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- *Review of Dry Bulk Shipping Market*
- *Right Reserved to Reapply the Port Congestion Charge*
- *Frequent Detention Deficiencies Found During Ship Inspections*
- *Upwards and Downwards of World Port Rankings*
- *Port Operations under Severe Weather Situations*
- *Corporate Governance and Risk Management*
- *A Strategy for Securing the Maritime Commons*

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Volume 2, Issue 4, Winter 2014

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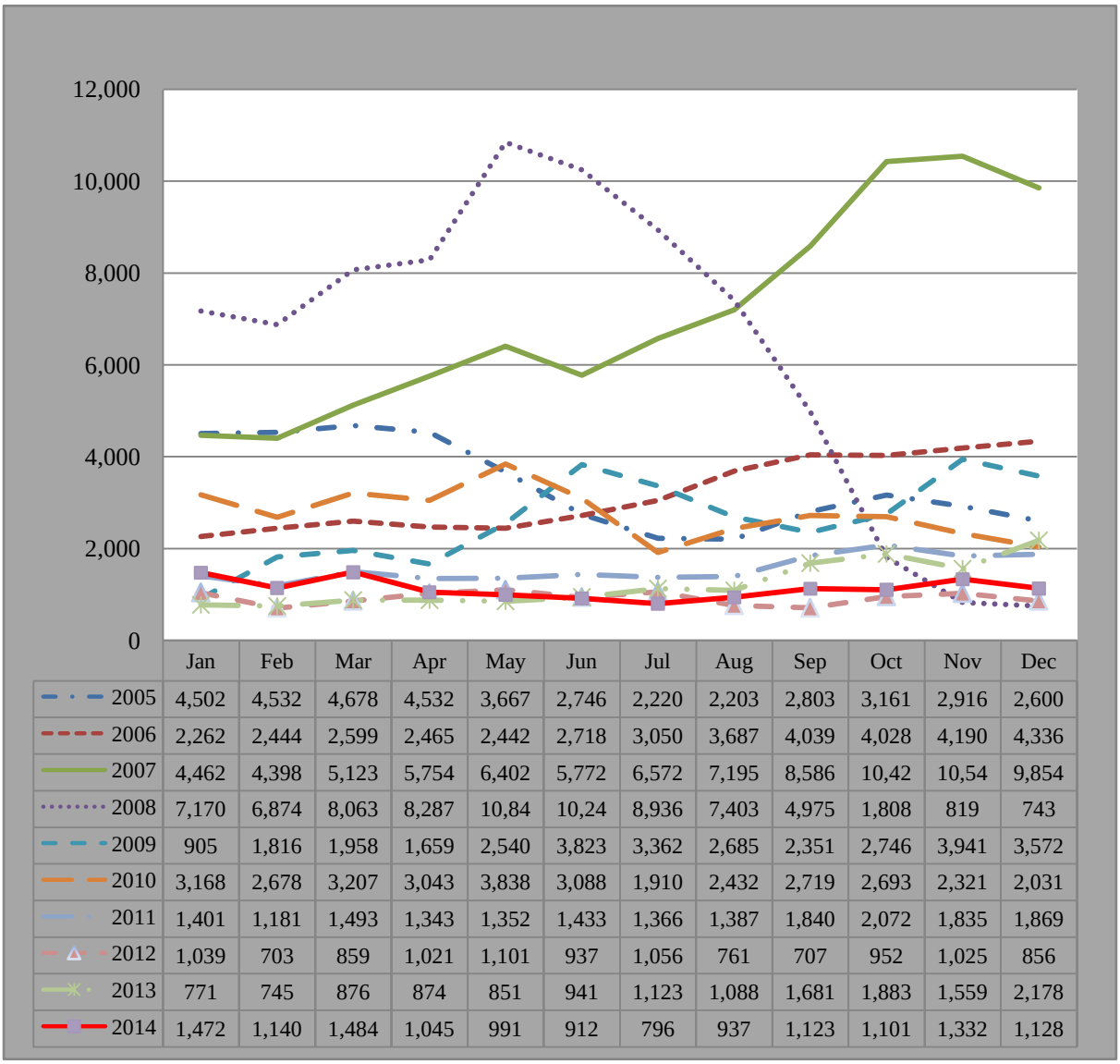
Review of Dry Bulk Shipping Market

Ms Fang Zhang, CY Tung International Centre for Maritime Studies

The CONSTANTLY CHANGING Dry Bulk Market

The growing global economy leads to increasing demand for commodities and raw materials. The Baltic Dry Index (Index) is an indicator of demand for the future market. The Index provides insights into the global demand for commodities – grain and wheat for instance, and raw materials – iron ore, coal, cement and steel for example. Raw materials are shipped and used for infrastructure construction such as highways, railways, buildings, machines, and power stations.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2005	4,502	4,532	4,678	4,532	3,667	2,746	2,220	2,203	2,803	3,161	2,916	2,600
2006	2,262	2,444	2,599	2,465	2,442	2,718	3,050	3,687	4,039	4,028	4,190	4,336
2007	4,462	4,398	5,123	5,754	6,402	5,772	6,572	7,195	8,586	10,42	10,54	9,854
2008	7,170	6,874	8,063	8,287	10,84	10,24	8,936	7,403	4,975	1,808	819	743
2009	905	1,816	1,958	1,659	2,540	3,823	3,362	2,685	2,351	2,746	3,941	3,572
2010	3,168	2,678	3,207	3,043	3,838	3,088	1,910	2,432	2,719	2,693	2,321	2,031
2011	1,401	1,181	1,493	1,343	1,352	1,433	1,366	1,387	1,840	2,072	1,835	1,869
2012	1,039	703	859	1,021	1,101	937	1,056	761	707	952	1,025	856
2013	771	745	876	874	851	941	1,123	1,088	1,681	1,883	1,559	2,178
2014	1,472	1,140	1,484	1,045	991	912	796	937	1,123	1,101	1,332	1,128

Figure 1. Monthly Baltic Exchange Dry Index from 2005 to 2014

Data source: Clarksons Shipping Intelligence Network, as of December 2, 2014

As is indicated in Figure 1, the Index had a steady monthly increase from 2006 to 2008; however, the Index started dropping from the peak of 10,844 in May, 2008 and continued to decline to 743 in December 2008. As is well known, the global economy experienced a downturn after the financial crisis occurred in 2008. Hence, it happened that the Index suffered a sharp decline from 2008 to 2009, and continued to decline to the present level except for a moderate rise in 2010 (See Figure 2). The Index remains significantly below the ten year historical annual level.

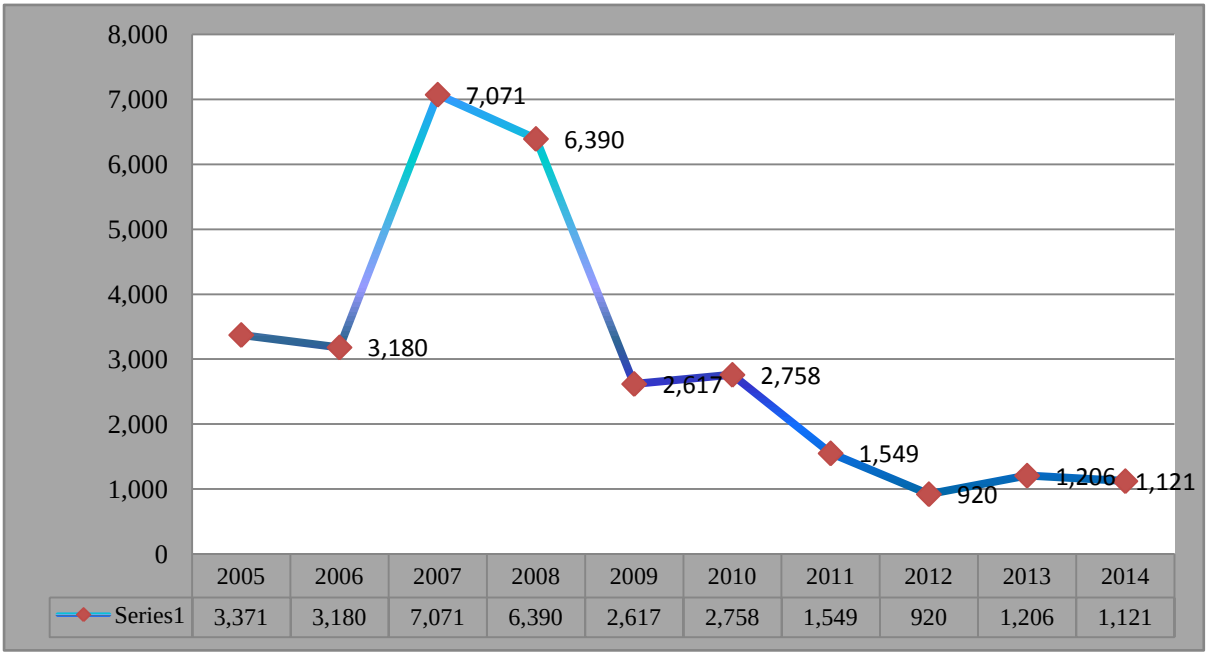
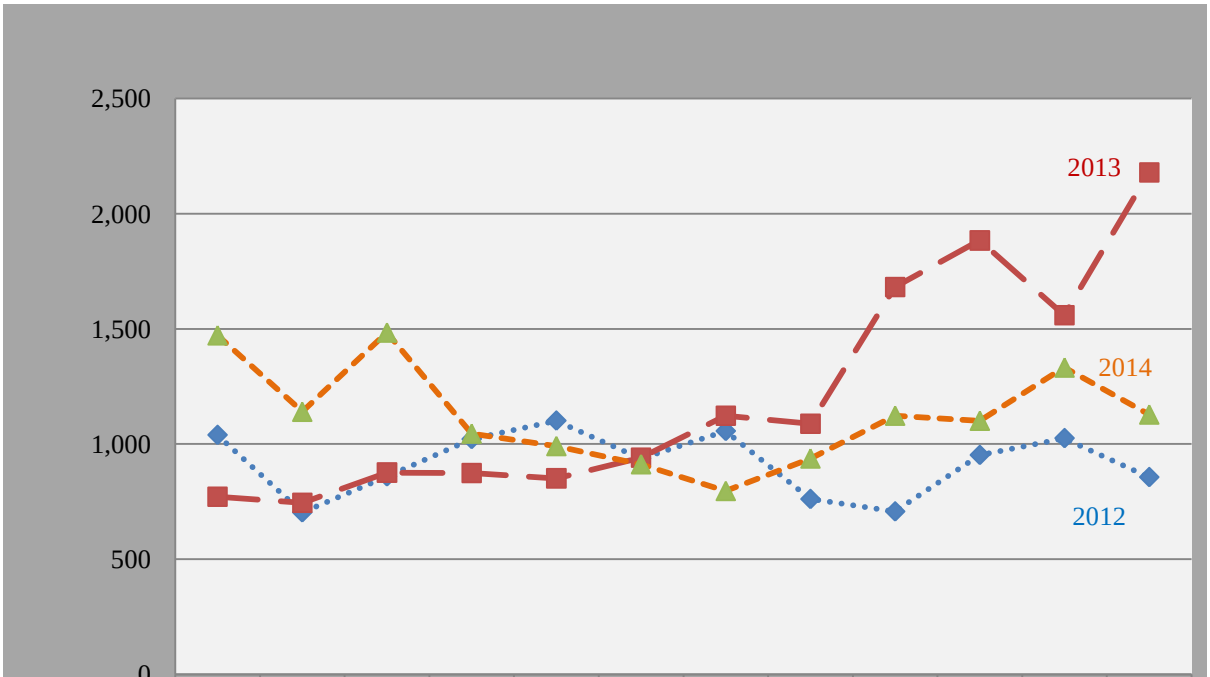


