

Ref.: 2018-002

6 February 2018

To : The President of the Stock Exchange of Thailand

Subject : The 4th Quarter of 2017 Management Discussion and Analysis (MD&A)

Our Key Performance Indicators:

The results, audited by EY Office Ltd., show you the latest financial position of the Company. The earnings per day per ship during Q4 came in at USD 10,728, taking the annual figure to USD 9,486. Please take a look at the Market Segmentation report that shows you the relative performance of the PSL fleet's earnings per day per ship compared to the Index ships. In this quarter, daily operating costs were USD 4,451, which has taken the annual costs to USD 4,355 per day per ship, or lower than our target of USD 4,500 for the year and also lower than the actual of the previous year. The EBITDA was USD 17.15 million during Q4 and USD 53.18 million for the year. In Q4 we made a net profit of USD 3.32 million, with earnings per share of Baht 0.07. This is the first quarterly profit since Q2 2014! However, the loss per share was Baht 0.08 for 2017. To put our annual loss for 2017 of USD 3.76 million into perspective, please keep in mind that if we removed the one-time extraordinary items of USD 2.63 million during 2017, in effect our annual result was a net loss of just USD 1.13 million.

| THE HARD FACTS | 2017 | 2016 | Q4 2017 | Q4 2016 |
|--|-------------|-------------|----------------|----------------|
| Highest earnings per day per ship in USD | 21,557 | 15,000 | 21,557 | 15,000 |
| Average earnings per day per ship in USD | 9,486 | 6,476 | 10,728 | 8,174 |
| Average earnings per day per ship (Handy) | 9,812 | 6,847 | 10,503 | 8,864 |
| Average earnings per day per ship (Supra) | 8,269 | 5,865 | 9,658 | 7,052 |
| Average earnings per day per ship (Ultras) | 10,091 | 5,715 | 12,469 | 7,578 |
| Operating cost per day per ship in USD | 4,355 | 4,503 | 4,451 | 4,510 |
| EBITDA in million USD | 53.18 | 17.94 | 17.15 | 9.21 |
| Net Profit/(Loss) in million USD (excluding Exchange gain (loss) and Non-recurring items) | (1.13) | (37.47) | 3.63 | (3.94) |
| Net Profit/(Loss) in million USD | (3.76) | (75.61) | 3.32 | (3.34) |
| Earnings (Loss) Per Share in Thai Baht (excluding Exchange gain (loss) and Non-recurring items) | (0.03) | (0.85) | 0.08 | (0.09) |
| Earnings (Loss) Per Share in Thai Baht | (0.08) | (1.71) | 0.07 | (0.08) |

Awards and Accolades: PSL won the Public Debt Deal of the Year for 2016 from Marine Money! Our ‘3.59 Billion Baht Unsecured Unsubordinated Bonds’ transaction was adjudged the Public Debt Deal of the Year ‘for the wisdom to raise funds as soon as possible, and for this tremendous achievement given the unprecedented shipping market conditions and investor outlook towards the shipping industry in general at the time’. At the 10th Seatrade Maritime Awards Asia 2017, Precious Shipping was adjudged finalist in 2 award categories: ‘Ship Owner/Operator’, and ‘Deal of the Year’ awards, and Great Circle Shipping Agency (“GCSA”), our ship-management subsidiary, for the ‘Ship Manager’ award. At the Lloyd’s List Asia Pacific Awards 2017, we were adjudged finalist for the ‘Class NK Dry Bulk Operator of the Year’ award, and GCSA, our subsidiary was adjudged finalist for the ‘Ship Manager of the Year’ award. At the International Bulk Journal’s IJB Awards 2017, we were adjudged finalist for the ‘Bulk Ship Operator of the Year’ award, and our cement carrier, Apinya Naree, was adjudged finalist for the ‘Bulk Ship of the Year’ award. We were also adjudged as the Third Best in “Industrials Sector” category for Investor Relations Awards at the IR Magazine Awards – South East Asia 2017.

The Fleet Rejuvenation Plan, started in 2012, has completed with 36 ships in the water as of 31 December 2017 consisting of 8 Ultras, 9 Supras and 19 Handy sizes with an aggregate capacity of 1,585,805 DWT. This worked out to an average 44,050 DWT per ship, and an average age of about 6.3 years.

Market Segmentation: During Q4, the Baltic Handy Size Index (BHSI) averaged 641 points derived from the average Time Charter (TC) rate of USD 9,385. Compared to that, **our Handies earned USD 10,503 and beat the BHSI TC rate by 11.91%.** During Q4, the Baltic Supramax Index (BSI) averaged 977 points derived from the average Time Charter (TC) rate of USD 10,727. Compared to that, **our Supramaxes earned USD 9,658 and underperformed the BSI TC rate by 9.97%. Our Ultramaxs earned USD 12,469 and outperformed the BSI TC rate by 16.24%** (as there is no special index for the Ultras, we have compared them with the BSI). Our target has been to outperform both the indexes.

The SET Opportunity Day where PSL will be presenting will be held at the SET building at 1010 hours on Wednesday the 14th February 2018. We hope that many of you will attend this event where the Company will get a chance to thoroughly discuss the 2017 results and the prospects for 2018. For those of you who cannot attend physically, the SET [live web casts](#) the presentation giving you a chance to be present via the web.

Ship recycling has had a slow year with a total of 15.16 MDWT of ships being recycled during 2017 across all sectors in the dry bulk market as compared to 29.74 MDWT in 2016. The existing age profile of the world fleet, together with low levels of the order book to fleet ratio (9.3%), should result in the world dry bulk fleet growing at the slowest pace since the turn of the

century with healthy scrapping expected in 2018 to 2020 due to the existing age profile as well as regulatory pressures. This will help redress the imbalance between supply and demand.

