



By Michael D. Tusiani

“LOOKING AT THE PAST WITH A VIEW TO THE FUTURE”

I was recently asked to reflect on my almost 45 years in the industry and highlight some of the changes I have seen in the tanker sector.

The first is: TECHNOLOGY

Technology has had a profound impact on all aspects of the industry. It has changed the way oil reserves are identified, developed and produced which has then led to a dramatic transformation of supply sources worldwide. Geologists can now see through thick salt layers, enabling important discoveries, such as those in offshore Brazil. Flexible drills and directional long-reach drilling have given companies access to resources in the frozen regions of Russia and in the deep waters of the Gulf of Mexico. And, of course, tight oil and gas can now be accessed by hydraulic fracturing or fracking. When I began my career, all offshore oil was considered unconventional. Today, it is the source of about one third of our oil supply. This has had an enormous impact on tanker transportation.

Information technology has also changed our business. Moving from telex to email, internet and cell phones, intelligence of all types, now readily available, has created transparency. And, most importantly, ships cannot hide. We can now follow their positions 24/7.

Then there are the changes in TRADE FLOWS

Trade flows have become much more diverse for both crude oil and petroleum products. Significantly more crude is now moving East rather than West. And, in recent years, the products trade has grown faster than that of crude.

For instance, in 1983, Asia imported only 5 million barrels of crude oil per day. Thirty years later, imports are approaching 20 million barrels per day.

China became a net importer of crude oil only twenty years ago. It now imports about 6 million barrels per day.

Japan, on the other hand, has been importing less and less crude. Imports peaked in 1997 and have been decreasing ever since.

During the last twenty years, overall crude import volumes into OECD Europe have been relatively stable ranging between 10 and 12 million barrels per day.

North American crude oil imports show the most interesting trend. In 1985, imports were about 3.1 million barrels per day. They tripled to 9.5 in 1994 and have since then decreased to 6 million barrels per day. This has been primarily the result of the large increase in domestic shale oil production in the U.S. and the growth in oil sands production in Canada.

With regard to the trade flows of petroleum products, the most noticeable changes are in North America and Europe. They are moving back and forth between these regions and, as everyone knows, North American exports have also tripled in recent years. A more recent development is the increase in refined product movements from export refineries in Asia and the Middle East.

On to VESSEL DESIGN

Vessels have increased dramatically in size and carrying capacity. For example, in the 1980's a VLCC used to range between 250 and 275,000 deadweight tonnes. Currently, it is 310,000 deadweight tonnes. Aframax and Suezmaxes have also increased in size.

In terms of propulsion, tankers have progressed from coal-fired engines to steam-turbines to diesel. Higher and higher bunker prices have also contributed to changes in engine design. The emergence of the so-called 'eco-ship' was a direct response to record-high fuel prices in recent years.

Other innovations, including safe tank venting, inert gas systems, crude oil washing, sophisticated engine room control systems, and electronic charting and satellite navigation have had a major impact on the safety and efficiency of tanker operations.

One of the most significant innovations in recent years has been the double hull design which, as a result of the Exxon Valdez spill, became mandatory in the early 1990s. This accident also accelerated the phase out of all single hull tankers.

As for SHIPBUILDING

From the early 1900's through the 1950's, Great Britain was the largest shipbuilding nation in the world. This coincided with the country's dominance in global trade. After World War II, Japan emerged as a force in this sector. From the late 1960's through the early 1980's, Japan had about a 50 percent market share with yards in Continental Europe and Scandinavia struggling to compete.

In the 1970's South Korea's shipbuilding emerged forcefully. Its growth was the result of a carefully planned industrial program predominantly focused on the export market. By 2003, Korea surpassed Japan as the world's largest shipbuilding nation.

China, the newest powerhouse, has been catching up fast. About fifteen years ago, even the output of German yards was higher than that of China. Since then, the situation has changed rapidly. China's output surpassed that of Germany in 1998, Japan in 2009, and, Korea in 2010. It must be noted that China and Korea remain close in the competition. But, Korean yards have already acknowledged the competitiveness of their Chinese rivals and, as a result, focused on building higher-valued units such as LNG and offshore.