Figure 2. Annual Baltic Exchange Dry Index from 2005 to 2014
Data source: Clarksons Shipping Intelligence Network, as of December 8, 2014

The overall trend was declining from 2010 to 2014 with the BDI dropping from 2,758 to 1,121, recording a significant decrease of 59.4%. Even though it seemed like a turning point occurred in 2013, the BDI remains lower. The global economy recovers rather slowly after the financial crisis, and the European countries are suffering from a debt crisis.

Figure 3 illustrates and benchmarks the monthly Baltic Exchange Dry Index over the past three years, offering insights into the recent changes in the global trade market. The monthly BDI of 2012 presents evidently seasonal traits, with fluctuations limited to a narrow range. Referring to Figure 3, the Index went way up in 2013, as a result of a combination of various policies. First, deliveries of new ships decreased sharply, especially in the third and fourth quarters of 2013. This created favorable conditions for achieving a more balanced demand-and-supply dry bulk market. Additionally, seasonal demand in winter helped the market. Lastly, throughput of iron ore at major ports in China increased significantly, as did the

domestic grain throughput. Both factors contributed to the earnings of Capesize sector and hence pulled up the related Baltic Index. Nevertheless, due to a strong market rebound as well as a high level of cumulative build up of oversupply in 2013, the market began to shrink from the beginning of 2014. As shown in Figure 3, the BDI decreases from 2,178 in December 2013 to 1,472 in January 2014. A drop of more than 32 percent happened within a short period. Unlike the trend in the previous year, the market continued to go down in 2014. In general, the market appeared better than 2012 even though the BDI recorded only 796 in July, which was the first month recording a lowered Index level than that of 2012. In subsequent sections, a brief analysis and discussions on the sub-market indices and factors that contributed to the current bulk market would be considered.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	1,039	703	859	1,021	1,101	937	1,056	761	707	952	1,025	856
2013	771	745	876	874	851	941	1,123	1,088	1,681	1,883	1,559	2,178
2014	1,472	1,140	1,484	1,045	991	912	796	937	1,123	1,101	1,332	1,128

Figure 3. Monthly Baltic Exchange Dry Index from 2012 to 2014
Data source: Clarksons Shipping Intelligence Network, as of December 2, 2014

The BDI is comprised of four Baltic indices which represent four different sizes of oceangoing dry bulk transport vessels as shown in Table 1.

Table 1. Baltic Indices and Bulk Carrier Market

Baltic Indices	Ship Types	Dead Weight Tons	% of World Bulk Fleet	Cargoes
BCI	Capesize	100,000+	15.8	Iron ore, coal, etc
BPI	Panamax	65,000-100,000	23.8	Iron ore, coal, grain, bauxite, etc
BSI	Supramax	40,000-65,000	30	Grain, coal, steels, cement, potash, rice, sugar, salt, etc
BHSI	Handysize	10,000-40,000	30	

Data source: Clarkson Research Services, Autumn 2014

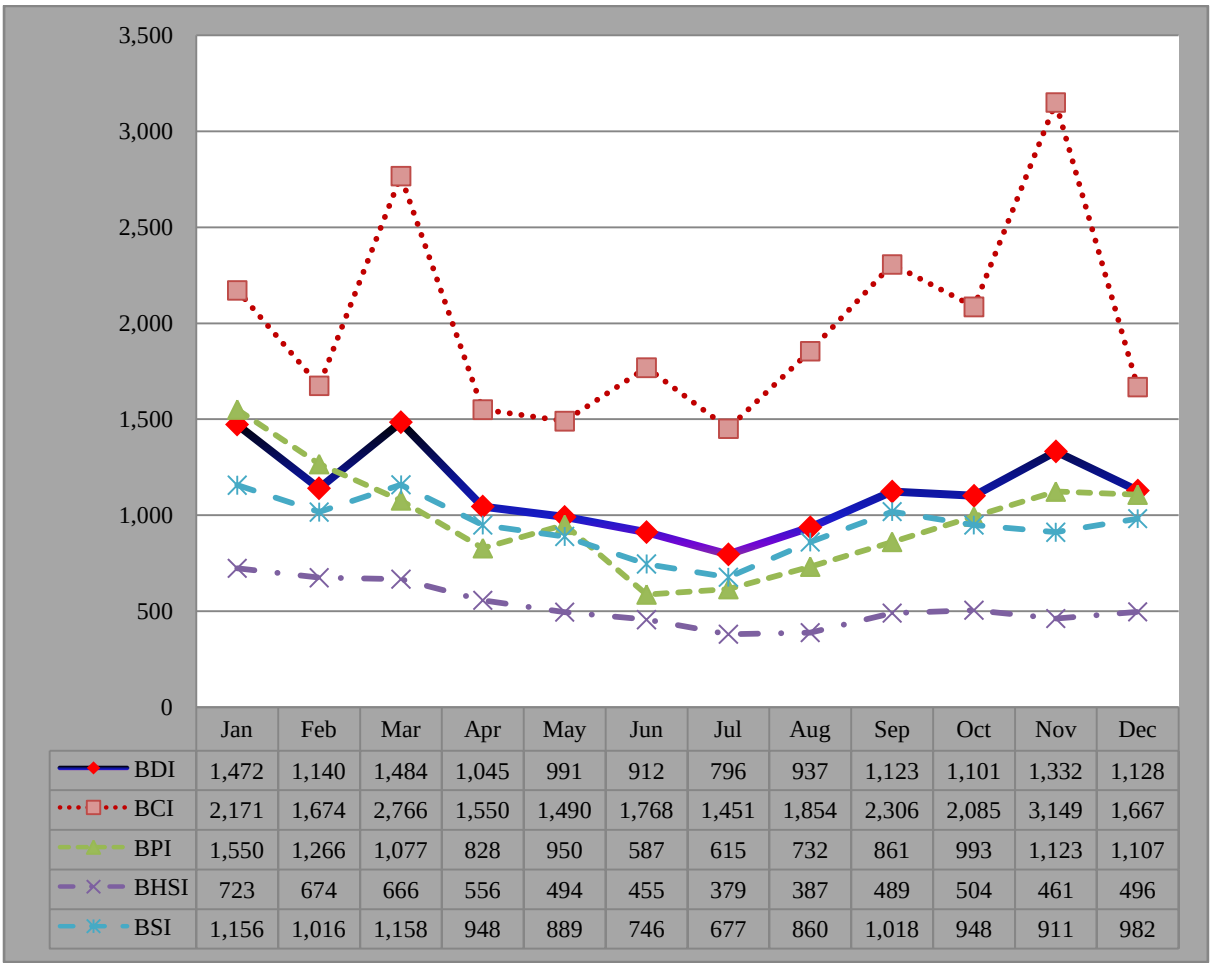
The Baltic Capesize Index (BCI) is about the cargo movements of Capesize vessels. According to the Baltic Exchange, it consists of twelve routes with voyages and trip-charters. The Baltic Panamax Index (BPI) is concerned with cargo movements of Panamax vessels of 60,000 to 99,999 mt dwt and has five routes. The Baltic Supramax Index (BSI) considers freight rates for Supramax-type vessel and has routes including nine lanes. The Baltic Handysize Index (BHSI) reflects freight rates for Handysize-type vessel of 10,000 to 39,999 mt dwt covering six trip-charter routes in the Atlantic basin and in the Pacific basin.

The Dry Bulk Market in 2014

❖ *Dry Bulk Market's Up-and-Down, Mostly Slightly down*

From the beginning of the third quarter of 2014, the BDI recorded an increasing level from 796 in July to 1,123 in September. However, since September 2014, the BDI had a fluctuating performance. The BDI decreased slightly in October and then returned to its upward trend with an increase of 21% in November (See Figure 4).