Long Term versus short term Charters: The long term charters already booked as of 31st December 2017 are shown in the chart below. As can be seen, our forward four year (2018 to 2021) rolling book is currently at the 17% level with a visible revenue stream of USD 122.02 million.

| Year | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------------------------|--------|--------|--------|--------|--------|
| Total Available Days | 13,147 | 13,140 | 13,140 | 13,176 | 13,140 |
| Fixed T/C Days | 2,555 | 2,220 | 2,190 | 2,196 | 2,190 |
| %age Fixed T/C Days | 19% | 17% | 17% | 17% | 17% |
| Av. T/C Rate/Day in USD | 13,713 | 13,859 | 13,875 | 13,875 | 13,875 |
| Contract value in million USD | 35.04 | 30.77 | 30.39 | 30.47 | 30.39 |

It is our intention to continue to charter out our ships on long term period contracts whenever practical and economically viable.

BDI Developments and our read of the market:

Demand has certainly been stronger than what anyone had anticipated at the start of 2017 with many analysts suggesting that we have had demand growth in ton-mile terms of around 4.5/4.7%. **China has been the stellar performer** and this has helped to drive time charter rates higher as the year has progressed. Having said that, the Chinese government finally took the bull by the horns on pollution prevention and mandated production cuts in 4 provinces (31 northern cities) for steel making (50%), cement manufacturing (50%) and Aluminum production (30%) from mid November 2017 to mid March 2018. One of the unintended consequences of this action was that about 400 to 500 ships have been caught up in congestion at various Australian and Chinese ports (unaffected by the mandatory reduction in manufacturing capacity). To add fuel to the ‘congestion’ fire, East Kalimantan ports have another 100 odd ships waiting to load coal cargoes, some since October 2017, due to heavy rains that have disrupted the supply chain of coal logistics. However with the turn of the year, **the January impact** of many more ships being delivered from shipyards in the first month of the year as compared to any other month of the year, kicked in. At the same time, **supply of iron ore from Brazil started to slow down due to their ‘wet’ season** which traditionally makes the Q1 iron ore exports from Brazil the weakest quarterly exports in any year. Combined with the **onset of Chinese New Year weakening demand** being further exacerbated with the **new Chinese government anti-pollution measures of restricted steel, cement and aluminum manufacture in 4 provinces**, the BDI will follow the traditional seasonality script of a sharp decline, starting in the last week of December and ending about a week after Chinese New Year. This decline would normally be followed by a sharp upturn in rates thereafter making a traditional V shape movement. **With the new directives on restricted manufacturing** in key industries in 4 provinces in 2018 being **extended to 14 provinces from 2019 through to 2021**, it would appear that **the BDI in all future years will reach a peak in mid October followed by a decline till end February before the V shaped recovery manifests itself in a straight line all the way to mid October.**

Welcome to the new seasonality of the BDI, via decree, courtesy the Chinese government and their restrictive manufacturing directives from mid November of each year in 14 provinces to mid March of the following year. On the supply side, things look distinctly better with expected net supply increasing at about 1% during 2018 and 2019 whilst demand should be growing at between 4.0% and 4.5%, very similar to the demand growth seen in 2017, when supply grew by 2.93%. **This favourable gap between expected demand growth and expected supply growth in 2018 and 2019 should make for an increasingly robust secular recovery.** As supply and demand balance is very close, this recovery would be characterized by extreme volatility as any small change in demand or supply would have a disproportionate impact on the BDI.

Others' reading of the market:

Dry bulk market rates are expected **to continue improving in 2018**, on the back of improving vessel supply dynamics, and strengthening Asian demand for commodities such as iron ore, grains, and soybean. However, there are **downside risks in the near term from China's ongoing winter steel production cuts**, which could affect import demand of related raw materials **in the first quarter of 2018.** (Banhero Costa)

For drybulk, it has been a more frustrating Q4 with flat equities despite booming markets as **"everyone" has known that spot rates will "crash" in Q1.** Well, now we are here and the first day of open markets again have actually seen FFAs going up. **We reiterate our positive near term outlook on drybulk equities, expecting positive estimate revisions and rising asset values into the spring.** (Pareto)

2018 could turn out to be the best year for shipping since the financial crash of 2008 — **if industry participants** are vigilant enough to **avoid past mistakes.** Conditions are ripe for a sustained market recovery in many sectors. But a good year of freight earnings on its own will not be sufficient. There have been periods of brilliant market performances over the past decade, but eventually they led to the over-building of new ships. Rate collapses followed. To paraphrase Georg Hegel, pessimists may say **the only thing shipping learns from history is that shipping does not learn from history.** But things could be different: there are catalysts for owners to get ahead of the cycle, or even break it. Conventional **debt and equity** financing in the western **markets remain tight.** At the same time, a **series of international regulations will kick in.** Owners will need to follow several new emission and data rules set by the European Union and the International Maritime Organization from next year. Then, in 2019-2020, there will be mandatory requirements covering ballast water treatment and a new sulphur limit in bunker fuel. **Meeting these rules will require investment.** In the past, shipping has tended to make a fool of first movers. But owners, willing to pay for advanced technologies, could actually benefit this time by saving fuel costs and harnessing digital transition in the next decade. In comparison, limiting spending on fresh tonnage that can barely cross regulatory hurdles could be a smart move. Even with external financing constraints, **owners should have some money on hand in the coming quarters amid better freight environments. How it is used may determine whether shipping will usher in a new age, or endure more of the same.** (Lloyd's List)

