. Aw, acting as the commentator, noted the various efforts of Shell in decarbonisation, such as the collaboration with Hyundai Motor to explore ways to offer lower carbon emissions products, as well as Shell's construction of Holland Hydrogen I, Europe's largest renewable hydrogen plant in Rotterdam.



Mr. Rahul Kapoor, Global Head, Shipping Analytics & Research, S&P Global Commodity Insights, on topic - Navigating Uncertainties - Shipping in 2024 and Beyond.

Current geopolitical developments around the world including the Russia-Ukraine war, the Middle East conflicts, and US China tensions, have disrupted, and will continue to disrupt world seaborne trade, according to Mr. Rahul Kapoor, Global Head, Shipping Analytics & Research, S&P Global Commodity Insights. According to Mr. Kapoor, the risk of miscalculation and deepening conflict on every major geopolitical issue will increase through 2024 and the US elections. Global shipping chokepoints are increasingly being weaponised, as Houthi's increasingly target commercial vessels at the Bab el-Mandeb chokepoint, a vital strait situated at the southern entrance of the Red Sea, bordered by the Yemeni coast. As the Red Sea sinks into turmoil, global trade routes are being shaken up, with the worst impact on containers. Other trade routes impacted include tankers (both crude and product tankers), fertiliser, grain, LNG and LPG, among others. Ships are adopting new trade routes around the Cape of Good Hope, resulting in extra sailing times and higher costs, as well as longer shipping times and supply delays.

Moving on to the topic of decarbonisation, Mr. Kapoor estimates that the global energy transition will cost US\$275 trillion. The transition will be disrupted and uneven, unfolding at different paces in different parts of the world, creating security and affordability issues. Mr. Kapoor opined that the industry is going to witness the use of multiple fuels for a prolonged period, leading to a complex transition. Even as the industry accelerates the pace of transition, Mr. Kapoor is of the view that the IMO targets for 2030 and 2050 are unlikely to be achieved.



Professor Jasmine Lam, Chair Professor, Technical University of Denmark, Vice President, International Association of Maritime Economists, on topic - Strategies to mitigate disruption and volatility in shipping.

The industry needs to develop and adopt strategies to mitigate the impact of disruptive forces on the shipping industry today, according to Professor Jasmine Lam, Chair Professor, Technical University of Denmark, Vice President, International Association of Maritime Economists. Professor Lam shared research indicating that on average, companies experience disruptions lasting 1 to 2 months every 3.7 years. These disruptions can impose huge costs on the shipping industry. For example, the disruption of the Suez Canal due to Houthi attacks, can impose costs of up to USD 10 billion a day.

As a result, supply chain risk and resilience have become critical. Professor Lam shared results of her research demonstrating strategies that may help the industry achieve such resilience. For example, in the tanker sector, the research identified how tanker owners can better insulate their assets against such disruption. For example, by pooling together ships in shipping pools, tanker owners can protect against the risk of any single ship being targeted by disruption. Shipowners can also diversify their fleet between different shipping sectors, ship sizes, and aiming for a balanced mix of owned and chartered vessels. Other strategies include timing asset purchases at low prices, use of technologies to reduce fuel consumption and operating costs, aiming for asset-light business models, and the use of derivative tools to hedge risks e.g. bunker price volatility.



(From Left to Right): Mr. Karmjit Singh, Chairman, Chartered Institute of Logistics & Transport, Mr. Rahul Kapoor, Global Head, Shipping Analytics & Research, S&P Global Commodity Insights and Professor Jasmine Lam, Chair Professor, Technical University of Denmark, Vice President, International Association of Maritime Economist.

Dr. Sanjay Kuttan, Chief Technical Officer at the Global Centre for Maritime Decarbonisation (GCMD), took the stage after lunch to share his views on various GCMD projects to support maritime decarbonisation. After a decade of regulatory action by the International Maritime Organisation (IMO) to drive down GHG emissions from shipping, shipping GHG emissions have proven to be difficult to abate. Part of the reason is that the ecosystem for maritime decarbonisation is not mature. Today's decarbonisation solutions largely fall into 3 categories: use of alternative low-carbon fuels, adoption of technical and operational measures (e.g. voyage planning, slow steaming), and market-based solutions (e.g. emissions trading scheme, bunker levies that create incentives to decarbonise). GCMD industry study results show that great than 70% of decarbonisation frontrunners plan to adopt ammonia as a marine fuel as early as 2029.