China is one of the largest bulk markets in the world, and remains a key driver of the dry bulk trade throughout the world. The rebound was stimulated by China's demand for iron ore which triggered the demand for Capesize vessels, and the BCI saw on the back of a rise from 1,854 in August to 2,306 in September. As China's economy growth rate slowed down in the following few months, and the amount of iron ore accumulated, China's importation of iron ore reduced by 5.3 million tonnes from September to October. As a result, the Index in the third and fourth quarters of 2014 was far below the number recorded in the same period of 2013. Specifically, the BDI was 1,101 in October 2014, which was a decrease of 41.5% compared with the level of 1,883 in October of 2013. Table 2 presents the month-on-month change between 2013 and 2014 in every sub-market, from which the growth trends of the market can be seen clearly, be it steady, soft, weak, strong, and firm.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BDI	1,472	1,140	1,484	1,045	991	912	796	937	1,123	1,101	1,332	1,128
BCI	2,171	1,674	2,766	1,550	1,490	1,768	1,451	1,854	2,306	2,085	3,149	1,667
BPI	1,550	1,266	1,077	828	950	587	615	732	861	993	1,123	1,107
BHSI	723	674	666	556	494	455	379	387	489	504	461	496
BSI	1,156	1,016	1,158	948	889	746	677	860	1,018	948	911	982

Figure 4. Monthly Baltic Indices of All Bulk Carriers in 2014

Data source: Clarksons Shipping Intelligence Network, as of December 2, 2014

Table 2. Dry Bulk Market Month-on-Month % Change

	BCI			BPI			BSI			BHSI		
	2013	2014	*Change*	2013	2014	*Change*	2013	2014	*Change*	2013	2014	*Change*
Jan	1,441	2,171	*51*	719	1,550	*116*	726	1,156	*59*	459	723	*58*
Feb	1,398	1,674	*20*	807	1,266	*57*	692	1,016	*47*	422	674	*60*
Mar	1,275	2,766	*117*	1,147	1,077	*-6*	906	1,158	*28*	505	666	*32*
Apr	1,237	1,550	*25*	1,123	828	*-26*	904	948	*5*	534	556	*4*
May	1,347	1,490	*11*	930	950	*2*	863	889	*3*	549	494	*-10*
Jun	1,637	1,768	*8*	865	587	*-32*	907	746	*-18*	538	455	*-15*
Jul	1,986	1,451	*-27*	1,084	615	*-43*	914	677	*-26*	553	379	*-31*
Aug	2,069	1,854	*-10*	941	732	*-22*	918	860	*-6*	524	387	*-26*
Sep	3,467	2,306	*-33*	1,335	861	*-36*	971	1,018	*5*	554	489	*-12*
Oct	3,294	2,085	*-37*	1,937	993	*-49*	1,193	948	*-21*	632	504	*-20*
Nov	2,494	3,149	*26*	1,495	1,123	*-25*	1,356	911	*-33*	708	461	*-35*
Dec	3,843	1,667	*-57*	1,921	1,107	*-42*	1,523	982	*-36*	801	496	*-38*

Data source: Clarksons Shipping Intelligence Network, as of December 2, 2014

❖ *Capesize Sector Follows the Up-and-Down Trend*

The development of China's iron ore import demand is likely to remain a key factor in influencing the Capesize sector. As indicated in Figure 4, the Capesize market has showed notable improvement since the very beginning of Q3, and it even kept a growing trend in the first half of Q4. In November, the Capesize sector presented the most favorable market yet, and the BCI was able to reach the highest level of the year by surpassing 3,000, rising by a surprising 100% in only four months. This may be partly due to the strong growth of iron ore production and output by Australia. The increasing supply of iron ore from Australia and Brazil has caused the price to go down and thus replaced some of China's domestic iron ore, which eventually led to the increasing movement of iron ore from Australia to China.

However, due to the convening of the APEC 2014, a lot of manufacturing enterprises surrounding Beijing area were informed to suspend operations, causing a build up of oversupply in iron ore and coal. Consuming the pre-stored materials might have a negative impact on the level of importing and thus place some downside on the Capesize market. As shown in Figure 4, the BCI decreased sharply within only one month, going from the highest point down to 1,667, resulting in a surprising slump of more than 50%.

In the future, a number of iron ore mine expansion projects in Australia and Brazil will further increase the displacement of China's domestic iron ore and is expected to lead to some moderate upside to the Capesize market.

❖ *Panamax Sector Shows Continued Growth in Q3 & Q4*

Growth in China and India's coal imports has generally supported the upside of the Panamax market, and the seasonal demand in the northern part of China as well as the positive influence that the Capesize sector has had made the Panamax market more favorable. Additionally, export of grain from the west of America has also boosted the Panamax-type freight rate. According to Figure 4, the BPI recorded a strong growth of more than 80% within only four months, increasing from 615 in July to 1,123 in November. The strong growth trend appeared quite similar to that of the Capesize sector. Indeed, the continuous growth in Panamax sector contributed to the overall growth of the average bulk earnings while the rest of the vessel-type market was experiencing different levels of volatility.

Later in mid-November, a Free Trade Agreement was signed between Australia and China, making Australia exempt from China's 3% coking coal import tax, and Australia will be

exempt from the 6% tax on steam coal imports within the next two years, according to Clarksons Dry Bulk Trade Outlook released in November. The initiative might add some further upside to the Panamax sector and reduce the effect caused by China's implementation of taxes on coal imports. Therefore, even though from October 15, 2014, China began to implement a 3% to 6% tax on coal imports, this eventually has not had much immediate impact on the Panamax market. Australia is one of China's major exporters of coal, and owing to the Free Trade Agreement, importing coal from Australia would still pull up the dry bulk market.

Elsewhere, the introduction of the Large Combustion Plant Directive (LCPD) in Europe is expected to limit growth in steam coal imports into the region. However, improvements in steel production and blast furnace iron output in Europe is expected to support coking coal imports. Imports into other Asian countries are also projected to rise. Overall, the coal trade is projected to rise. Despite the potential demand, a build-up of oversupply in the market and rapid fleet development are likely to place pressure on earnings in the market in the coming years.

❖ *Superamax Sector Climbs in Q3, Falls in Q4*

In recent years, there has been significant oversupply in the Handymax market, and consequently average trip earnings have remained significantly below the ten year average. The market shoed continuous growth in Q3, as the BSI increased from 677 to 1,018. Substantial growth in intra-Asian mineral trade supported Handymax demand, particularly Indonesian shipments of coal and other minerals to India and China.

However from January 2014, in order to limit some of the initial economic pain, the Indonesian government enacted a Mineral Export Ban. Mineral ore exports such as nickel and bauxite were banned outright, while exports of so-called mineral concentrate – including copper, iron ore, manganese, lead and zinc – will be permitted for the next three years. Nevertheless, the export of concentrate will be subject to minimum purity requirements and a progressive tax. Copper concentrate, for an instance, will start at 20 percent, rising to 60 percent of a shipment's value by 2016. The ban is expected to have a mixed impact on the mine and shipping industry. Everybody involved is in a wait and see phase. As a result, trade flows of mines will be redirected, particularly benefiting rival commodity exporters such as Australia, the largest producer of bauxite.

❖ *Handysize Sector Continues its Slow Growth in Q3 & Q4*

After a long period of downturn in the Handysize sector this year, the Handysize market finally started to recover this year since the beginning of Q3, although it did record a rather slow growth rate. The BHSI, as is shown in Figure 4, started its upward growth from July and continued to have a slight growth in Q3. Overall, the Handysize demand is far below the historical average and the market still seems weak. Minor bulk trade is the major driver of Handysize demand. The trade was hampered by the Indonesian ban on unprocessed mineral exports, making 504 to be the highest level of BHSI in Q3 & Q4, as indicated in Figure 4. The gap between the highest point and the lowest one within six month was 125, with not much vitality compared to all the other bulkcarrier markets. In contrast to the larger bulkcarrier sectors, the Handysize fleet has grown by the slowest pace and is projected to continue its fairly sluggish growth. The specialised nature of Handysizes and their ability to operate on a wider range of routes will continue to support the market.

❖ *Average Bulk Carrier Earnings Record Growth in Q3 & Q4*

According to Clarksons Source & Methods Document, earnings are estimated from voyage freight rates, and expressed in $/day for the voyage. In broad terms, earnings for each route are calculated by taking the total revenue, deducting current bunker costs based on process at representative regional bunker ports, estimated ports costs (after currency adjustments) and total commission and then dividing the result by the number of voyage days.

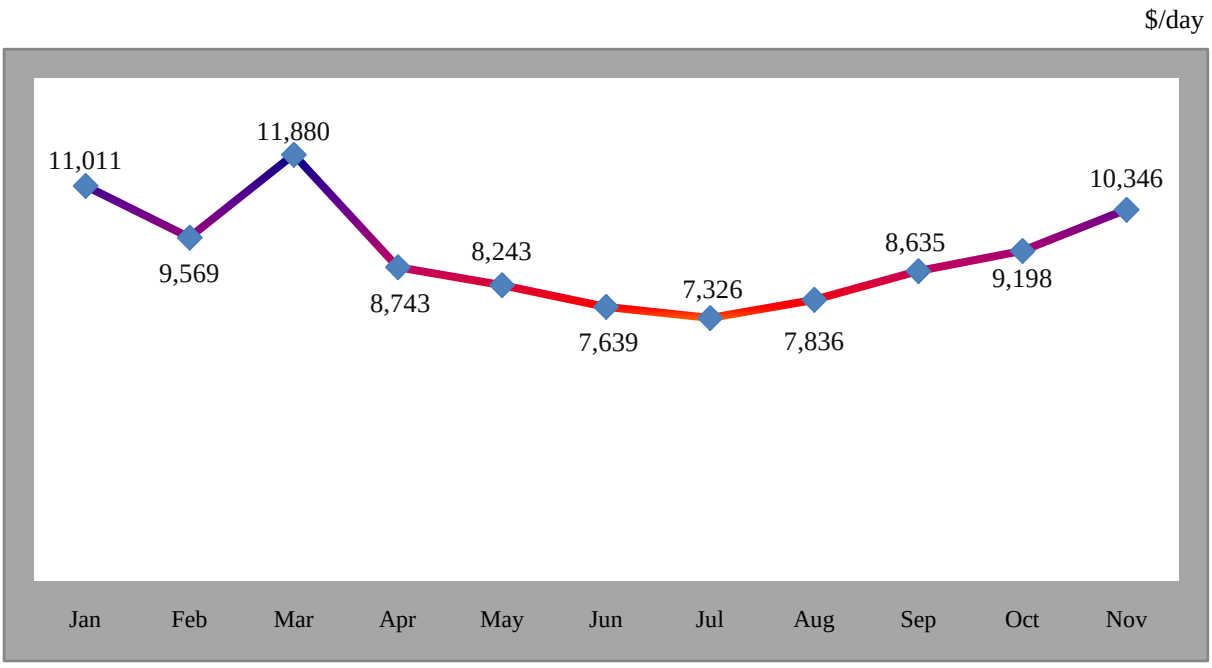


Figure 5. Monthly Average Bulk Earnings of 2014

Data source: Clarksons Shipping Intelligence Network, as of December 8, 2014

Average earnings for each ship type are averages of the voyages earnings for selected routes. Average bulk carrier earnings in the bulker market mostly attribute improvements to iron ore trade growth in 2014, especially driven by a significant expansion in Australian iron ore export to China. The trend line of the Clarksons Average Bulker Earnings indicated in Figure 5 is very similar with the BDI trend line of 2014. October was exceptional as the BDI decreased slightly while average bulk earnings rose. According to Figure 4, this exception was due to the increasing demand in the Panamax sector. With all the other sub-market indices dropping, the BPI kept rising. This is mainly driven by the coal imports in China, India and other Asian countries.