At the top of the sentiment ranks is the dry-bulk sector. A long period of vessel overcapacity seems to be coming to an end at a time when **cargo demand appears to be healthy.** The caveat

is that market cheerleaders have been this exuberant before, only to be proven wrong. Among the **key dry-bulk indicators to watch** this year: **the orderbook** – which was ominously creeping up again at the end of 2017 – and the related spread between the price of second-hand tonnage and newbuildings (the tighter that spread, the more orders are likely); the effect of this year’s **Valemax newbuilding deliveries on Capesize rates** as incoming 400,000-tonners push 180,000-tonners from the Brazil–China iron-ore run into other trades; and the **extent that China sources its coal and iron ore domestically as opposed to via imports**, a particularly important and opaque indicator on the coal side. (IHS Maritime)

Demand weakness in the dry bulk sector in the near-term is expected to have a downward effect on earnings from levels seen towards the end of 2017, with the biggest decline in the capesize segment, according to consultants Maritime Strategies International. **“The short-term outlook for demand is mainly negative**, thanks partly to a seasonal decline in industrial output in China over February due to the Chinese New Year and weather-related disruptions in key commodity supply regions,” it said in a report. Although it expects **trade flows to begin to recover in March, high iron ore stockpiles and expectations of slower steel production growth this year “will undermine a demand-side recovery”**. (Lloyd’s List)

Fitch Ratings says the global outlook for the shipping industry remains negative for 2018 due to lingering overcapacity in most sectors. “The overcapacity in shipping undermines the current rebound in dry bulk and container shipping rates and puts in doubt its longevity,” the agency’s senior director Angelina Valavina said in a report. “We do not expect a material improvement in market fundamentals in 2018, given lingering overcapacity,” she said, adding that “only prudent capacity management” could reverse the sector fundamentals and lead to a sustained recovery in freight rates. In the dry bulk market, an increase of 2.7% in trade volumes next year will be countered by fleet growth of 1.2%, Fitch said. It said **China would remain the key driver for dry bulk commodities imports and trade**, and the sector was therefore particularly sensitive to growth in Chinese gross domestic product. (Lloyd’s List)

In the last 10 years, the dry bulk shipping sector has been working through the industry’s overcapacity arising from the legacy of excessive ordering of vessels during the industry boom period when the 1-year time charter rate for the Capes hit a record high of US\$161,600/day in November 2007. We are finally seeing the tail end of this and interestingly, **the dry bulk shipping sector has the lowest orderbook-to-fleet ratio (at 9.2%)** among the major shipping segments currently versus LNG carriers at 28%, containerships at 15%, LPG carriers at 15% and tankers at 12%. **The historical average orderbook-to-fleet ratio for the global dry bulk shipping sector was 27% in the past 20 years**. With muted supply growth going forward, we believe that the worst is finally over for the global dry bulk shipping sector and **expect the operating outlook to improve gradually**. (Crucial Perspective)

Order book suggests 2018–2019e annual fleet growth of 0.5%, and with 2020 a regulation year offering scrapping potential, we believe **rates are set to continue to rise YOY over the next few years** based on our 2018–2019 annual demand growth forecast of 3.4%. We calculate utilisation of 90% in 2018 and 92% in 2019. Over the past 18 years November has been the strongest month of the year, slowing into Q1 before rates pick-up again in May; hence, one

should **expect increased volatility into 2018**. We believe a **potential Q1 weakness could be short-lived as: 1) fleet growth is materially slowing; 2) seasonality is less pronounced** when utilization is on the rise after years of a weak dry bulk market; **3) China steel production picks up in April once capacity restarts** post the regulatory winter curb from November '17 to March '18. (DNB Markets)

The **Chinese have gone all-in this year on battling air pollution** during the winter months and are satisfied with the results. In fact, the results have led Chinese regulators to both expand the number of targeted areas and extend the practice of winter cuts for the coming years. The National Development and Reform Commission issued a policy document in the beginning of January for **winter cuts to continue to 2021 with a target area of 14 provinces versus this year's 4 provinces**. Hence, it seems the shipping industry will need to adapt to a **new Chinese seasonality due to stringent environmental regulations for years to come**, and the effects are already showing in Chinese import volumes. China trade statistics for December 2017 show iron ore imports of 84.1 MMT, 5.4% down YOY. This ends 2017 at 4.9% growth YOY (compared to DNB estimate of 8%) after a strong start of the year with Q1'17 indicating above 12% YOY growth. Perhaps more important is that the trailing 3m average is now negative (-1.4% YOY) for the first time since October 2015. However, looking into H1 2018 we still see **potential for increased dry bulk activity as regulations on steel output is lifted after March** as long as margins for steel mills remain solid the next months. December statistics for coal imports to China ended Q4 at -12% YOY and pushed the full year growth rate down to 6.0% which is below DNB forecast of 8% growth in coal imports for 2017. Coal import volumes have also been under pressure as the government has been targeting alternative energy sources, such as LNG. (DNB Markets)

Shipping markets are never without risk, or volatility, and a fair and balanced investment thesis should always include caveats associated with events that can upset the applecart, which in the case of dry bulk includes a potential slowdown of China's economy and/or a rush of newbuilding orders. That said, **the fundamental outlook for dry bulk shipping in 2018 and 2019 appears to be the strongest in more than a decade and, risks notwithstanding, we believe the equities will finally begin to appropriately reflect the improving prospects this year as companies return to profitability and as asset values resume the upward momentum** that drew interest back to this segment one year ago. Indeed, our 2018 supply and demand forecasts call for growth in the latter to exceed that in the former (on a percentage basis) by the largest amount since 2005, with **spot rates this year set to average the highest levels since 2010**. (Evercore ISI)

Key Supply Side Developments:

Supply Side developments in the world bulker fleet make for interesting reading. We started 2017 with 790.41 MDWT and have increased to 813.53 MDWT for a 2.9% net fleet growth during 2017. A further 4.2% (34.43 MDWT) is scheduled for delivery in 2018. If we were to apply a slippage factor of 35% (it was actually 33.7% in 2017) to these scheduled deliveries and further assume that scrapping reaches 15 MDWT (it was 15.16 MDWT in 2017) per annum we would be left with a net fleet growth of 0.91% (820.91 MDWT) in 2018 and

another 1.18% (830.60 MDWT) in 2019. Net fleet growth is finally heading in the right direction.

