

ASIAN SHIPBUILDING: A DYNAMIC MARKET

Asia will remain at the heart of the global shipbuilding industry for the foreseeable future, although the relative strength of its key players will alter, writes *Sumanta Panigrahi*, Managing Director and Head – Asia Pacific, Export & Agency Finance, Treasury and Trade Solutions at *Citi*.

The global shipping and offshore energy equipment industry has shifted unequivocally towards Asia. South Korea, Japan and China now dominate with around 80% of orders: of the 134 liquefied natural gas (LNG) tankers built since 2009, 133 were built in Asia: 100 in South Korea, 20 in China and 13 in Japan, according to IHS Maritime.

While domination by Asian manufacturers is expected to continue, it is important to recognise that each of Asia's shipping giants has distinct strengths and challenges. Shipbuilding in Japan is going through a renaissance. The sharp depreciation of the yen has provided a cost advantage to manufacturers. Meanwhile, overcapacity in China is driving painful consolidation.

The path to dominance

Asia's dominance in shipbuilding has taken decades to achieve. Japan became a global shipbuilding force in the 1960s, South Korea in the 1980s and China in the 1990s. Now yards from Japan, South Korea and China are the largest players in each of the four major market segments: tankers, bulk carriers, container ships and offshore vessels (such as floating production and storage platforms and LNG regasification vessels).

The principal inputs for each segment

– and therefore the foundations for Asia's success – are identical. Each requires steel: rapid growth in steel production capacity in Japan, South Korea and China facilitated the growth of shipbuilding in these markets.

Shipbuilding also requires skilled labour: ship manufacturing is both complex and competitive. Labour costs are a significant component of vessel costs, and low costs in China – estimated to be between a 10th and a 15th of OECD countries' – have helped its shipbuilding grow. In recent years, however, skilled labour shortages have contributed to rising wage costs in China.

A third requirement is technological knowledge. Traditionally, Japan and South Korea have offered superior technology and reliability compared to China. However, following investment, China now produces better ships in more complex segments such as ultra-large container ships of 12,000-14,000 20-foot equivalent units (TEU). China is also now making inroads into the fast-growing LNG segment.

A fourth input that drives shipbuilding is government support. Many governments champion shipbuilding because it creates skilled employment, stimulates related industrial activity and has potential political and military importance. However, while political support for shipbuilding is important, financial support matters more.

For example, in South Korea shipbuilding is concentrated among the chaebol (industrial conglomerates), such as Samsung Heavy Industries and Hyundai Heavy Industries, which receive strong support from policy banks and a significant proportion of South Korea's export credit agency (ECA) funding.

Similarly, in Japan, ECAs make buyer financing available and facilitate low cost working capital for shipyards (which is crucial given the three to four-year shipbuilding timeframe). In China, government support includes access to capital from government agencies and policy banks and programmes to support buyers. It is focused on larger shipbuilding companies such as China Shipping Development Company and China State Shipbuilding Corporation.

One final factor that has driven Asia's shipbuilding dominance is the growth of the offshore segment, prompted by the deep-sea drilling boom. Demand for Arctic Class semi-submersible ships, which can cost up to US\$1bn each, has soared. While the sophisticated drilling equipment on Arctic Class ships is manufactured in Norway, the hulls (which represent 70%-80% of the total cost) are built in either China or South Korea.

Similarly, the dramatic boom in shale gas in the US and Australia has spurred an increase in spending on LNG vessels of almost 40% between 2008 and 2012.



Spending is expected to peak in 2016 at approximately US\$8bn, and capital expenditure could rise by US\$50bn over the next five years. South Korean shipyards will account for the majority of new builds, while Chinese market share will increase over the next five years.

LNG and offshore vessel demand is expected to grow, partly in response to growing environmental awareness. Natural gas emits half of the greenhouse gases of coal and offers a way to rapidly reduce emissions. Development of unconventional gas reserves such as shale gas and coal bed methane as both a feedstock and a competing source of natural gas, combined with the considerable prospective reserves of the Arctic, will also increase demand for appropriate vessels.

