

Shipping and Shipbuilding Markets

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S H I P B R O K E R S S I N C E 1 8 5 6

Shipping and Shipbuilding Markets in 2006

THE BRS ANNUAL REVIEW OF WORLD SHIPPING
AND SHIPBUILDING DEVELOPMENTS IN 2006
AND PROSPECTS FOR THE COMING MONTHS...

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Crystal Ball

AFTER FOUR YEARS OF BUOYANT SHIPPING MARKETS, GIVING STATISTICS NEVER SEEN BEFORE, THERE ARE A NUMBER OF DISQUIETING VOICES BEING HEARD PREDICTING A SEVERE CORRECTION OF THE MARKETS OR EVEN A NEW CRISIS RECALLING THE SAD DAYS OF THE 80'S.

It is true that we are in a cyclical industry and that the current swelling of the orderbooks, which equates to an average of 25 % of the existing fleet, and even close to 50 % in some sectors, gives cause for concern even to the most serene spirits.

Financial analysts are asking themselves exactly the same questions about the evolution of the stock markets after four years of increases. This seems to suggest that the shipping world and the financial world are increasingly correlated, whereas up till now they were taking totally different paths.

Fundamentally, this rise in the shipping market is linked to growth in world trade, which has been stimulated by the amazing development of more than a third of

the world's population, originating from a group of countries known as B.R.I.C. (Brazil, Russia, India, China), in the global economy.

However, recent forecasts published by the World Bank over the next 25 years lead us to believe that a collapse in the markets, following the historic increases, is neither a necessity nor a compulsory passage. Certainly growth is seldom linear and we should prepare ourselves for market corrections, linked to temporary imbalances between supply and demand, especially in the tanker and containership sectors. However, today's freight rates can endure a correction without necessarily causing panic, since the current opulence is not a written rule, and there is plenty of space for some belt-tightening.

The shipping markets can fall back to levels of returns comparable to shore-based industry norms without necessarily going into recession. Is it economically healthy to be able to payback a ship in three years or even less, or to purchase a five-year old ship at 30 % over its construction cost?

The World Bank predicts an average growth for developing countries of over 6 % (twice as much as developed countries) and a tripling of world trade over the next 25 years. The middle classes, avid consumers of goods and energy, should then number 1.2 billion individuals (15 % of the world population), compared to 400 million today, whilst they only increased by a small percentage over the past 25 years.

Facing such an evolution, we are inclined to believe in a "soft landing" scenario, permitting the temporary surplus of tonnage to be absorbed. In the longer term the world fleet must be able to adapt to this totally unexpected global change, indeed bringing growth but also ecological headaches of an unprecedented complexity.

In a world which overloads us with information, we sometimes forget that elements over which we have little control, such as the weather, individual or group psychology, currency exchange, politics,

etc. can easily upset the most rational plans and forecasts. In practice, who dared predict that crude oil prices would be at \$50/bbl by the end of 2006, having reached \$70/bbl during the course of the year, with everyone seeming at that time to agree that we would reach the magical \$100/bbl mark? Who also could have predicted such a surge in newbuilding orders this year? We should remain cautious and ask ourselves if the information, which inundates our screens, is always sufficiently reliable to allow us to make clear and definitive assumptions on what the future will be; the hard reality always imposes certain modesty.

In the redistribution game played on the global scene, it is comforting to note that the owners in our "old Europe" are wishing to keep control of shipping business by massively investing in the growth of their fleets. We are grateful that ship-owning does not seem ready yet to entirely expatriate itself. ■

The shipbuilding market in 2006

SINCE 2003 SHIPBUILDING HAS HAD A SUCCESSION OF EXCEPTIONAL YEARS, AND 2006 BROKE FURTHER NEW RECORDS:

1. Demand literally took off, well beyond the most optimistic forecasts, with more than 169 million dwt of new orders (2,950 ships) compared to 117 million in 2003, 112 million in 2004 and 94 million in 2005. Deliveries also progressed and broke the barrier of 75 million dwt (1,550 ships) against 55 million in 2003, 62 million in 2004 and 72 million in 2005. World orderbook is increasing inexorably, going in twelve months from 178 million gt to more than 235 million gt, representing 345 million dwt. Shipyards are fully booked for three, four, or five years.

2. The year was marked by a new and important regulation which was enforced as from April 1st 2006, the CSR rules, aiming to considerably reinforce the structures of tankers and bulk carriers, with a non negligible increase in the weight of steel hulls and of the cost of construction as a result. Owners and builders concerted to conclude as many contracts as possible before this date, as

well as numerous options liable to be exercised in the year, and yet to abide by the preceding regulations. However, this movement carried on beyond April 1st 2006. In large part this explains the strength of demand for tankers and bulk carriers with respectively more than 85 million and 45 million dwt ordered, compared to 32 and 27 million dwt in 2005.

3. Korea maintained its number one ranking in the world, with an orderbook rising rapidly to achieve 81.3 million gt against 65.6 million gt the previous year. The Japanese portfolio also progressed with close to 62.3 million tons, compared to 54.2 million gt in 2005. But it was China that had the biggest growth with an orderbook that shot up to nearly 48.7 million gt against 30.6 million gt the year before. Western and Eastern European builders have maintained their volumes, with the overall orderbook going from 22.1 million to 22.5 million gt. With capacities being totally tied up with the established shipyards, this has profited the other shipbuilding zones (Vietnam, India, etc.), who have seen their orderbooks increase strongly from 7 million to 10 million gt.



Stena Primorsk

65,200 dwt and 70,300 cbm, here leaving Stockholm is the third in the Stena P-MAX series of 10 units ordered by Concordia Maritime at Brodosplit in Croatia. As well as on the other Stena Max designs, the P-MAX has independant propulsion systems to achieve maximum redundancy for trading in sensitive waters.

4. This strong demand has pushed newbuilding prices up, with a spread of 10-15 % between the lowest and highest levels of the year. The record prices achieved in the middle of 2005 for the three principal types of ships have been surpassed in the bulk carrier and tanker sectors, and come close for containerships. Massive cash flow availability and the very good performance of freight rates during the year encouraged owners to order new ships. Builders were able to get the best prices due to the healthy appetite of the latter for prompt deliveries, made possible by productivity increases and the creation of new facilities. They were therefore able to get premiums on building prices, which progressively constituted new benchmarks for the next contracts.

5. The financial situation of many builders remains fragile even if there has been an improvement this year.

The prospects for 2007 and 2008 seem better, but a number of doubts persist as to the evolution of building costs, due to the extended time frame of their orderbooks. There is strong pressure on steel prices, machinery and salary costs. The weakness of the dollar adds to the difficulties. Some yards are facing supply problems with the supply of main components, which is jeopardising their planning but also the continuity of their operations.

THE ECONOMY AND COMMERCIAL TRADE

The world economy has continued to move at full speed with 5.1 %

growth in 2006. Commercial trade has remained particularly active and has grown by nearly 8.9 % compared to 7.4 % in 2005.

Whilst world growth during the 90's, and even at the early start of the century, was only in the region of 2 %, and was reduced to a small number of economic players, we have now had four years of growth hovering around 5 %, pushed by the development in the "BRIC" countries (Brazil, Russia, India, China). The multiplication of economic partners, the lengthening of voyages and a strong economic growth undoubtedly are the main reasons for the expansion of shipping transport and the vigorous investments it calls for.

IMF Forecast (as % of GDP)					
	World	USA	Japan	Euro zone	China
2005	4.9	3.2	2.6	1.3	10.2
2006	5.1	3.4	2.7	2.4	10.7
2007	4.9	2.9	2.1	2.0	10.0

IMF - September 2006 except China (NBS)

FREIGHT RATES

In the dry bulk market, freight rates which were on a downward path in the last quarter of 2005, then stabilised, turned around in the first half and progressed strongly thereafter, without however passing the peaks achieved in 2004. In 2006 average annual rates are lower compared to 2003, 2004, and 2005 but continue to ensure an excellent return to owners.

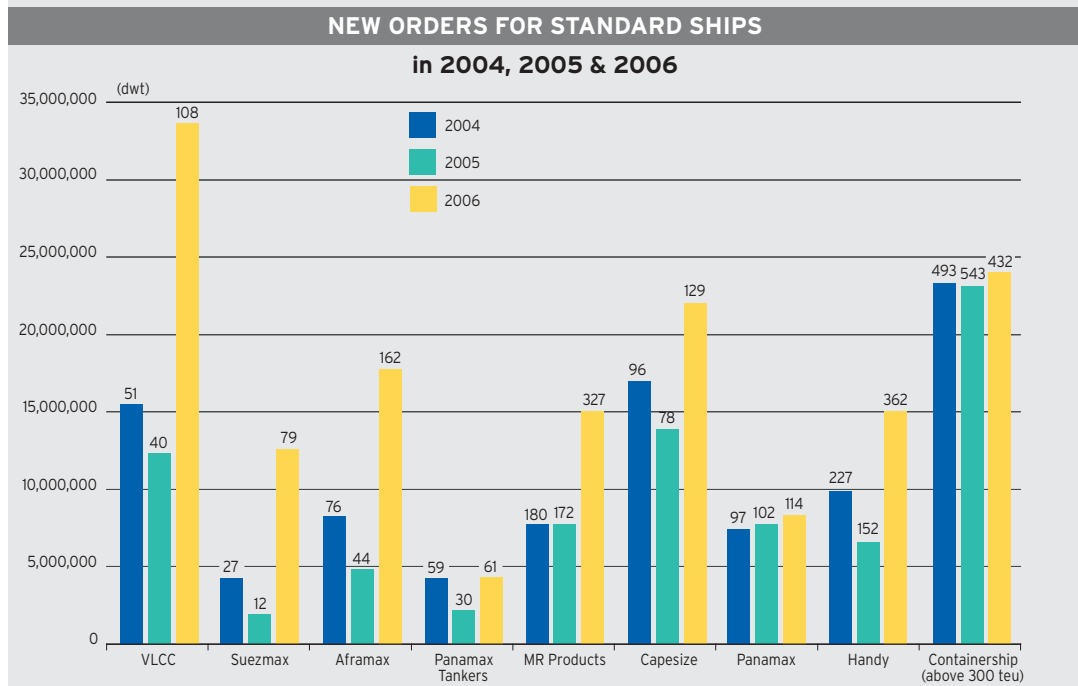
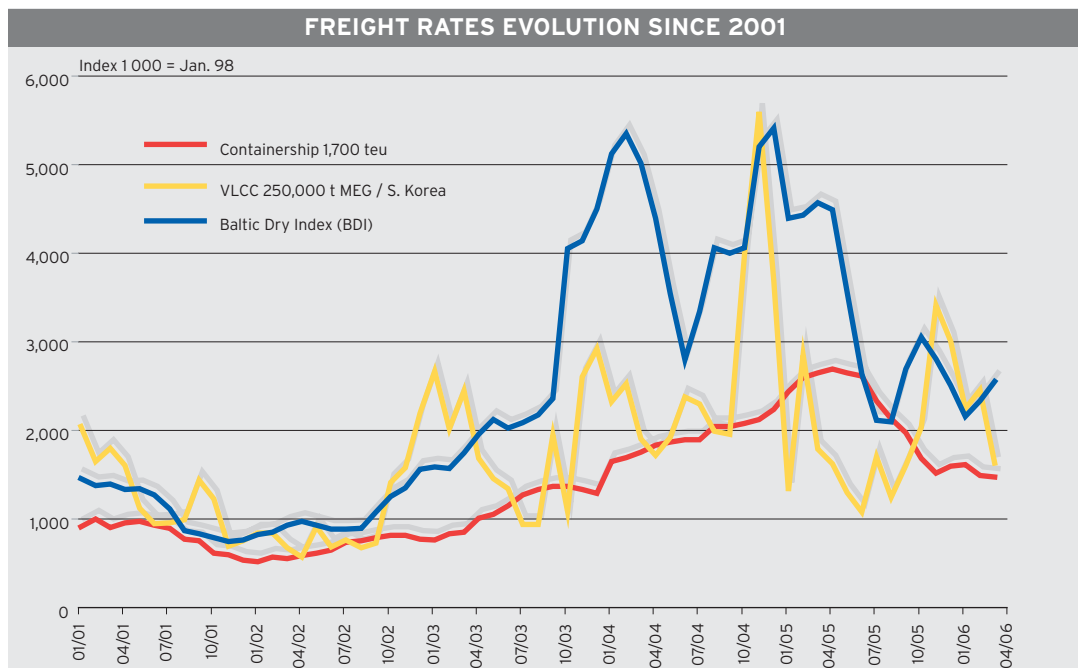
In the containership sector, rates were maintained at levels achieved at the end of 2005, up until the end of summer 2006, before dropping, then declining gently in the last quarter 2006. Given this declining trend, operators were hesitant to agree to long-term charters, this in turn limits the ability of owners to invest further. In 2006, average annual rates were below those of the three preceding years.

Tanker rates were characterised by high volatility again this year, even if the spread between the highs and lows was somewhat narrower. In 2006 averages for the year were practically the same as those of the previous year, but below those of 2003 and 2004.

ORDERS FOR STANDARD SHIPS

The world portfolio of standard ships on order has reached a new record in 2006 with 195 million gt. This figure has doubled in three years and quadrupled in six. New orders have broken another historic record, with 158 million dwt in 2006 compared to 112 million dwt in 2003, 101 million in 2004 and 84 million in 2005. For standard ships of over 3,000 gt this represents nearly 2,300 new orders in 2006, against 1,550 ships in 2005, 1,700 in 2004 and 1,560 in 2003.

The lull anticipated for 2006 by many observers, due to the satura-



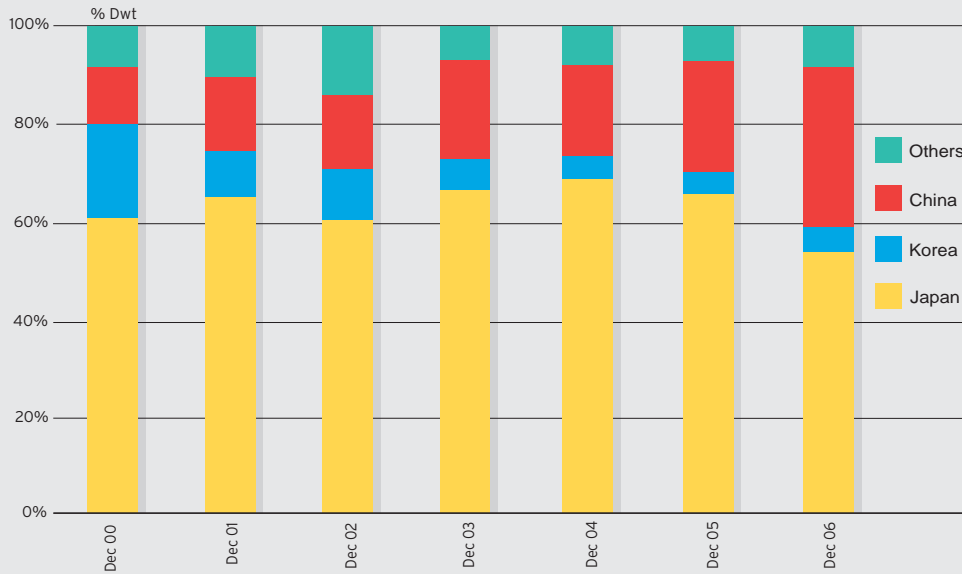
tion of building capacities, the high levels in construction costs, a drop in rates, and the important ratios of renewal of fleets did not take place.

Nobody anticipated such an activity, and it is easier to find reasons for justifying this retrospectively.

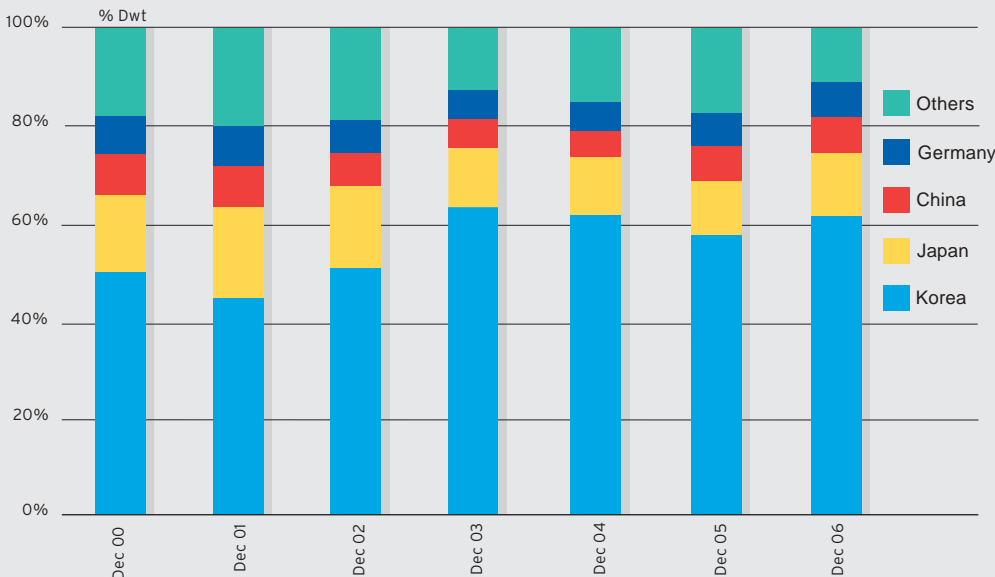
No-one doubts that the enforcement of the regulation for reinforcing the structure of tankers and bulk carriers on 1st of April 2006 contributed enormously to speeding up investment decisions. This however did not put a cap on mat-

New orders during the year					
(million dwt)	2002	2003	2004	2005	2006
Tankers > 3,000 dwt	17.7	48.4	40.1	28.9	83.4
Bulk carriers > 3,000 dwt	19.3	25.5	34.3	28.2	45.4
Containerships > 300 teu	5.2	27.0	21.5	20.8	22.0

SHIPBUILDING COUNTRIES MARKET SHARES EVOLUTION FOR BULK CARRIERS



SHIPBUILDING COUNTRIES MARKET SHARES EVOLUTION FOR CONTAINERSHIPS



ters, and orders continued to flow in after the first quarter of the year. Many owners who had put off their decision to invest, due to the increase in construction costs, and were awaiting a drop in prices that did not happen, then took a commitment to invest, notably in the tanker market where the single-hulls are due to be phased out by 2010.

Finally these past years were relatively propitious and satisfactory for owners, who have reinvested the enormous liquidity they have

accrued from the freight market or transactions on the second-hand market.

Bulk carriers

With nearly 45 million dwt ordered, against 28 million last year, demand for bulk carriers has risen strongly.

Containerships

With 22.0 million dwt ordered, and despite the slow-down observed in the last quarter of 2006, demand

The orderbook has progressed to achieve 93 million dwt at the end of 2006, against 70.5 million dwt end 2005. The fleet under construction represents 24.9 % of the active fleet, only barely above the maximum over the last ten years which was 22 %, attained end 2004.

Several factors explain the growth recorded this year: the changes in regulations, the very good level of rates and their recovery since the middle of 2006.

It seems also that the tonnage under construction (25 %) is insufficient to meet demand. Given that deliveries will be extended over four or even five years in Japan, the growth of the fleet is about 4-5 % and inferior to world economic growth. These past years, with the exception of Japan where some shipyards have been specialising in bulk carriers generally reserved to local owners and a few traditional clients, builders have given priority to containerships and tankers. The insufficient renewal of the bulk carrier fleet may push rates further up and lead owners and builders to agree on additional orders in this sector, particularly if at the same time demand for containerships and tankers goes down.

The average age of the bulk carrier fleet is about 11 years, with the exception of the Handysize which is close to 18 years, and where nearly two-thirds of the fleet is over this age and a third is over 25 years. A renewal in this sector is awaited.

Containerships new orders by size since 2004

	over 5,500 teu	under 5,500 teu	Total
2003	87	406	493
2004	99	444	543
2005	114	318	432

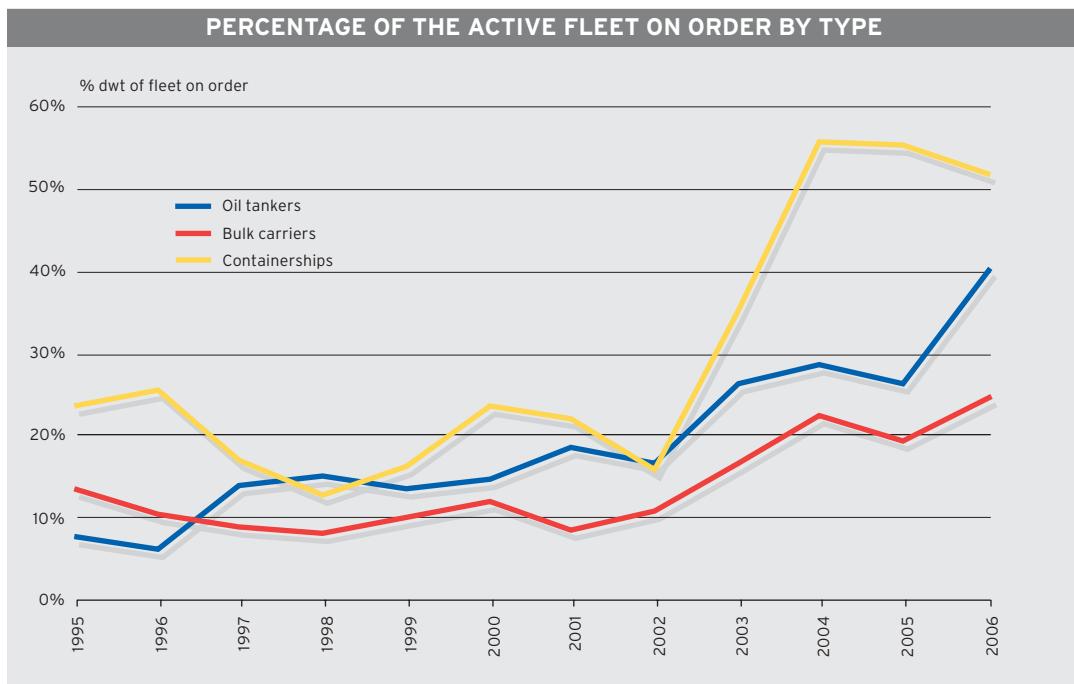
Source: BRS

for containerships is strong, at the same tonnage levels than those of preceding years. Whilst owners are once again showing some reluctance at the beginning of the year, in the face of operators who are hesitant to commit to long-term charters and for late deliveries, they quickly come back to the shipyards as soon as construction costs slow down. Activity grew in the second and third quarters, pushing ship prices higher again. In the fourth quarter, a significant drop in freight rates combined with the fact that operators ceased to discuss term business, concentrating on shorter periods from twelve to twenty-four months, put a brake on owners' enthusiasm. Majors nonetheless pursued their direct investments with the emphasis on very big sizes.