On the other hand, the rapid fleet growth continued to place pressure on earnings of the sector. China has released new policies which intend to enforce restrictions on imports in 2015, and Europe has adopted environmental policies that may restrict coal imports into the region. Further, Indonesian's ban on exports of unprocessed minerals has had a negative impact on some minor bulk trades in the region. Expansion of the average earnings is projected to grow at a slower pace. As a result, expansion of the fleet is expected to slow down in 2015 as well.

The Dry Bulk Market Outlook

The world has changed, and demand growth of dry bulk is less widespread than it used to be. There are emerging markets in other regions outside Asia, but this is offset by the gradually shrinking base of coal-fired generators in Europe and India. Imports into China have also been declining in recent years. Meanwhile, coal demand continues to face challenges. Coal demand, to a large extent in our view, is subject to environmental regulation. Another great influencer is probably the innovation technology seeking replaceable and high energy efficiency substitute for coal. All of these factors impact coal demand both in the short term and in the long run. With more and more countries joining the campaign to reduce carbon emissions, many of them have released new regulations concerned with emission control and renewable fuels. Currently, China's coal sector provides one of the largest markets for mining and is responsible for almost half of the total revenue of the industry. Hence, any regulation and policy regarding the coal sector of China will serve as a forecast for the dry bulk industry. Table 3 summarizes the recent environmental regulations in China and Europe that increasingly impacts demand for coal.

Table 3. Recent Environmental Regulation and Policies Impacting Demand for Coal

CHINA
Regulation, Policy and Possible Impact
Emission Reduction Targets By 2015, emissions of SO_2 and NO_x are to be reduced relative to 2010 level, and emissions of particulate matter by 2017 are to be reduced relative to 2013 level.
Regional ETS CO2 Emissions Trading It was said that seven pilot schemes got under way in 2013-14 as a prelude to a national emissions trading scheme to be launched at a future date.
Coal Consumption Caps Coal is expected to reduce to less than 65% of total primary energy consumption in some regions for the period 2012-17.
Recommencing Import Tariffs on Coal In October 2014, the Chinese Government announced its plan to recommence import tariffs on coal.
Continue consolidating Coal Mining Companies The government continues to consolidate coal mining companies and plans to reduce its 11,000 coal enterprises to 4,000, which will be done through merging large SOEs with SMEs.
Increasing Non-Fossil Fuel Use A target has been established to increase non-fossil fuel use to 11.4 percent by 2015, reaching 15 percent by 2020.
EUROPE
EU ETS CO2 Emissions Trading The EU Emissions Trading System (ETS) operates in the 28 EU countries and covers around 45% of the EU's greenhouse gas emissions. In 2020, emissions from sectors covered by the EU ETS will be 21% lower than in 2015. By 2030, the Commission proposes, they would be 43% lower.
Large Combustion Plant Directive (LCPD) The aim of the LCPD is the regulation of emissions to air from large combustion plants. The Directive is to set limits on SO_2 and NOx emissions, forcing the closure of older coal-fired plants in the period to 2015 unless they invest in emission control equipment.
Industrial Emissions Directive (IED) The Industrial Emissions Directive sets more stringent rules on SO_2 and NOx emissions from coal-fired plants than LCPD,covering the period 2016-23.
Emission Performance Standards Some countries are considering regulations on CO2 emissions that may prevent the construction of new coal-fired plants unless they are fitted with carbon capture.

Source: EPA, EU, Goldman Sachs Global Investment Research

China's 12th Five-Year Plan, European Engineering Industries Association

Emissions Trading System, EU Action, Climate Action, European Commission

Right Reserved to Reapply the Port Congestion Charge

From announcement, to being prolonged, to reinstatement, and to the right being reserved to implementation

Because of the delays, carriers are incurring increased costs associated with container storage, labor overtime, and increased trucking charges. Carriers are also spending more on fuel as ships are forced to idle off of Los Angeles-Long Beach, then occasionally having to speed up to be on time for port calls elsewhere.

Transpacific Stabilization Agreement recommended its members on 14 November 2014 to introduce a Port Congestion Charge (The Charge) at US$ 1,000 per 40' container and US$ 800 per 20' container for containers passing through the U.S. West Coast Ports from 17 November 2014. 13 carriers will assess port congestion fees on cargo shipped *on or after 26 November*. The list of carriers includes Mediterranean Shipping Co., CMA CGM, Hanjin Shipping, Maersk Line, NYK Line, Zim Integrated Shipping, Hyundai Merchant Marine, Evergreen Line, OOCL, APL, Yang Ming, China Shipping and Mitsui O.S.K. Lines. Later, on November 27, 2014, OOCL decided to indefinitely postpone the imposition of Port Congestion Surcharge on all cargo entering the U.S. via U.S. West Coast ports or Canadian Gateway ports. Other shipping lines have also postponed the charge. It might be because shipping lines worry about the loss of cargoes and customers; in addition, some shipping lines are not going to impose the Charge, meaning that the charge is suspended. Furthermore, since the introduction of such a charge, various associations and shippers' councils have challenged the legality of the Charge. FMC is now investigating the composition of the charge, and according to the news on JOC on December 1, "carriers first announced the charge on November 14, but backtracked days later due to pressure from shippers and scrutiny from the Federal Maritime Commission (FMC). One by one, however, beginning with MSC, carriers announced they would again implement a congestion surcharge on cargo heading to the congested West Coast ports where carriers are incurring huge incremental costs."

Some shipping lines withhold the application of the Charge, while others insist on collecting it. Shippers should be careful with their choice of shipping lines and give preference to those that are not currently collecting the Charge. Hong Kong exporters selling on CIF/CNF terms, and importers buying on Ex-Work or similar terms should be careful as their shipments might be subject to the Charge. Shipping lines impose port congestion charge on containers that

have arrived or on their way: "ocean carriers" West Coast port congestion surcharges should not apply to cargo already in transit.

Table 4. Port congestion surcharges vary by line

Carrier	20-foot ($)	40-foot ($)	40-foot high cube ($)	45-foot ($)
MSC	800	1,000	1,125	
CMA CGM	800	1,000	1,100	1,266
Hanjin	800	1,000	1,125	1,266
Maersk Line	800	1,000	1,125	1,266
NYK Line	800	1,000	1,000	1,000
Zim	1,000	1,000	1,000	
HMM	800	1,000	1,125	
Evergreen Line	800	1,000	1,125	1,266
OOCL	800	1,000	1,000	
APL	800	1,000	1,125	
Yang Ming	800	1,000	1,125	1,266
China Shipping	800	1,000	1,125	
MOI	800	1,000	1,125	1,000

Data source: Journal of Commerce, November 11, 2015

According to The Load Star, November 24, 2014, this may not be the end of the story; however, the FMC intends to investigate the cause of the congestion, which has impacted the two biggest gateway ports of the U.S. Commissioner Doyle said that, in his view, there were three reasons causing congestion at US west coast ports: the use of bigger ships on the trade land causing volume surges; the decision by carriers to no longer provide chassis; and the bunching of vessels caused by poor schedule integrity.

The crisis of the port congestion charge has just begun. Each party involved needs to be concerned about its own interests, although the final good would always be a balanced interest among different parties. In a buyers' market, shipping lines compete fiercely for customers, and hence there is no rationale for shippers to undertaken extra cost during this round. Negotiations for better deals between the terminal operator and shipping line representatives should be the way out.

Frequent Detention Deficiencies Found during Ship Inspections, a review of the Tokyo MOU Annual Report

The Tokyo MOU Annual Report introduces the most frequent detainable deficiencies found during inspections. By definition, if conditions on board are found not to be in compliance with the requirements of the relevant instruments by the port state control officers, ships are to be recorded as deficiencies and requested to be rectified. A total of 95,263 deficiencies were recorded in 2013, and with their categories shown in Table 5.

Table 5. Deficiencies by categories

Nature of deficiencies		No. of deficiencies
Certificate & Documentation	Crew Certificates	1,074
	Documents	5,345
	Ship Certificates	2,348
Structural Conditions		3,511
Water/Weathertight conditions		5,899
Emergency Systems		5,392
Radio Communications		2,500
Cargo operations including equipment		575
Fire safety		17,539
Alarms		754
Safety of Navigation		16,275
Life saving appliances		11,507
Dangerous goods		216
Propulsion and auxillary machinery		5,458
Working and Living Conditions	Living Conditions	620
	Working Conditions	4,887
Labour Conditions	Minimum requirements for seafarers	11
	Conditions of employment	33
	Accommodation, recreational facilities, food and catering	199
	Health protection, medical care, social security	66
Pollution prevention	Anti Fouling	21
	MARPOL Annex I	2,037
	MARPOL Annex II	40
	MARPOL Annex III	14
	MARPOL Annex IV	1,070
	MARPOL Annex V	2,618
	MARPOL Annex VI	915
ISM		3,099
Other		1,240
Total		95,263
ISPS		2,033
Grand total		97,296

Source: Tokyo MOU Annual Report, 2013

The total number of deficiencies has decreased during the past two years. According to the Tokyo MOU Annual Report, the number of deficiencies reduced by 5, 067 in number or 5.32% in 2013. However, according to Table 5, the number of deficiencies related to Fire Safety, Safety of Navigation and Life Saving Appliances amounts to 45,321, a relative large proportion of the overall deficiencies. That being said, safety policies and regulations might not be fully implemented, even though every single party knows the importance of safety to be held in the highest regard. Does this mean vessels are actually sailing safer now? How can other interests be ensured if safety navigation is not guaranteed? In the long run, safety is still the biggest concern. Furthermore, according to the Annual Report, although deficiencies under other categories decreased, deficiencies relating to Working and Living Conditions or Labour Conditions and MARPOL Annex V increased notably.

As can be seen in the Annual Report, 16,861 individual ships were involved in the study, with 31,018 inspections carried out on ships registered under 98 flags. Out of the 31,018 inspections, there were 18,790 inspections where ships were found with deficiencies. Ships are detained under the following conditions. First, the condition of the ship or its crew does not substantially correspond with the applicable conventions. By satisfying this condition, the ship will be able to sail without presenting a danger to the vessel or persons on board, or without presenting an unreasonable threat of harm to the marine environment. In 2013, 1,395 ships registered under 66 flags were detained because of serious deficiencies found onboard. The detention rate of ships inspected was 4.5%. Table 6 shows the 15 flags in the black list indicating the worst level of performance.