When do ship owners recycle their ships? When they **are very old** or when they are not so old **BUT they do not make ends meet** AND regulatory pressures will **require capital expenses** to be incurred in the immediate future. The freight markets are therefore the single largest driver of ships to the recycling yards. The lower the freight markets the greater the number of ships ending up at the recycling yards. 2016 is the perfect example of this logic. Q1 was a disaster with the BDI touching a new historic low every day before bottoming out at 290 points in February. The Q1 total for recycled ships was 14.22 MDWT, but as Q2 rates started to improve, recycling slowed with 'just' 8.52 MDWT reaching the breakers yards. This was followed by a poor showing of 3.24 MDWT in Q3 with a marginally improved 3.76 MDWT in Q4 resulting in 29.74 MDWT of ships being recycled reaffirming the inverse relationship with the BDI. In 2017 scrapping again reached a disappointingly low figure of just 15.16 MDWT as the average BDI almost doubled year over year. Net supply of ships, therefore, in dry bulk grew from 771.9 MDWT at the start of 2016 to 813.53 MDWT by the end of 2017. But despite this growth in the supply side over the last two years, the time charter rates have risen from the ashes, just like Phoenix, to semi-reasonable levels by the end of 2017. This suggests that **supply demand balance is very close.**

The question is **how will owners react to the market conditions during 2018 to 2020?** At PSL we have always believed in pre-empting compliance issues. As a result we have been selling our older ships (15 ships sold for recycling in 2015 - 2016, and 2 older ships sold for further trading in 2016 - 2017.) We don't know of any other ship owner who has taken such drastic action by recycling almost 33% of their existing fleet. If the markets remain reasonably strong as anticipated, then recycling will slow down, however due to the very low forward order book net increase in supply in 2018 and 2019 would be approximately 1% per annum whilst demand is scheduled to grow at around 4.0% to 4.5% per annum. If that happens and 'forced' scrapping takes off due to the regulatory pressures in 2019 and 2020, we could have a few very interesting years ahead!

What others' say about Supply Side Developments:

Finance is yet another broad-based issue for shipping, fueling overcapacity in some segments and upside opportunities in others. Funding patterns – whether from founders using retained earnings, outside public or private equity, banks, leasing companies, or providers of shipyard finance – render the shipping puzzle even more complex, transforming a game of chess into one of three-dimensional chess. **Money distorts shipping markets.** Private equity (PE) newbuilding investments surged in 2012–14 partly because PE had too much money, funds were nearing maturity dates, and managers had to either use their cash or lose it. (IHS Maritime)

The **tougher environmental regulations** ratified in recent months, forcing more capex onto already cash-strapped shipowners, **are likely to increase scrapping.** Also, from forward prices it seems as if the new sulphur limit will double bunker prices three years from now, which again is likely to **reduce vessel speeds and take out ~10% of shipping supply.** Combined, this would

limit supply growth, which along with very limited new ordering **lays a solid foundation for a strong cyclical upswing, if not another ‘super-cycle’**, we believe. (DNB Markets)

The Chairman of Yangzijiang Shipbuilding in China commented that **China has about 60 operational shipyards and he expects up to 40 of them to close in the next 3-5 years** due to lack of orders. Some of these yards currently have as few as one vessel on order. (Compass Maritime)

Scrapping activity remains at historically elevated levels, and the costs of complying with upcoming environmental regulation are likely to sustain this trend in the medium term. This **could continue to drive supply side rebalancing**, potentially helping shipping markets to transition into the next stage of the cycle. (Clarksons)

While improving market sentiments are likely to support increasing new orders for particularly dry bulk carriers during 2018, **ship financing may be a limiting factor** as European banks continue to struggle with bad shipping debts, resulting in even mid-size shipping companies facing difficulty obtaining funds. (Banchemo Costa)

Our current supply forecast includes 6% scrapping of total dry bulk in the period 2018-2020, hence if the above materialises there would be upside risks to our scrapping forecasts and hence even lower fleet growth than we forecast. **We forecast fleet growth of 0.6% for 2018e and 0.4% for 2019e** based on existing orderbook (DNB forecasts **2.5% for 2019e including orders placed for H2 2019**). (DNB Markets)

For the past two years (2015-2016) **port congestion** has played a minimal role in determining the direction of the Dry Cargo market. However congestion in the Pacific has crept up recently whether it be on the back of poor weather in China—the prime reason behind the acceleration of Capesize rates in November—or heavy rains during December in Indonesia which has led to significant delays for vessels loading coal particularly Supramax and Panamax tonnage loading in Samarinda and Taboneo. As a consequence of these **delays in Indonesia**, traders have sought to source alternative coal from Australia and this in turn has **pushed up demand/congestion particularly in Queensland** coal ports. Worst hit has been Dalrymple Bay where overrunning maintenance exacerbated the situation, with 45 vessels alone waiting to load in the last week of December. (Howe Robinson Research)