The world orderbook has increased again to 67.4 million, against 61.4 million dwt end 2005, whilst the fleet under construction marks, for the first time since 2002, a slight decline going from 56 % end 2005 to 53 % of the fleet in service.

This sector continues to be dominated by the race for ever-larger sizes, with the objective of reducing the cost per slot. With the delivery of the first "11,000 teu" containership, AP Moller has finally disclosed the main characteristics of this series of ships, of capacity in practice closer to 14,000 teu, making them for the moment the largest containerships in the world. Since then, MSC and CMA CGM have ordered ships with a nominal capacity of between 13,000 and 14,000 teu at Korean shipyards.

This is also the sector where the fleet under construction has the highest proportion compared to the fleet in service, provoking each year new fears of over-capacity. For the coming three years, the annual rate of growth of the fleet will be on average 14 %, overtaking the forecasted evolution of international trade. This

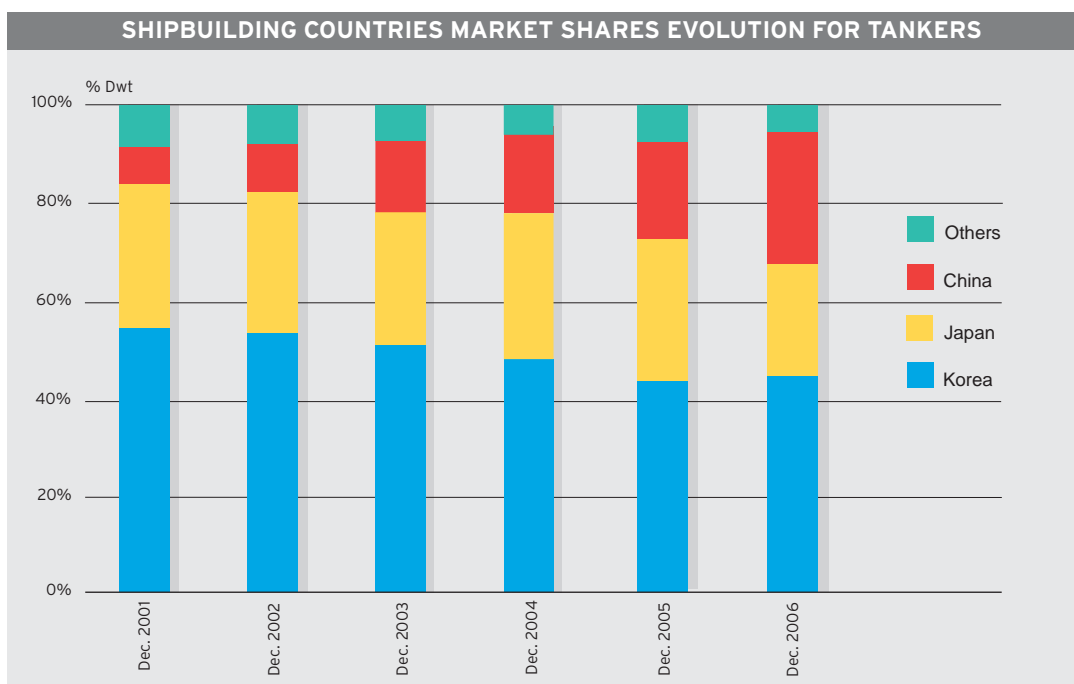


has however been the case for the last twenty years, due to a progressive ever-expanding use of containers. The fleet of containerships has continued to grow, offering operators modern vessels among which the largest have expanded from around 4,500 teu at the beginning of the '90s, to 14,000 teu in less than twenty years, allowing very substantial economies of scale. In addition, the diversity of sizes gives owners a multitude of transport solutions in every direction.

Tankers

With more than 83 million dwt ordered in 2006, demand for tankers has seen an unprecedented growth. The orderbook passed from 92 million dwt end 2005 to 156 million dwt, and the proportion of the fleet under construction went to 41 % of the fleet in service from 26 % the previous year.

Several factors have contributed to this phenomenal increase. The coming into effect of new regulations



was an excellent incitement. But owners are also aware of the impending deadlines, at a time when the orderbooks are already full up until 2010, and when a strict application of IMO rules should take out of service more than 60 million dwt of single-hull ships around the same date. In particular from now until 2010, 152 VLCCs, 44 Suezmax ships, 72 Aframax ships, 45 Panamax ships should in theory be leaving the fleet. Owners therefore made a rush for any dock that was still offering 2009 and 2010 delivery dates. At the same time, new VLCC docks or brand new gigantic yards were just opening, offering particularly attractive conditions. For example Jiangnan has filled its new site at Changxing by quoting \$20 million less than the Korean or Japanese competitors. The new Chinese shipyard of Rong Sheng has signed up some thirty Suezmax orders out of the 79 registered this year, at very advantageous terms for shipowners.

The average age of tankers is about 10 years with very few ships over 20 years. Two exceptions however should be noted, one for Panamaxes

of which about 25% of the fleet is over 20 years and another for tankers under 25,000 dwt, whose average age is 18 years and of which about 45% of the fleet is over 20 years. Renewal of this last category is under way.

ORDERS FOR SPECIALISED TONNAGE

Demand for specialised tonnage has remained so strong this year that the capacities of traditional shipbuilders, each with their own specialisation for a particular ship-type, have not been enough to respond to all of the needs. Owners try to convince other inexperienced yards, but there is a general reluctance to engage in specialised work, when there is sufficient business available with bulk carriers, containerships, and tankers. Despite these difficulties, the proportion of ships under construction, compared to the fleets in service is massive, with 90 % for LNG carriers, over 47% for LPG and ethylene carriers, 32% for stainless steel chemical carriers, and 26% for car-carriers.

Stainless-steel chemical carriers

The number of stainless steel chemical carriers has jumped from 51 in 2005 to 95 in 2006. The orderbook is very strong with about 3.3 million dwt (167 ships), compared to 2.3 million dwt end 2005. The fleet under construction represents 32 % of the fleet in service against 17 % the previous year. Chemical carriers are difficult ships to build, not only due to precautions necessary for working the stainless steel, but also due to the multiplicity of tanks and pipes, requiring a delicate coordination. The price of stainless steel is also very high and volatile, which adds to the builders' risks.

The main builders are Japanese (106 out of the 167 in the portfolio), with Fukuoka, Kitanihon, or Shin Kurushima, whose orderbooks extend up until 2011, or even 2012, and Europeans with Aker Florø, Szczecin, Factorias Vulcano, De Poli. In Korea, SLS shipyard after having taken an order in 2005 for a series of chemical carriers of 43,000 dwt with coated tanks, has obtained in 2006 an order for four stainless steel chemical carriers of 43,000 dwt, for account of Stolt-Nielsen, an owner who had already ordered six identical ships with Aker Florø between 2005 and 2006. These ships also have a few coated tanks so as to reduce the investment costs.

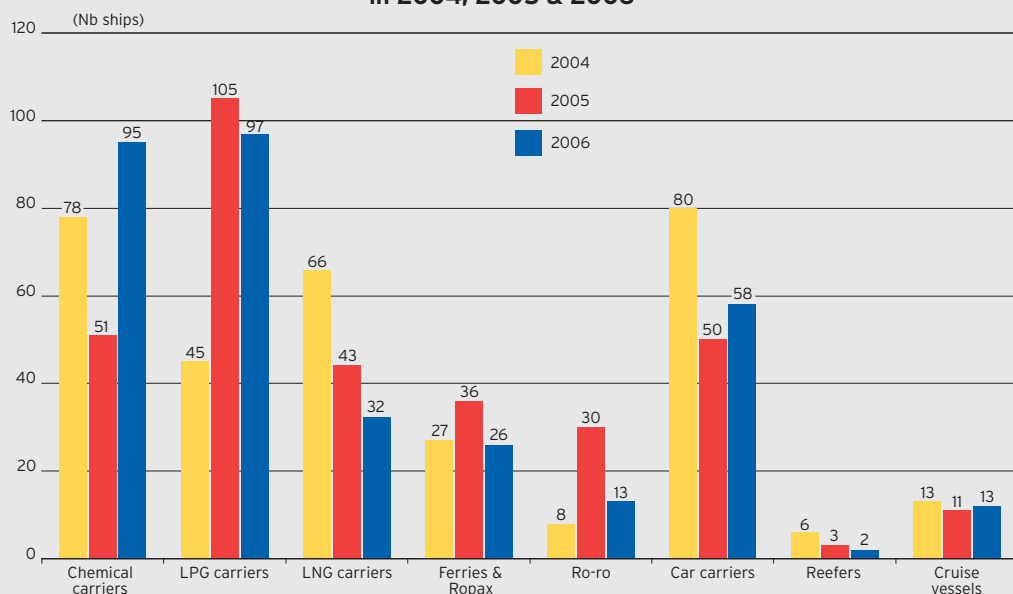
The fleet of stainless steel chemical carriers is relatively young at 11.7 years but roughly a quarter exceed 20 years, and over 10 % exceed 25 years. The replacement of these ships is becoming necessary.

LNG carriers

After a three-fold increase in the volume of orders between 2003 (20), and 2004 (66), 2005 saw a drop down to 49 new units, a decline which has continued in 2006 with only 32 new orders. The orderbook goes from 140 ships (23 million cbm)

SPECIALISED VESSELS NEW ORDERS

in 2004, 2005 & 2006



end 2005 to 135 ships (23 million cbm) end 2006.

This sector has seen a major expansion and the fleet under construction represents almost 90 % of the fleet in service (27.3 million cbm for 220 ships). But despite rather favourable long term forecasts, it appears that numerous production projects and reception terminals are behind schedule, with some having been cancelled, and that carriers ordered speculatively at very attractive prices have not yet found employment or only at less favourable conditions.

The majority of the orderbook today is Korean (about 100 ships) and Japanese (30 ships). No new player has shown up in 2006 despite a real desire of builders like STX in Korea, but also Dalian, NACKS and Jiangnan in China to enter this market.

LPG and ethylene carriers

The number of LPG and ethylene carriers ordered, which more than doubled going from 45 in 2004 to 120 in 2005, come to 89 new ships in 2006. The orderbook has once again risen sharply and has passed from 5.3 million cbm to 7.3 million cbm end 2006, for a total of 226 ships. The fleet under construction represents more than 47 % of the fleet in service compared to only 17% two years ago.

This market is in full expansion. Nonetheless, the freight rates which started to improve in 2003 and 2004, to rise strongly in 2005, marked a pause in 2006 and started to drop at the end of the year, except for the small sizes. A renewal of the aged fleet (nearly 17 years on average), with over a third over 20 years of age, is becoming urgent. Whilst most of the orders for LPG carriers of small size (less than 12,000 cbm) remain Japanese, Korea is now top of the overall market thanks to its share in the VLGC category, with more than



Series of six 43,000 dwt stainless steel **chemical tankers** ordered by Stolt-Nielsen at Aker Yards (Florø) for delivery between the fourth quarter 2007 and the fourth quarter 2009

two-thirds of these ships on their books.

Ferries and Ro-Paxes

The number of new orders of ferries and ro-paxes has dropped in 2006, going from 34 to 23 units. However the orderbook has risen in 2006, moving from 65 up to 73 ships. The market remains dominated by European builders with 47 ships out of the 73 in the portfolio.

The distance of available delivery dates, combined with the jump in building prices (between 20-30 % over the last 18 months), has made owners somewhat less bullish. Unlike the other sectors, namely tankers, bulk carriers, and containerships, where owners' revenues have kept pace with the cost of investments, ferry and ro-pax operators are struggling to increase their tariffs and are having to absorb the rise in bunker prices.

In this context, some owners prefer to go into mergers or acquisitions rather than ordering new ships. 2006 was marked by the Stena order at Aker Yards of what will be

the two biggest ro-paxes in the world, with a planned capacity of 5,500 lane metres.

Ro-ros

This year, orders for ro-ros were disappointing, with only about 15 new units, compared to 30 in 2005. The ageing of the fleet is obvious. The average age is around 20 years, near to 60 % is over twenty years and 43 % has more than 25 years. A certain renewal is becoming vital. But there is little new business, just a consolidation of the existing one and an evolution towards bigger, faster ships and more adapted to various cargoes (lorries, vehicles, heavy equipment, cassettes...)

As with the ferries and ro-paxes, distant delivery dates and the jump in newbuilding prices have had a dissuading effect. The market remains dominated by European builders with some exceptions like the Chinese shipyard Jinling, which has been successfully building ro-ros since 2000, and more recently Singapore Technology.



Gotland Carolina

53,200 dwt and 55,000 cbm, ice Class 1A, Super Product Chemical (IMO II) delivered in December 2006, is the first of 12 units of the "Gotland class" from Guangzhou Shipyard International, ordered jointly by Rederi AB Gotland and Torm to serve in the Torm Pool.

Car carriers

Although the number of new orders for car carriers dropped by nearly half between 2004 and 2005, the year 2006 saw a strong revival with 58 new contracts. The orderbook continues to climb, going from a total of 150 ships (equivalent to a capacity of 830,000 vehicles) end 2005, to 168 ships (or 943,000 vehicles) end 2006.

These new orders have been placed by the main operators and nearly exclusively concern the big PCTCs (Pure Car Truck Carriers), with a

capacity of 4,300 to more than 7,000 cars. Owners have managed to cultivate the interests of new participants in China first, with Daewoo Weihai and STX Dalian, but also in Vietnam with Vinashin. Others might follow.

This sustained demand is in keeping, with the growth of the world car market and with the re-location of production units. The latest forecasts tabled an annual traffic of over 19 million vehicles between now and 2015, compared with around 15 million in 2006.

Cruiseships

2006 was a good year, with 13 firm orders plus one option, all placed with the four big European specialised builders, and presently reduced to three since the purchase of Chantiers de l'Atlantique by the Norwegian group Aker. Our article on the cruise market lists out the details of these orders.

NEWBUILDING PRICES

Newbuilding prices expressed in dollars rose throughout the year 2006 for bulk carriers and tankers

		Newbuilding price variations (in million US\$)					
		1993	4Q 2002	4Q 2003	4Q 2004	4Q 2005	4Q 2006
Tankers	VLCC	100	64	76	107	110/125*	115/128*
	Suezmax	62.5	43.5	50	70	71	77
	Aframax	45	34	42	60	58.5	65
	MR Product	32.5	27	31.5	38	43	47
Bulkers	Capesize	48	36	40	63	59	67/73**
	Panamax	29	21.5	24	35.5	34	38
	Handymax	25	20	21,5	29	30.5	34

* 115 China / 128 Japan et S. Korea

** 67 China / 73 Korea

and until the end of the summer for containerships. These increases, between 10 to 15 % on average, depending on the sectors, often the size remain below those observed in 2005 which was over 25 % for some categories of ships. The previous record prices achieved in mid-2005 for the three main types of ships were however exceeded for bulk carriers and tankers, and came close for containerships. Several factors contributed to this new increase.

Vigorous demand gives rise to competition between owners to obtain the best delivery dates. Whereas deliveries for the year 2006 reached 75 million dwt, the 169 million dwt of new orders stretch out the orderbooks of shipyards further out in the future. Shipyards need to raise prices to take into account a certain inflation in costs, as well as numerous and legitimate uncertainties concerning the price of material, equipment, work force and exchange rates. The regulation changes also justify price increases for the new designs, which are more costly to build.

Paradoxically the disclosure of new slots, steadily showing up on the market for 2008 or 2009 delivery dates (following the start-up of new yards, new docks and simply thanks to productivity gains), has also permitted shipyards to obtain higher prices. Many owners are in fact prepared to pay a premium for prompt deliveries. There has always been a strong link between the shipbuilding market, the resale and the second-hand markets.

Hedging opportunities are more frequent than before. When during the first quarter of the year demand for containerships or LNG carriers started to stagnate, builders turned to tankers and then to bulk carriers.

The price rise, which began in the middle of 2002, has practically led

to a doubling of newbuilding prices in current dollars. Prices have never been so high, deliveries have never been so extended, and yet there has never been so many ships ordered as in 2006.

We can reasonably ask ourselves if the newbuilding prices are as high as certain analysts like to say they are, still waiting for prices to get back to the levels of 2002. Indeed the extrapolation of newbuilding prices, which prevailed before the Asian financial crisis of 1997 on the basis of an industrial inflation between 2-3 % p.a., show that they are very close to 2006 prices.

For example, a Handymax bulk carrier worth \$ 25 million in 1997, is priced ten years later in China at \$ 34 million, which is the equivalent to the inflation stated above. During this period, the specifications of this type of ship have changed; the maximum size of a Handymax in 1997 was 47,000 dwt; that of a Handymax in 2006 is more like 57,000 dwt. The cranes which used to handle 25 tons have passed to 30 or 35 tons. The steel weight of the hull has increased, not only due to the increase in size, but also because of various constricting regulations (UR, JBP, CSR). If the shipyards have decidedly improved their productivity, they have had to face up to a dou-

bling in the price of steel since 2003, a tripling in engine prices, and considerable increases on behalf of their other suppliers. The financial results of most builders still show very thin margins in 2006.

If it is not certain that prices will continue to rise, builders have hardly any margin today to go backward. Much will depend also on the level of the dollar, which many experts see as remaining weak against the currencies of the main shipbuilders (won, yen, yuan, euro).

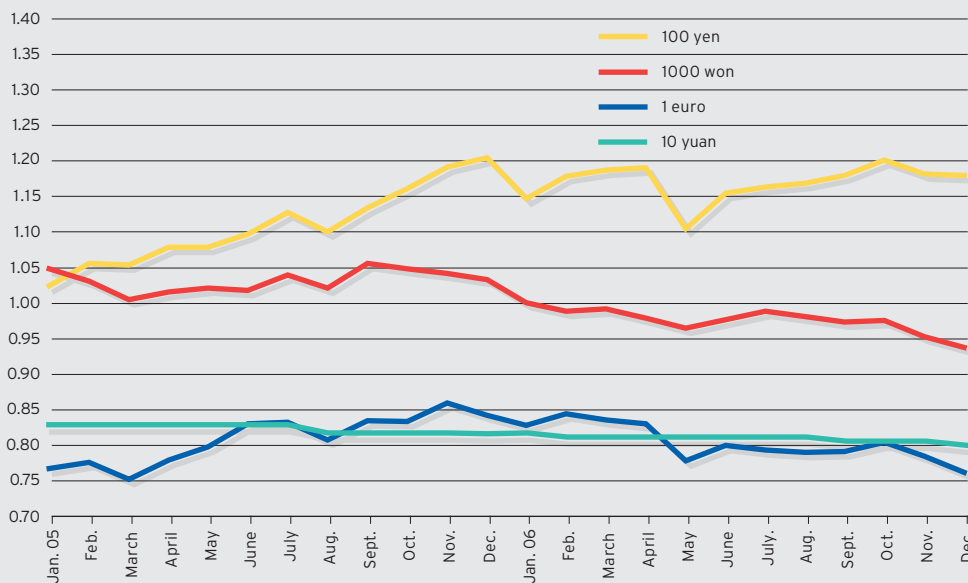
ANALYSIS BY COUNTRY

South Korea

2006 was again a record year for Korean shipbuilding reinforcing its pre-eminent position on the international scene. The orderbook for Korean builders went from 65.4 to 85.6 million tons between end 2005 and end 2006. On the other hand, Korean builders' market share has continued a slow decline started in 2000, when it reached a peak of 43 % to achieve 36 % at the end of 2006.

There are almost no more berths available keels in the Korean shipyards before the end of 2009 whilst a large part of 2010 has already been sold and there are some deliveries programmed right through until the middle of 2011.

AVERAGE EXCHANGE RATES WITH THE US\$





Eships Cobia

13,000 dwt, product/chemical tanker delivered in 2005 by Hyundai Mipo Dockyard to Eships Tankers in Abu Dhabi. The Eships Cobia is the third in a series of five sisterships ordered by Eships Tankers at Hyundai Mipo Dockyard and on long term charter to Total.

New orders represented 39.4 million tons in 2006 against 24.5 million in 2005 and are mainly spread between oil tankers for 22.7 million tons, containerships for 10.1 million tons, LNG carriers for 3.6 million tons, LPG carriers for 1.25 million tons, and bulk carriers for 1.3 million tons.

