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# KOREAN SHIPBUILDING INDUSTRY





2007 Lehman Crisis: The party is over for shipping market Thereafter, with oil price still high, huge offshore market emerged and also renewed speculative newbuilding activities and cheap money from Wall Street with QE for the ECO ships.

3 major shipyards in Korea has virtually transformed into offshore shipyards since the Lehman crisis and much more than 50% of turnover is dedicated to offshore works. They have made landmark projects, DSME Allseas Cable Laying and North Sea platform decommissioning ship, the largest ever floating structure, SHI Shell Prelude LNG FPSO and Hyundai Goliath SPAR FPSO and also Chevron Gorgon LNG production modules. All these projects are epoch making. It is my firm belief that other than the 3 major Korean shipyards. there would be simply no other alternatives to build such things.

However, against all the rush and massive orderbooks, unfortunately the major 3 Korean shipyards are struggling to carry out the jobs. Simply they have taken too much works beyond their engineering and project management capability. Typically cost overrun and Now oil price has dropped below USD 100, lowest in 2 years and ever increasing Shale oil & gas production in the States. Now USA is the second largest oil producer following Saudi Arabia pumping close to 9 million barrels of oil per day. US Shale oil production reached to more than 4.5 million bpd from just above 1 million bpd in 2007.

Average production of 50 barrels from one new rig in 2007 jumped to 400 bbls per day. Thanks to technology development like new proppant (sand-like material) and multi layer fork operation called (three forks operation). To prove this technology innovation, Exxon has announced it has achieved 20% cost reduction and 60% production increase in Shale production.

I do believe Shale gas/oil boom is not just one off. It will continue to go on. Of course, it will peak one day Texas is producing oil close to Iraq who is the 2<sup>nd</sup> largest in OPEC more than Iran, Kuwait and U.A.E. In the meantime, the shipbuilding price has been plummeting from USD 160 million to 90 million for a VLCC, from USD 50 million to  $30 \sim 35$  million for MRs. There have been speculative shipowners coming up taking advantage of zero interest rate and OPM (other people's money) so called private equity in the Wall Street strongly supported by QE (quantitative easing) which provided abundant cash with zero interest. There has been very good story telling which is called ECO ships. Scorpio, Navig 8, Oak Capital has done massive newbuilding. With this sudden rush of nonconventional shipowners from Wall Street has made medium sized Korean shipyards unprecedentedly busy with so called MR tankers. I believe Hyundai Mipo and SPP have been the biggest beneficiaries

### Now the shipbuilding market has squared back to fundamental. Back to basics.

Now Korean shipbuilders are facing a huge challenge.

For the major shipyards, offshore project is literally gone. To the oil majors be it Exxon, Shell, Total or Chevron, their major shareholders are the largest pension funds like Scottish Widow and Canadian Teachers' Pension Fund or Asset management companies like Berkshire Hathaway. The shareholders are not happy at all with the oil majors since the oil companies have badly performed in the market not as the shareholders had hoped for. Most of S&P 500 companies have reported 50% share price increase but oil majors at best 15% since the Lehman collapse. Of course, BP was the worst company after the disastrous oil spill in the Gulf do Mexico. Now the shareholders are pressing the oil majors very hard to stop the capital spending unless it is fundamentally profitable. With the climate change looming around, the charabaldara ara cariauchy warriad that Oil Majar'a Capital

Huge asset but not performing nor generating cash!!. All the oil majors have given in and announced from one to another that they will freeze the capital investment. In this situation, very very limited offshore projects will come around in the near future. So the major shipyards have to face reality. They have invested too much on engineering capability, expanded production capacity but the major shipyards have to rely now more on conventional shipbuilding. That is the main reason why Samsung HI has reported to merge with Samsung Engineering and HHI to reshuffle the top management recently after both two companies have reported record operating loss close to 1 trillion Won. Seadrill, the largest drilling company, has told the market that drilling industry this year will be very bad, next year much worse and hopefully back to square only year after. The flagship offshore product of Korean major shipyards, the drillship

It is my sincere hope that the worries oil major shareholders have on the Capital Expenditure so called "Stranded Asset" would not happen to the Korean shipbuilders.

 For the medium sized shipyards, HHI Mipo, SPP and STX the environment would not be favorable either. HHI Mipo would be building more than 90 ships this year and good 70 ships would be MR product tankers. Similar situation with SPP. The background for the ordering these MRs activities, very competitive newbuilding price, ECO ships drive, worldwide refineries shift (more new refineries in Middle East, full utilization of US refineries thanks to cheap Shale oil, shut down of European refineries due to strict environment regulation) giving much bigger tonne-mile and reluctance to the Chinese quality on welding and coating. After this massive orderbook of MRs close to 400 shins entering

Now the fundamental question to the medium sized shipyards would be, what will be next product to MR product tankers? I am afraid it will not be easy at all to find the "New Prince". Big soul searching!