Table 6. Black list of the Port State Inspection Data 2011-2013

Flag	Inspections 2011-2013	Detentions 2011-2013
Tanzania	73	18
Korea, Democratic People's Republic	593	110
Papua New Guinea	39	10
Sierra Leone	764	131
Cambodia	4,996	767
Mongolia	408	70
Indonesia	531	9
Georgia	42	9
Tonga	36	8
Bangladesh	137	18
Kiribati	614	64
Saint Kittles and Nevis	126	16
Thailand	959	86
Viet Nam	2,290	192
Belize	1,184	103

Source: Tokyo MOU Annual Report, 2013

Upwards and Downwards of World Port Rankings

Containerisation International has released data about the top 100 ports of 2013; see the top 20 ports and their throughput change from 2012 to 2013 as indicated in Table 7.

Table 7. The Top 20 Ports of 2012 and 2013

	2013	2012	Port	Country	Region	2013 annual throughput	2012 annual throughput	Annual % Change
⇔	1	1	Shanghai	China	China	33,617,000	32,529,000	**3.3%**
⇔	2	2	Singapore	Singapore	Asia	32,240,000	31,260,000	**3.1%**
⇑	3	4	Shenzhen	China	China	23,278,000	22,940,130	**1.5%**
⇓	4	3	Hong Kong	China	China	22,352,000	23,117,000	**-3.3%**
⇔	5	5	Busan	South Korea	Asia	17,686,099	17,040,567	**3.8%**
⇔	6	6	Ningbo	China	China	17,351,000	16,175,000	**7.3%**
⇑	7	8	Qingdao	China	China	15,520,000	14,503,000	**7.0%**
⇓	8	7	Guangzhou	China	China	15,309,000	14,763,600	**3.7%**
⇔	9	9	Dubai	UAE	Middle East	13,641,000	13,280,000	**2.7%**
⇔	10	10	Tianjin	China	China	13,010,000	12,303,000	**5.7%**
⇔	11	11	Rotterdam	Netherlands	N Europe	11,621,249	11,865,916	**-2.1%**
⇑	12	17	Dalian	China	China	10,860,000	8,917,000	**21.8%**
⇓	13	12	Port Klang	Malaysia	Asia	10,350,409	10,001,495	**3.5%**
⇓	14	13	Kaohsiung	Taiwan	Asia	9,937,719	9,781,221	**1.6%**
⇓	15	14	Hamburg	Germany	N Europe	9,302,219	8,891,560	**4.6%**
⇓	16	15	Antwerp	Belgium	N Europe	8,578,269	8,635,169	**-0.7%**
⇑	17	19	Xiamen	China	China	8,010,000	7,201,700	**11.3%**
⇓	18	16	Los Angeles	US	North America	7,868,582	8,077,714	**-2.6%**
⇓	19	18	Tanjung Pelepas	Malaysia	Asia	7,627,833	7,718,818	**-1.2%**
⇑	20	22	Long Beach	US	North America	6,730,573	6,045,662	**11.3%**

Data source: Containersisation International, Oct 2014

Notably, most of the top 20 ports in 2012 remain in the Top20 Club in 2013. Rankings have not changed much, especially among the top 10 ports, except that the Port of Tanjung Priok of Indonesia fell to No. 21 and No. 20 was replaced by the port of Long Beach of the U.S. with a significant annual throughput growth of 11.3%. China's growth slows down, but remains above the global average. Four ports record rather impressive annual throughput growth - Ningbo, Qingdao, Dalian, and Xiamen. Particularly, the annual throughput of Dalian increased at a high rate of 21.8%, far faster than any other ports' growth rate. The shipping market is constantly changing, as some ports record growth, others show falls. Hong Kong faces decreased annual throughput and dropped by 3.3%, thus the No. 3 was officially replaced by its neighbor, Shenzhen. Shanghai has retained its position as the world's busiest container port in 2013, recording a further improvement compared to 2012.

Port Operations under Severe Weather Situations

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Good visibility and steady air flow conditions are two of the most important factors for safe transportation operations. In Hong Kong, apart from typhoon signals, delay of passenger flight due to adverse weather, such as foggy conditions in January or February are well known by the general public, as their travelling schedule to the Chinese mainland or nearby Asia countries could be directly affected. This mainly affects the air side of travel.

Figure 6. Photo courtesy by South China Morning Post, 05 October, 2013

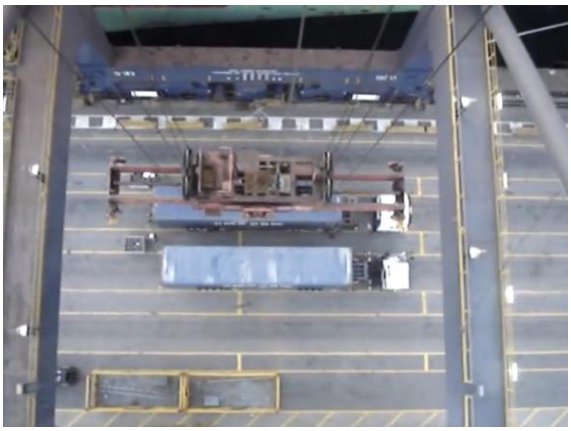

Figure 7a.

Figure 7b.

Figure 7a and 7b. Quay crane operator's view to lift container from quay side to vessel deck.

On the other hand, for sea side operations, especially the busy container terminal operations (see Figure 6), the situation is not visible to the general public. However, the impact does affect the overall port operations efficiency as operations in Hong Kong still rely heavily on operator's view and experience for safe operations (see Figure 7a and 7b).

This article aims to share the latest port operations challenges under severe weather conditions, with the observation that a higher percentage of empty boxes are being re-loaded after discharge from previous vessels (see Table 8). In other words, an increased number of empty boxes were no longer going through the typical laden discharge, gate-out, empty return to terminal cycle. Rather, nearly half of them might be loaded on other vessel(s) after staying in the container terminal for several free days. Our previously worldwide throughput Ranked-No.1 container terminal seems not only to have dropped rankings and be by-passed by the Port of Singapore in 2005 and then Shanghai in 2010, but also seems to be gradually moving from the role of being a well-known transshipment port to be a regional and largely empty container depot as well. The situation gets worse in the five years after 2009. Data also indirectly shows that the demand for empty boxes locally is flattening as well (see Table 8 also).

Table 8. Throughput Statistics of Kwai Tsing Container Terminals

葵青貨櫃碼頭貨櫃吞吐量統計
Throughput Statistics of Kwai Tsing Container Terminals

	抵港 Inward			離港 Outward			合計 Overall		
	載貨貨櫃 Laden Container	空貨櫃 Empty Container	小計 Sub-total	載貨貨櫃 Laden Container	空貨櫃 Empty Container	小計 Sub-total	載貨貨櫃 Laden Container	空貨櫃 Empty Container	總計 Total
2000	3,862	1,644	5,506	5,747	349	6,096	9,609	1,993	11,603
2001	3,802	1,575	5,376	5,591	317	5,909	9,393	1,892	11,285
2002	4,096	1,610	5,706	5,833	353	6,186	9,929	1,963	11,892
2003	4,335	1,575	5,910	5,799	361	6,160	10,134	1,936	12,070
2004	4,939	1,615	6,554	6,489	383	6,871	11,428	1,998	13,425
2005	5,351	1,634	6,985	6,892	406	7,298	12,243	2,040	14,284
2006	6,265	1,614	7,879	7,677	492	8,169	13,942	2,106	16,048
2007	6,762	1,658	8,420	8,373	529	8,902	15,135	2,187	17,322
2008	7,118	1,647	8,766	8,356	605	8,960	15,474	2,252	17,726
2009	6,584	949	7,533	6,968	658	7,626	13,552	1,607	15,159
2010	7,220	1,209	8,428	7,944	726	8,669	15,163	1,934	17,098
2011	7,380	1,355	8,735	7,908	773	8,681	15,289	2,127	17,416
2012	7,452	1,362	8,814	7,915	746	8,662	15,367	2,108	17,475
2013	7,495	1,210	8,705	7,767	647	8,413	15,262	1,856	17,118

Data Source: Marine Department, HKG SAR.

"Gate" means the entrance point for the transportation company tractors to access the container terminal gatehouse (see Figure 8) for box pick up or return from/to the corresponding Gate's belonging container terminal.

In Hong Kong, there are five major container terminal operators (MIT, HIT, CHT, ACT and DPI), and they are all located in Kwai Chung container terminal area, with two of them (MTL and HIT) operating ancillary terminals in the opposite sea side island, Tsing Yi island where separate gatehouse are located for each of the companies. Normally stoppage of empty container operations starts first at around the time of typhoon signal no. 3, as the container terminal team must start to progressively carry out the lashing work against the container stacks, and further, must start with the most dangerous container blocks: the empty ones. For an ideal case, they should be finished well before the signal reach about signal is at no. 8, with an ideal time gap of 1 hour before the signal no. 8 is hoisted.

Figure 8. Gatehouse at one of the container terminal in Hong Kong.

Photo source: http://www.worldcargonews.com/htm/w20120709.111575.htm

When there are still about 3-4 hours before signal no. 8, all laden container are collected or returned by external tractors, meaning the tractors operated by transportation companies, such as freight forwarders, will soon be stopped. To general public, there already seems to be a total stoppage of container operations. Behind the scenes, if you could view the inside of terminal from a nearby high building, you shall be surprised to see a lot of last minute internal tractor (meaning tractors operated by the container terminal), equipment, such as RTGCs, front-loaders or even Quay Cranes for container lifting to vessel movement, are still operating right before typhoon signal no. 8 is hoisted: it is always the intention to finish on-berth vessel to avoid the need to arrange for the same vessel to be re-berthed after the signal has been lowered. However, there might not be such a perfect case and sometimes container terminal management might decide to finish all discharge actions first, if the cargo loading instructions allow for such choice.

This kind of decision comes with two major rationales:

(a) Discharging action is normally faster than loading action, which needs to trace the location of the box to be picked up from the container yard.
(b) Loading boxes (containers) are, by design, well mixed inside the container yard to avoid traffic jam during normal loading operation, but this means that it is quite impossible to dig them out all before any lashing action to be started block by block, layer by layer in the container yard, where lashing action is being done on various spots inside the yard area already.

