Newbuilding Prices: Future Dynamics

We have heard lots of talk about how newbuilding prices won't come down due to rising steel prices / appreciating Asian currencies. Before we discuss whether this is true it is useful to address what we see as ambiguity about prices and pricing.

Most people (including shipowners) have pricing in mind when they talk about prices. Pricing is the exercise that builders do when they evaluate competing projects, based on cost estimates, adding financial/overhead charges and their margin requirements. After they have priced and chosen the project they want, they will offer this number to the ship owners. Pricing has a lot to do with costs.

On the contrary the price of an asset is determined not only by how much the builder is willing to sell, but how much the buyer is willing to buy and that does not need to have to do a lot with costs, at least theoretically speaking. Just think about price of oil, or an entire office building in the wrong side of Bangkok during the Asian economic crisis in 1997. We remember some gave "negative values" for such buildings even though they had cost hundreds of millions of dollars to build (this is not unlike a newbuilding in layup).

In a builder's market, the builder is able to enforce their pricing on the buyers and that becomes the transacted price for a newbuilding. However, in buyer's market, concluded price will diverge from builder's pricing, sometimes dramatically. The weaker the market, the less the price will cover cost. However, the builder will choose to walk away from a deal if price falls below what is necessary to cover variable costs (meaning actual cash outlay, not "sunk costs" such as depreciation). There are rare occasions builders would even accept such below variable cost orders in order to keep their business as going concern. That is of course very distant memory but it had happened for many sustained period of time in the history of shipbuilding (something greenfield yards might wish to bear in mind).

To sum up, pricing is a supply side cost exercise whilst price is determined by the interaction supply and demand. Having made this distinction, let us examine the forces currently at work which will influence newbuilding prices for the medium/long-term.

On the supply side which affects pricing, we see the below forces at work (and marked them as "plus" or "minus" factors according to their influence on Newbuilding prices):

- depreciating USD (+);
- high inflation (+);
- Unprecedented capacity (-).

Below factors are at play on the demand side which influences prices:

- Low investment appetite due to high orderbook ratio (-);
- Flight to quality (+);
- Offshore demand (+).

The final outcome will obviously be a balance of all these forces. We will take a brief look at each of these factors.

Even if USD rebound against Euro, we subscribe to the view that USD will continue to weaken over the long-term against the shipbuilding relevant currencies (probably with the exception of Japanese yen). And we subscribe to the view that the world is entering into a prolonged period of high inflation. We touched upon this before (see Inflation on Shipping) but the most compelling argument we have seen recently is from the Chinese economist Andy Xie (former chief Asian economist of Morgan Stanley). Mr.Xie thinks inflation will be high because the two forces holding it back in the past 20 years have run out of steam. One such force was the collapse of the economies of Russia and former eastern European countries between 1989 and 1999. These economies hardly grew at all during that time; the oil consumption in Russia reduced by 50% whilst the reduction consumption in Eastern Europe is twice the pace of the increase in China during same period. But these economies have resumed robust growth of late currently solidly at 5/6% in real terms and their oil consumption is growing rapidly. The 2nd force is of course the massive growth of low cost manufacturing in China which, according to Mr.Xie and we tend to agree, is at the end of the road. Chinese input factors - labour, land, coal and environment - have reached their limit (yes, environment degradation is a production factor and it should not be allowed to get any worse in China!).