Japan's revival

Following the introduction of the package of measures aimed at reviving the Japanese economy (including bond purchases and increased government spending) the yen has depreciated by over a third against the US dollar over the past 18 months. Most shipbuilding is priced in US dollars so local currency depreciation improves pricing for buyers. Moreover, the risk of FX volatility is taken by the shipyard, despite only 20% to 30% of the purchase cost being paid up front.

Japanese costs are now comparable to South Korea and China while reliability and consistency are considered superior: consequently activity has increased with, for example, the order of two bulkers, worth US\$68mn, from Japanese Oshima Shipyard by Taiwanese dry-bulk carrier U-Ming Marine Transport in November 2012.

The flexibility of Japan's ECAs, Japan Bank for International Cooperation (JBIC) and Nippon Export and Investment Insurance (Nexi) has also supported its shipbuilding resurgence. In August 2013, Hong Kong-based Pacific Basin Shipping finalised terms of 12-year post-delivery ECA financing for two handymax bulk vessels, lead arranged by Citi. The facility, which totals US\$50.9mn, had Citibank Japan as co-financing lender. JBIC and Nexi supported the transaction despite the vessels being manufactured in China as the shipbuilder had an equity and technology tie-up with a Japanese shipyard. Similarly, support has been extended to shale gas exports from Australia and the US – although no

Japanese equipment was used – because the end user of LNG is in Japan.

South Korea

The shipbuilding sector South Korea and buyers of ships from the country have traditionally had easy access to funds from ECAs and development banks, such as Korea Trade Insurance Corporation (K-Sure) and the Export-Import Bank of Korea (Kexim) and policy banks, including Korea Development Bank (KDB), Korea Exchange Bank (KEB) and the Korea Finance Corporation (KFC).

However, the South Korean government is currently consolidating some of the agencies that support shipbuilding. While government support overall is certain to remain strong in the long-term, the restructuring of support is having some short-term impact on financing availability. The bankruptcy of STX Pan Ocean in June 2013, which South Korean agencies and policy banks have significant exposure to, is also creating some uncertainty about government support.



“SHIPBUILDING IN JAPAN IS GOING THROUGH A RENAISSANCE.”

Sumanta Panigrahi, Citi

Consolidation underway in China

China's global market share of all types of vessel has risen from 6% (based on deadweight tonnes (DWT)) in 2000 to 2003 – far below South Korea and Japan – to 43% in 2012. Shipbuilding capacity tripled to 63 million DWT from 2008-2013. This explosive growth is now causing problems as it is geographically dispersed but concentrated in the bulker segment (an estimated 60% in 2012), which is the worst performing sector in recent years. State-owned and policy

banks support only 10% of shipbuilding companies. The remainder rely on other sources of financing and have been exposed to the downturn. With total deliveries in 2012 estimated at 45 million DWT, excess capacity is leading to industry consolidation.

Despite frantic cost cutting by some shipyards in order to win business, ship buyers have been careful not to simply give business to the lowest cost shipbuilders. Instead, there has been prudent scrutiny of shipyards' strength and the likelihood of closure.

At the same time as consolidation of capacity is taking place, the industry is trying to capture more of the higher end value chain, such as LNG and offshore vessels. For example, Cosco (Nantong) Shipyards has shifted its focus from shipbuilding to oil services-related vessels, especially for deep sea and harsh conditions. To help strengthen China's reputation in these segments, orders have been placed by state-owned enterprises. For example, in a deal by China Petrochemical Corporation (Sinopec) to ship LNG from Australia it was a requirement for LNG vessels to be manufactured in China. In addition, China has worked to secure technology support and supervision for such projects from Japan.

A dynamic market

The constantly changing dynamics of the industry mean that it is important for ship buyers to work with a bank with strong relationships with global ECAs. ECAs are increasingly important to facilitate innovative transactions such as Golar LNG's US\$1.125bn financing agreement in July 2013, which has a term loan guaranteed by K-Sure and another funded by Kexim (Citi was global coordinator, bookrunner and documentation agent).

It is equally advantageous to select a bank that is active across all segments of the market because financing innovations in one segment can be applicable elsewhere. Broader capabilities, in capital markets, for example, are also increasingly important. In November 2013, Kexim, K-Sure and China's Sinosure approved bond issuances, as an additional financing alternative.