Emergency operation planning under typhoon

Practically, for a given 3 to 4 hours advanced notice by Hong Kong Observatory (HKO) for upcoming typhoon signal no. 3, and then normally about 4 to 6 hours ahead to reach signal no. 8, the chance to remove all loading boxes so as to load on to the on berth vessels, and then start the lashing action accordingly, is either unlikely nor can be efficiently carried out. However, sometimes there might be the opposite case, especially for small container terminal (one or two berths) in order to off-load yard pressure, especially when clearing up any suitable empty containers stacks or layers inside the main yard area. Therefore, it all depends on the actually yard density situation as well as the on berth vessel cargo loading and discharge plan.

From container terminal operation management team point of view, typhoon signal is an expected unfavorable factor to deal with, which normally happens during mid summer (around the time of May) until early to mid-autumn (around the time of Sep/Oct). A table is listed (table 2, TBC) showing times and dates of typhoon signals during the past 10 years. It shows that in general, the time gap between signal no. 3 to signal no. 8 is getting shorter (from about 8 to 10 hours to 4 to 6 hours now) but typhoon coverage months have increased in recent years (from May to September in the past to April to mid-October in recent years). Even though the time gap between signal no. 3 to signal no. 8 is shorter in recent years, normally reasonable planning is still allowed by the well experienced terminal management team to plan ahead. This is due to the fact that the team does not just focus on the signal, but more importantly, the wind speed and arrival direction of the typhoon to the city (and the port).

Planning includes five major areas:

(1) Calculation of the expected un-berth times of all on berth and operating vessels before typhoon signal no. 8 is hoisted, and priority assignment, if any.
(2) Lashing plan generation and its corresponding resources arrangement
(3) Indoor staff (berth allocation, ship planning, control tower staff) and outdoor staff (yard and quay side operators) departure planning and arrangement
(4) During Typhoon No. 8 (to No. 10 and back to No. 8) stand-by human resources planning and arrangement
(5) Confirmation of the latest target time for the expensive equipment (quay crane, yard crane) tie down arrangement (tie down means to lock the equipment on its designated container to avoid unexpected structural movement or displacement during the strong wind moments

For a mature container terminal, these are always standard procedures and are to be carried out under management discretion. From the container terminal management point of view, other than typhoon situations which could potentially cause accident/injury, another dangerous situation could be the sudden extreme strong wind arrival or sudden heavy rainstorm situation. In Hong Kong, up to this moment, most of the daily container lifting movements are controlled by crane operator's bare eye, especially vertical moments along the shore sides and inside the container yard. Operations under unclear visibility and/or unexpected strong wind condition could cause container damage or accident, and also might result in potential cargoes claims and life threatening to surrounding shore side and on deck workers or crew.

Unfortunately, sudden heavy rain normally comes with strong wind and lightning. Fallen containers by sudden strong wind means precaution plans, such as container lashing block by block are all but impossible to be carried out unlike in typhoon periods where there are at least 6 to 8 advanced preparation hours. The only possible means is to broadcast evacuation instructions. However, the instructions do not guarantee all the in yard active tractors could be arranged to a safe location.

Operations hours Loss

Prolonged strong wind could further suspend all yard operations for at least half an hour or more where containers are stacked up, up to 6 container high (for typically RTGCs operating

yard area) and 12 container high (for Electronic Yard Crane operating yard area) respectively. The official name of such situation is called "Gust Wind". Other than local wind gauge installed on the top of various Quay Cranes (the highest point inside the container terminal), container operators have installed advanced alarm computer systems supported by the Hong Kong Observatory (HKO), and such a system could allow about 15 minutes advanced notice before the gust wind arrives to Kwai Chung and Tsing Yi container terminal area. Depending on the wind direction, containers might be blown to shift position or even fall down along the wind line. Normally empty containers are the most dangerous ones due to their lighter weight and by design, they are not supposed to be put inside the active RTGC yard area. For each container terminal, there must be a designated empty container yard area, where stacking up of containers could be up to 8 high, depending on the heaving height limit of the severing equipment, called front loader.

Rainstorm Warning System

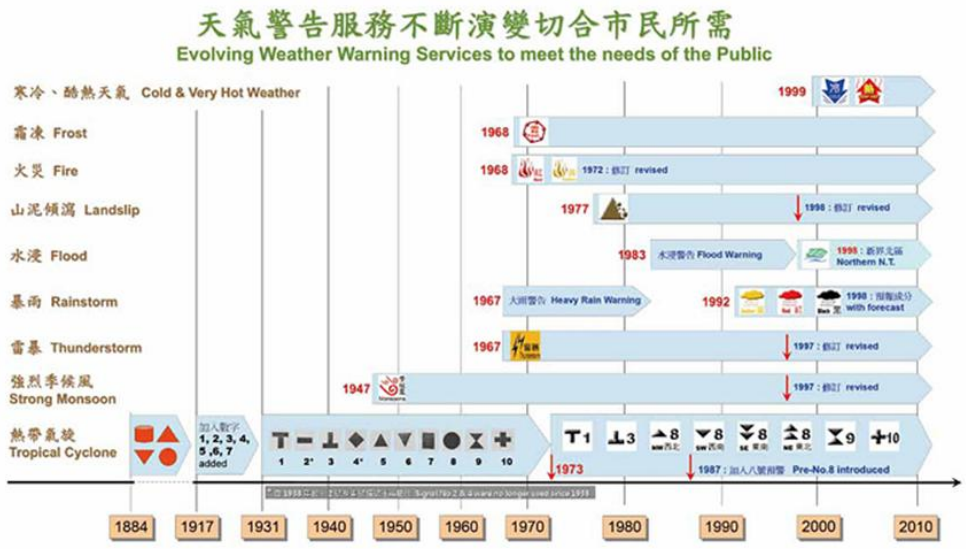

Figure 9. The evolution of various weather warning signals in Hong Kong

Photo courtesy by Hong Kong Observatory (HKO).

Since the setting up of black, red and amber rainstorm warning system in 1992 in Hong Kong (see Figure 9), there have been on average about 2-3 black cloud signal hoisted per year (See Figure 9a and 9b as sample). On 2014 March 30th, a black rainstorm warning signal even comes with the rarely found ice balls falling: they were sized about 20 to 30 mm diameter (the official scientific name of such phenomena is "haul reports"). This gives further challenge to Port Operations as many workers are under an outside working environment, and the overall operations planning during severe weather situations. The container management

team needs to think bigger and wider for all possible risks and hazards during the bad weather moments, instead of operation suspension only.

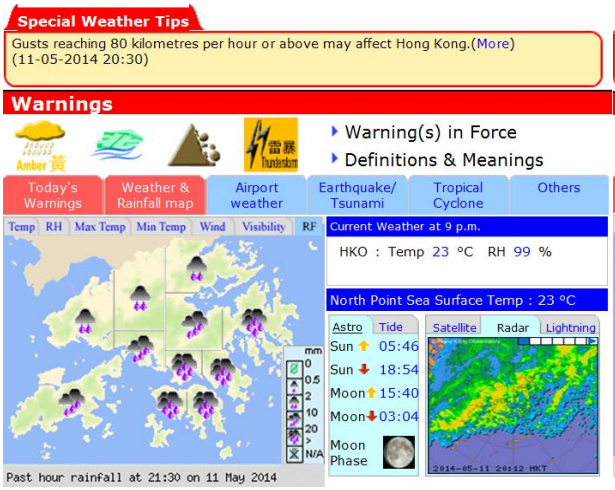

Figure 9a

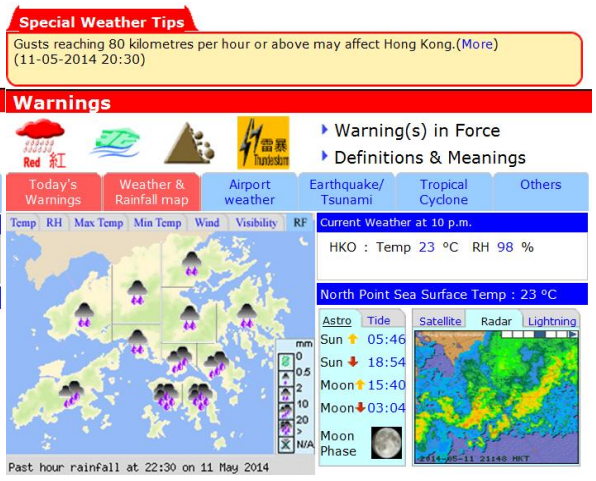

Figure 9b

Figure 9a and Figure 9b show a typical weather report by the Hong Kong Observatory (HKO) during Summer Time of Hong Kong, with four special warning signals issued on 11 May 2014 late evening, changing from Amber to Red Warning Signal with a few hours:

(a) Amber Rainstorm Warning Signal (

),

(b) Amber Rainstorm Warning Signal (

),

(c) Special Announcement on Flooding in Northern New Territories (),

(d) Landslip Warning () and

(e) Thunderstorm Warning ().

Up to this moment, there is neither specific guideline nor rules/regulation set up by the Government bodies with the industry and announced to the outdoor workers or equipment operators during black or red storm signal. Container damage cases during the bad weather situation are normally regarded as normal damage cases, without specific definition for the sole responsibility. This might be a potential area for the government to consider and strike a good balance with the container terminal operators in order to increase the life protection for the industry without affecting the terminal efficiency too much.

Foggy seasons

Another less impacting weather factor is the foggy conditions (Figure 10). It could block visibility for a prolonged period of time (over 2-3 hours) but they are not avoidable. To avoid haul damage or accidents during vessel loading or discharge action, normally quay crane operations shall stop until the foggy level gets clearer.