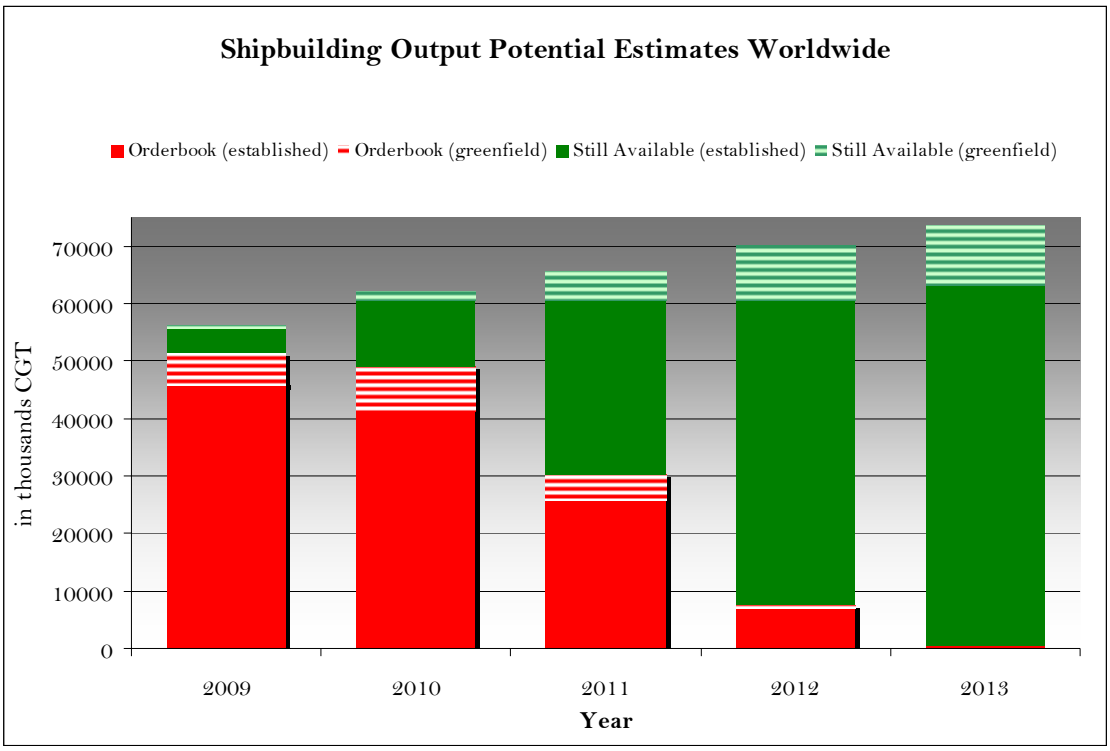
The April Chinese CPI is at 8.5% but if you think this is high, think again. Lots of the inflation there doesn't show up in figures, but rather appears in shortages, due to widespread price control. One only need to look at the breathtakingly long queue of container trailers awaiting for hours and hours to be refueled outside the petrol stations in the manufacturing heartland of Pearl River Delta and Shanghai area to understand this. As a consequence, the share prices of Chinese oil companies have become "negative oil price plays" - because the likes of Sinopec has a breakeven cost of $70 per barrel so the higher oil price, the more losses they will have to endure.

Depreciating dollar/high inflation lends support to prices but there is massive newbuilding capacity coming on stream. In "A Question of Records", we broke down the orderbook by greenfield and established yards. Our definition of greenfield yards are those builders with an effective orderbook which didn't deliver any ships in 2007. Here we break down our estimates of available shipbuilding capacity by greenfield and established yards:

Year	2009	2010	2011	2012	2013
Output Potential Estimates	**56,195**	**62,073**	**65,573**	**70,072**	**73,575**
Established yards	49,957	52,960	56,004	60,065	63,133
Greenfield yards	6,238	9,113	9,569	10,007	10,442
% Greenfield over total potential	*11.10%*	*14.68%*	*14.59%*	*14.28%*	*14.19%*
Orderbook	**51,482**	**49,028**	**30,135**	**7,419**	**633**
Established yards	45,726	41,328	25,619	6,863	633
Greenfield yards	5,756	7,700	4,516	556	-
% Greenfield over total orderbook	11.18%	15.70%	14.99%	7.50%	-
Still Available	**4,713**	**13,045**	**35,438**	**62,653**	**72,942**
Established yards	4,231	11,631	30,386	53,202	62,500
Greenfield yards	482	1,414	5,052	9,451	10,442

- *Figures in thousands CGT*

Or graphically



To put these figures into perspective: the total remaining available capacity for 2010 is estimated to be 13,045,000 CGT for all sorts of ships regardless of size/dimensions. One VLCC averages 44,000 CGT but we can by no means conclude here that there is enough capacity to build another 300 VLCCs because in reality, VLCC suitable capacity is limited by factors such as dock size, main engines, steel plate lines etc. This exercise is purely to illustrate the magnitude of capacity available. Also, we are not saying that greenfield will generally fail and established yards will generally deliver, as there are many good greenfield yards and badly managed established yards (there have been some disturbing news coming out of Vietnam of late) but the above graph gives useful clues.