Key Regulatory Developments:

Regulatory impacts should see many more ships heading for the recycling yards in 2018, 2019 and 2020. With the Ballast Water Management (BWM) convention coming into force on the 8th of September 2019, after the two year grace period granted by the IMO, all existing ships will have to retrofit a BWM system in place by their next special survey after the 8th September 2019 deadline. Any ship that is older than 15 years of age would then become a potential recycling candidate when its next 5 year special survey cycle comes due after the effective date. The cost

benefit to retrofit an expensive BWM system would be too great a risk to run, especially when 15 year old ships are valued around recycling levels. It **will make the 'recycling' decision easier.**

What others' say about Key Regulatory Developments:

The IMO has warned there will be **no exceptions to the 1 January 2020 0.5% global sulphur cap** for marine fuel oils. Edmund Hughes, IMO's head of air pollution and energy efficiency, Marine Environment Division, said the global sulphur limit would enter into force on 1 January 2020 “with no delay”. Hughes said compliance, enforcement and monitoring of the sulphur cap will fall to both flag and port states. Hughes said breach of the limit could result in detention of the vessel. In addition non-compliant ship could be considered as being “unseaworthy”, which could affect its charter party and also indemnity in the event of an insurance claim. Vessels will have to comply with the sulphur cap either by using low sulphur fuels or scrubbers. (SeaTrade)

In July, members of the International Maritime Organization, **IMO, reiterated the enforcement of new sulphur limits of 0.5% in bunker fuel from 2020**, with vessels required to either switch to cleaner types of fuel or continue burning high sulphur fuel oil via onboard abatement facilities, known as scrubbers, costing \$3m-\$5m apiece. As most shipowners will need to comply with the new sulphur rules after 2020, the natural choice for them would be to use distillates. As refineries will still be producing high sulphur fuel oil, the price spread between distillates and the dirtier fuel will be so wide that shipowners will probably find installation of scrubbers more economical. In this sense, 2020 will be just a starting point for shipowners to gradually adopt the new bunker rules. (Lloyd's List)

If you are the chief engineer of a ship using a **scrubbing device** to ensure that its exhaust exhalations are fully compliant in terms of the regulations applying where the ship is located, you may well be unaware that the device is failing to live up to its technical expectations. It is not, said some severe-sounding regulator, a “plug and play” device but equipment that needs careful oversight. Similar cautions now surround ballast water management systems, which require both management and maintenance, almost regardless of the approved equipment and methodology employed, to kill the aliens in your tanks. (Lloyd's List)

The United States Coast Guard has seen the volume of **ballast water being treated** prior to discharge rise dramatically in the last two years **as its regulations kick in** and owners install systems on newbuildings and existing vessels. In a series of blogs, USCG Rear Adm. John Nadeau, assistant commandant for prevention policy wrote that the **volumes of treated water are increasing**, which could be taken to show the number of vessels with equipment onboard is increasing. But he also notes in another blog post in a recently published series that owners should not expect treatment systems to be “plug and play”, meaning that this is not an easily installable technology even if a newbuilding has been designed with enough space for a solution to be installed at a later date. **In 2015 there was 150,000 m3 of water being treated prior to discharge every month. Today that rate is up to 1.8m m3 of water per month**, representing a tenfold increase. (USCG)

Key Demand Developments:

China

The China Factor continues to have a disproportionate impact on the dry bulk markets. **China's GDP growth numbers** averaged 6.9% for the year 2017, the first time that this has exceeded the year before figure since 2010.

China's Iron Ore import, according to preliminary Custom's data, was an astonishing 1,075.30 MMT in 2017 or about 4.9% higher than the 1,024.71 MMT in 2016! Volume of imported Iron Ore in China during 2018 is contingent on import pricing parity versus domestic production, quality of domestic ore and local transportation costs for domestic ore.

Chinese steel production figure for 2017 increased to 845.09 MMT or 4.8% more than the 806.68 MMT in 2016.

China's Coal imports totaled 271.23 MMT in 2017 or 6.1% higher than the 255.67 MMT imported in 2016! Coal imports are contingent on import pricing parity versus domestic coal production/transportation costs AND the Government's anti pollution policy that has targeted the shutdown of 800 MMT of mining capacity by 2020 (500 MMT was shuttered between 2016 and 2017, with 150 MMT targeted for 2018). In a country that currently produces and consumes some 3.7 BMT of Coal per annum even a small change in China's coal imports could have a significant impact on the Dry Bulk freight markets.

Chinese steel exports have slowed significantly to 75.59 MMT in 2017 compared to the 108.99 MMT in 2016 all of which is carried by geared ships from the Handy to the Ultramax sectors.

The world's largest steelmaking country, **China fulfilled its target of cutting back steel capacity by 50 MMT in 2017**, according to state media, as well as phasing out another 120 MMT of low-tech illicit steel product capacity. It also plans to meet the 2016-2020 capacity cutback target of eliminating up to 150 MMT ahead of schedule in 2018. **China has phased out a total of 115 MMT steel capacity in the past two years.** (Reuters)

Coal production at Chinese coal mines has been high, as winter demand remained firm. Total output for December revealed that 314.9 MMT was produced, up 5% from November and 1.1% y/y. This is the highest output since December 2015, where 316.6 MMT was produced. Overall, **China produced 3.45 BMT of coal in 2017, 3.2% more than in 2016.** (Maersk Broker)