Figure 10. Container terminal quay side operations suspension under heavy fog layers
Photo source: http://www.panoramio.com/photo/78361632

It is regarded as less dangerous factor, and normally stoppage of loading or discharge operations along the quay side over a few hours is adequate. There is less worry of container falling cases as compared to other extreme weather signal. However, from the individual vessel operation point of view, the stoppage time of 2-3 hours, could be 20% or even 30% of the berthing hours. Nowadays, normally vessels berth for at most 10 to 12 hours, except during special cargo loading, such as with yachts or category 1 cargo operations. For Category 1 Cargoes[*1], such as explosives, according to the rule of Hong Kong (and many other places), they could only be transported via water transport means, such as barge, and no stoppage is allowed once it is discharged from the barge and has moved all the way to the second leg loading vessel. Other than these special cases plus some rare exceptional cases,

[1] Data source: http://www.imo.org/OurWork/Safety/Cargoes/Pages/DangerousGoods.aspx

berthing hours normally last for 8 to 10 hours only. Therefore, stoppage of 2-3 hours is already quite a serious delay to the on berth vessel and also for upcoming awaiting vessels to arrive.

Summary

We could see a lot of changes ahead faced by the container terminal operators to upkeep the productivity with the increased volume of empty boxes handling during severe weather conditions in recent years. The adverse weather seasons, covering the traditional shipping peak seasons from May to September in each year, could dramatically affect the Port Operations and result in vessel berthing congestion problems which need at least a week to reach a full recovery for normal operations.

The higher percentage of empty container inbound or pass thru (transshipment containers) to Hong Kong add further challenges to the operation management team as the boxes might be put in ad hoc areas inside the yard, which could potentially increase the chance to container fallen case during the strong winds or adverse weather conditions. We also see that before the creation of various adverse weather conditions (e.g. the black rainstorm warning signal) by the Government, it was more or less the port operator's sole decision on operations suspension during extreme weather hours. After they are implemented, the decision mechanism is still similar to the past. We hope the throughput of Hong Kong is maintained for its volume and growth, but the actual increasing percentage of empty loading container against empty discharge container could gradually shape the port of Hong Kong as a regional on-dock depot.

Without proactive improvement measures to attract more laden boxes transshipped via Hong Kong as in the past, this empty box flux shall definitely affect the competitiveness of the Port of Hong Kong in the long run, and in the not very far future, the Port will be worsened by the adverse weather seasons during the peak seasons in the summer and early autumn.

Corporate Governance and Risk Management

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Corporate governance and risk management are discussed in this article with respect to the shipping industry and from the perspective of a ship captain, who has started and is running a shipping company in Hong Kong through the highs and lows, whilst evolving and diversifying into various other businesses related to shipping.

Corporate Governance

Corporate governance, in shipping terms, is running a shipping company in such a way to make it successful, whilst it is also expected to follow norms and at the same time be unique in its own way. There are many textbooks and lectures on how to be a CEO or Managing Director and how to govern "A" company, although nothing really specific to shipping. That said, there are so many varied types of shipping companies and so many factors that affect a truly international business such as shipping, that very little can be taught in class rooms or books and a lot of it has to be learnt through experience. Whether it is small and diverse or large and focused, contrary to popular belief, the challenge of corporate governance or rather running a company is always the same.

There are many fallen great leaders and many "indispensable" people in the graveyards. Some say it is the team that makes the company whilst others say it is the leader; it is probably a combination of the two. For me, it is the team that can execute the thought process of a leader, a team like the one at Apple or Google. Since there are many variables in a team, it then becomes the responsibility of the leader to ensure the team understands the thought process.

I had started a shipping company in 2007 and for the initial years I worked alone because I had difficulty in sharing, being a team player, finding others as efficient as me, and possibly surviving was more important than expansion. Even then I was governing myself well, using my wife as a part time secretary and still had a lot of projects in hand and in the pipeline that I could manage and sustain due to level headed business partners. I took pride in knowing each and everything that is going on in the company but that also meant that the growth had a horizon beyond which I could not reach as a single person, but had to develop a team that

can work like me or even better, to be a force multiplier. It was only in 2010 when I was at a crossroads of sorts that I was made to realize, in a corporate management school, that companies are more than just one person or leader and larger success cannot come without a team. In the past four years, the company has thus grown and diversified to be known widely as the innovative small company that loves to struggle, but finally does find a foot in a different arena every year.

The success of many companies comes from team leaders hiring or partnering with people who share the passion, and dare to be different, but also have different skill sets and can do that part as good as the leader or better. As you grow, it also becomes necessary that you have a tier of people in the company who have the fire in their belly to work harder than you to ensure they have a better career in the long run. I am no corporate governance guru but from experience and discussions with friends in the industry, I know that you have to identify the "employer" material and the "employee" material, and you need an appropriate number of the two categories working for any company. The employer material will have the vision whilst employee material is the executer of such a vision.

From being out at sea and living in a society of 25 persons on a ship for a major part of 14 years of in my youth, and from being captain of several ships with different challenges, I had learnt a great deal but had never come across corporate governance. On a ship there was hierarchy and everyone was put onboard with a known set of skills and knowledge that was certified by a competent authority. So, every time a team member changed, as often as once a month, there was ready acceptance of the company's decision to place that new person onboard that ship in that position. In an office, it is completely different from a ship. Whilst hierarchy is respected to some extent, even if I insist otherwise, the acceptance of a new team member is more difficult mainly because the decision to place a person in a particular position is taken by someone within the office. Moreover, office personnel do not change regularly and so acceptance of a person into the team is slower but once done it is also stronger. In fact, almost all staff in various teams in our company are doing the work that they have not done in their previous jobs and some of them are completely new to shipping. This approach ensures that the corporate culture of the company stays indigenous, whilst we embrace the corporate cultures of other industries as well as learn from a fresh thought process of doing the required activity, but the employees and employers do not carry baggage from previous posts.

Corporate governance is about man-management as much as it is the management of businesses. It is also more about doing it right, not necessarily perfectly and living with mediocrity and realizing the potential of a person who may not shine where assigned but may do well unexpectedly elsewhere. A healthy office environment where everyone is aligned in their thought process of what they expect from a business is what a successful business would be. Besides, letting people have the pleasure of making their own mistakes and learning from them and getting them to crave for new horizons, has only benefited the company till date. So it seems like a formula that can work until it is proven wrong in time.

Risk Management

Risk Management, by definition, is the management of the risk in order to place sufficient safeguards in place to try and find a way to do the activity that you intend. Even in the MBA curriculum, Risk Management teaches you to identify the risk and manage it in a way that the activity becomes safer for the individuals or the environment, but ultimately for the company who is managing the activity. Risk management is my favorite subject in shipping, whilst many of my friends find it somehow to be a 'necessary evil' of the corporate world that has crept into shipping only in the last 2 decades. Being the second oldest profession in the world, sailing on ships has always been considered more of an adventure than a profession.

However I can guarantee you that it has changed more in recent years than for ages before that, although necessarily for the better with more procedures, and for the worse with people perceived to be made of lesser grit. Like every other industry, shipping is also over regulated

and almost every large company seems to be run by their "Risk" team, rather than their top management who know how to run the business. Most notable corporations have self-imposed rules for everyone including board of directors in a company wherein the 'risk' team is supposed to set the standards of what can be done, and what cannot be done.

One good example of risk management working well with shipping in recent times is the trading of vessels to piracy areas off the Horn of Africa. There was a situation where the piracy in the Indian Ocean was increasing and whatever area was being drawn was being extended after finding attacks could be executed well away from the Somalia coastline. There were regulations in place for not having naval vessels shoot at suspicious boats in international waters. There were many hindrances to safe passage but the formula was required for commercial shipping to work and slowly it was put in place with extra security measures, armed guards, naval convoys, designation corridors for passage in Indian ocean to enter Gulf of Aden, separate insurance for kidnapped crew of ships, and more than everything else implementation of procedures of awareness onboard ships and within the shipping community. Everyone tends to hear only when a lot of noise is made, and enough was made to ensure that the required was done. Irrespective, there are some larger companies who could never adapt, and there were the few who did not want to manage the risk, and believed the only way to manage the risk is to avoid it.

I believe a good example of the risk management going wrong in shipping is the way it is blindly believed that a paper can solve an actual problem. If the original Bills of Lading are not available at discharge port, the cargo is discharged against LOI (Letter of Indemnity). If a superintendent goes on a ship for pre-purchase inspection, he is allowed onboard after signing a LOI. If a master is asked to discharge a cargo of wheat in rain, he will do it if you give him a LOI. The LOI is somehow an accepted "tick box" for some kinds of risk taken by the ship or the ship owner or the acceptor, who possibly knows that they want to do it commercially but do not know a better way of managing the risk. Even though all P&I clubs insist that any act that is done against a LOI is not insured, the clubs themselves have also come to a stage where they accept that everyone somehow asks for it and gets it and so they even came up with recommended formats for LOI for particular instances. Some people go one step further and say they will accept a LOI if a bank were to endorse it. LOI is not worth the paper it is written on and any amount of endorsements will not make you a prudent acceptor of the risk. This only proves that such risk management is frivolous and is being bent for the commercial world; then the question is, what else can you bend as a practice for the commercial world? The matter of LOI in commercial world is considered calculated risk that is acceptable and is

a consistent term in Charter Parties of all sorts and whether it is banking procedures dictating the terms or duration of voyage, the fact remains that there are very few cases when original bills are available in the fast turnaround shipping world of today and thus the LOI acceptance is considered a norm. Some parts of the Shipping industry adopted paperless trading and many such ship masters never see or know the importance of the Bills of Lading anymore. However, extending this practice towards a habit, such as getting a LOI to cover discharge of wheat in rain, when for example, we know the paper will not prevent the wheat from getting wet. This is where the purpose of risk management is totally misunderstood.

That being said, there are still many rookies in shipping who are actually not regulated or rather the regulations are optional for some critical parts of shipping. They invariably lower the standards and then a new regulation comes in due to such rookies and thereafter the already over-regulated large firms embrace more stringent rules for themselves to make it as difficult as possible for the rest of the teams in the company to be able to work in the manner they used to work. If properly executed, risk management is a great tool for anyone to understand where the risk lies and then gives a chance for any person to do something about it. Risk management plays a part in every day activity onboard a ship and ISM and other regulations have ensured that the shipboard practices are safer than before. For reasons outlined earlier, possibly enforcing a regulation or a method of doing things is easier onboard a ship than in an office environment. Corporate shipping, when evolved into larger firms, starts getting more corporate and less like shipping.