On top, now tapering is going around in QE. Already FED has reduced asset purchasing and any time in the future, the interest rate will go up and no more cheap money!! The newbuilding will be more balanced with freight earning. We have to live on what we are earning!! To the major Korean shipbuilders, if there are no substantial offshore activities, how they can maintain competitiveness with such relatively expensive engineering overhead and excess production capacity?? That's why people are talking about restructuring of the shipbuilding industry!! Restructuring?? Redo the structure!!

## Tanker and bulk carriers will not have much positive surprise. Still hope with Container Ships.

Against all the crisis in the world, Ukraine War, Iraq battle against ISIS, Syria, Egypt, Libya and Ebola virus, the oil price should shoot up to US\$ 150. But Brent oil price fell to \$96.72, the lowest in 2 years.

Global oil demand is stagnating to 92.6 million bpd in 2014 and 93.8 million bpd in 2015 due to weaker global economy and more efficient transportation, power generation technology development. Due to Shale oil development in the US, trading pattern of the tankers have changed dramatically. Western African oil is now shifting to the Far East mainly to China not to US Gulf, and Mexican and Latin American oil is finding its way to the Far East. That gives a longer ton mile which is encouraging news for the tankers!! But not game changing development.

China accounts for two-third of bulk carrier market. Iron ore, coal, and soyabeans are the major commodities.

No massive supply side stimulus is expected which means demand for steel would be stagnating. Due to pollution, strong environment pressure not to burn coal. Both are not encouraging to dry bulk market. People are bullish in the winter of the dry cargo but it can turn around depending on how the Chinese economy would evolve!!

Chinese are holding the key for the dry bulk market. On top, Korean shipbuilders are rapidly losing competitive edge in the bulk carriers.

Container market is undergoing structural changes. It is proven mega containerships like 18,000 teu ship or more would be most competitive and at the same time just one operator alone cannot fill up the whole capacity of this mega ship. Now the alliance is the name of the game. After the collapse of P3, 2M (Maersk and MSC) and Ocean 3 (CMA–CGM, CSCL, UASC) has now emerged on top of CKYHE and G6. To compete against 2M and Ocean 3, CKYHE and G6 should be equipped with mega containerships. The demand is there.

## Every cloud has a silver lining – LNG Carrier and LNG as fuel

President Obama has declared US has 100 years gas reserve thanks to Shale gas. Fukushima nuclear accident has been a perfect storm. We can expect pretty good demand on LNG carriers. Also thanks to conservative Japanese shipping industry we do have more than 300 steam turbine powered LNG carriers out of 400. To have 18.5 knots, the steam turbine ship with just less than 130,000 cbm capacity is consuming 180 tonnes a day and modern TFDE ship with 160,000 cbm capacity is consuming just above 100 tonnes. The economic advantage on these modern ships are staggering. If we use \$600 for a tonne bunker, it is USD 48,000 difference a day together with capacity advantage not included when the charter rate is \$60 to 70,000. W–O–W. These steam turbine LNG ships are becoming rapidly obsolete. On top of many LNG liquefaction trains permitted in the States close to 50 million tonnes a year. LNG is the fuel of the future

The Korean shipbuilders have done great things to the world economy. They have built hundreds and hundreds of mega containers without delay and cost overrun which made world trade flow perfect. Walmart Chairman Sam Walton had commented that containership is maritime super highway. All the containers have been powered by Korean made engines and machineries. Korean built LNG ships have been carrying LNG around the world to keep the globe clean. In less then 15 years, close to half of 400 LNG carriers have been built by Korean shipbuilders. Almost all the new generation ultra deep water drill ships and Semis have been built by Korean shipbuilders. We should be proud that Korean shipbuilders and the machinery industry has indeed made a great contribution to the world energy market and world economy!! This success story should continue!! We have to focus

I want to suggest my fellow colleagues in the shipbuilding industry that we go back to the basics, let us have our shipbuilding industry be cost competitive, let us not be obsessed with Bigger the Beautiful. In the foreseeable time ahead, I believe the "Only fit and streamlined can survive". Let us be innovative!! It is not the oil major who has developed Shale gas, it is the independent oil companies who have never given up and changed the whole energy map. Apple has not produced any single mobile phone before the lphone! Tesla, world's most respected high performance electric car maker in California run by Elon Musk has never produced cars before. We really have to learn the innovation from these people.

It may be painful in the years ahead in restructuring the industry but we really have to go through all these challenges to survive at the end of the day for us and for the future generation. I am sure you will do the job!

#### Thank you.