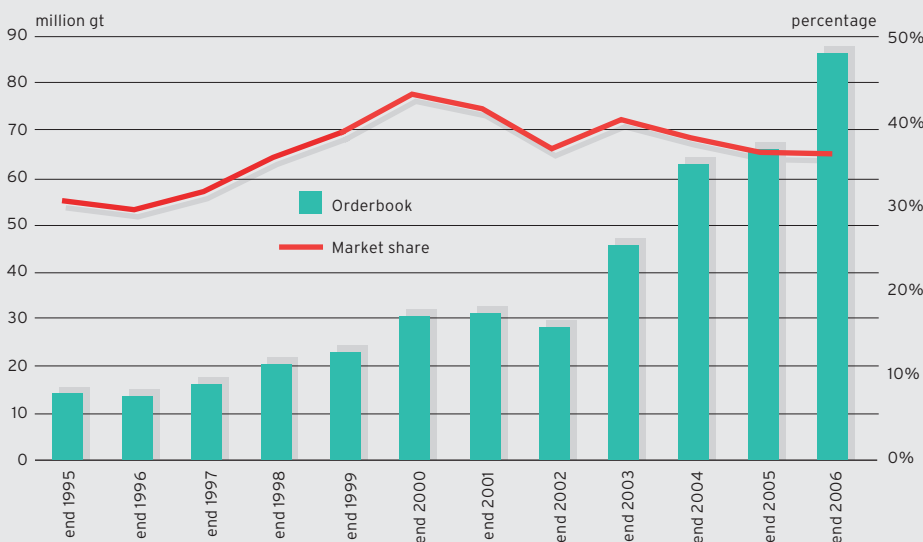
If China is often quoted with reason for its rapid development and important increase in building capacity, Korea is not dormant and has also experienced a strong expansion over the last few years. The orderbook of Korean yards was 42 million tons in end 2003 and has doubled in three years.

An important improvement in productivity was made possible thanks to the growing trend in constructing series, with identical designs, which owners accept more easily in a “sellers” market, by resorting to outsourcing of sections entirely equipped and increasingly heavier (1,500 to 3,000 tons), assembled in record time thanks to new more powerful lifting methods and a meticulous work schedule. Thus a VLCC is put together in dock today in Korea in 26 days.

Korean shipyards have also multiplied their production lines by building on dry land as is the case with Hyundai H.I., STX, Sungdong or in floating docks. Samsung owns two and SLS (ex-Shina) has bought one in China for delivery at the beginning of 2007, to join two existing docks. SLS is counting on delivering up to 30 ships as from 2010, compared to a little less than 20 in 2006.

Old manufacturers of block parts have reconverted two to three years ago into shipbuilders like Sungdong, SPP, or more recently in 2006 C & Shipbuilding. Sungdong holds an orderbook which extends up till 2010, with some sixty ships including post-Panamax bulk carriers, Capesizes, tankers of the MR type, Panamaxes, and containerships of 6,500 teu. The first ship built by this yard, a bulk car-

SOUTH KOREAN SHIPYARDS ORDERBOOK & MARKET SHARE



Source: Lloyd's Register-BRS

rier of 93,000 dwt ordered by a Greek owner Marmaras, should be delivered at the beginning of 2007. SPP (ex-Dongyang) has orders for some sixty ships, exclusively MRs, of which the first were delivered in 2006. SPP has invested this year in a new building site at Sacheon. C & Shipbuilding, the latest newcomer, has recently taken on an order for Panamax bulk carriers.

A new yard like Daehan showed its colours in 2006 by offering very prompt deliveries, starting from 2008, for a series of Capesize bulk carriers.

Existing shipyards have expansion projects in Korea like SLS and Samho.

Some Korean shipyards have also decided to invest abroad principally in China. This was the case of Daewoo (DSME) and Samsung who chose to create block building units at Yantai and at Ningbo. Hanjin decided at the end of 2005 to open a new shipyard in the Philippines with a dock of 450 m x 100 m and took an order for 12 containerships of 4,400 teu and 2 Aframax tankers. STX decided to open a new shipyard at Dalian to build ships up to 100,000 tons dwt.

Among the main reasons for this movement outside their natural frontiers, is the saturation of Korean production capacities, a concern to remain competitive in face of the ambitious Chinese shipyards, less costly investments than in Korea, lack of space, and a cheap work force in abundance.

The new domestic shipyards are also confronted with the difficulty of recruiting in a local workforce market which is saturated and with the bidding up of salaries increasing their costs. Some projects have not been able to be completed. Thus the promoters of the Koryo shipyard had to abandon, just as the construction of a dry dock had nearly been achieved.

The Korean shipyards are distinctive from their competitors, Japan and China, by their remarkable flexibility and responsiveness, which allows them to satisfy a predominantly foreign clientele. They have adjusted their production, developed new specialties, and acquired a prominence over their eternal Japanese rivals in all types of ships with the exception of bulk carriers. The new Korean builders like Sungdong, C & Shipbuilding have thrown themselves into the construction of Panamaxes and Capesizes. STX has started building Handymax bulk carriers at its new Dalian site. In a market where demand for bulkers is strong and where non-Japanese shipowners are struggling to find shipyards able to respond to their demand for this type of ship, there is a vast potential for development.

Japan

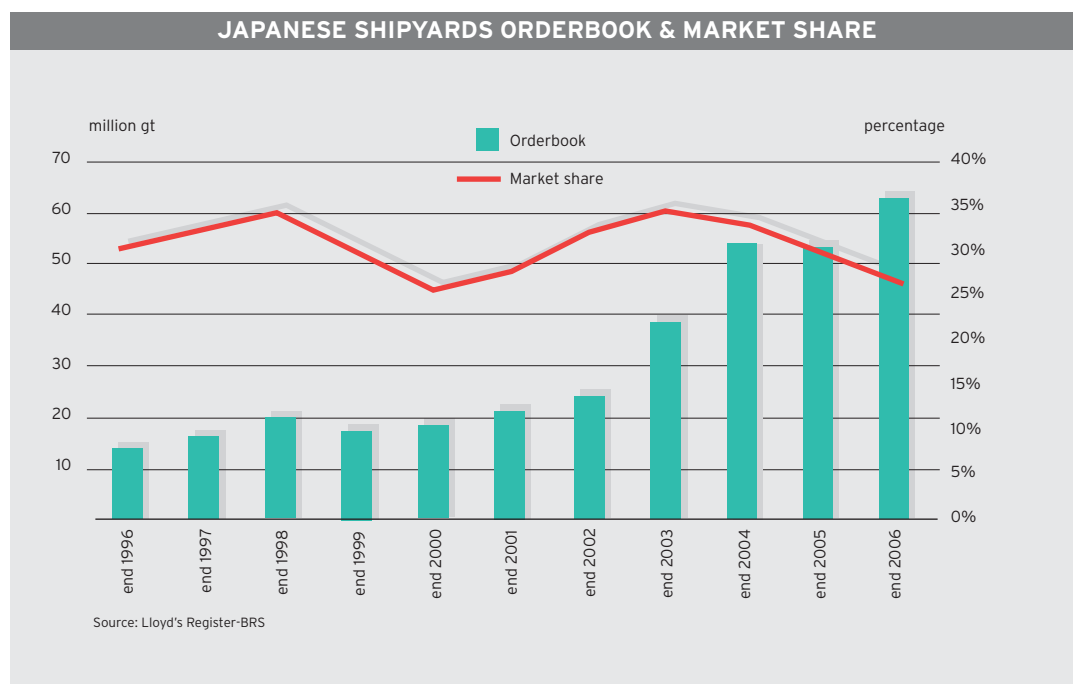
2006 was also a new record year for Japan which confirmed its second place in world shipbuilding. Its portfolio has significantly progressed from 54.4 million tons end 2005 to

around 62.7 million tons end 2006. The market share of Japanese builders, which saw a jump between 2000 (25.5 %) and 2003 (34.2 %), has seen, like their Korean counterparts, a slight drop and has slipped down to 26.2% end 2006.

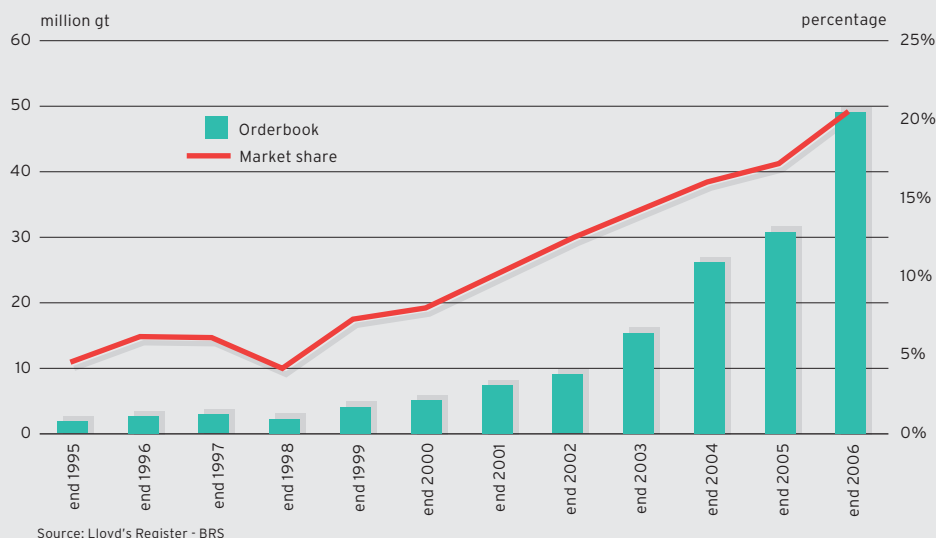
We should be cautious about the reliability of statistics that we have today on Japan, which still indicate available docks in 2010, whereas a major part of 2011 seems already sold or reserved and that even deliveries are foreseen during the course of 2012.

We can report deliveries for 2006 attaining 32.5 million dwt against 27.3 million in 2005 and 23.3 million in 2004. By comparison, Korea delivered respectively 26.8 million, 26.5 million, and 24 million dwt.

New orders in Japanese yards represented 26.3 million tons in 2006 compared to 18.3 million in 2005 and are mainly spread between bulk carriers (11.7 million tons), tankers (9.5 million tons), containerships (2.4 million tons), car carriers (1.4 million tons), and LNG carriers (0.9 million tons).



CHINESE SHIPYARDS ORDERBOOK & MARKET SHARE



The Japanese shipyards expanded their orderbooks by considerably spreading out delivery times, sometimes up to five years. They increased their production through productivity improvements. And like the Koreans, they are building fully equipped sections increasingly heavier. MHI and KHI have increased their lifting capacities. They have also standardised their designs, refusing to take into account any modifications requested by clients. The few foreign owners who still have access to Japanese yards are invited to delegate any supervision to local companies.

There has not been any noticeable expansion like in Korea or in China. Japanese shipyards have hardly invested abroad. Only Kawasaki Heavy Industries (KHI), Tsuneishi Heavy Industries (THI) and Imabari have adopted this strategy: KHI and Cosco firstly by being joint partners in the Chinese shipyard of Nacks, which will soon have a new VLCC dock at their disposal. THI has been implanted in the Philippines for several years and more recently in China at Shoushan. They build there the back and front sections of bulk carriers, which are then assembled in Japan. It is more than likely that complete constructions will take place there before long. Imabari has a block factory in North China too.

From 2009 onwards, KHI intends to reactivate one of its docks which went into mothballs in the 80's. Japan still possesses a number of docks whose capacity has been frozen. To bring them back to life in an expanding market is tempting. Still it is necessary to find and attract the proper skills and work force, competing with other industries considered as more attractive and often offering better wages.

More than ever, Japanese shipyards are giving priority to their very active domestic shipowners. It is becoming harder and harder for foreign owners to place orders in Japan, which sometimes gives one the feeling of a certain isolationist choice with regard to the international community.

China

China has not finished amazing us. She continues her inexorable ascension and confirms her third place in the world rankings. The orderbook of Chinese shipbuilders has gone from 30.6 million to 48.7 million tons between end 2005 and end 2006. It is an astonishing performance, close to the Japanese orderbook a year earlier which was for 54.4 million tons.

Despite developments under way (expansion and creation of new sites), only a very few yards still have any

space free in 2009 and the majority are already fully committed for most of their capacity up until 2010. Market share of Chinese builders has progressed rapidly going from 17.6 % end 2005 to 23.5 % end 2006.

New orders represent 31.9 million tons in 2006 against 13.5 million in 2005. The 2006 orders are mainly split up between tankers (14.3 million tons), bulk carriers (10.5 million tons), containerships (5.3 million tons), and conventional freighters or multi-purpose ships (1.5 million tons). Deliveries have also picked up speed and have attained 17.9 million dwt against 10.6 million in 2005.

China benefited in 2006 from the strong demand for tankers and big sized bulk carriers. The doubling of VLCC docks could not have happened at a better moment. Despite a very tight market, Chinese builders were also proposing more competitive prices than their Korean or Japanese competitors.

In addition to the state shipyards, a number of private yards continue to be set up and to attract investors despite a multitude of problems: refund guarantees, certain signed contracts not being honoured, cost control and technical controls.

Chinese shipyards and especially the big state shipyards often give priority to domestic owners.

The weakness of the yuan continues to give an undeniable competitive advantage to Chinese products. Nonetheless, since July 21st 2005, the exchange rate with the dollar is no longer fixed, and has since then gone from 8.28 yuan to 7.90 yuan to a US dollar end 2006. The strengthening of the Chinese currency is worrying builders who predict an exchange rate of 7.3 yuan by the end of 2007. They are trying to obtain from their clients more advantageous conditions for the first down-payments, in order to reduce their

exchange risk or to partially fix the price in dollars and in euros. Some shipyards have tried to introduce clauses with a variable exchange rate against the yuan but with mixed success.

Vietnam

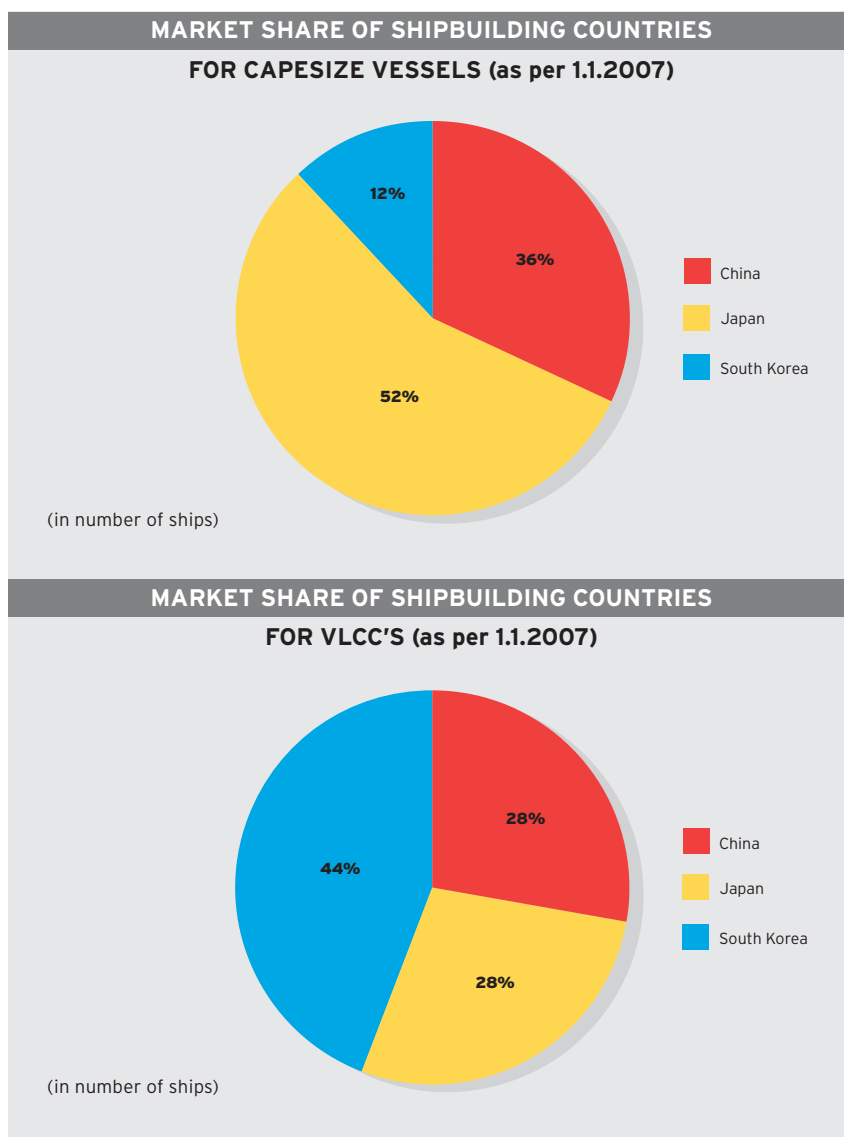
Vietnamese shipyards turned out to be the surprise of the year. We knew that Vietnam had, as was the case with China, big ambitions in shipbuilding and this year the orderbook for Vietnamese shipyards registered an incredible leap going from 1.1 million to 3.0 million tons. For reference it was only 150,000 tons at end 2003. This has propelled Vietnam shipbuilding from 12th to 5th place in the world rankings.

Vietnam has relied heavily on the state group Vinashin in order to promote its shipbuilding. Its investment programme is impressive, attaining 4 million dollars. Most of the ten main existing shipyards have seen their capacities increase, while there are eight new yards being built and will be followed by nine sites of smaller dimensions.

The main investment in 2006 was the construction of a new yard at Dung Quat, in the centre of the country. The overall site is 100 hectares, with two docks for VLCCs of 380 m x 110 m, and 380 m x 86 m, and should receive its first section, that of an Aframax in May 2007.

One of the objectives of Vinashin is to cover 60 - 70 % of the cost of construction of a newbuilding with domestic material and equipment. Heavy investments are envisaged including a steel works able to manufacture steel plates for ships.

Other companies plan to launch themselves in shipbuilding, like for example the biggest building company in the country Lilama, or the coal conglomerate Vinacoal and the Korean group STX. The latter has



received permission to invest \$500 million in central Vietnam in order to build ships of about 100,000 tons dwt. New orders represent 2.3 million tons in 2006 against 240,000 tons in 2005. The orderbook goes up to 2010.

Taiwan

2006 was a year of consolidation for Taiwan, whose orderbook went from 2.4 to 2.6 million tons between end 2005 and end 2006, placing it in sixth rank worldwide. It recorded respectively 1.9 and 2.2 million tons end 2003 and end 2004.

New orders were for 1.0 million tons against 0.84 million tons in 2005.

Taiwanese shipbuilding is concentrated in two of the state group CSBC sites, Keelung and Kaohsiung, with orders stretching out up until the autumn of 2010. They cover nearly exclusively containerships of 1,700 teu and 1,800 teu at Keelung, and containers of 4,250, 6,300, and 8,200 teu at Kaohsiung. Each of the sites delivers roughly one new ship each month. CSBC has given priority these last years to domestic shipowners like Yang Ming, Wan Hai, and China Steel Corporation, but also to

some traditional foreign clients like Marubeni, Cido and Peter Döhle.

Privatisation of CSBC which was discussed several years ago no longer seems a topic. CSBC is on the look out for additional building capacities in low-costs zones, China or Vietnam, but has not as yet been able to firm up such projects. CSBC farms out the manufacturing of blocks to China.

India

India has very big ambitions and is hoping to develop its shipbuilding. It relies today on some fifteen shipyards several of which are spread out over several sites. A large part belong to the Indian Government like Cochin, Hindustan, Mazagon and even if they have taken orders for civilian ships in recent years, they should naturally orientate themselves to building military ships whilst allowing the private sector to develop with ABG, Bharati, Chowgule, Alcock.

The Indian Government also hopes to promote the development of big yards capable of competing with their Chinese counterparts. The private group Skil Infrastructure has received the authorisation to build a modern shipyard at Pipavav, north-east of Mumbai, disposing of four VLCC docks and capable of building ships on dry land. The first deliveries are planned for 2009.

The orderbooks of Indian builders have gone from 550,000 to 760,000 tons between end 2005 and end 2006. As comparison it was less than 100,000 tons end 2003. New orders represent 260,000 tons in 2006 against 170,000 in 2005 and are essentially comprised of small offshore units and Handysize and Handymax bulk carriers for the moment.

In 2006 the Cochin shipyard delivered on time and on form the first bulk carrier in a series of six units of 30,000 tons ordered by the Danish owner Clip-

per, who also placed an order this year for six bulk carriers of 20,000 tons with the Bharati shipyard.

Singapore

There are about a dozen shipyards in Singapore, whose orderbooks approach the 360,000 tons end 2006. These yards are mainly concentrating on the construction of small offshore units, PSVs, AHTS, and tugs. Some have developed in these last years specialities like Jurong with containerships, Labroy for cement carriers and cattle carriers, Singapore Technologies (ST) for construction of small containerships and ro-ros. This last shipyard was awarded in 2006 the order for two ro-ros which will be handling the transport of the main body parts of the Airbus A380.

Europe

Europe, whose shipyards were already fairly full, has not been able to take advantage of this enormous activity and 2006 remains a year of consolidation. Orderbooks were almost stable going from 22.1 to 22.4 million tons between end 2005 and end 2006, broken down between 13.5 million for West European builders (15 countries) and 8.9 million for East European shipyards (11 countries). The total was 10.8 million tons end 2003 and thus has doubled in three years. It is an orderbook with a high added value.

New orders represent 5.9 million tons (380 ships) in 2006 against 9.3 million (545 ships) in 2005 and are mainly divided between cruiseships, ferries, passenger ships, ro-ros for 2 million tons, containerships for 1 million tons, offshore units (PSVs, AHTS) for 0.7 million tons, dry cargo ships for 0.6 million tons, chemical and gas carriers for 1.6 million tons.

Most European builders are full until 2010, but there are only a few shipyards which can deliver more than

five or six ships per year, contrarily to their Asiatic competitors.

Higher market prices and better delivery dates have given them the opportunity over the course of the past three years to recover clients that had deserted them in favour of Asian shipyards. Their goodwill, their expertise, a capacity to understand and take into account the particular requests of their clients, the quality of the finished product and the respect of contractual undertakings remain their strength. Outside big American cruise shipowners, the clientele of European shipyards is essentially European.