Chinese December domestic coal production was 315 MMT, a 2 year high and up 5% on month and 1% on year. Coal production has increased to meet additional demand during the winter months. Higher domestic production, coupled with expanding non-fossil fuel generation, will **weaken the need for coal imports this year.** (Braemar ACM)

China has announced a new policy to ensure zero growth in steel production capacity over 2018 after the country saw record iron ore imports in 2017. The move is expected to have a negative knock-on effect on dry bulk carrier demand and trade. In line with moves to tackle air pollution and modernise steel plants, China's Ministry of Industry and Information Technology said that in the more environmentally-affected areas of the Beijing-Tianjin-Hebei region, the

Yangtze River Delta and the Pearl River Delta, **plants must remove at least 1.3 MMT of outdated capacity for every 1 MMT of fresh capacity.** This development could deal a blow to the capesize and panamax segments as **it could mean that China's 2018 steel production growth will be close to zero, leading to nearly flat growth in total iron ore demand.** (Lloyd's List)

China's economy grew 6.8% in the fourth quarter of 2017, faster than expected, according to official data out today. It was spurred by a rebound in the industrial sector, a resilient property market and strong export growth. For all of 2017, **the world's second-largest economy grew 6.9% year-over-year, beating the government's target of 6.5%** and marking the first annual acceleration for the economy since 2010. (Reuters)

“Policy changes in China will have a profound impact on both the iron ore and the steel market in the coming years,” Erik Hedborg, a senior consultant at CRU Group in London, said by email. “It is possible that similar production cuts (in steel, cement and aluminum) will return in the future if it turns out the measure had a positive impact on the environment without hurting the industry too much.” In the meantime, Beijing-resident Fei is optimistic the blue skies that have come from mills being forced to make less steel for a while, will remain to the Lunar New Year in February, and beyond. “Whatever steps the government is taking seems to have worked,” Fei said. It “has made Beijing a nicer place to be.” (Bloomberg)

As recently as two years ago, the talk of town was about the “End of the Coal Era”. And yet, for **“King Coal”, the reports of his death have been greatly exaggerated.** Especially thanks to China, where things are really getting interesting. It's been a great year well above expectations. And that's because so far the 'pollution crackdown' has targeted domestic mining more than it did imports. One of the reasons that coal imports softened in Q4 was because of the government's push to replace coal used for heating with more environmentally friendly natural gas. However this misfired quite spectacularly, as it led to gas shortages in the country and LNG prices spiking to over 8000 Yuan (USD 1200) per ton, the highest since 2011, and hence cold homes and classrooms for those who could not keep up. This in turn has led to a backlash and the government has partially backtracked, allowing more coal to be again used for heating. As the crackdown continues on coal mining in China, and imported coal remains cheaper and more easily available than LNG, we do expect coal imports to rebound in January (which in any case is a seasonally very strong month for coal imports due to the winter heating requirements). (Banhero Costa)

Thermal power accounted for the majority of new power capacity acquired in China in 2017, according to the National Energy Administration. In total, the power generation capacity grew by 133.7 GW -of which 34%, or 45.8 GW, came from coal-fired plants. Hydropower grew by an additional 12.9 GW, or equal to 9.6% of the new capacity. **Electricity consumption, which is often regarded as a good indicator of economic activity, grew to 6.3 trill. kwh in 2017, an increase of 6.6% y/y and faster than 2016, where it rose by 5%.** Electricity use by the service sector increased the most in 2017, up 10.7% to 881.4 bill. kwh. However, usage in the agricultural sector also increased, reaching 115.5 bill. kwh for the year, up 7.3%. (Maersk Broker)

Just as the uptick in **demand for electricity** during the second half of 2016 **in China** was key to reviving the fortunes of the Dry Cargo market, so the slowing of growth to 5.4% (7.8% Q3 2016) might be one reason for the recent easing of rates in the Pacific. With significant recent rain especially in South China, thermal power's share of electricity mix has also reversed in favour of hydro and, though official customs data have not been released as yet, we suspect that coal imports in October may be down by as much as 20% yoy. Bad weather has also led to disruption to the seaborne domestic trade with port authorities seemingly wanting to clear backlogs of Chinese flag vessels at discharge ports. There is little reason to expect an immediate upturn in coal imports especially as the Chinese government has put measures in place to cut output in heavy industry in certain cities over the winter months in an effort to improve air quality. (Howe Robinson Research)

A total of 2,802 coal enterprises were eliminated in China over the past five years as supply-side structural reform in the coal mining sector accelerated nationwide, data from the China National Coal Association (CNCA) showed. The number of large coal producers was cut to 5,067 by the end of 2016 from 7,869 in 2012, according to CNCA. **Around 1,000 coal mines will be closed in 2017 in 12 provincial-level regions**, including Shanxi province and Inner Mongolia, two of China's leading coal-producing regions. In the first seven months of 2017, about 128 MMT of backward coal production capacity were forced out of the market, reaching 85% of the annual target. (Xinhua)

China aims to cut outdated coal capacity by 150 MMT in 2018. China removed 500 MMT of outdated coal mines over 2016 & 2017 combined. If the 2018 target is met, China will have achieved 81% of the 800 MMT targeted capacity cuts over 2016-2020. These aggressive capacity cuts **offer a ray of light for coal imports**. (Braemar ACM)

Rio Tinto is forecasting demand for aluminum to increase by 4% per year for 2018, with the uptrend likely to continue to over a 15-year span. They see the key driver of the accelerated demand coming from anticipated growth in transportation sector, especially uptake from electric vehicles offering further potential upside. **China, the world's largest aluminum producer** with 54% of the global output, is enforcing more stringent curbs on illegal production capacity and has removed close to 1.5 MMT of illegal domestic production capacity in recent months. Whilst the short-term impact of pollution controls in China during the winter months may slow production, the overall uptick in demand will be positive for dry bulk going forward. (Arctic Shipping)