However, a holistic approach for adopting alternative fuels is required as alternative fuels are higher in prices, lower in energy densities, and have lower availabilities. A switch to new fuels will require new bunkering patterns. As a result, GCMD is currently planning multiple pilots to close existing gaps in various key areas, such as environmental impact assessment, crew training, safety and risk assessment, etc, to ensure safe ammonia bunkering. Another area



Dr. Sanjay Kuttan, Chief Technical Officer at the Global Centre for Maritime Decarbonisation (GCMD), on topic - The Maritime Decarbonisation Journey: Lighthouses and Navigational Buoys.

of growing interest is onboard carbon capture and storage (OCCS) systems. GCMD has implemented various projects to close the gaps in the adoption of OCCS. For example, a concept study on offloading onboard captured CO₂ was published in March 2024. Another project, to provide a conceptual design of an OCCS system for a MR tanker, will be finalised by Q2 2024.

In the decarbonisation journey, there needs to be greater focus on better leadership, according to Mr. Rajeev Peshawaria, Chief Executive Officer of Stewardship Asia Centre. Mr. Peshawaria shared his concept of steward leadership, which is the genuine desire and persistence to create a collective better future. According to Mr. Peshawaria, whereas traditional Governance, which is the “G in ESG, focuses mostly on regulatory compliance, incentives, measurement and reporting, steward leadership uses the power of purpose, values, and profit, to drive good ESG behaviour.



Ms. Lao Mei Leng, Partner, ESG, Moore Stephens Singapore, on topic - New Shared Language of ESG – S1 and S2.

Ms. Lao Mei Leng, Partner, ESG, Moore Stephens Singapore, observed that sustainability reporting has acquired a new shared language, in the form of new reporting standards IFRS S1 and S2, issued by the International Sustainability Standards Board. IFRS S1 sets out general requirements for sustainability disclosures, while IFRS S2 sets out requirements to provide material information on entities’ climate-related risks and opportunities.

According to Ms. Lao, IFRS S1 and S2 are designed to be self-contained, but inter-operable with other major sustainability frameworks particularly the GRI, builds upon the 4 pillars of the framework set out by the Task Force on Climate-related Financial Disclosure (“TCFD”), and are focused on providing information that is material for users. IFRS S1 and S2 focuses on entities’ governance frameworks, strategies, and processes and controls, around sustainability. It builds on cross-industry metrics such as Scope 1, 2 and 3 GHG emission targets, internal carbon prices, percentage of ESG-linked executive remuneration, as well as quantitative and qualitative climate-related targets.

IFRS S1 and S2 also sets out requirements around the timing of reporting, the disclosure of comparative information, disclosure of significant judgments made in reporting, and transition requirements.



(From Left to Right): Mr. Jeffrey Tanner, Partner, Stephenson Harwood (Singapore) Alliance, Dr. Sanjay C Kuttan, Chief Technology Officer, Global Centre for Maritime Decarbonisation (GCMD), Mr. Rajeev Peshawaria, Chief Executive Officer, Stewardship Asia Centre and Ms. Lao Mei Leng, Partner, ESG, Moore Stephens LLP Singapore.

Mr. Lukasz Luwanski, Regional Business Development Director, South East Asia, Pacific & India, DNV, shared his view that digitalisation is the enabler to help industry players reset maritime strategies. As accelerated data rates are changing the industry and providing a new source of competitive advantage, trust in data is becoming increasingly important. This, in turn, creates a case for developing Data Standards, which require Data Assurance, and the development of a Data Platform. DNV’s data platform, Veracity, provides such a data platform for maritime, with operational data of 11,000 ships and used by 40,000 companies, providing verified data to support business use cases by connecting customers’ data with various algorithms. The inclusion of the maritime industry in the European Union Emissions Trading Scheme (EU ETS), and the FuelEU maritime legislation, also triggered the need for verified emissions data to support the operation of the schemes and legislation. Technology can provide automated, real-time, shareable, and verified emissions data and voyage statements, to support shipowners in navigating the EU ETS and FuelEU legislation, more effectively and efficiently.