In contrast to other zones of construction, new orders have declined in 2006, compared to 2005. Market share of European shipbuilders continues to get smaller and by the end of 2006 was at about 10 %. The weakness of the dollar, the powerful surge of small shipyards in China and Korea, the new arrivals showing up in Vietnam and India, constitute a new source of concern. These shipyards could make new inroads into the market share in sectors such as containerships, dry cargo ships, offshore construction and the small oil product tankers.

These last years, West European shipyards have managed to attract white and blue collars coming from Eastern Europe. The latter have had to resign themselves to seeing their skilled qualified workers leave home and then in addition to cope with an increase in their production costs due to the proximity of the euro zone.

The Aker Yards group which bought the Chantiers de l'Atlantique in 2005, took control of the Norwegian shipyard Florø, specialised in the construction of stainless steel chemical carriers and took an important share in the Ukrainian shipyard Okean with Damen. This European group now possesses some 17 shipyards in seven countries (Norway,

Finland, Germany, France, Romania, Ukraine, and Brazil) and has acquisition projects outside of Europe, in China or in Vietnam.

Germany

The orderbook of German shipbuilders barely increased this year moving from 4.7 million tons to 4.9 million tons end 2006. It had been 1.25 million tons in 2003. Germany still occupies the first rank within Europe and the fourth rank in the world behind China. New orders have amounted to 1.5 million tons, of which 0.6 million for containerships and 0.5 million tons for cruiseships and ferries.

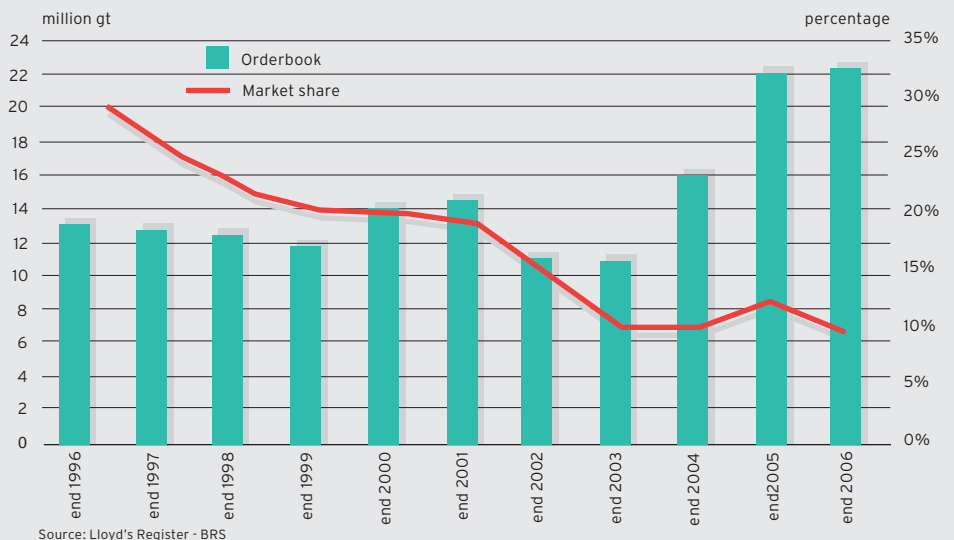
German shipyards are organised around some twenty shipyards. A large part of the orderbook consists of containerships from 800 teu up to 3,700 teu. Otherwise Meyer Werft, specialised in building cruiseships, has also developed a new production line of ethylene carriers of 15,000 and 17,000 cbm, while Flensburger is specialised in building ferries and ro-paxes, and Lindenau in the construction of oil product tankers of 40,000 to 45,000 tons.

Poland

The Polish orderbook is slightly down end 2006 to around 2.4 million tons compared to 2.6 million end 2005. Poland occupies second rank in Europe and seventh rank in the world.

This evolution is mainly due to the situation in which the shipyards Gdynia and Gdansk who have been trying, now for the past two years, to come up with a financial rescue plan and who have not been able to sign up any new contracts during the course of 2006. They delivered 11 ships in 2006 and still have some thirty ships on order, mainly car carriers, some VLGCs and dry cargoes. They have docks available starting from the beginning of 2010.

EASTERN & WESTERN EUROPE SHIPYARDS ORDERBOOK & MARKET SHARE



The shipyard Stocznia Szczecinska Nowa holds an orderbook of over 30 ships (of which 23 containerships, 6 ro-ros, and one chemical carrier) with delivery dates which go up to early 2010.

The shipyard Remontowa made a name for itself this year by taking on an order for a LNG carrier of 7 500 cbm. Its orderbook is very diverse with amongst others a container-ship, four AHTS, three ferries, a survey ship for fish protection, a heavy lift carrier, and two service ships.

Italy

Italian builders' orderbook was down slightly, slipping from 2.5 million tons to 2.3 million tons over end 2005 and end 2006. Italy holds third place in Europe and eighth in the world rankings.

Orders in 2006 were for 350,000 tons against 1.1 million in 2005 and consist mainly of cruiseships, ferries, chemical and ethylene carriers, all ships with a very high added value.

Fincantieri, together with Aker Yards and Meyer Werft, is one of the three

shipyards in the world specialising in the construction of big cruiseships. It received orders for 3 out of the 13 placed in 2006 and once again has assured its place as world leader in the cruise sector.

Croatia

End 2006 the orderbook of Croatian shipyards was at 2.1 million tons for 55 ships a slight decline from the 2.4 million tons at the end of 2005. The four big shipyards Brodosplit, Uljanik, 3 Maj and Trogir remain concentrated on building product tankers, ro-ros and car carriers.

The Kraljevica shipyard continues with the construction of series of sophisticated bitumen carriers at high temperature. The Brodosplit Bso shipyard has focused on building a series of passenger ships 60 metres long, with 25 cabins for American clients.

Brodosplit, which built a series of P-Max (an innovative design for product tankers with double propulsion, 183 metres long and 40 metres width) for Stena's account, is a good example of the capacity of Croatian



Chantaco
19,000 dwt, IMO II, double hull, ordered in 2004 at RMK the Turkish shipyard by Petromarine

builders to construct sophisticated ships tailored-made for demanding clients.

Denmark

At the end of 2006, Odense Lindo, the only big Danish shipyard, held a portfolio for 12 containerships of over 11,000 teu (the exact size of these ships is still a matter of considerable speculation) and two tugs - one for account of its mother company A.P. Moller, and the other for the Swedish shipowner Hvide Marine. The Danish orderbook has thus reached 1.8 million tons end 2006 which places it in fifth place in Europe.

Romania

The orderbook of Romanian shipyards is steady at around 1.5 million tons end 2006, against 1.4 million the previous year. Romanian shipbuilding is organised around seven yards of which four are under foreign control: Daewoo Mangalia, Aker Tulcea, Aker Bralia, Damen Galatz.

Daewoo Mangalia built in particular a series of containerships of 5,000 to 5,500 teu which figure amongst the biggest containerships under order in European shipyards.

Norway

End 2006, the orderbook of Norwegian shipyards was around 1.05 million tons against 580,000 tons end 2005. This increase is due to the strong demand from the offshore industry over the last two years and with the order of four stainless steel chemical carriers of 43,000 tons dwt for the owner Stolt Nielsen with Aker Florø.

The Netherlands

Shipbuilding in the Netherlands took advantage of the increased activity in previous years. The orderbook of Dutch shipbuilders has remained stable at around 980,000 tons end 2006. It was 280,000 tons end 2003. The portfolio consists of about 300 ships.

Dutch shipbuilding is organised around some fifteen shipyards for which most of the orders are for freighters of 3,000 to 5,000 tons, containerships of 800 - 900 teu, and product tankers and chemical carriers of 5,000 to 14,000 tons, and tugs.

Finland

The three shipbuilding sites in Finland, all part of the Aker Yards group, have taken in orders this year for 240,000 tons.

Cruiseships, ferries, ro-ros continue to constitute the major part of Finnish production. The revival in this sector has profited builders and their orderbook has kept steady with about 850,000 million tons end 2006, against 880,000 tons end 2005. It was 450,000 end 2003.

France

In 2006, Aker Yards (Saint-Nazaire) delivered the **Provalys**, an LNG

carrier of 153,000 cbm, one of three ships ordered by Gaz de France and whose delivery has been put back by the need to resolve concerns in the implementation of the new CS1 countainment system. The deliveries of the two remaining ships, one of which is 74,130 cbm, are due in January and March 2007.

Aker Yards (Saint-Nazaire) has also delivered in 2006 the **MSC Musica** and has taken an order for 3 new cruiseships.

At Lorient, Aker Yards is undertaking the construction of a little ferry, having delivered a small tanker, a ferry and a yacht in 2006.

The Piriou shipyards have delivered six fishing vessels, a barge, a rapid crew boat, and taken an order for eight tug boats and two ships planned for short cruises on the Seine for account of the owner Vedettes de Paris. This shipyard also has development projects in Africa and in Vietnam.

The Constructions Mécaniques de Normandie delivered a corvette and a yacht and has taken orders for three other yachts.

The orderbook of French shipbuilders has gone from 690,000 tons end 2005 to 840,000 tons end 2006. It was 380,000 tons and 450,000 tons end 2003 and end 2004.

Spain

During 2006 the orderbook of Spanish shipbuilders has again increased to a total of 730,000 tons compared with 480,000 tons end 2005. It had fallen between 2003 (500,000 tons) and 2004 (135,000 tons), following in particular an imposed restructuring of the state group Izar by the European Union.

Spanish shipbuilding is organised around some fifteen shipyards of which the majority of orders consist of ferries, ro-ros, chemical carriers,

dry cargoes, containerships, tugs, and offshore units.

The state shipyard Izar has been divided into two parts. One, a state structure with Navantia has taken the sites of former Bazan as well as the shipyard Puerto Real. Its main vocation is to build military ships, but can also take on some civilian work. The other, with the shipyards of Sestao, Gijon, and Seville has been the object of a tender and has been awarded to private interests in 2006. Seville is under the control of Huelva, Gijon under the control of Vulcano, and Sestao under the control of a private group Construction Navale del Norte.

Bulgaria

There are two shipyards in Bulgaria: Bulyard ex-Varna, specialises in building bulk carriers, and Rousse whose production is centred on multi-purpose freighters. Their combined orderbook represents 220,000 tons end 2006.

Portugal

The orderbook of Viana Do Castelo, the only big Portuguese shipyard is composed of two series of four ships transporting heavy lifts respectively of 7,000 and 10,000 dwt, a containership of 8,800 dwt, two patrol boats, two anti-pollution ships, and two ferries for the Azores.

Russia

The orderbook of Russian shipyards has progressed going from 860,000 tons end 2005 to 970,000 tons end 2006. It was 350,000 tons end 2003.

The Russian builders benefit from the dynamism of domestic shipowners and in particular from those specialised in transporting oil products. They have an undeniable know-how in shipbuilding, in particular for "ice-class" ships, and have

been able to attract Western owners like Stena and Odfjell. They also do some outsourcing of hulls with some Western shipyards, notably Scandinavian ones.

Turkey

Turkish shipyards have shown a remarkable dynamism in the course of the last two years. In 2006, 570,000 tons of new orders were registered and the orderbook has attained 1.5 million tons end 2006, against 1.25 million tons end 2005, which puts its in 11th place in the world. The figure for comparison at the end of 2004 was 310,000 tons.

This success has attracted new investors who have decided to open shipyards in the Marmara Sea (Izmit, Ielova), but also in the Black Sea (Samsun). The bay of Tuzla, where nearly all the shipyards are concentrated today (about 38) have become too crowded.

Most of the production consists of ships of less than 25,000 tons deadweight, mainly product tankers with some sixty orders in 2006, containerships, but also dry cargoes and tugs.

United States

American shipbuilders remain at arms' length from the competitive international scene. We can cite the order of shipyard Aker Philadelphia for 10 product tankers of 47,000 dwt on the back of long term charters signed up with the owner OSG, under American flag.

The orderbook of American shipyards went from 600,000 tons end 2005 to 700,000 tons end 2006, of which some 490,000 tons for tankers.

PROSPECTS

2006 marked the fourth year of a new cycle in shipbuilding, which started in 2003 and was characterised by a big increase in new orders,

an extension of the orderbooks in time to over a three to five year period, a continuous increase in the price of newbuildings, a change in the relationship between buyers and sellers to the advantage of the latter, high freight rates, and very little demolition.

This cycle has itself followed another cycle which started at the end of 1997, due to the Asian financial crisis, which came about just as the Korean builders had finished a new phase of expansion. This cycle was characterised by: orderbooks extending over a year and a half to two and a half years, a volume of steady orders, which were however continuously being overtaken by increased production capacities, a fall in prices, which stayed at very low levels only made possible by the weakness of the currencies of shipbuilding countries against the dollar, low and often insufficient freight levels, and a high rate of demolition.

As with each year at this same time, we do our best to try to discern the trends for the forthcoming year and if possible beyond. It is a dangerous exercise. Experience shows that the forecasts of most analysts are often based on a straight extrapolation of previous figures. The reality is generally far more chaotic.

Volumes

Since 1997, the year on year new orders volume fluctuations have varied between -35 % and +143 %. We can reasonably ask ourselves what the figure should be for 2007 and especially what will be the volume of orders.

A number of factors lean in favour of a certain continuity of the current trend. First of all the prospects of world growth at close to 5 % are very encouraging. Then most of the owners are cash rich. Some of them consider that the price of newbuildings is not that high in absolute terms and still sustainable compar-

ed to freight rates. Others consider that if there is to be a correction in the freight market, it could take place during the time of building a new ship. Ordering now for delivery in 2010 or 2011 might therefore be a good decision.

Naturally there are also factors which lean in favour of holding back. Some owners might consider that prices are at a historic high in current dollar terms and that given the new production capacities in the world, in China but also in Korea, adjustments should follow with the rivalry between existing blocks, pushing prices lower. In addition, the proportion of the fleet on order for containerships (53 %) and tankers (40 %) is particularly high. A closer examination of the various segments shows that some are particularly exposed. Finally certain owners refuse to pay today's prices and wait four years before receiving their newbuildings which also means to put high pre-financing costs on the table. Their visibility and their capacity to find charterers ready to commit themselves over such extended periods is confined.

A number of reasons which contributed to the historic level of orders in 2006 are unlikely to be repeated in 2007. Whilst we can expect a real pause in the orders for tankers, it is possible that demand for containerships will also decline in 2007, given the drop in rates and the losses incurred by the big operators in 2006. This sector can still take us by surprise, as it has done for more than 15 years. However it is most probable that demand for bulk carriers will continue. With 24 % of the fleet on order, this sector is well out of phase with the containerships and tankers.

So what level for 2007?

The ratio of deliveries compared to orders since 1990 shows that there

Deliveries, new orders & demolition since 1990					
in dwt (year end)	Deliveries	% yoy	New orders	% yoy	Demolition
1990	20.7		35.6		
1991	20.6	0 %	30.2	-15 %	6.1
1992	24.2	17 %	18.9	-37 %	15.7
1993	27.5	14 %	36.8	95 %	17.1
1994	27.6	0 %	37.5	2 %	24.0
1995	33.0	20 %	37.0	-1 %	17.4
1996	37.5	14 %	37.3	1 %	21.4
1997	36.5	-3 %	53.6	44 %	18.2
1998	34.8	-5 %	38.8	-28 %	27.8
1999	41.3	19 %	51.5	33 %	32.8
2000	45.4	10 %	64.0	24 %	25.1
2001	45.9	1 %	41.7	-35 %	32.6
2002	49.5	8 %	48.5	16 %	33.1
2003	55.0	11 %	118.0	143 %	25.6
2004	62.4	14 %	113.8	-4 %	13.2
2005	71.6	15 %	96.7	-15 %	6.4
2006	75.0	5 %	169.7	76 %	6.7
2007 P	about 80		about 100		10-15

P: projection

has only been three years, 1992 and 2001/2002, where the number of new orders for the year was less than that of deliveries. These years were years of weak growth. We estimate that deliveries in 2007 could pass the 80 million dwt mark. Consequently it is probable that the number of orders will be close to 100 million dwt. This level might appear very conservative in view of the historical since 1990, and the world growth level of 2007, but we believe 2006 has really been an exceptional year. This figure of new orders is well below the 169 million tons of 2006, and represents a drop of some 40 %.

Prices

Prices went up by an average of 10 to 15 % in 2006 and between 80 to 100 % since the beginning of 2003. Will they continue to progress or will they stagnate? Could they decline?

With around 100 million dwt of new orders possible in 2007, shipyards should lock up the equivalent of a whole year of production and maintain the same level of orderbooks, which are full up for three, four, or five years. In these conditions, shipbuilders should keep the upper hand in commercial negotiations with their clients. This waiting capacity was previously reserved to owners, who could put off their decisions to invest, whilst the shipyards, anxious to ensure continuity in their operations, were prone to offer rebates.

The extending of the orderbook over a long period of time has meanwhile introduced a subtle game between the second-hand, the resale and the newbuilding markets: the difference between the price of yard-resales on a prompt basis and that of newbuilding is significant. These differences tend to pull the price of newbuildings higher.

There is also a strong upward pressure on the part of builders whose

End 2006 values comparison for bulk carriers			
\$m	Handymax	Panamax	Capesize
Prompt resale	45	50	92
Newbuilding	34	38	68

main objective today consists in passing their additional building costs onto their customers.

Shipyards have to face substantial increases from their suppliers and engine manufacturers, who are operating in a saturated market. The steel price has shot up and remains volatile as is the case with many non-ferrous metals. Engine prices have doubled even tripled in some segments. Working salaries continue to rise even if they are partly compensated by constant gains in productivity. Production increases and the creation of new capacities adds tension to the work force market and leads to higher bids between employers to keep workers and to attract the best.

Some of the changes in regulations can also be costly and the proliferation of new rules is showing no signs of slowing down.

The persistent weakness of the dollar versus the main currencies of builders is another difficulty. Chinese shipyards, who are hoping to become the world's leading shipbuilder as from 2015, are concerned about the appreciation of the RMB, which risks compromising their results.

Builders are also having great difficulty in evaluating with any degree of accuracy building costs for a ship over the next three to four years, which forces them to include a further margin, to which they also need to add a provision for the exchange rate exposure.

Finally the financial situation of most builders remains fragile.

Naturally, there are differences from one sector to the other and much will depend on the ability of builders to transfer a part of their production

Recent major statutory changes
◆ Post Erika packages: quicker phasing-out of single hull tankers since 2003
◆ Permanent means of access - 1 st Jan. 2005
◆ IACS Common structural rules - 1 st April 2006
◆ Solas Chapt. XII, amendments on bulkers - 1 st July 2006
◆ Performance Standards for Protective Coatings (PSPC) - 8 Dec. 2006
◆ Marpol revision concerning the carriage of vegoils - 1 st Jan. 2007
◆ Marpol amendment concerning the protective location of fuel oil tanks - 1 st Aug. 2007 or delivery after 1 st July 2010
◆ New probabilistic damage stability requirements - 1 st Jan. 2009
Future major statutory changes
◆ Ballast water management
◆ Shiprecycling
◆ Maritime labour convention
◆ Green gas emissions
◆ Anti-fouling

from a saturated market and suddenly less remunerative, to another more favourable one. Recent experience has shown that some shipyards have been able to make necessary switches, to profit at each stage by exploiting the latest trend. In 2004 many shipyards switched a part of their production away from tankers and bulk carriers to the more lucrative containerships, to then return in 2005 and 2006 to tankers. In 2007 we could well see a movement in favour of bulk carriers and some price rises in this segment.

The lower tonnage expected to be ordered in 2007 may also alleviate the tendency and pressure on prices and the determination of certain builders, despite not all of them being in a comparable situation. Shipyards who are looking to secure full employment for their docks or increase their production, may well renounce applying new price rises. In such circumstances it is more than likely, unless there is a further weakening of the dollar, that in 2007 the prices will stop growing. They might even decrease in some over-invested sectors, given the accrued competition.

Much will depend on the state of the freight market. In theory the forecasted growth in world trade should benefit shipping and keep demand sustained, but the psychological aspect affecting the evolution of markets cannot be ignored.

A certain optimism for the coming years

The amazing increase in production capacities in China and Korea and the growing competition between these two main shipbuilding blocks will certainly have consequences on the shipbuilding market at some point. Nevertheless the market retains enough flexibility, which should allow it to face the coming years with a certain serenity.

Since 2003, scrapping volumes have been particularly low, on average 20% of delivered volumes during the period and less than 10% in 2005 and 2006, compared to about 70% during the previous cycle. Any lowering in freight rates should be counterbalanced by an increase in demolition.

The market has also a need for new designs. In a sellers' market such as we have seen since 2003, builders have managed to impose designs which might appear to be obsolete today. The introduction of the new IACS regulations in 2006, which obliges builders to come up with new designs, also gives them the possibility to propose new and more competitive products. Innovation always helps stimulate demand. The increase in bunker prices and the environmental concern should incite shipyards to innovate towards size optimisation and less fuel consumption.

If builders are complaining about an excess of regulations increasing their costs, history shows also that it has always been a catalyst, contributing to growth in shipbuilding. The changing regulations, which are due to be enforced in the coming years, should help reinforce this tendency.

The enlargement of the Panama Canal should also constitute a positive ally to shipbuilders and could have a strong impact. Current draught and length limitations in the Panama Canal have no reason to stay the same. Extending the maximum beam beyond the 32.26 m limit, would allow the development of optimised ships with shallower draughts. It is true that this opening is only due to take place as from 2014, and that there could be some delay, however orderbooks are already stretching out as far as 2012. It is therefore not impossible that the shipowning community will anticipate this opening, and that shipyards will benefit from the enlargement. ■

The cruise market in 2006

Cruising Speed

IF 2005 CAN BE CONSIDERED AS A YEAR OF CONSOLIDATION, WITH ONLY FOUR NEW SHIPS, REPRESENTING A TOTAL CAPACITY OF 9,450 BERTHS DELIVERED, 2006 HAS SEEN A HEALTHIER GROWTH WITH A TOTAL OF SEVEN SHIPS REPRESENTING NEARLY 19,000 BERTHS.