Next we have the COMPOSITION OF SHIPOWNERS AND CHARTERERS

Over the last four decades, Western oil companies have decreased the number of ships they owned providing an opportunity for independent owners to increase the size of their fleets.

As far as charterers, in the late 1970's/early 1980's, the top five charterers in both the dirty and clean markets were the majors and one trader – Phillip Brothers. In the 1990's Exxon was the world's largest charterer of crude followed by BP and Vela. As some of you may recall, at the time, Saudi Arabia started marketing its oil on a delivered basis. Ten years later, Exxon remained number one followed by Shell. Vitol highlighted the advance of the traders by taking the third spot.

As I previously stated, China became a net importer of crude oil for the first time in 1993. It took about 20 years but, in 2012, Unipec became the world's largest charterer.

As for clean product charterers, the major oil companies continue to play a significant role but traders, such as Vitol, Glencore and Trafigura now hold the top spots.

Now looking at VESSEL FINANCING

Historically, traditional shipowners injected their own capital and then borrowed the remainder from commercial banks. The amount these institutions are willing to lend depends on the risks involved and market conditions. When the market is going through a downward cycle, banks reduce their exposure. If they incur losses, they lick their wounds, so to speak, before eventually lending again. However, over the years one fact is clear. The industry has always found ways to fund fleet renewal and expansion. Alternative sources of financing seem to surface when needed.

In the 50's and 60's, the 'Shikumi-Sen' long term charters between Hong Kong owners and Japanese yards and trading houses were very popular.

During the 1960's, Export Credit became a fashionable source of financing for newbuildings in Japan and Europe, followed by Korea and China when they were emerging as major shipbuilders.

The Norwegian K/S limited partnerships came into play in the 1980's. The German KG market was booming until the recent financial crisis. And, larger credit-worthy companies periodically raised money by issuing bonds in the capital markets – primarily in the U.S. and Norway.

Private equity and hedge funds are the most recent participants in funding our industry. They have the ability to deploy large amounts of other people's money opportunistically based on the premise that shipping is a cyclical industry.

With regard to SHIPOWNING STRUCTURES

When I began my career, most independent shipowners were family-owned or controlled and totally integrated. Reputational excellence was highly valued and there was pride in providing quality, in-house ship management. Owners had an emotional attachment to their vessels many of which were named after family members.

Owners employed different decision-making strategies based on their individual interpretation of political events as well as economic and market data. They had to be cautious because, after all, their money and reputation were at stake. And, owners knew that if they exposed themselves to excessive risk, the consequences would be borne by the next generation.

The prolonged periods of depressed rates in the 80's and 90's gave rise to the use of third party managers and shipping pools. Achieving economies of scale and a better control of costs were the primary drivers. The consolidation of tonnage and the sharing of information were also seen as a way to improve rates over times.

However, with the advent of public money and other sources of capital such as private equity and hedge funds, the landscape has changed leading to the effective separation of the ownership of physical assets from their day-to-day operations. It seems that access to public financing has outweighed the desire for secrecy which the traditional shipowner valued so highly.

The primary focus of these public shipping companies is to demonstrate quarterly growth. As there is a greater pressure to produce quicker returns, operational integrity could be potentially compromised. Most of today's new market entrants do not see the need to build integrated organizations to serve customers as a priority and to protect one's owned assets. More third party managers are being employed to handle owners' technical and commercial affairs. Currently, approximately one-third of the world's tanker fleet is under some kind of third-party management. And it is interesting to note that when I started in the business, I recall OSG as being one of the few public shipping entities. Today we have thirty just in the tanker sector alone. Given this shift, it now appears that most ship owners have put making short term profit above all else. The long term doesn't seem to matter particularly when capital markets are robust.

Concerning MARKET CYCLES AND MARKET PSYCHOLOGY

As everyone here knows, the tanker market is cyclical with market psychology playing a major role in its direction. As a result, shipping is considered a risky business.