On the demand side, investments in newbuildings continue to be weak (for a quantitative view of investment trend, see "More on Greenfield Yards") which is bad for prices – we calculated that the correlation coefficient between volume of Newbuilding investment and prices is a strongly positive 0.8. However, we have observed that due to the flight to quality, newbuilding prices for top class shipyards actually went up despite of the declining volume of investment. Recent evidence suggests that top class established yards can command a 10% premium over greenfield yards other things being equal. But if volume of newbuilding investment does not return to average levels given the already high orderbook ratio for most merchant ship segments, eventually there will be downward pressure – less-than-top-class yards may offer steeper discounts.

Our experience is that newbuilding prices for most segments tend to be determined by the most margin-yielding , "big-ticket" subsegment or two at a particular period of time. In Worldyards' jargon, "crude tanker" is a segment whilst VLCC is a "sub-segment". There are two levels here. Firstly, if 180,000 cbm LNG is the hot subsegment, VLCC prices will not

come down even if demand for VLCC newbuildings is very weak, as the yards will simply not offer their slots for VLCCs unless it meets their minimum margin requirement as long as they can sell LNGs. Secondly, the subsegment decisive for newbuilding prices has to be "big-ticket" in terms of value and capacity (as measured in CGT). Capesize can have a decisive impact whilst it is hard to imagine newbuilding prices being supported by strong demand for handysize bulk carriers. If this is the case, what is the next hot, big ticket segment which will lend support or even push up prices?

Most people will answer "offshore" but the trouble is - by how much can offshore serve as a positive price catalyst? How does a drillship compare to a VLCC? At the moment we have no clue because there is simply no common unit of measurement such as CGT for the offshore industry, but Worldyards is doing some cutting edge research into this issue.

In order to have a rough gauge, below is the value of the offshore orderbook vs merchant ship orderbook in the listed Korean shipyards as of May 2008 (we choose to show the listed yards because we have better access to information):

Offshore vs Merchant Ship Orderbook in Million USD, listed Korean Yards			
Yards	**Offshore**	**Merchant ship**	**% Offshore over total orderbook**
HHI	2,880	49,960	5.5%
Samsung Heavy	15,800	28,300	35.8%
DSME	7,300	27,800	20.8%
Total	**25,980**	**106,060**	**19.7%**

(Source: Worldyard Estimates. The other two listed yards - Hanjin and STX - are not involved in offshore in a significant way.)

On balance, we would say that there is upward pressure on cost/pricing, but downward pressure on price, if we look at shipbuilding capacity in a static, merchant-ships-only sense. Throw in offshore, we have to establish how much capacity will be consumed by offshore construction which will affect the top notch, multi-competency yards in Korea, Japan and China. On the face of current evidence, not a lot. Most yards prefer merchant orders because margin is higher, whilst time in drydock/outfitting is considerable less, in addition to the fact that offshore is much more design and engineering intensive. By way of example – drydock/outfitting time for a VLCC is 2.5/1 months for a leading Korean yard but can go up to as much as 5/4 months (if not longer) for a drillship. The leading Korean yards (and the State-owned Chinese yards) seem to be getting most of the merchant orders lately at good prices which leave little room for large scale offshore projects.

It seems that the shipbuilding world will become a two tier market. The leading yards can continue to command their pricing whilst the less well-positioned yards will have to agree to considerable lower prices to entice owners to take the builder risk, covering less of their pricing. The constraint in capacity is in the top-end whilst there will be considerable capacity glut in the smaller sizes.

So where will Petrobras find space to build 30 drillships? Maybe the greenfield yards with few workers and even fewer engineers? Things are just beginning to get interesting…

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