Despite some uncertainties at the beginning of the year, based on a drop in bookings, notably in the Caribbean, and a rise in bunker costs, the year quickly reached its cruising speed with a very strong increase in the number of passengers, notably in Europe and the United States. The UK market has grown by 17 % in 2006, its best year since 2003.

The cruise market today is dominated by a few big owners, since three companies by themselves represent nearly 80 % of berths offered on the market. Over fifty cruise lines have disappeared in the course of the past 25 years, either due to bankruptcy or being taken over.

The Carnival Group on its own represents nearly 46 %, followed by RCCL (Royal

Caribbean Cruise Line) for about 22 %, and Star Cruises/NCL (Norwegian Cruise Line) for about 10 %. Carnival's turnover for the last fiscal year ending in November reaches \$11.8 billion and the net profit account is \$2.28 billion, nearly the same figure as last year.

In Europe, the MSC group (Mediterranean Shipping Company) is progressing very rapidly and should, given their new orders, control twelve ships in 2009 with a total capacity of about 23,000 berths and thus pose itself as a challenger to Costa on the European market.

In the eastern Mediterranean Louis Cruise Line, which controls 13 ships representing about 11,000 berths, remains an important player, having based its development on the purchase of second-hand ships.

The sector continued to consolidate this year with the purchase by Royal Caribbean International of the Spanish Pullmantur for a price of €700 million, including €270 million of debt, thus permitting RCI to become the number one Spanish



Freedom of the Seas,
Cruise vessel, 154,400 gt, 1,817 cabins, delivered in April 2006 by Aker Yards Turku, owned by Royal Caribbean Cruise Line

cruiseship owner, with five ships and the possibility of swapping tonnage within the group, notably by transferring the **Blue Dream** and the **Blue Moon** (both built in 2001 by Chantiers de l'Atlantique, 698 berths, 349 cabins) to its affiliate company Celebrity, in order to be used in the expedition market, whereas Pullmantur will take the **Zenith** (built in 1992 by Meyer Werft, 47,255 tons, 1,378 berths, 689 cabins), thus increasing its capacity.

At the end of the year, the Carnival Group announced the creation of a joint-venture between the German tour operator TUI and the Aida company it controls, in order to manage on one hand the Aida brand name and, on the other, a new cruise company under the TUI banner. This joint-venture should take delivery of a ship under construction for the Carnival Group, for delivery in the spring of 2010, with a capacity of 3,000 passengers; TUI initially taking a 5 % participation, then up to 20 % in 2010.

Shipyards are also joining forces with, in the first instance, the purchase of Chantiers de l'Atlantique from Alstom by the Norwegian group Aker Yards. After having injected €350 million, Alstom sold 75 % of its shipbuilding branch for €50 million, and the remaining

25 % is due to be sold in 2010 at a price which will depend on the performance of the French shipyards and could be as much as €125 million. Aker Yards thus has become the largest European entity in shipbuilding with 17 shipyards spread over 7 countries and employing 20,000 people.

Fincantieri is still in the process of being privatised and has acquired a 21 % share in Lloyd Werft with an option on a further 30 % in 2008, permitting them to obtain a majority share in the yard. At the same time, a significant shareholding participation is being discussed with the present shareholders in the ship repair yard of Grand Bahama. Fincantieri is thus the only shipyard able to offer a complete range of services to cruise lines, from building to maintenance, as well as conversion works.

THE YEAR HAS BEEN VERY ACTIVE ON THE NEWBUILDING SIDE, with 13 units ordered, plus a letter of intent, representing a total of 27,400 berths, 13,600 cabins, and 1,048,700 gt.

◆ Hardly surprisingly, the Carnival Group was the most active with the order of a fourth vessel for Aida, of 68,500 tons, 2,030 berths, 1,015 cabins, placed at Meyer Werft for a price of around €330 million.

◆ Carnival Cruise Line ordered two ships of 130,000 tons, 3,608 berths, 1,804 cabins, with Fincantieri (Montfalcone), to be delivered autumn 2009 and spring 2011, at respectively \$677 million and \$738 million (€565 million).

◆ In the early days of January 2007 a letter of intent was signed for a 116,000 tons ship in the **Ventura** class for account of P&O Cruises, to be delivered in spring 2010 for €535 million.

◆ An order for Costa of two ships of 92,700 tons, 2,260 berths, 1,130 cabins, with Fincantieri (Marghera), deliverable in spring 2009 and spring 2010, at a price of €420 million each.

◆ Finally an order for Seabourn Cruise Line of two ships of 32,000 tons, 550 berths, 225 suites, with Mariotti, to be delivered in 2009 and 2010, at a price of \$250 million each (namely about \$550,000 per berth). This time, the hulls will be built by the newly established San Giorgio shipyard.

This last order demonstrates a recovery in the luxury segment, which had particularly suffered in the wake of the 11th of September 2001 events. The development of large scale cruise ships also creates the need, for part of the clientele, for a return to ships of more human dimensions, in which service is more personalised.

End 2006, the Carnival Group holds 13 firm orders and a letter of intent with Fincantieri for a total value in excess of \$8 billion, on a total of 19 ships on order for the group. For the first time, 10 out of these new ships will be fitted for the European market, against 9 for the American customers.

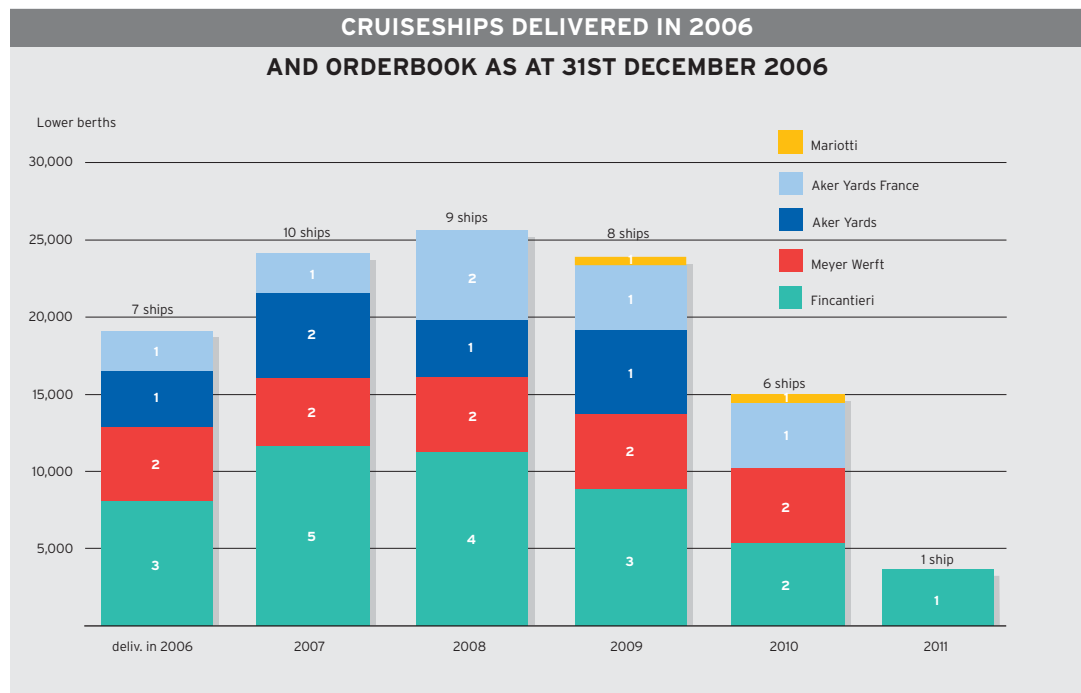
MSC, who finished 2005 with an order for the two biggest ships destined for the European market

(133,000 tons), ordered this year with the same Chantiers de l'Atlantique (now Aker Yards France) another ship in the preceding series of 89,000 tons, 2,250 berths, 1,275 cabins, to be delivered in the third quarter 2008 at a price of €400 million. MSC has also an option for a similar ship to be delivered in 2010.

Royal Caribbean Cruise Line started the year in style with the largest order in the history of cruise ships, the **Genesis** project at Aker Yards Turku, with impressive dimensions of about 220,000 tons, 5,400 berths, 2,700 cabins, for delivery in October 2009 at a price of €900 million.

This ship is not far from the gigantic project of the **World City** which K. Kloster had envisaged in the '80s, which shows that this owner was, and remains, a forerunner in this business.

It is 40 % bigger than the **Freedom of the Seas**, which has just been delivered successfully to Royal Caribbean and has been admired by all in the cruising community. The new dimensions of the **Genesis** project represent a considerable step forward for the architects of the



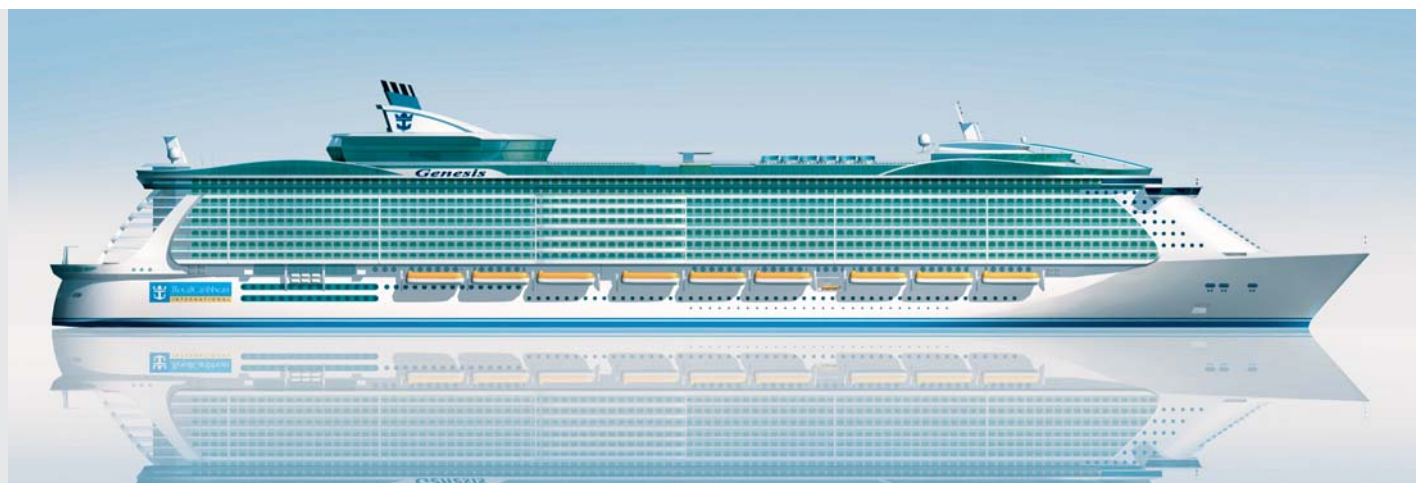
owner and those of the shipyard, and its appearance is highly coveted, as its size enables passengers to partake in an exceptional range of services and distractions, allowing more than ever for a ship to be a destination on its own. It is highly probable that this ship will not be the only one of its kind for long.

◆ Celebrity Cruises ordered with Meyer Werft two sister ships of 117,000 tons, 2,850 berths, 1,425 cabins, for delivery in August 2009 and in spring 2010, at respective prices of \$640 and \$698 million, the difference being principally due to the evolution in the dollar/euro

exchange rate between the months of February and August.

◆ NCL (Norwegian Cruise Line) has also ordered two post-Panamax ships of 150,000 tons, 4,200 berths, 2,100 cabins, with Aker Yards Saint-Nazaire, deliverable in October 2009 and May 2010 at a price of €735 million each. An option for a third ship with a delivery in 2011, and maybe slightly different characteristics, was also granted by the builder.

◆ Also to be noted was the order of two small ships in the U.S. for the account of American Cruise Line. One vessel for the start-up of a new



Genesis,
Cruise vessel, 220,000 gt, 2,700 cabins ordered in 2006 at Aker Yards Finland by Royal Carribean Cruise Line

brand, Pearl Seas Cruises, which can carry 166 passengers, built with Irving Shipbuilding in Canada and for delivery in July 2008, plus an option for a second ship of over 200 passengers, to be delivered in 2009. The other for American Cruise Line, the **American Star**, with a capacity of 100 berths and 52 cabins, built by Chesapeake Shipbuilding and deliverable in June 2007.

Outside these two small units, the orderbook at the end of the year represents 34 ships and close to 90,000 berths. It should be noted that 18 of these ships are destined for the American market, but that the European market has a significant share with 15 ships, Fincantieri remaining the top European builder both in numbers and in value of ships.

SEVEN NEW SHIPS HAVE BEEN DELIVERED THIS YEAR.

3 ships for the Carnival group, built with Fincantieri:

◆ For account of Costa: the **Costa Concordia**, 112,000 tons, 3,004 berths, 1,502 cabins, delivered in July 2006, at a price of €450 million. At the end of 2010, taking into account ships on order, the Costa fleet will comprise 15 ships for 30,800 berths.

◆ For account of HAL: the **Noordam**, 81,769 tons, 1,918 berths, 924 cabins, delivered in January 2006, at a price of \$400 million.

◆ For account of Princess Cruises: the **Crown Princess**, 116,000 tons, 3,114 berths, 1,557 cabins, delivered in June 2006, at a price of \$500 million.

Two ships for NCL:

◆ the **Pride of Hawai'i** and the **Norwegian Pearl**, 93,500 tons, 2,466 berths, 1,188 cabins, built by Meyer Werft and delivered in April 2006 and November 2006 at the respective prices of \$395 million and \$500 million, the difference is partly due to the fact that the **Pride of Hawai'i** has been built with some

parts built for the second ship of the defunct Project America started at Ingalls shipyard for AMCV.

For the RCCL group:

◆ the **Freedom of the Seas**, built by Aker Yards and delivered in April 2006, 154,407 tons, 3,634 berths, 1,817 cabins, price \$720 million. It is the biggest ship in service, delivered on time at Turku, and whose concept and execution has captured the admiration of all those in the profession.

One ship for MSC:

◆ the **MSC Musica**, delivered in June by Aker Yards Saint-Nazaire, 89,600 tons, 2,550 berths, 1,275 cabins, at a price of €400 million.

THE SECOND-HAND MARKET has been somewhat less active than the previous year although there have been several noteworthy sales:

◆ Firstly, the refinancing by the owner Oceania Cruises Inc. of three ships that they were operating under bare-boat: the **Regata** (ex. **R Two**), the **Insignia** (ex. **R One**) and the **Nautica** (ex. **R Five**), built respectively in 1998, 1998, and 2000 by Chantiers de l'Atlantique, 702 passengers, 351 cabins, bought from Cruisinvest, a financial vehicle created by the French banks after the demise of Renaissance Cruises, for a price of \$125 million apiece. This sale marks the final chapter in the resale of the eight Renaissance ships, which have today all found new owners.

◆ **Minerva II** (ex. **R Eight**): built in 2001 by Chantiers de l'Atlantique, 698 berths, 349 cabins, finally bought by the British charterers Swan Hellenic, of the Carnival Group, from Cruisinvest, at a price of \$120 million. This ship will join the Princess Cruises fleet in 2007, leaving Swan Hellenic without a ship.



MSC Musica,
Cruise vessel, 89,600 gt, 1,275 cabins built in June 2006 by Aker Yards Saint-Nazaire, owned by MSC Cruise

◆ **Grand Voyager** (ex **Voyager** of Royal Olympic Cruise): built in 2000 by Blohm & Voss, 736 berths, 364 cabins, sold by the financial mortgage creditors group KfW Bank to Viajes Iberojet in Spain, at a price of around \$95 million.

◆ **Norwegian Crown**: built in 1988 by Meyer Werft, 526 cabins, 1,209 berths, bought by the British owner Olsen Cruise Line from NCL for \$105 million, with 14 months charter back, with the ship due to be delivered in 2007. It should be noted that 18 years after its delivery, this ship has reached a sale price in excess of its construction cost.

◆ **Orient Queen** (ex. **Bolero** of Festival): built in 1968 by Weser Seebeck, 802 passengers, 401 cabins, resold by Louis Cruise Line to the Lebanese shipowner Abou Mehri, at a price of \$22 million, on the basis of a hire-purchase deal. This proves that some cruise ships, if well-conceived, hold an attractive value on the second-hand market despite their age.

◆ **Walrus**: built in 1990 by Union Naval in Valencia, 556 passengers, 265 cabins, sold to the Dutch owner Club Cruise for \$21 million, and renamed **Jules Verne**.

◆ **Enchanted Capri**: built in 1975 by Wartsila, 635 passengers, 230 cabins, sold to the Mexican owner Demar by International Shipping Partners, at a price of \$10 million.

◆ **Dalmacija**: built in 1965 by Uljanik, 304 passengers, 142 cabins, sold between Croatian owners at a price of \$2 million, for service on the Adriatic coast.

◆ **Nantucket Clipper** and **Yorktown Clipper**: built in 1984 and 1988 in the U.S. - respectively 102 and 138 passengers - were finally sold en bloc to Cruise West for a price of \$16 million.

One of the characteristics of this year has been the very sharp rise in



Pride of Hawai'i,
Cruise vessel, 93,000 gt, 1,188 cabins, delivered in April 2006 by Meyer Werft and operated by Norwegian Cruise Line (Star Cruises group)

construction costs linked essentially to the rise of prices for supplies and raw materials. Some suppliers have been surfing the high demand and energy price wave and doubled their prices in the course of several months. If one adds to this the devaluation of the dollar and the rise of salaries (more significant in Europe), owners are having to face increases in the price of new ships of 30 % to 40 %, expressed in dollars.

It is therefore very likely that all the existing options at fixed prices will be lifted by owners who hold them (this was the case of Carnival at the end of the year), but this time to the detriment of the yards.

The current prices proposed by shipyards for new orders have surprised owners, who will be forced to take into account these new levels in their financial calculations.

It seems nonetheless, in the present situation and with no alternative solution, that the business can support such increases, but in addition to the rise in bunker costs this will contribute to a search for economies of scale in the size of ships, and will certainly affect the prices offered to customers in the coming years.

It is true that for the last twenty years owners have been able to maintain a fairly level fare price, extremely competitive compared to

land based tourist products and this competitive advantage is here to stay.

At the end of 2006, the core cruise ship fleet consists of around 300 ships with 320,000 berths, giving an average of 1,400 berths per ship. There will be then 31 ships and nearly 85,000 berths added to this fleet by 2010, namely an increase of over 10 % in the number of ships and nearly 30 % in the number of berths, given the size of ships under construction.

The number of cruise passengers exceeds 14 million, of which 10 million are Americans, 3,2 million Europeans and about a million coming from the rest of the world, with Asians having difficulty as yet in appreciating this kind of leisure. The average age of cruise passengers is as of now less than 50 years old, and thus has been rejuvenated by some ten years in the course of the past fifteen years.

All in all, a good year ends with an orderbook which reflects an overall faith in the future of this buoyant segment of the tourism business. The cruise industry which as a whole generates a turnover of \$22 billion, seems to have still some good years ahead. ■

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The tanker market in 2006

Crude oil transport: a year of surprises and uncertainties

WHILST CONCLUDING OUR PREVIOUS ANNUAL REPORT WITH MIXED FEELINGS, WE WERE CONCERNED, WITH SOME JUSTIFICATION, ABOUT THE IMPACT OF THE APPETITE FOR BUILDING NEW UNITS AND THE EVIDENT EFFECT THAT THIS WOULD HAVE ON RATES.

Nonetheless, if we compare (as shown later) the average returns over the past two years in the three principal sizes of tankers, once again owners have managed to maintain successive profits by avoiding the pitfalls of a potential tonnage surplus.

However, if global demand for transport remains resolutely steady, the latest analysis of the orderbooks highlights the fact that the imbalance of supply and demand is at our doorstep.

Thus, after a quick study of the macro-economic and geopolitical factors, which obviously have a fundamental influence on our activity, we will take a closer look at the recent evolution of freight rates

and cargo movements for each category of tankers as is our custom.

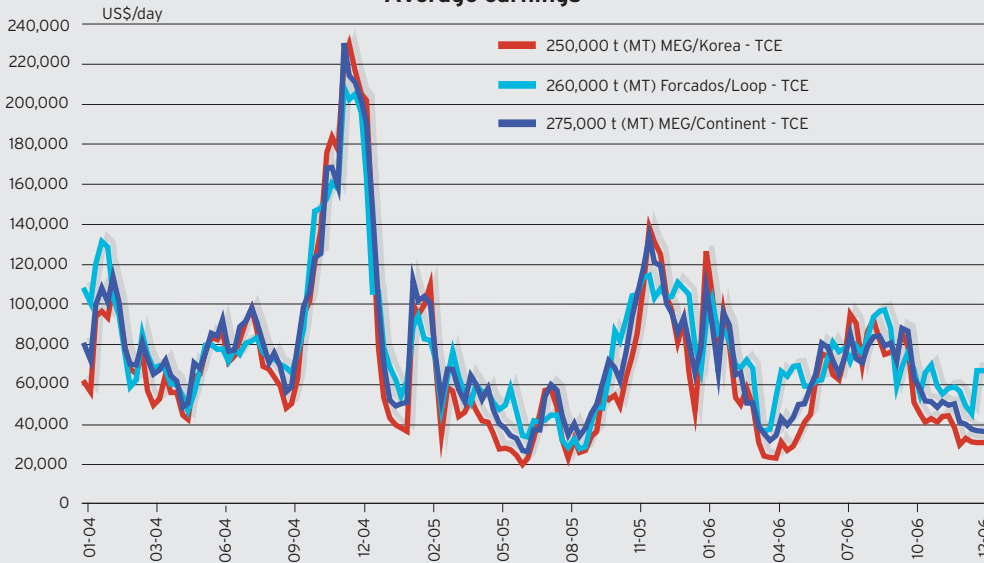
To conclude, even if prophecy has become a delicate and dangerous art in our domain, we shall attempt to evaluate the general outlook as to what the future freight market might be in the years to come.