During the 1980's the market was very depressed and so were shipowners. For instance, in 1980 new VLCC's were purchased for around \$70 million. Five years later they were only worth \$10 million – barely more than scrap value. Amazingly, in 1983 an eight-year old

VLCC was scrapped for \$4.65 million. Also, at that time, about 40 percent of the VLCC fleet was laid up and there appeared to be no hope for their survival.

During the 1990's the market gradually improved but it wasn't until 2003 that it took off with rates reaching levels resembling those of the early 1970's. This boom was the result of many years of subdued fleet growth and the mandatory single hull phase out which stimulated both scrapping and conversions to FSO/FPSO's. In addition, restricted newbuilding capacity combined with significant growth in long-haul oil demand from developing countries, such as China, caught the tanker market off guard.

But, the interesting point was that even though yard capacity expanded rapidly, as did the number of newbuilding orders – owners, bankers, and investors did not seem concerned. The longer the market remained healthy, the more owners jumped onto the bandwagon, pushing up the orderbook and prices. Needless to say, after the global financial crisis hit, oil demand diminished and all these new vessels were delivered in a declining market. Pessimism replaced optimism and the downward cycle started all over again.

Next there are the “WILD CARDS”

Acts of God or so called ‘wild cards’ (wars, natural disasters, accidents, political actions such as sanctions, etc.) have been, and will continue to be, important factors in our business. Global energy security is critical to the world's economy. Since more than 50 per cent of the world's oil production moves on tankers, even a temporary blockage of critical lanes of passage, for example the Straits of Hormuz or the Malacca Straits, would cause major havoc. Another strategic transit route is the Suez Canal. It closed for several months in 1956/57, and for almost eight years after the start of the Arab-Israeli war in 1967. This closure caused the biggest boom in the history of the tanker market.

Oil spills and ensuing government regulations have also made a major impact on the market but in a different way. For instance, the ‘Exxon Valdez’ spill in 1989, now number 35 on the list of the oil spills by size, caused the United States to implement OPA 90 legislation and the IMO to amend MARPOL. These laws mandated new tankers to be double hulled and older tankers to be phased out when they reached a certain age. More recent and larger tanker incidents such as the ‘Erica’ (1999), the ‘Prestige’ (2002) and the ‘Hebei Spirit’ (2007) resulted in significant rate improvements albeit, in each case, temporary.

Let me now try to attempt a look at the future.

I believe technology will continue to force changes within all aspects of our business beyond what one can today reasonably predict. For instance, in 2007, I co-authored a book on LNG. It is rather embarrassing to admit that the words “shale gas” or “fracking” were not even mentioned anywhere in the book.

Since oil exploration and project development are becoming more capital intensive and with the market not currently valuing integrated companies as favorably, I would expect most oil companies to invest less and less in ship ownership. Unless, however, the ship owning community fails to provide a safe quality service which will force the majors back into vessel and ownership.

The Eastern Hemisphere will become more and more important with Singapore and major Eastern cities becoming the significant shipping centers of the future.

As trade in both crude and products becomes more diverse, especially with the emergence of the United States as a major exporter, I suspect that the trading companies will increase in their importance as both owners and charterers.

China will become a bigger force in shipbuilding over the next decades.

As a result of even stricter environmental regulations, future vessels will use cleaner fuels such as LNG, and existing and future regulations will continue to impact vessel design and operation. Major regulations that are already in the pipeline include mandatory ballast water treatment systems and new emission requirements based on MARPOL Annex VI.

We will continue to experience ups and downs in our business. Success or failure of a shipowner will be based on his or her unique ability to “smell” unexpected events that could result in a huge profit opportunity. The ability to capitalize on the “wild cards” that I mentioned earlier will be the key to making fortunes overnight.

Based on the past, in my opinion, various forms of finance, new and old, will always be available to fund the industry's growth.

Regarding the new shipping structures where ownership is separated from commercial and technical management, I believe that they will not last. As soon as there is a major problem, charterers will not stand for them. They will not be willing to expose themselves to operational risk and will certainly want to know who is ultimately responsible for moving their

oil. I predict that the day will come when owners' fortunes and reputations will be back on the line.

Lastly, I can assure you of one thing: shipping will continue to be one of most, if not the most, dynamic and challenging of all global industries.