Mr. Luwanski also shared how digitalisation developments are affecting safety. He shared the use of computer vision technology that can enhance safety in various ways. Computer vision, powered by artificial intelligence, can identify shipping crew in risky areas who are not wearing helmets. It can detect small marine craft moving alongside the vessel to enhance collision detection and avoid accidents. In car carriers, computer vision can detect small movements of cars which are not well-lashed, thereby sending alerts and preventing potential accidents. Technology can also help to monitor car battery charges prior to loading on board car carriers, to mitigate risk of fires on car carriers. These are all examples of how technology is enhancing crew safety on board ships.



Mr. Lukasz Luwanski, Regional Business Development Director, South East Asia, Pacific & India, DNV, on topic - Digitalisation – An Enabler to Resetting Maritime Strategies.



(From Left to Right): Mr. Lukasz Luwanski, Regional Business Development Director, South East Asia, Pacific & India, DNV and Mr. Wong Koon Min, Partner, Moore Stephens Singapore.

Further developing the topic of EU ETS, is Mr. Tobias Lausch, Head of Derivatives Execution and Clearing Sales, APAC, BNP Paribas, and Ms. Chen Minhui, Head of Commodity Derivatives Sales, APAC. Mr. Lausch and Ms. Chen spoke about how shipowners can hedge EU ETS costs. Ms. Chen provided participants with an overview of the development of the EU ETS scheme, which was introduced after the signing of the Kyoto protocol in 1997. The EU ETS operates on a Cap-and-Trade mechanism where the EU sets a cap on the total amount of greenhouse gases that can be emitted by installations covered by the system. Allowances are tradeable, and at the end of each compliance period, installations must surrender enough allowance to cover their emissions. A failure to do so will result in penalties.



(From Left to Right): Mr. Tobias Lausch, Head of Derivatives Execution and Clearing Sales, APAC, BNP Paribas, Ms. Chen Minhui, Head of Commodity Derivatives Sales, APAC, BNP Paribas and Mr. Matthew Forrest, Managing Director, Co-Head of Transportation Capital Markets APAC, BNP Paribas.

Against this backdrop, a market has arisen for carbon emissions, as scheme participants trade emissions to meet their own obligations, hedge costs for future emissions, or merely to speculate on prices. Products that can be traded include European Union Emission Allowances (EUAs), UK Emission Allowances (UKAs), CBL Global Emissions Offsets (GEOs) and (Certified Emission Reductions (CERs). These allowances generally work by allowing the holder to emit 1 ton of CO₂ for each allowance. The government will set caps on the amount of GHGs that are allowed to be emitted, and this cap will decrease every year to ensure that emissions fall. These allowances have spot markets, as well as futures markets, and there are also options available. Banks such as BNP, act as market makers for these allowances, and develop options and indices to further the development of these markets. Such derivative products can help shipowners manage emissions costs.



(From Left to Right): Ms. Chen Minhui, Head of Commodity Derivatives Sales, APAC, BNP Paribas, Mr. Tobias Lausch, Head of Derivatives Execution and Clearing Sales, APAC, BNP Paribas, and Mr. Matthew Forrest, Managing Director, Co-Head of Transportation Capital Markets APAC, BNP Paribas.