Talking of rookies in shipping, there are in general four main parties to a voyage that is considered a "maritime adventure": Ship Owner, Ship Manager, Ship Master and the Charterer (and/or cargo owners). Almost all the regulations in shipping are somehow the burden of the Ship Manager and Ship Master. The Ship Owners could well be an offshore company with very little shipping knowledge which is not earning enough to sustain itself and thus is unable to pay the Managers and Shipboard staff on time; there are very few safeguards against that in way of risk management, but the regulations requiring you to maintain all standards are exactly the same as any other ship that is well maintained because the Owners are able to afford that. Ship Managers do a lot of risk evaluation as required by regulations to safeguard against any ill repute or incident that can affect the Ship or the Company, but they do little risk evaluation of larger companies that are long term clients who are now suffering and unable to pay their bills.

Similarly many Charterers are completely unregulated unless they would voluntarily submit to these. When they charter a ship from a ship owner, the due diligence is always considered the prerogative of the Ship owners to check if Charterers will perform if the Voyage is fixed. Charterers find comfort in the fact that there is no risk (no such thing) with a ship owner who anyway has a ship as asset and so will perform his part of the venture. It has happened so many times that the Charterers had to pay to complete voyages that ship owners abandoned due to their heavily mortgaged assets or operational issues or losses elsewhere in the business. So, it becomes abundantly clear that risk management for many is selective and not a way of life.

Co-relationship between Corporate Governance and Risk Management

Whilst many consider risk management necessary, why does it have to be termed evil? There is a good reason why corporate governance and risk management are co-related topics. The matter of risk management has caught up so much with corporate world that the management or team leaders think that they cannot follow their will without the risk team clearing their intended actions; it is designed to be good and evil irrespective of whichever side you are looking at it from. The corollary that follows is: if the management is always insistent or has made up its mind to do a business or a trade or an activity, they tend to put pressure on the risk team to look at the risk more "practically" or sometimes totally turn a blind eye to it. That possibly is the reason for downfall of a lot of small and large companies.

The mistake, in my view, is having the legal team become your risk team. The risk team will have to understand the business better than the regulation so that they can apply the regulation to the practicality of the business, not the other way around. It also is difficult then understand the practicality of most regulations that are made by people who are not hands-on with the industry's evolution. In most cases, the management using advisors on new regulations and doing their own risk management seems to be a way of getting it right more

often than others. This is because the management will have the right idea of practicality and the commercial pressures associated with the cost and benefit of managing a risk to a particular extent.

As a person who is learning corporate governance slowly from scratch, I have realized there is always one statement that is applicable uniformly to all companies: "Status Quo is not an option"; so every company evolves, changes, tries, fails and succeeds at different stages of its life, only because they have to try something new. Every business is a risk whether small or big and every deal is a gamble whether risk is managed or otherwise. Risk management is not about calling the odds in Macau but it is as simple or complicated as disciplining the already educated and seasoned gambler.

Photography by Prof. Chin-Shan Lu, 2014

A Strategy for Securing the Maritime Commons

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Abstract

To date 80% of the global trade (by volume) is transported by sea, although we have yet to arrive at a consensus on the appointment of a global, regional or local constabulary. Nor is there a designated prosecuting authority to secure the maritime commons. This is not only an issue of resources and competency but also of mutual trust, acceptability, reliability, sustainability and motivation. Assuming that the biblical principle of the strong protects the weak is still valid, it naturally then becomes the responsibility of the three strongest nations today namely China, India and the United States to jointly accept this responsibility.

As such, *most stakeholders* opine that, it becomes pragmatic for all the three countries to share the responsibilities of securing the maritime commons, particularly in Asia which the US (mainly) has been discharging (not very successfully and rather thanklessly) since the end of Second World War. It will necessarily mean clear identification and acceptance of the consensually developed common objectives as well as enumerating and highlighting the areas of disagreements in order to enhance cooperation while trying to simultaneously deter occurrence of conflicts in this region. The next step would be endeavoring to develop a short term as well as long term strategy and finally preparing a roadmap to implement it.

Several analysts who were interviewed have advised that there are several such important issues demanding attention and they should be prioritized, with the top one being to draw a roadmap for developing a tri-lateral mutually beneficial relationship. This paper attempts to explore this aspect by highlighting areas of cooperation as well as those of conflict and suggesting ways and means to enhance one while degrading the other.

Keywords*:* Capacity Building, Maritime Commons, Policing and Strategy.

1. Introduction

Presently the Indian Ocean is viewed as a more "active" ocean than the Atlantic and Pacific as it is hosting a spectrum of activities ranging from extensive trade, transportation to important energy transfers which are quantitative as well as qualitatively much larger in scope and size than that can be found in the other two oceans. Given that nearly 100,000 ships transit the expanse of the Indian Ocean annually it is a very trade busy ocean. It is perhaps the only ocean through which SLOCs (Sea Lines of Communication) reach out to the entire world, be it those originating from the Persian Gulf with oil and gas laden ships, or

those with other cargo or commodities from the littorals as well as transiting ships from the Far East. Significantly, some of the world's most important choke points and narrow passages provide access to the Indian Ocean, and these can have associated vulnerabilities.

As such, the current accent on increasing globalization in the economic field has for the littorals brought attendant maritime security concerns to the fore. Thus, with a rising trajectory of sea borne trade which compliments this ascent, there seems to be a corresponding increase in asymmetric threats (Brewster, 2010). Incidents of maritime transnational crime like modern piracy, terrorism and drug running in their ever evolving manifestations have emerged as the bane of the sea farer. As these maritime security challenges are essentially asymmetric in nature there have been strident calls for effective law enforcement and maintenance of maritime order by all stakeholders (IMB, 2012).

This growing salience of sea borne trade, and the attendant rise in transnational threats in the region has also led to the adoption of enhanced cooperative approaches between navies of various Indian ocean littoral countries in the form of numerous anti-piracy patrols which operate in the area that have resulted in the eventual decrease in the number of piracy attacks. But the challenge remains as attacks continue to take place in further ranges due to the usage of sophisticated technologies by pirates and other non-state actors.

To the old idea of collective security were added concepts of common, comprehensive and cooperative security. Confusion was bound to follow as the term is used to describe different things or conditions in a different context. The question is less one of what, exactly, is security? Rather, it is perhaps better phrased as what are the different ways in which to conceive of security? And what are the implications for policy? Because most theorizing about security has not been maritime focused, it is essential to place the development of concepts of maritime security within the context of the wider security debate.

However, despite the strategic divergence and competitiveness on many issues in the region, both India and China are increasingly keen to assume the responsibilities of global policing of maritime commons which the US so far, has been discharging after the exit of the British from the region in the late sixties (Ehrhart, 2013). Given that the maritime capacities of most of the other littorals are inadequate, it has become incumbent on India, China and the US along with other capable maritime nations to don this mantle. This will necessarily mean clearly identifying and stating the common objectives as well as enumerating the areas of disagreements. The next step would be endeavoring to develop a short term as well as long term strategy and finally preparing a roadmap to implement it.

Such a strategy will necessarily have to look beyond *narrow national* maritime *boundaries* towards the security of the global maritime commons. With the US maritime powers in decline (perceived or real), maritime disputes on the rise, and international maritime law being increasingly tested, the world can no longer take the security and openness of the

maritime commons as a given (Isenberg, 2013).

While on one hand there are maritime nations like India and China that have the capacity to assist in sea governance, it must be remembered that it is of utmost importance to "carry along" other littorals in such an effort. Thus multinational forums in the region come to the fore as they have an important role to play in this regards. Maritime initiatives like Indian Ocean Naval Symposium (IONS) (started by India) and those like IORA (Indian Ocean Rim Association) can also be used for cooperation for overcoming issues related to maritime security threats thus assisting in maintaining good order at sea and in sea governance. Similarly, the ARF (ASEAN Regional Forum) the ADMM Plus and its associated agencies (e.g. like the ASEAN Maritime Forum) provide institutions which encourage cooperation. However, one of the prime lacunae has been intra governmental cooperation, which needs to be addressed first before looking across the boundaries.

2. Altered Global Environment and Global Commons

These geo-political changes are reshaping the nature of the maritime commons. The global shift in maritime power thus harbors a strong potential for conflict and confrontation between regional powers and could slip out of control if caution is not exercised. The main reason for this scenario is the global diffusion of maritime power as a result of the "rise of the rest", which is above all, changing the geostrategic maritime balance. It will result in enabling the new entrants to project power beyond their territorial waters. Inevitably neighboring countries will respond by strengthening their own (EU Parliament Study, 2012)

The deep linkages of maritime terrorism and of "container security" were only realized after it was reported in January 2002 that the search of a vessel by US naval forces nearly yielded a group of Al Qaeda terrorists who had been hiding inside a well-equipped shipping container (Sakhuja, 2013). A dramatic increase in containerized cargo and inadequate infrastructure to check all sealed containers led to the Container Security Initiative (CSI) and the requirement to make ports ISPS compliant, but a robust fool proof method against such security lapses has yet to be arrived at.

The other primary concern is that of rising maritime terrorism. In the years to come maritime terrorism is likely to manifest and evolve itself in many unique ways (Germond, 2011). The use of the seas as a supply chain link for a terror attacks on land based targets is likely to be the chosen methodology of terror outfits. While the seas ensure the easy passage of men and material for the attack, the land provides them with the publicity and number of victims unavailable at sea. Hence the constabulary functions of maritime agencies are likely to see an enhancement with the growing demand for a fool proof coastal security systems.

3. Conclusion

Maritime challenges and threats in the Indo Pacific region have been on the rise in recent years and have the potential to create serious impediments to the concept of freedom of the seas thus affecting sea borne trade in the region. Additionally, these threats have also spawned a multitude of 'out of area operations' which has entailed additional roles for the littoral navies. Countering these threats and challenges requires cooperation and sensitivity to security concerns of other countries, an aspect that is difficult to achieve with the level of existing trust between states. The US, an Indo Pacific power along with India, and China, are the primary maritime nations that have a responsibility to help other littoral states towards capacity building and ultimately towards maintenance of "maritime good order" in the region.

In this context it is necessary that a matrix of cooperation be evolved which would enhance "maritime bonding" at various levels between the maritime agencies and the navies. This cooperative approach would also serve as de facto confidence building measure between the three countries. This has been evidenced by the current cooperative efforts in combating Somalian piracy singly, bilaterally and multi-laterally in the Horn of Africa.

Such measures and methods would not only help in overcoming the challenges and threats in the oceanic dimension but ensure the freedom of navigation for the trade flows. After all, the sea is unique in bringing together maritime minded countries which in turn enlarges the brotherhood of the seas.

Photography by Prof. Chin-Shan Lu, 2014

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