Before starting any detailed analysis of the freight market and its possible evolution, let us begin by examining the principal driving force of the tanker shipping market: world oil consumption and its forecast. Despite a constant rise in oil prices since 2000 and in particular since 2003 (a doubling of prices in three years), demand has not dropped, on the contrary it has risen. Demand levels have undoubtedly been contained by certain countries looking to find alternative energy sources, but oil remains a vital and undeniable energy for numerous economies in full expansion.

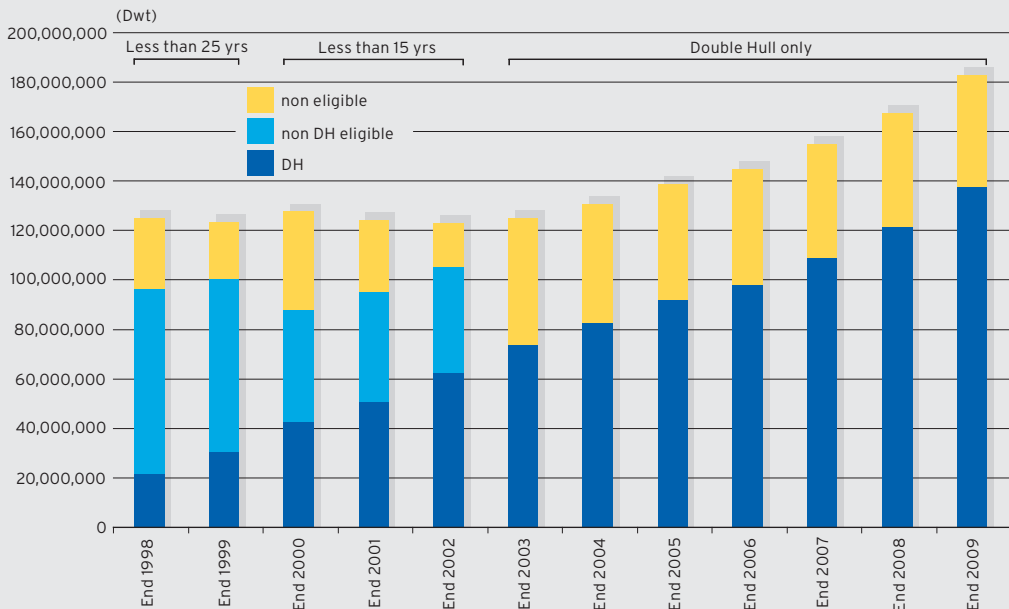
Thus, the current forecasts project world consumption of 93.7 million bbls/day in

VLCC TANKER FREIGHT RATES

Average earnings



VLCC ELIGIBLE FLEET 1998-2009



2011 compared to 83.3 million in 2005, an increase of 12.5 %. This rate of increase is above that of the past ten years, due to the boom in the Chinese, Indian and Brazilian economies amongst others. Whereas consumption in the United States and Western Europe is growing very moderately, growth in demand from China is exponential! The continuous expansion of industrial needs paired with a rapidly increasing car population means that the current Chinese oil consumption of 4.7 million bbls/day in 2001 will reach nearly 10 million by 2011.

Faced with such changes, transport needs are also evolving constantly and we are seeing a continuous increase in average voyage distances (ton-miles). Thus, for example, Chinese imports from West Africa are inexorably rising and favour big size ships (VLCCs), which therefore have found a fruitful alternative to the traditional voyages out of the Middle East Gulf.

Before looking at a detailed analysis of freight rates over the past year, two particular points are worth making:

The strong volatility of freight rates has become a recurring characteristic of our market. In preceding years, it only took several days or weeks for a market to collapse and then numerous months for a recovery; now we are (at least for the moment) in a contrary pattern and this year has not been an exception.

Certain seasonal tendencies within these fluctuations took place over the preceding three years, with as principal characteristic, strong freight increases in the first and last quarters of each year, corresponding generally to periods of stock-building and high winter demand. However this year, whilst the first quarter respected this tendency, it was not the case for the last quarter (except for the second half of December) when rates remained particularly lethargic. Consequently it was in the summer and particularly in August, which is normally a calm month, that tension was at its highest, both in terms of freight and of crude oil prices, which surpassed \$78 per barrel! One explanation of this phenomenon was based on the fear of another active hurricane season in the Mexican Gulf, and serious unrest concerning oil production in certain countries (Nigeria, Iraq). Taking advantage of high quotas from OPEC during this period, consuming countries stockpiled during the summer, thus impacting dramatically oil prices as well as freight rates.

VLCC

As we have just mentioned, last year was marked by strong variations in freight rates. In this category of tankers, the spread in returns varied from \$20,000 to over \$100,000 per day with peaks right at the beginning of the year and during the summer, and troughs in April and at the end of the year.

If we take the Middle East Gulf as the reference point of the market, the peak returns registered by owners at



Monte Granada
150,581 dwt, double hull, built in 2004 by the Japanese shipyard Universal TSU, managed by Ibaizabal

the start of the year and during the summer can be largely explained by the volumes of cargoes. With a weighted monthly average of 104 cargoes, we saw close to 120 fixtures on the spot market in January and over 130 in August!

Despite the constant pressure on bunker prices and the arrival of numerous newbuildings, returns remained strong. The weighted average of the two most significant routes, Middle East Gulf / Far East and Middle East Gulf / West, remained surprisingly stable at a little over \$59,000/day.

It is also interesting to note that on the West Africa / US Gulf or West Africa / East voyages, which are both trade routes steadily increasing in volume, the same average returns are higher and rising strongly. Hence we have gone from over \$63,000/day in 2005 to \$68,000/day this year.

This phenomenon is particularly characteristic of the VLCC market. The preponderance of single-hulls in the East of Suez market, combined with a traffic principally with Far Eastern destinations, puts a damper on any increase in freight rates. This situation will likely continue in the coming years up until 2010, the expected

phasing-out date of single-hulls as stipulated by the International Maritime Organisation. Whilst there is some uncertainty as to what position the main importers such as China and India will adopt, it is likely that the Gulf exporting countries will adhere to a strict policy on the restrictive measures.

Again this year, even if a two-tiered market has allowed modern ships to continue to trade without mishap, the proportion of demand for them out of the Middle East Gulf for eastern destinations has remained slim and irregular. They systematically suffer from the weight of older ships on the market.

Currently, cargoes loading out of the Middle East Gulf for western destinations, or those West of Suez and particularly from West Africa are the only ones allowing owners of double hull ships to justify their heavy investments. As indicated above, demand is increasing, notably for voyages to the East and particularly to China. Average freight rates resist better and fluctuations upwards are often sudden and significant.

For the record, at the end of 2006 there were 502 VLCCs (of which nearly 65 % are double-hulled) in active service worldwide, compared

to 481 last year. No less than 172 are on order (nearly 35 % of the current fleet), of which a majority are for delivery in 2008 and 2009.

The table on page 30 shows, that the volume of modern double-hulled tonnage will match that of the world fleet existing in 1998 only by the end of 2008. However, the addition of "non-eligible" ships in the eyes of numerous Western charterers, but still acceptable to a number of Eastern charterers, shows a continuous increase in the world fleet and explains the relative stagnation in freight rates.

SUEZMAX

Similarly to VLCCs, the freight fluctuations have been significant throughout the whole of last year with peaks notably in January and February as well as in the month of August. Compared with the two previous years, although these peaks were not as high, the troughs were similar, although less frequently attained.

On the traditional West Africa / US Gulf route, the equivalent time-charter rates averaged \$44,000/day compared to \$43,000/day in 2005, and this despite a growing tendency towards VLCC liftings (as we have just

seen), and the recurring conflicts in Nigeria which continuously disrupted production. The highest returns were seen at the beginning of February at close to \$67,000/day, and the floor was touched briefly during the first half of April around \$21,000/day.

The graphs are very similar on voyages from the Mediterranean or out of

the Black Sea with, nonetheless, an annual average of about \$58,000/day, compared to \$65,000/day in 2005 (principally due to the heavy disruption of traffic in the Turkish straits during winter 2005, which was not the case at the end of 2006). The low points were registered in April and in November around \$30,000/day and the maximums in

excess of \$80,000/day in January, February, August and right at the end of the year.

Contrarily to what we have seen with the VLCC's, single-hull tankers are less numerous in the Suezmax sector and do not usually influence the Western markets. However, they remain ever present East of Suez market as reflected in the rates.

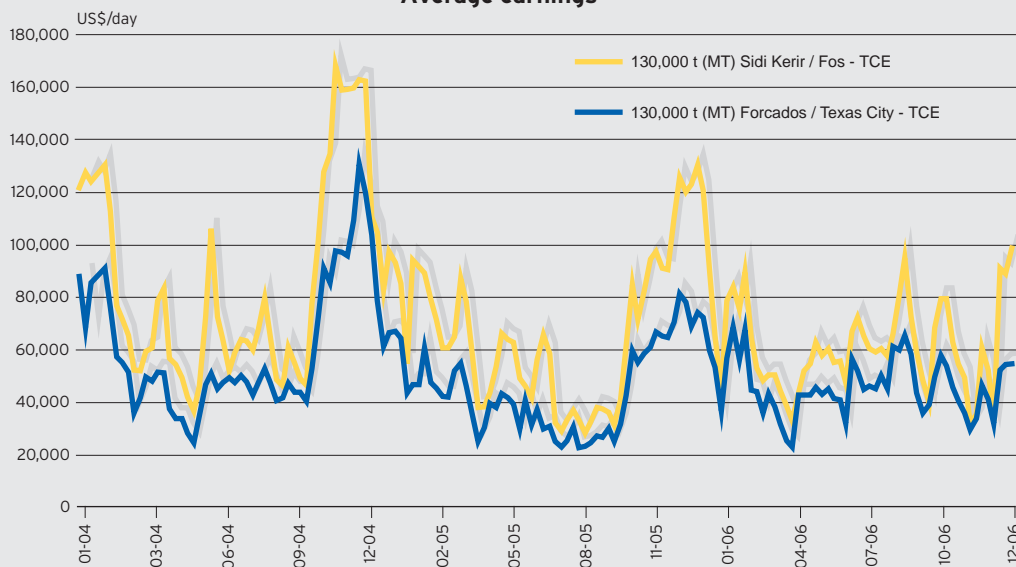
Thus, despite a constant increase in the available fleet, owners continue to achieve average returns which justify their investments. At the end of 2006, the world Suezmax fleet comprised 352 units, of which 78% were double-hulled, compared to 335 ships at the end of 2005. 104 new units (a record number) were ordered, of which a large majority should join the fleet in 2009.

However, demand for Suezmax tonnage should increase in the coming years in all zones (except the North Sea). In West Africa, Angolan production continues to increase and if the situation remains stable in Nigeria, they could also see a jump in exports. Liftings out of the Black Sea and the Mediterranean should also be higher, due to new production sources from ex-Soviet bloc countries as well as pipeline projects aimed to relieve traffic through the Turkish Straits. At the same time, increased production is expected out of Libya and Algeria. Finally, even if the North Sea is declining, exports from the Baltic are more and more regular and will shortly interest Suezmaxes and especially the "ice-class" ships (today there are fifteen units of Class 1A or 1B.)

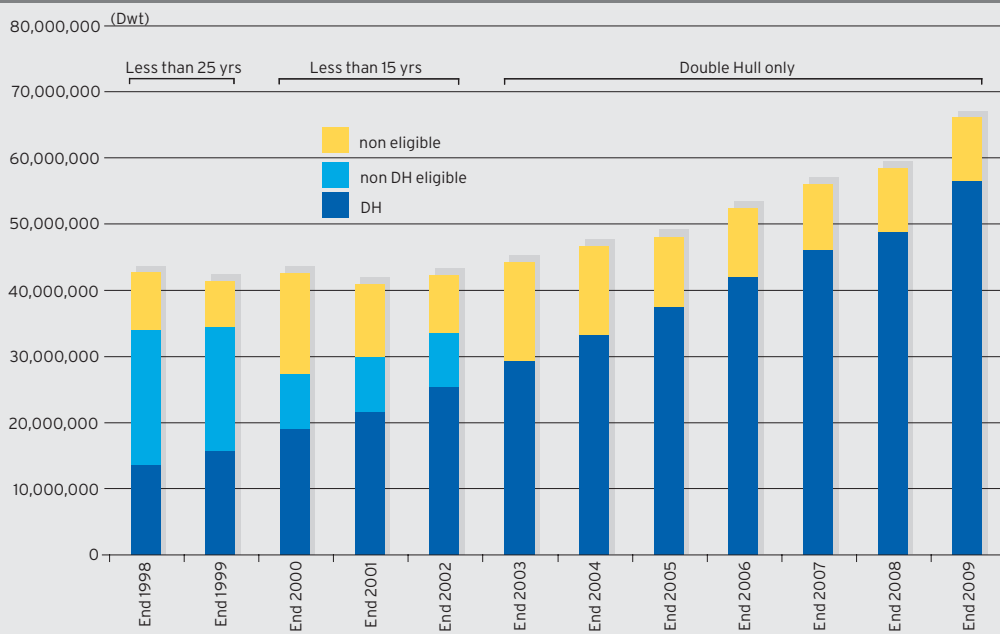
The graph on the left shows the large difference which exists between the Suezmax size and the VLCC's. At the end of 2006 the tonnage of double-hull Suezmaxes is practically the same global tonnage (all types together) as in 1998 and even 2002. The older ships are mostly dispersed over different geo-

SUEZMAX TANKER FREIGHT RATES

Average earnings



SUEZMAX ELIGIBLE FLEET 1998-2009



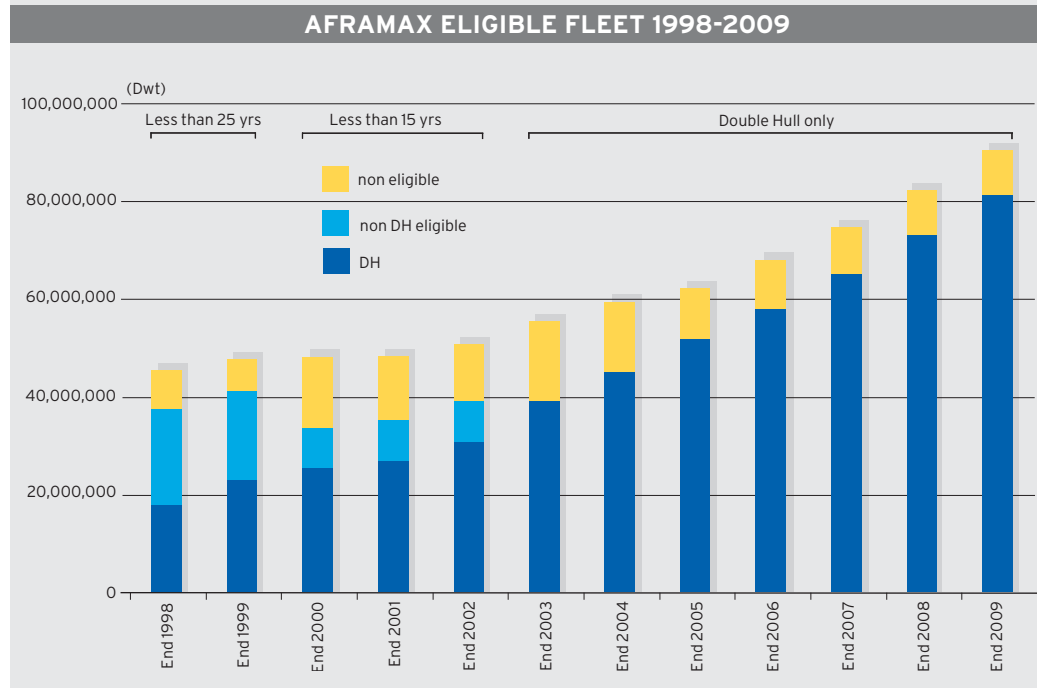
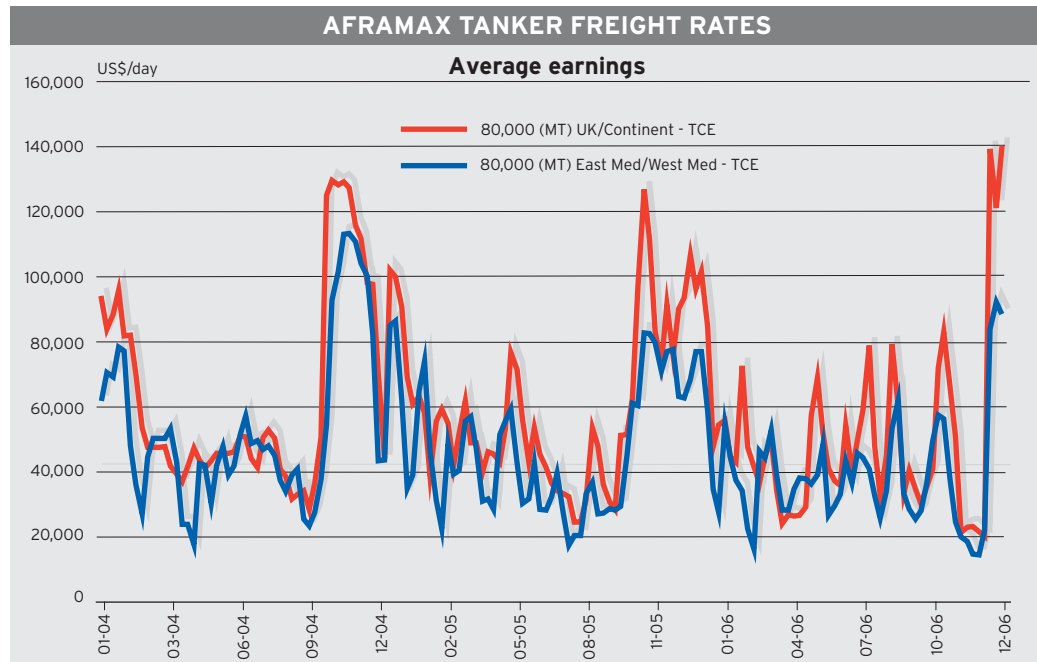
graphical zones and no longer play a major role on the market, in contrast with the VLCC category.

It is thus evident that the progressive enforcement of international regulations aiming to eliminate all non double-hulls by 2010, will have less of an impact on Suezmaxes compared to the other sizes. Only a constant increase in demand and a lengthening of voyages will be able to compensate for the increase in the fleet. Although such a scenario seems probable from now until the end of 2008, one can nonetheless fear that the 54 ships on order for delivery in 2009 and the 23 already signed up for 2010 might cause an imbalance in the long term, posing a problem for owners.

AFRAMAX

The popularity for this size of tankers remains particularly strong, since it numbers 728 units at the moment, nearly twice the number of existing Suezmaxes. If one adds the 242 orders already in the books for the next five years, owners must count on both a market which is continuously growing, but also on the development of new routes, in order to hope for freight rates to be maintained... For the record, at the same time last year the orderbook only showed around a hundred ships.

The graph on the right shows that the weighted average returns on the two reference voyage routes have dropped, going from \$57,000/day in 2005 to \$43,450/day in 2006. One sees also that the magnitude of freight rate changes and their cycles are always sudden and severe, a special characteristic of this category of tankers. 2005 and 2004 were both exceptional years, with rates in 2005 above \$80,000/day in the Mediterranean and \$120,000/day in the North Sea. Last year levels were far more modest, although reaching peaks at a higher frequency, at more than \$60,000/day in Mediterranean and



over \$80,000/day in North Sea. Only in the second half of December were owners able to rediscover the record levels of the previous two years, mainly thanks to temporary "traffic-jams" through the Turkish straits.

However, if the magnitude in the variations has been less significant, it is worth noting that the floor returns have never dropped below those of the past two years (around \$20,000/day) and that the "depressed" phases in the market rarely lasted more than a week...

The seasonal impact that we have observed in other size categories this year has not occurred in the Aframax, as was the case in preceding years. Not only is the above graph something of a permanent switchback with spreads in returns doubling in the space of several weeks, and even days, but the similarity between one geographical zone and another, which we find in the other size categories, is only very occasionally encountered between the North Sea and the Mediterranean.

In Europe, two factors, which have been very influential on this market in previous years, have been accentuated in these last months:

In Northern Europe, the progressive decline in production and exports from the older North Sea terminals is being compensated today by a continuous increase in Russian exports from the Baltic. The very strong hike in rates observed over the past two winter periods has not taken place this year, partly because of far more clement weather, but also due to a fairly massive arrival of ice-class tankers (62 ships either 1A or 1B are currently in operation.)

In the Mediterranean, exports from the Black Sea are the uncontested barometer of the Aframax market (and also the Suezmaxes). Even though the transit of the Turkish straits has been far more fluid in 2006 (apart from right at the end of the year), any rise or fall in demand in this zone has had an immediate repercussion on the rates of traditional cross-Med voyages.

Whilst the older single hulls continue to weigh heavily on the VLCC market, this is not the case for Aframax, at least certainly not in West of Suez markets. Thus, the analysis of the "eligible" fleet no longer has the same value nor the same significance as was the case three or four years ago.

With presently nearly 60 million dwt of double-hull tankers in service at the end of 2006, we are already almost 20 % above the level of the fleet in service between 1999 and 2002. On the basis of current orders and, even if some ships are fitted to carry refined products rather than crude in the long term, the world fleet of Aframax (double-hulled) will amount to over 80 million dwt at the end of 2009! Will demand be there to match this?