The final item on the agenda was a panel of shipowners, moderated by Mr. Dimitris Belbas, Managing Director, Head of Shipping Finance, SEAFIN, to discuss how shipowners should face the challenges of disruption in the Shipping Industry. Panellists included Mr. Mark Haines, Managing Partner, Stamford Shipping; Captain Alok Kumar, Chairman, Alphard Group; Captain Subhangshu Dutt, Executive Director, OM Maritime; Mr. Alan Hatton, Managing Director, Foreguard Shipping; Mr. Alexander Hartnoll, Director – South Asia, X-Press Feeders; as well as Mr. Chris Johnson, Partner, Shipping and Transportation, Moore Stephens Singapore. Panellists discussed a variety of issues related to how they would respond to the challenges discussed throughout the seminar. Mr. Johnson noted that the disruptions over the past several years, such as the COVID pandemic, as well as recent Red Sea attacks, have overall, benefitted the shipping industry, as the disruptions tended to result in lower supply and greater demand for shipping services. He concluded that the winners are those who are flexible and can adapt to the disruptions. Panellists generally agreed that the elevated shipping markets resulting from the recent disruptions, offer an opportunity to take profit, and it will not be wise to rush into an overextended market. In regards to decarbonisation, panellists agreed that there is too much uncertainty currently over future fuel types. Small to medium-sized shipowners should let the shipping giants take the lead on decarbonisation, and await more clarity before acting.

On this note, the discussion ended at 4.30pm, and gave way to a lively post-event cocktail where participants actively networked until the event ended at around 6pm.



Panel Discussion (From Left to Right): Moderator: Mr. Dimitris Belbas, Managing Director, Head of Shipping Finance, SEAFIN, Mr. Alexander Hartnoll, Director – South Asia, X-Press Feeders, Mr. Chris Johnson, Partner, Shipping and Transportation, Moore Stephens Singapore, Capt. Subhangshu Dutt, Executive Director, OM Maritime, Mr. Alan Hatton, Managing Director, Foreguard Shipping and Mr. Mark Haines, Managing Partner, Stamford Shipping.



Mr. Dimitris Belbas,
Managing Director, Head of
Shipping Finance



Mr. Alexander Hartnoll,
Director – South Asia, X-Press
Feeders,



Mr. Chris Johnson, Partner,
Shipping and Transportation,
Moore Stephens Singapore



Capt. Subhangshu Dutt,
Executive Director, OM
Maritime



Capt. Alok Kumar, Chairman,
Alphard Group



Mr. Alan Hatton, Managing
Director, Foreguard Shipping



Mr. Mark Haines, Managing
Partner, Stamford Shipping.



Delegates at the MS - BNP Singapore Shipping Forum 2024.



From Left to Right: Ms. Daphne Aw, Partner, Audit & Assurance, Moore Stephens Singapore, Mr. Arnold Wu, T Time Advisory Ltd, Mr. Mick Aw, Board Member, Moore Global and Mr. Alexander Hartnoll, Director – South Asia, X-Press Feeders.



From Left to Right: Mr. Lee Teng Huar, Shell Singapore, Ms. Sarah Ong, Audit & Assurance, Assistant Manager, Moore Stephens Singapore and Ms. Sally Netting, Shell Singapore.



From Left to Right: Mr. Roy Tan, BW Epic Kosan, Prof. Jasmine Lam, Chair Professor, Technical University of Denmark, Vice President, International Association of Maritime Economists and Mr. Ng Han Wei, BW Epic Kosan.



From Left to Right: Ms. Naina Machado, BNP Paribas, Mr. Philip Pfeiffer, Asiatic Lloyd Maritime LLP and Ms. Marisa Dupuis, BNP Paribas.



From Left to Right: Ms. Akanksha Batura Pai, Sinoda Shipping Agency Pte Ltd, Mr. Woon Aw Yong, MSI Asia Pte Ltd, Mr. David Ratner, Scorpa Pranedy (Singapore) Pte Ltd, Ms. Sue Ann Gan, Norton Rose Fulbright (Asia) LLP, Mr. Haider Nawaz, Scorpa Pranedy (Singapore) Pte Ltd.



From Left to Right: Mr. Bill Smart, Bengal Tiger Line Pte Ltd, Mr. Mike Abbott, Rightship Singapore Pte Ltd and Mr. Mark Haines, Managing Partner, Stamford Shipping.



From Left to Right: Mr. Matthew Seah, Stephenson Harwood (Singapore) Alliance, Mr. Adam Kent, MSI Ltd and Mr. Pedram Norton, Stephenson Harwood (Singapore) Alliance.



From Left to Right: Mr. Mark Cameron, Ardmore Shipping Limited and Mr. Rigzin Angdu, Riviera Maritime Media Singapore Pte Limited.

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