Belt and Road initiative (BRI):

China driven BRI, previously known as One Belt One Road, **will also drive dry bulk shipping** in the long run. The Chinese government is planning to invest heavily in infrastructure development to revive the 16th century silk-route from China through Central Asia and the Middle East to Europe, extending to the maritime route linking China to Southeast Asia and East Africa by sea. The BRI would involve building new ports, roads, railways, power plants and pipelines. This highly ambitious project will create strong tailwinds for dry bulk shipping, taking

into account the massive planned infrastructure development undertaken by the Chinese government, which can entail an expenditure of up to USD 8 trillion by 2020. (Drewry)

Situated near the starting point of the westbound 21st Century Maritime Silk Road, **Southeast Asia is a key beneficiary** of outward investment from **China's Belt and Road**, with Indonesia, Malaysia, Singapore, and Thailand the largest recipients. China is keen to build relationships in the region because most of its trade flows and up to 80% of its energy imports pass through the Strait of Malacca. **China believes the Malacca strait could be exposed to a blockade by the United States** and its allies, so it has long sought to reduce its dependence on the chokepoint. (IHS Maritime)

East Africa is touted as the main focus of the Belt and Road. “Various African countries along the [route] have the potential to provide major opportunities for investment, including Kenya, Tanzania, Ethiopia, Djibouti, and Egypt,” said a report issued in October by law firm Baker McKenzie entitled *Belt & Road: Opportunity & Risk*. Baker McKenzie. East Africa is a more integral part of Belt and Road owing to Djibouti's ports, Ethiopia's manufacturing, and the region's existing plans to connect rail, road, and energy networks. Egypt offers a significant opportunity for Chinese firms, but they will need to collaborate with local players and the multilateral banks to avoid major challenges. One key challenge will be to ensure that the whole continent benefits from Chinese investment. There is a need to significantly improve intra-African trade and regional integration. For example, there are 54 countries in Africa and 15 of them are landlocked. With around 90% of global trade being carried by the international shipping industry, Africa must improve regional integration to the 30% of Africa that is landlocked. Intra-African trade is imperative if these countries are to fully integrate into the global economy. (IHS Maritime)

The Trans Pacific Partnership—which Trump axed—was an effort to surround China with open trade arrangements that would ultimately pressure it to follow suit. Now, with TPP dead and Washington building trade walls, **China has taken the initiative, pushing a Belt and Road initiative** that envisions closer economic ties with virtually every country in the world *except* the U.S. Hard to see how that makes America great. (Fortune CEO Daily)

Americas

Apologies for being a contrarian. **All signs point to a solid economy in 2018, with tax cuts boosting growth. But that's precisely the reason to start worrying.** The economic expansion is eight and a half years old, and this spring, it becomes the second longest on record. Unemployment is at all-time lows in 13 states. Wages are (finally) starting to rise. As a result, there's a steadily growing danger that something will happen to end the streak—a spike in interest rates powered by the Fed; a collapse in the stock market caused by a revaluation of tech companies; a trade war sparked by the President; or a nuclear standoff with Kim Jong-un, to name a few. None of these, by themselves, is a likely event; but together they **represent an impressive flock of potential black swans circling an aging economic expansion.** (Fortune CEO Daily)

A bipartisan group of U.S. senators met with administration officials to discuss drafting legislation to **spend \$1 trillion on improving the country's infrastructure**, a goal that President Trump made a priority in the 2016 elections. (Reuters)

As expected, the **Fed raised interest rates** as well as their economic growth forecast for 2018. They stuck with a projection for **three interest rate hikes in 2018**, also widely anticipated. Policy makers confirmed that monthly roll-offs from the central bank's balance sheet would step up, as scheduled, to \$20 billion from \$10 billion beginning in January. (Bloomberg)

Brazilian 2017 iron ore exports reached 384 MMT, **up 2.7% on year**. The growth was par with the 2016 growth of 2.2%. In 2018 we forecast exports at 391 MMT, which would equate to 1.8% growth. (Braemar ACM)

Brazilian grain exports rose substantially last year on the back of excellent harvests and strong demand. Though soymeal exports remained fairly static at 14.2 MMT, soybean exports rose 32% to 68 MMT and corn up 34% to 29 MMT. China's soybean imports were up a remarkable 15 MMT to nearly 54 MMT, accounting for almost all the incremental growth and its importance to Brazil cannot be underestimated as the second largest importer of soybeans (excluding soymeal) is Spain at a mere 2 MMT! **74.5 MMT (67%) of all Brazilian grain is now shipped to Asian destinations**. (Howe Robinson Research)

Asia

India's economic growth bounced back from a three-year low. Gross domestic product in Asia's third-largest economy expanded 6.3% in July to September from a year earlier, the Statistics Ministry said in a statement in New Delhi. That's faster than the 5.7% in the previous quarter. (Bloomberg)

Indian 2017 steel production saw a new record at 101 MMT, rising 5.9% on year. In 2018 we forecast production at 112 MMT. Increased steel production will support seaborne coking coal trade, particularly from Australia and the US. (Braemar ACM)

Under **India's Pradhan Mantri Awas Yojana (PMAY)**, **construction of 10 million houses will be completed by December 2018**, said Amarjeet Sinha, Secretary of Department of Rural Development. (Live Mint)