CONCLUSION

World oil consumption is clearly going to increase over the coming years, driven by the rapidly growing economies of certain countries. The analysis of the evolution in the order-book, showing the variety of available shipyards open for business in Asia and the insatiable appetite of owners, is enough to worry any expert with regards to future rates. The massive arrival of new units from now until 2010 adding to the existing fleet can only, on paper, lead to a considerable imbalance in supply and demand and an inevitable fall in freight rates.

Even if during the next three years we see the traditional acrobatics and wild fluctuations to which we have become accustomed, this will be accompanied almost certainly by a steady but measured decline in average freight rates. Whereas some predict a pure and simple collapse, we remain far more careful.

The reasons for being optimistic for owners are diverse, but rather than giving an exhaustive list, we will pick out two aspects which at the moment may potentially counter the pessimistic omens.

VLCCs, which have played the driving force on the overall market for such a long time, seem today to be declining. As we have seen earlier, the quantity of old single-hulled ships dictates the freight levels of what has become the main driver of this market: the exuberant demand from Asian countries, in particular China and India. Although freight levels for these big tankers have little chance of improving up until 2010, one should expect a dramatic change when the IMO regulations aiming to eliminate single-hull tankers come into effect. It is difficult to know to what extent the application of such a measure will be met with by the various importing countries, but one can reasonably imagine that the Gulf countries, representing

an even larger percentage of world oil production and anxious to assure the security of their exports, will actively participate in following the regulations. The 102 VLCCs which have been ordered for delivery in 2009 and 2010, apart from the fact that they have been signed up at record price levels, indicate that their owners do not seem to have any doubt as to the implementation of these rules.

The question is quite different when considering smaller size categories, in that the older ships no longer have a significant effect on freight rates. With respect to the Suezmaxes, with the exception of an important arrival of new units in 2009 and 2010 with the possible delays from certain shipyards, the supply / demand balance should be maintained at least during the next two years. The Aframax category is the only one for which we can anticipate a possible drop in rates, unless there is a very favourable and rapid expansion in demand. The salvation for this size category could also come from the gradual elimination of the oldest ships which continue to dominate the market East of Suez.

The second factor, which could enable owners to envisage a more favourable future is a healthy time-charter market. Throughout last year, negotiations and recorded rates demonstrate a strong resistance on the part of owners of modern ships among the three main categories of tankers. For most enquiry, the offers were limited and rates concluded showed that the market could remain bullish. As an illustration of this phenomenon, the rates recorded in the last quarter for unusually long three year periods were at averages of nearly \$50,000/day for a VLCC, near to \$39,000/day for a Suezmax, and \$29,000/day for an Aframax. At the same time, no foreseeable sign of lower rates is apparent for the moment. ■

The crude tanker second-hand market

"Courage, more courage, forever courage!"

SUCH WERE THE WORDS USED BY GEORGES JACQUES DANTON, WHEN MINISTER OF JUSTICE AT THE TIME OF THE FRENCH REVOLUTION IN SEPTEMBER 1792, when concluding his speech before the legislative assembly, inciting them to take courage in order to be able to face the perils they were about to encounter with the revolution under way.

After two particularly favourable years, tanker owners had to have the courage to continue investing in view of the already high prices for this type of ship. If we analyse the volume of second-hand transactions for tankers in 2006, we can readily conclude that owners lacked courage this year.

As we shall see later on, owners preferred to wait and be cautious, to avoid paying over the odds for their future fleet. Nearly everyone predicts that there will be a decline in prices in time and prefer to renew their fleet under more advantageous conditions. The reality for 2006 is in fact more complex, since although owners were very reluctant to touch the second-hand ships, they nonetheless went massively into ordering newbuildings and thus showed themselves to be courageous. Forever courageous...

The alternative of newbuildings struck them as not necessarily being a better investment, but simply a more prudent one, taking into account the price and age of the ship. For a good number of tankers of this type, and all throughout 2006, pricing (base 100) for a 5 year old second-hand ship was "100", "115" for a ship just coming out of dock, or "100" for a new ship for delivery in two and a half years. Since the daily

freight rates, offered in 2006 for time-charters, did not justify paying "115", with rates remaining volatile, it made more sense to pay "100" now for a ship which would be on the water only in 2009 or 2010 and benefit from 8 or 9 years more depreciation, compared to a 5 year old ship. Those who bet otherwise and preferred taking the risk to pay "115" for a prompt ship, or "100" for a 5 year old one, have also shown signs of even greater courage!

We should nevertheless pay tribute to "the last of the Mohicans", tankers that, slowly but surely, are beginning to disappear from our radar screens over the past five years. Indeed it was in 2006 that the very last ships from the 70's stopped sailing the seas. The few remaining Aframax built in 1979 saw their days end in 2006 based on the IMO and European regulations (whereas they could have continued until 2007 according to the OPA 90 regulations.) In 2007 tankers in Category 1 (single-hull - non SBT) or in Category 2 and 3 (SBT, double-hull, or double-sided) built in 1980 and 1981 will disappear.

The trend which began last year, which saw signs of a market division between double-hulls and single-hulls, was sharply accentuated in the course of the year and 2007 could well mark the definitive arrival of a "two-tiered market" for these different types of hull structures. Elsewhere we have witnessed, as in previous years, a remarkable number of en-bloc sales, even if the number of tankers and the amounts in question have been less. Generally speaking, the year began with firm values for all tankers (double and single hulls), but activity whilst initially slow, fini-

shed the first quarter with values even higher for double-hulls. The second quarter gave evidence of a lack of interest for the oldest single-hulls and their prices therefore suffered. Once the market started to find its bearings, in the course of the third quarter, sale prices of very modern tankers surpassed previous levels, thus showing that plenty of buyers were wanting to acquire modern tonnage available on the market. On the other hand, values for the older tankers continued their moderate decline. The last quarter was gloomy and inactive. The market thinned out, but prices of modern and double-hull tankers did not drop, even if their daily rates on the spot market were under pressure. It is worth noting that the value of modern single-hulls (built 1990/1991) finished the year at equal or at superior levels to those at the end of 2005. Finally, as happens every year, there was a spurt in activity at the end of December for the usual fiscal reasons.

The second-hand market for VLCCs

With few available candidates, and high prices, there was again a very modest volume of business although slightly above the 2005 level. Forty-five ships changed hands this year compared to 34 the previous year. As a reminder, there was a record number of sales in 2004 with 82 transactions, whilst 44 units were sold in 2003, 24 in 2002 and 37 in 2001.

Not one VLCC built in the 70's changed hands, even though up till last year this category constituted the favourite target by buyers for storage or conversions. Such buyers are now diverting their attention to the

few existing ships from the 80's, and it would appear that the best of these have and will continue to have an "assured" future in the storage or conversion field.

Buying and selling activity for single-hulls was lively in 2006, since 19 units changed hands compared to only 9 in the previous year. Out of these 19, at least 8 were used in conversion or storage projects. We can cite as an example the sale of the sister ships m/t **Al Funtas** and m/t **Kazimah**, of 290,000 dwt build in 1982, at around \$25.5 million apiece, as well as the bloc sale of m/t **Island Accord** and **Island Bauhinia**, 255,000 dwt built 1988, for around \$41.0 million each. The 11 other units were acquired by Greek or Far Eastern buyers. One of these, the m/t **C.Trust** bought at a price of around \$45.5 million, is due to be converted by its buyer to a double-hull.

The number of double-hull VLCCs built from 1993 and sold this year amounted to 25 units (resale contracts included), namely fairly comparable to the 21 transactions in 2005. They numbered 31 in 2004, 23 in 2003, 5 in 2002, and 14 in 2001. Activity was concentrated on the most modern tankers, those built after 2000. To illustrate the rise in values over the year we can quote the example of a sale in June of a VLCC built by Hyundai in 1996 for \$91.0 million and resold by its buyer at the end of the year for \$98.0 million. Tankers under 5 years and resales took the lion's share, since they represent 17 transactions. Three sellers were particularly noteworthy for having disposed of 15 tankers: Gulf Marine Management with 4 units, Formosa Plastics Marine with 5 units and Frontline with 6 units. One of the most impressive of these was that of the m/t **Front Beijing**, 299,235 dwt built in 2006, for \$142.0 million in September.

Not one VLCC was scrapped in 2006, against respectively 1, 5, 27, and 36 in

the previous four years. Spot rates which the oldest ships were able to enjoy, remained sufficiently high for owners not to have to contemplate the option of scrapping, despite the attractive prices being proposed by demolishers (above \$400/ton). In addition these ships, often fully amortized a long time ago are able to accept slightly reduced rates. Likewise, only 18 new VLCCs have come into service this year but the order-book includes no less than 172 tankers at the end of December 2006.

The Suezmax second-hand market

Tankers from 120,000-200,000 dwt suffered a serious reduction in the number of transactions in 2006, compared to previous years, namely only 38 sales versus 60 which changed hands in 2005, 43 in 2004 and 53 the year before. Prices for this size have been increasing, improving by some 10-12 % between January and December, for double and single hulls built in the 90's. In contrast to VLCCs, where individual sales were predominant, there were many more en-bloc sales in the Suezmax category.

Of the 38 reported deals, 8 of them concerned single hulls built between 1976 and 1993, of which six were destined for either storage or conversion projects. As an example there was the sale of the m/t **Oriental Tige**, 180,377 dwt built in 1982, at a price of \$25.2 million. Two other single-hulls sold for further trading use, were bought by the same Greek owner in February and November 2006, the latter being the m/t **Glen Roy**, 144,100 dwt built in 1992, for around \$29.75 million.

Sales of modern double-hulls thus represented 30 transactions. This number is in line with volumes contracted in the preceding years (35 end 2005, 30 end 2004, and 37 in 2003). It is evident that buyers loo-

king to acquire tonnage for transport are no longer attracted by single-hulls, but remain confident over the medium term in modern ships retaining their value. These values stayed firm throughout the year. The nationality and structure of buyers were varied. To illustrate this, we can cite the sale in February of two Korean resales to Greek buyers (the hulls **Samho S272** and **S276**) for \$82.5 million each and both to be delivered during 2007, whereas at the end of the year two other resales (the hulls **Samsung 1684** and **1685**) for delivery in 2008 and 2009, achieved \$85.0 million each, despite their much later delivery date. The most significant sale took place in March when Top Tankers sold en-bloc 8 units, the m/t **Flawless, Limitless, Priceless, Faultless, Stainless, Noiseless, Endless** and **Stopless** built between 1991 and 1993 with Hyundai, Ishibras and Samsung for a price of roughly \$50 million per ship. Another notable sale was that en-bloc of three Suezmaxes built with Samsung, the m/t **Summer Sky** (160,200 dwt - 2002), m/t **Calm Sea** (159,000 dwt - 2003) and the **Glyfada Spirit** (159,600 dwt - 2003), for a package price of around \$240.6 million.

As for the VLCCs, there was no Suezmax sale for demolition this year, whereas 26 new ships entered the fleet. The orderbook for the forthcoming years (up until 2011) identifies 124 new units at the end of December.

The Aframax and Panamax second-hand market

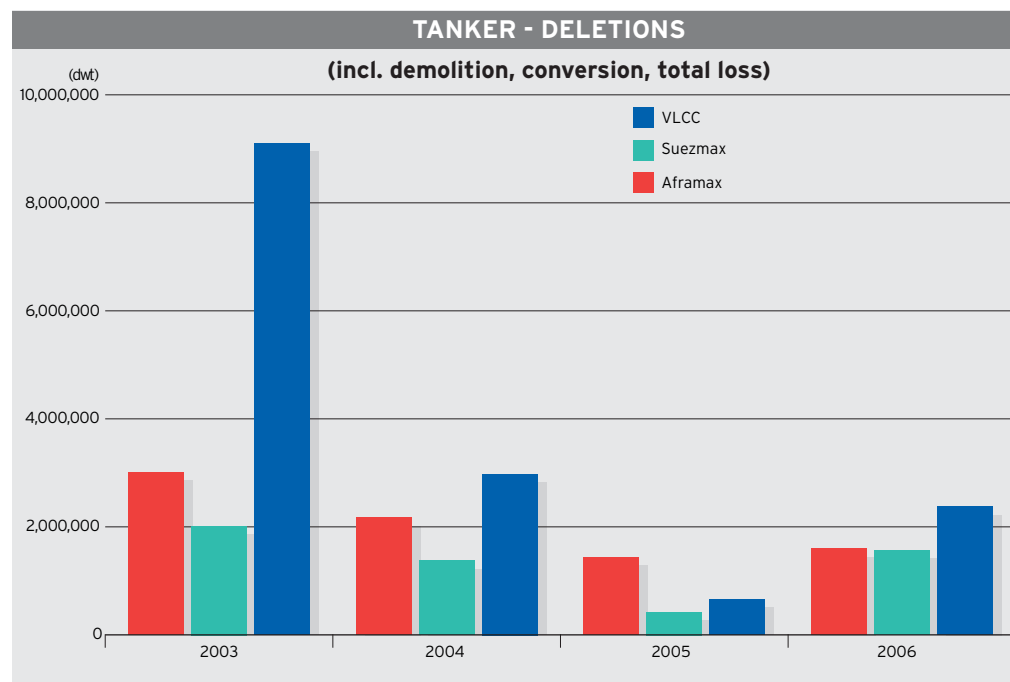
Although prices remained firm, the volume of activity was again very modest and in line with the reduction already seen last year. In 2006 only 46 Aframaxes changed hands against 66 in 2005, and 114 in 2004. We have included ships of 60,000 dwt and over 32.3 m in width in these figures.

Faith in the capability of single-hulls to remain a good investment fell

sharply this year, as only 9 units were sold to continue trading, compared to 40 in 2005 and 45 in 2004. Nonetheless it should be observed that instead of selling, many owners decided to convert their single-hulls into double-hulls. The values of these ships has remained firm, helped by the demolition price staying over \$400 per ton. This can be seen by the sale in July of the m/t **Jag Leena**, 95,000 dwt built in 1985, for a price in the order of \$12.0 million, and in November by that of the m/t **Quasar**, 97,000 dwt built in 1989, for \$20.0 million.

The modern double-hulled Aframaxes got special attention in this market, and the number of transactions was up. We have recorded no less than 37 compared with only 26 in 2005, and 39 in 2004. Sales were evenly spread between the different generations of double-hulls, and tankers built between 1991 and 1995 were for their part in particular demand. There was for example the sale in the month of March of the m/t **Fosna**, 98,300 dwt built in 1992, for \$38.5 million, as well as in August that of the m/t **Mare Dorico**, 89,999 dwt built in 1993, for \$39.0 million. At the same time within the 37 sales, 18 tankers built between 2000 and 2006 were transacted. In particular there was the sale in February of the m/t **Ionian Spirit**, 112,000 dwt built in 2002, as well as two sister ships, the **Aegean Spirit** and **Chios Spirit**, sold en bloc for a substantial price of \$69 million each. At the end of the year, the LR2 **Sea-queen**, 109,000 dwt built in China in 1998, was also able to obtain close to \$62 million on behalf of Indian buyers.

As with the larger size tankers, very few Aframaxes were taken off to the scrapyards in 2006: only 12 ships were demolished versus respectively 16, 30, 35, and 20 for the four last years. At the same time as the withdrawal of these 12 from the fleet, 55 ships were delivered by the shipyards



in 2006 and the orderbook at the end of the year gives 261 ships of which 62 should enter the fleet in 2007.

The Panamax tankers (with a width less than 32.3 metres) saw a more modest level of transactions, namely 31 in total for 2006. There were 57 the previous year and 29 in 2004.

As with the Aframax, very few single-hulls changed hands in 2006 and only four units, built between 1981 and 1983 were transacted. Amongst these were the "win-win" sale scheme by Liquimar for conversion as "dry self unloaders" to American buyers, carried out on the m/t **Ektoros** and **Patroklos** of 61,400 dwt built in 1981, sold for around \$7.0 million each. The seller optimising his sale price compared to demolition value and the buyer optimising his purchase price compared to a standard bulk-carrier.

The remaining deals (27) relate to double-hulls, of which no less than 21 were built after 2000. It emerges that the principal concern of buyers is to obtain modern units or "resales" in cases of transactions completed with a period time charter. The latter were done mainly at the beginning of the year. We can give as an example the sale en bloc of the m/t **Rudolf Schulte** and **Everhard Schulte**, 74,999 dwt built in 2004,

for a price of \$62.5 million each. The most important en bloc transaction took place in March 2006 by IMC, when they sold 8 tankers under construction with Dalian and deliverable between 2007 and 2008 for a combined price of \$450 million.

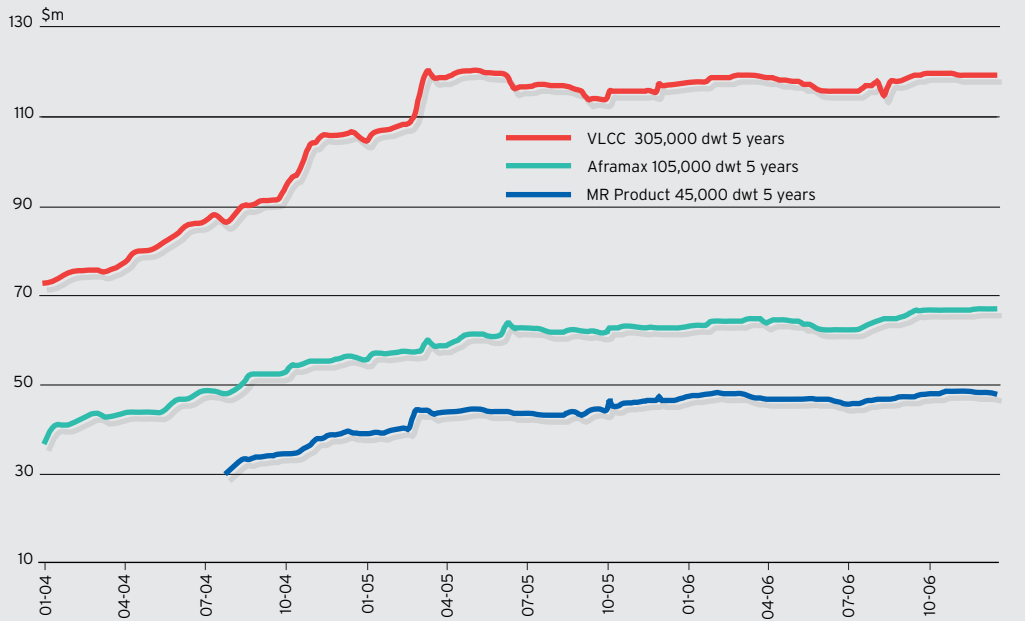
Just as was the case last year the operating fleet increased substantially this year since, on one hand only 5 tankers of over 60,000 dwt and less than 32.3 m width were demolished (against 15, 13, and 15 again for the three previous years) and on the other hand, 42 tankers joined the fleet. The order book at the end of 2006 comes to 134 tankers of which 46 are for delivery in the course of 2007.

The second-hand market of OBO ships

Supported both by the dry bulk and liquid bulk markets, these ships have again drawn the attention of some owners since no less than 23 sales were achieved in 2006, compared to only 16 in the previous year. Nine ships sold were built between 1981 and 1989, whilst the remaining 14 units are situated in the narrow period of 1991 and 1993.

Amongst ships built in the 80's, we saw the biggest deadweight ship in this category, the OBO **Nobel**

TANKER SECOND-HAND PRICES



Snapper, of 135,160 dwt built in 1982, sold for a price in the order of \$14.0 million to Venezuelan buyers for conversion. Elsewhere combined ships were the object of three major en bloc transactions, - which included the sale of six ships of 50,000 dwt built between 1988 and 1989 for a total price of \$125.0 million, as well as the sale by Genmar of nine sister ships of 100,000 dwt built by Hyundai between 1991 and 1992, for a price of \$28 million each to Singaporean buyers. The seller was thus able to find a level close to his purchase in 2001, which came to around \$30 million each at the time. The third significant sale in this category happened at the end of the year when B+H released on subjects the OBO **Sibotura** (75,000 dwt built 1992), **Sibonina** (83,155 dwt, 1993) and **Siboelf** (1993) for around \$110.0 million. The same owners had already bought earlier in the year the **Sibohelle** (82,800 dwt built in 1993) for around \$36.4 million, as well as the **Sibotessa** (75,000 dwt built in 1992) for \$30.4 million.

This year saw 4 combined ships go to scrap, against one in 2005, 4 in 2004 and 5 in 2003. For the record the last OBOs that entered the fleet were two ships of 120,000 dwt delivered in 2003 to Norwegian owners. One suspects that this market is not

as confined as generally thought, and probably merits more attention.

TOMORROW'S MARKET

The strength of the orderbook of shipyards leads one to think that there will not be a substantial drop in the price of newbuildings. The volume of the existing fleet, together with the volume on order, should however bring about a decline in the prices of second-hand ships in the short term, although we doubt that it will be drastic or sudden.

The resistance to lower values of their assets by owners has always been stronger than the flexibility they show with rising values. Owners have accepted and understood the volatility of the freight market and no longer fear to be a player or spectator of a disconnection between declining freight returns on one hand and stable, robust ones on the other hand. The operating of ships these last years has generated a treasure chest for owners and a considerable liquidity reserve. Finally, China but also other Asian countries are proof of economic growth which will benefit the activity of this sector. All these reasons lead us to believe that even if the supply of tonnage becomes too important for the demand, it is highly unlikely

that, if a drop takes place, it will be sharp, sudden, and sustained, in particular for the more modern ships.

The "two-tiered market" evoked earlier will help absorb the shock of any eventual decline in demand, and it is probable that owners will bend over backwards to maintain the value of any double-hull ship. The trend towards a weakening of single-hull values has already started and should accelerate. The potential of ships susceptible of being scrapped, "without regrets" on the part of their owners, is considerable since very few ships have been demolished these past four years. This will help to absorb the surplus tonnage to be delivered. Finally, many of the owners have a foot in the dry bulk and the other in the liquid bulk and if rates for dry bulk are maintained or increase in the course of 2007, owners will benefit from a new flow of liquidity which should encourage them not to sell their tankers at rock bottom prices.