The boom in infrastructure projects is driving steel demand in India as the country prepares for national elections to be held in 2019. Steel consumption in fiscal 2018-2019 is likely to continue at an estimated 4-5% annual rise, according to a survey of mill officials and traders. **This increase in steel demand follows the launch of numerous infrastructure projects** announced by Prime Minister Narendra Modi's government for 2018. The implementation of these projects was expected to pick up speed before the country goes to the polls in 2019, market participants said. **Steel consumption for housing construction is also likely to rise** due to Modi's 'Housing for All by 2022' movement to provide slum dwellers with affordable housing by building 12 million units in urban areas over the next three years and 10 million units in rural areas by March 2019. On October 25, the government approved the **Bharatmala project that**

includes the building of about 34,800 km of roads. Phase 1 comprising 24,800 km of roads is scheduled to be completed in 2022. This is in addition to other road construction projects comprising 48,877 km planned by the National Highways Authority of India over the next five years. Road construction will result in a boost in steel consumption from the building of bridges, flyovers, culverts, crash barriers, the SAIL official said. (Platts)

South Korean 2017 coal imports were 109 MMT, up 17% year-on-year. The growth is due to large increases in power generation capacity, with **five new coal-fired power stations** coming online since June, with a combined capacity of 4.6 Giga watts. The main supplier of South Korean coal is Indonesia at 41 MMT in 2017, up 13% on year; Russia with 17 MMT, up 4% on year; and Colombian exports, at 4 MMT, up 54% on year. (Braemar ACM)

Rest of the World

The global upswing in economic activity is strengthening, with global growth projected to rise to 3.6% in 2017 and 3.7% in 2018. Broad-based upward revisions in the euro area, Japan, emerging Asia, emerging Europe, and Russia more than offset downward revisions for the United States and the United Kingdom. (IMF)

We believe that the **world economy is finally leaving behind the aftermath of the financial crisis, the great recession, the euro area crisis and the commodity price slump.** Without new liabilities **it is growing in a synchronized way** where trade channels transmit and reinforce domestic demand around the globe. **This provides a fertile ground for earnings growth** and equity markets as inflation remains modest which also allows central banks to continue on their very measured path of policy tightening. (J. Safra Sarasin Bank)

It's looking like **boom time in the world economy** again. As more economists publish their 2018 outlooks, those from Goldman Sachs Group Inc. and Barclays Plc are proving the most bullish in predicting global growth will reach 4% next year. That would be the strongest since 2011 and up from the 3.7% that Goldman Sachs estimates for this year. "The ongoing economic expansion has substantial momentum," Barclay's economists Ajay Rajadhyaksha and Michael Gavin wrote in a Nov. 16 report. **"It is not overly reliant on any single geographical region, industry, or source of demand. It does not seem to have generated economic or financial excesses that pose an immediate threat."** At Goldman Sachs, economists led by Jan Hatzius suggest the **outlook is as "good as it gets"** after a year in which growth in the Group of Seven economies is poised to beat that projected by the Bloomberg survey of forecasters for the first time since 2010. Most major economies are even running ahead of their pre-financial crisis average, Hatzius's team said in a Nov. 5 report. Despite the acceleration in growth, **few economists see a surge in inflation,** preferring instead to predict a gradual acceleration in price pressures that would be welcomed by central bankers. Goldman Sachs is more aggressive than most in forecasting the **Federal Reserve will raise its key interest rate four times next year.** (Bloomberg)

Of all the wildcards in shipping, **geopolitics** is the biggest in the deck, capable of making and destroying fortunes virtually overnight. It is one of the main reasons why shipping markets will always be unpredictable and why so many of those who have made big bets based on rate and

asset-value forecasts have found themselves – as Fiedler so viscerally put it – eating glass. (IHS Maritime)

The euro zone economy will mark its best year in a decade and maintain solid growth well into 2018, according to economists in a Reuter’s poll who said the risk was that their forecasts might not be optimistic enough. Inflation, last clocked at 1.4%, is expected to stay below the European Central Bank’s target of just under 2% until at least the second half of 2019, according to the poll of over 80 economists taken Nov. 13-16. Euro zone economic growth has been surprisingly robust in 2017, outpacing both the United States and Britain simultaneously for the first time since the 2007-08 financial crisis, and also one of the most synchronous upturns across the euro zone economies. **Such a high degree of confidence in above-average performance for the euro zone has never been captured in Reuter’s polls stretching back since the financial crisis, and indeed has been a rarity ever since the euro was launched in 1999.** (Reuters)

Eurozone’s economic expansion remains solid and broad-based, and is expected to sustain its strong momentum into next year, the European Central Bank said in its regular bulletin. Overall, incoming data are generally pointing to unabated upside growth momentum in the fourth quarter of 2017 and around the turn of the year, with **robust growth expected to continue in 2018.** The ECB Staff raised the growth projections for euro area in its latest round of forecasts. They now see 2.4 percent growth for this year, 2.3% for 2018, 1.9% for 2019 and 1.7% in 2020. (RTT News)

After years of bleak news from U.S. and **European steelmakers**, the industry is **finally thriving again.** ArcelorMittal, the largest producer, says it’s more than just a blip. “When things structurally improve they last longer than months,” Chief Financial Officer Aditya Mittal said in an interview in Paris. **“It should be a multiyear phenomenon.”** Steel prices and producers’ shares are being buoyed by a rare combination of good news. Global demand is strong — ArcelorMittal sees usage rising 3% this year — and China, which has long been the cause of too much supply, is shutting plants to cut pollution. Nations have also strengthened trade defenses after China’s so-called steel dumping became a political flashpoint. (Bloomberg)

Yours Sincerely,

Precious Shipping Public Company Limited

Khalid Hashim
Managing Director