A brief journey back in time allows us to remember that the most important fall in prices took place between January 2001 and September 2002. At this time the price of a 5 years old VLCC had collapsed from \$70 million to about \$53 million in 21 months, equivalent to a drop of around 1.2% per month. The value of a 5 year old VLCC in September 2002 was equivalent to 75.5% of the value it had in January 2001. The orderbook for VLCCs in January 2001 (92 ships) represented 21 % of ships on the water (440 units). In January 2007, the price of a 5 year old VLCC is around \$118 million, and the orderbook (172 ships) represents 36 % of the existing fleet (502 ships). These figures could lead one to fear, at first sight, of a potentially severe and persisting drop in values. However in reality we do not subscribe to such a scenario, as another essential parameter needs to be taken into account: the long, extended delivery period. This

parameter, also applicable to Suezmaxes and Aframaxes, will significantly reduce the pressure of the new arrivals into the fleet.

So much for the short term. We will not stick our necks out further and try to predict beyond, but perhaps this is an opportunity to highlight a strong but growing sentiment, which, while still relatively unformulated at the moment, nonetheless is becoming more and more pronounced each year.

This sentiment is that it will become necessary, if not imperative, for owners to become "environmentally friendly" in operating ships, in their general attitude to shareholders and within their profession, and even more fundamentally in their overall approach concerning services rendered. First of all in terms of an owner in respect of his clients and, over the longer term, but also being concerned about the image of responsibility, of himself and his company, that the owner would like to project, not only to his own countrymen but throughout the world. Too early for such thinking! Far more problems than advantages for the moment! We shall see...

Possibly, but there are already clear signs today of some people taking a

pro-active stand on this theme. Indeed Shell has been able to obtain a "Green Passport" with Lloyd's Register for its fleet of 25 LNG carriers, and doubtless is thinking about obtaining these for the tanker fleet that it operates. In simple terms, this passport (not obligatory at this stage) consists of drawing up a list, identifying, and analysing waste considered dangerous, either for people or for the environment, existing on board a ship, in order to ensure a control and eventual disposal in conformity with international regulations in place. Elsewhere, some Italian owners have already ordered new units to be in conformity with the "Green Passport Statement of Compliance" (which conforms to the guidelines of the IMO recommendations). All of these steps lead one to believe that it is not improbable that such a conformity will be part of the standard "vetting" criteria for oil companies before long, under the growing influence of ecological constraints. The forerunners in this field will congratulate themselves.

In a similar vein of thinking, some will find it beneficial to follow the recommendations of the World Bank recently made at the IMO and supported by Mr. Stavros Dimas,

(the European Commissioner for the Environment). Transport in all forms represents 14 % of greenhouse gas emissions in the world (20 % in Europe). By comparison, the production of energy represents 60 % and industry 10 %. Out of the 14 % attributed to transport, less than 2 % comes from shipping and rail transport combined, which goes to show that not only is shipping the most economical form of transport per ton but also the most ecological. Nonetheless, smart owners can start taking an interest in the European mechanism of trading emission rights of CO₂ (with CO₂ causing 80 % of the greenhouse gas effect); the Emission Trading Scheme (ETS) came into force in January 2005 for two years. Phase 1 mainly concerns the production of electricity and phase 2 will include aviation transport starting in 2008. So when is shipping's turn? "The sooner the better!" according to Mr Dimas. Some free advice to owners!

Again, it seems reasonable to think that the forerunners in this field will be able to congratulate themselves. ■

The transport of refined oil products

"Cave ne cadas!"

FOR THE FOURTH CONSECUTIVE YEAR, OWNERS OF PRODUCT TANKERS WILL POST MORE THAN SATISFACTORY RESULTS since the average daily returns, both on the spot market, and in period business for all size of ves-

sels have remained at very high levels. Contrary to our expectations, the market has been able to absorb the numerous delivery of new ships.

Owners of Handysize and Medium Range ships have managed to contain the declining returns on the spot market to 3-5 %, and have improved rates paid on period fixtu-

res from 1 to 3 years by 5-8 %. As for Long Range owners, the decline of 10-15 % on daily rates has not affected the periods which have achieved levels comparable to 2005.

In contrast to the three previous years, the high growth levels within the Far East, and in particular China, have not been sufficient to compensate for the



Castillo de Trujillo
30,582 dwt, double hull, IMO III, built in 2004 by the Russian shipyard Khersonskiy, owned by Elcano

drop in average daily rates which was close to 20 % on the reference voyage route (55,000t naphtha Persian Gulf/Japan). Ships employed in the Atlantic zone have seen a decline of nearly 10 % in their daily returns, despite the sudden and unexpected increases this summer caused by political events (the Lebanese and Iraqi crises) or material ones (problems with the Prudhoe Bay pipeline).

Rates declined slowly from January to May 2006 with the market always staying above \$17,000/day in the Atlantic zone, whilst dipping down to nearly \$13,000/day East of Suez.

The strong recovery in the summer was not enough to see a return to the highs of 2005 and was followed by a severe drop which lasted until the beginning of November, to attain \$17,000/day for LRIs East of Suez and \$15,000/day for MRs on Continent/Transatlantic voyages. This extended decline explains why the yearly averages were below those of 2005, since the improvement which followed in the last six weeks of the year was limited.

Like last year, rates paid for period business slowly came in line with spot returns. The market was particularly active, over 200 ships with tonnage over 30,000 dwt were fixed for minimum 12 month periods

(+30 % compared to 2005 and 2004). Over a hundred ships were chartered by oil companies who generally preferred 2-3 year periods. Time charters at fixed rates was considerably more frequent compared to "profit sharing" or "market related" formulae, which underlines a certain nervousness of charterers concerning the medium term future of product tanker markets.

Although a good half of MRs to be delivered in 2007 have already been chartered out on periods, and many are speculating on the repercussions that the new IMO rules will have on the vegoil market, it is disconcerting to think that more than 630 product tankers (of which 320 MRs) will be joining the fleet, which counts 320 tankers over 20 years old today.

THE EVOLUTION OF PRODUCT TANKER FREIGHT RATES IN 2006: A GOOD YEAR DESPITE A GENERAL DROP IN LEVELS.

The Handysize ships from 30,000 to 39,999 dwt

The average daily returns work out to about \$23,500-24,000/day, a drop of about 10 % compared to last year, with less variation. The share of the fleet carrying dirty products (fuel oil)

has declined, and, after the short-lived summer hike, the market took its time to recover. In December freight levels were nearly 25 % below those achieved at the end of 2005.

Time charter business remained active with sixty ships chartered for 12 month periods and the rates improved by close to 5 % compared to last year. Charterers willingly paid \$21,000-22,000/day for 3 year periods, and \$22,000-25,000/day for 12 month periods. The relative stability of the fleet (116 ships on order for 95 ships over 25 years old) and the existence of pools (Handy Tankers, Norient) should allow rates to be maintained in 2007 as long as the level of activity remains steady.

The Medium Range ships from 40,000 to 53,999 dwt

The average daily returns on these vessels was around \$23,000-24,000/day, a drop of some 10 % over last year, but contrary to the preceding year, ships operating East of Suez were not as well off as those operating in the Atlantic zone. Average daily returns for ships operating East of Suez came out to around \$21,000-22,000/day whilst average returns for 37,000 t unlead-ed on a Continent/Transatlantic voyage swung between \$15,500/day in November and \$31,000/day in August, with the yearly average being \$23,500/day.

A smaller part of the fleet was employed in dirty products or crude oil where average returns scarcely surpassed those for clean products.

East of Suez, the market was far less volatile compared to the two previous years, but opportunities to optimise voyages were plentiful thanks to Indian and Korean exports. In a less favourable context for owners, numerous periods were fixed with over 80 ships in this size being chartered for over 12 months, half being for 3 to 7 years.

Oil companies, including Majors, were active in this market, ensuring half of the charters, and traders such as ST Shipping, Morgan Stanley, Projector and Vitol taking the other half.

At the end of the year, the time-charter value of a modern MR (less than 5 years) was comparable to levels of the previous year: \$25,000-26,000/day for 1 year, \$23,000-23,500/day for 2 years, \$22,000-22,500/day for 3 years, \$20,000-21,000/day for 5 years, on condition of delivery before the first quarter 2007.

On the other hand, the ice premium was reduced to scarcely \$1,000/day, with a charterer even fixing a "1a" class vessel at a rate of \$25,000/day for 12 months.

The Long Range ships from 54,000 to 90,000 dwt

Despite strong demand for light distillate (naphtha) into China, India, Japan, and Korea and the increase in exports of middle distillate (gas oil) into Europe, LR1s and LR2s saw their average daily returns drop by nearly 15 % compared to 2005.

LR1s obtained an average of around \$28,000/day whereas LR2s did not go over \$35,500/day.

The volatility in the market was relatively low and, as with the smaller size ships, the "bull market" which emerged in July and August pushing levels to their highs, deflated in October and November and the market only resumed its normal seasonal pattern towards mid-December.

The transatlantic market for refined products did not offer a valid alternative to LR1s and LR2s, since the risk linked to trading large-size cargoes was often considered too great compared to the voyage returns. Nonetheless, the average daily returns obtained on crude and fuel oil cargoes were 10-15 % better than those for clean pro-

ducts (\$40,000/day for Aframax, \$35,000/day for Panamax).

Some thirty periods for a minimum of 12 months were fixed for LR1s and around ten for LR2s. Most of these charters were concluded in the first 8 months of the year. Charterers slowly became more circumspect in their analysis of the forward market. Notwithstanding, the yearly average for LR1s of under 5 years works out to \$28,000-29,000/day for 1 year, \$25,000-26,500/day for 3 years, \$24,000-25,000/day for 5 years (on condition, once again, that delivery is by the first quarter 2007), whilst LR2s obtained up to \$29,000/day for 3 years, and \$27,000/day for 5 years.

One should observe that for all sizes of product tankers, the rate levels obtained on short term periods of 12-24 months are nowadays in line with daily returns on spot voyages. This situation leads one to think that the "bears" will start to take the place of the "bulls".

DELIVERIES OF NEW SHIPS

In 2007, deliveries of new ships should reach:

- ◆ ships from 25,000 to 35,000 dwt: 12 ships totalling 375,000 dwt,
 - ◆ ships from 35,000 to 40,000 dwt: 47 ships totalling 1,765,500 dwt,
 - ◆ ships from 40,000 to 54,000 dwt: 128 ships totalling 6,047,000 dwt,
 - ◆ ships from 54,000 to 90,000 dwt: 48 ships totalling 3,490,000 dwt,
- to which should be added 10 Aframax totalling 1,086,000 dwt.

To sum up, taken both globally and separated into categories, the product tanker fleet is young and sufficiently endowed to satisfy demand. Estimated arrivals into the fleet over the next three years should exceed forecasted requirements, given the foreseeable increase in

demand for product tankers. In the light of these conditions, a reduction in freight rates is predictable, especially considering that owners have benefited from unexpected external events in 2005 and 2006.

However the situation is variable depending on the size category of the fleet.

For Handysizes, some 630 ships are in service and 116 on order, compared to 96 units over 25 years old. The fleet has stabilized in volume around 20 million tons deadweight. A considerable part of the fleet is in the hands of pools. All in all, we expect a balanced situation which should only be threatened by competition from the Medium Range ships.

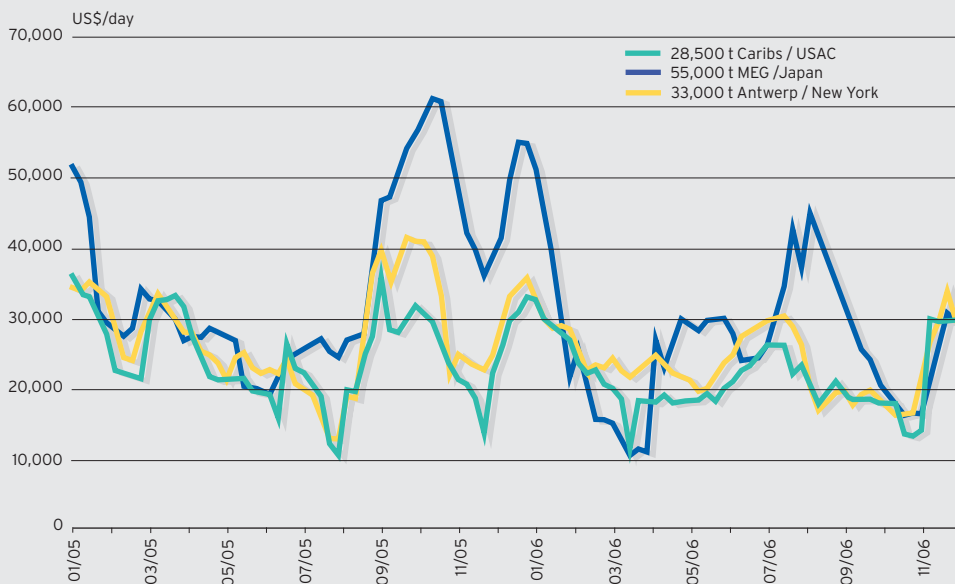
In the MR category, the fleet comprises some 730 ships with an average age of 8.8 years. More than 300 ships are due to be delivered in the next 3 years. A significant part of the fleet is in the hands of traders (notably ST Shipping), who are capable of reducing their positions by a good third in the space of six months. Conditions are ripe for a substantial correction in short term rates and only the extent of the correction and how long it will last is in doubt.

For the LR1s, there are some 330 ships in the fleet with an average age of 11.4 years. This fleet consists of 3/5ths of coated ships (product tankers), but half of the fleet is engaged in crude or fuel oil movements. 132 ships (nearly all coated) are under construction. Pools and traders control a significant part of the fleet operating both in crude and products. A drop in rates is probable, but could be tempered by the disappearance of the oldest ships in the fleet, as well as by the versatility of these ships.

Finally in the LR2 category, 105 ships are in service and 63 on order.

PRODUCT TANKER FREIGHT RATES

Average earnings



Fifty percent of these ships are transporting either crude or fuel oil. The pool "LR2" controls over 20 % of the existing fleet. These ships depend on the state of the Aframax market on one hand, and on the activity in the Far East on the other hand. The drop in daily rates has already begun and looks like it is set to continue, as the 63 ships already on order exceed known requirements. A large part of these ships operate in crude or fuel oil and will be directly in competition with non-coated Aframaxes, who themselves are in surplus compared to market demand.

Overall, the tonnage supply situation does not lend itself to optimism at least for the next 2 to 3 years. However one should not be too pessimistic as on one hand the correction will be from historically high levels, on the other some owners have the means of applying the brakes on too sharp a decline, and finally the commissioning of new refinery capacities will provide some relief by 2009/2010.

TRANSPORT DEMAND

The increase in transport needs, linked to the economic expansion in the Far East, notably China and India, has largely helped to support

the product transport market over the last 4 years. The relative slowing down of growth in this zone will inevitably have an effect on tonnage demand in the next 2 to 3 years.

Nonetheless, China's gasoline consumption will be about 52 million tons p.a. in 2007, and should reach the 65 million ton p.a. mark in 2010. At the same time, China plans to put into service modern refineries with a capacity of 90 million tons p.a. (also in this period de-commissioning some 20 million tons p.a. of obsolete refining capacity).

This perspective gives hope in the medium term to the majority of product tanker owners, generally resigned to face thin pickings over the next few years.

The situation is more disconcerting in the Atlantic zone where an increase in traffic is limited by the virtual impossibility to build new refining capacity, due to strong environmental opposition. Nonetheless, strong demand for gasoline and jet fuel in the US and for gas oil in Europe should help in lengthening voyages and increasing cargo sizes.

Demand generated by the application of the IMO regulations for transporting vegoils will not be sufficient in itself to absorb the surplus tonnage. Given the transformation

of some forty existing ships by the end of 2007, the demand for new IMO3 ships will probably be limited to around a further forty ships.

The effect of the OPEX increases

The need for security has a cost: the need for crew, particularly trained and experienced officers, has brought about a substantial increase in the running costs of tankers (40 % to 50 % for crew costs). At the same time, cost of lubricants has gone up by over 100 %. Whilst the majority of owners (particularly the KGs) took into account an increase in these OPEX (Operating Expenses) at a rate of 2-3 % per annum, the actual cost increases in 2006 have been between 15-20%. Given the competition, notably from LNG owners who desperately need qualified crew, this upward tendency is likely to continue over the coming years.

The effect of these increases is made worse, for owners, by the weakness of the US dollar. Owners will be even less inclined to accept a lowering in freight rates over a long period, given their net revenues are being squeezed by these increases.

CONCLUSION

The product tanker fleet is going to face a turbulent period in 2007. It is highly likely that starting from this year and at least until 2009, rates will drop and owners' returns will fade.

However the decline in the market could be tempered by the capacity of owners to resist (linked to their good financial standing) and to the anticipation of a revival with the dawn of 2010. ■

The product tankers second-hand market

THE YEAR 2006 CAN BE SUMMARISED AS FOLLOWS: a standard 35,000 dwt double-hull tanker was worth around \$21m in January and its price has risen to reach \$31m by the end of the year. For similar units of only 5 years old, the value has gone from \$40m to \$44m.

A standard 45,000 dwt 5 year old double hull tanker was worth \$45.5m at the end of December 2005, its price then went up to \$46m in June, to finish the year at around \$47.5m

Some significant transactions must be reported :

◆ In January a couple of MR tankers under construction at STX for delivery 2006 were sold by their Italian owners to German buyers at around \$53.5m apiece.

◆ Bergesen Worldwide came back in the product tanker market through the acquisition in February of eight 76,000 dwt coated newbuilding vessels under construction at Dalian for delivery between 2006 and 2008, at a reported en-bloc price of \$449m.

◆ In March and April, Omega navigation has been under the spotlights with its successful IPO in New York, after having obtained a buying option on 6 ships: two Handies under construction at Hyundai with 2006 delivery dates for around \$50m apiece, and 4 x LR1 built in 2003 and 2004 paid in excess of \$60m each.

◆ In May the sale of the 37,000 dwt, **Southern Unity**, built in 2004 by Shina and for a delivery to its new owner in June 2007, has been reported done at a value in the region of

\$41m, and the sale of the 29,999 dwt **Alexandros**, built in Japan in 1987, for \$10.25m.

◆ In July the **Seavinha**, around 40,000 dwt, built in 1987 by Hyundai, has found a buyer for \$17/17.5m, while in August the **Maersk Regent** and **Maersk Richmond**, 35,000 dwt, built at Dalian in 2003, were sold to a German KG for \$80m en-bloc with a 5 year time-charter back to the sellers at around \$17,250/day.

◆ In September the en-bloc sale of the two 40,000 dwt **Crux** and **Libra**, built in Japan respectively in 1987 and 1988, has been reported to the

Indian owner Pratibha Shipping at around \$33/35m.

◆ In October the sale of the 37,000 dwt **Ngol Queve**, built in 2003 by Shina, to Ancora for around \$44.5m was reported, while in November the sale of the two 37,000 dwt **Baltic Ambassador** and **Baltic Action**, built at Hyundai Mipo in 2005, was done to a German buyer for a reported price of \$48,5m apiece.

◆ Finally in December the 37,000 dwt **Jaladoot**, built in 1984 by Hashihama, was sold to the Indian owner Varun by its Greek owner for a reported price of \$10m. ■



Tosca
46,764 dwt, double hull, IMO II, built in 2004 by the Croatian shipyard Trogir, owned by Laurin Maritime



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The offshore and specialised ships markets in 2006

ONE OF THE CONSEQUENCES OF THE WORLD'S STABLE GROWTH SINCE 2003 IS A STEADY INCREASE IN OIL AND GAS DEMAND IN ALL AREAS. THIS RISE IN DEMAND HAS BEEN ACCOMPANIED BY A CONTINUOUS INCREASE IN CRUDE OIL PRICES. A dip in market rates in the second half of 2006 however shows a slowdown, probably temporary, in demand growth.

This rise in demand has highlighted the inadequate production and refining capacities, which has on one hand contributed to oil prices remaining high (Brent crude oil in excess of \$35/bbl since 2004) and on the other hand economically justifies developing the most difficult offshore oil fields.

In the offshore sector, this limited production capacity is reflected by a lack of availability in every segment of activity: seismic, drilling, installation and field development, support and maintenance vessels.

To respond to these needs, operators have launched investment programmes as from the end of 2004 which are

beginning to bear fruit in 2006 and which should have an even more marked impact in 2007/2008.

OFFSHORE SUPPORT VESSELS - PLATFORM SUPPLY VESSEL (PSV) AND ANCHOR HANDLING TUG SUPPLY (AHTS)

Activity of PSV and AHTS owners remained very healthy in 2006. Sustained by demand linked to construction and production work, owners were able to charter their vessels at record levels due to lack of availability (record rate in the North Sea: \$275,000/day on the spot market for the AHTS **Maersk Advancer** of 23,480 bhp), with committed newbuilding programmes not yet being sufficient to fulfill the needs of contractors and oil companies.

A direct result of the high utilisation rates and high freight rates is straight-away found in the publication of annual reports, which show the very good results for offshore owners and also in the orderbooks of shipyards which, despite the late delivery dates, continue to take in orders.



Englishman
Motor Tug, 9,000 bhp, built in 1975, towing **Bibby Challenge**

The most active shipyards involved in offshore work are mainly in Norway, Spain, China, and Singapore. India confirms its role as a serious challenger both in terms of construction with the shipyards ABG, Bharati and Cochin Shipyard, and in terms of shipowning with Great Offshore.

Programmes begun in 2004 were mainly concentrated initially in deep-sea offshore which require

more modern, sophisticated, and powerful vessels.

Units which have been “downgraded” by the first deliveries of recent ships and remained in offshore service, have been reallocated to other less demanding areas of activity thus renewing the fleet in all sectors.

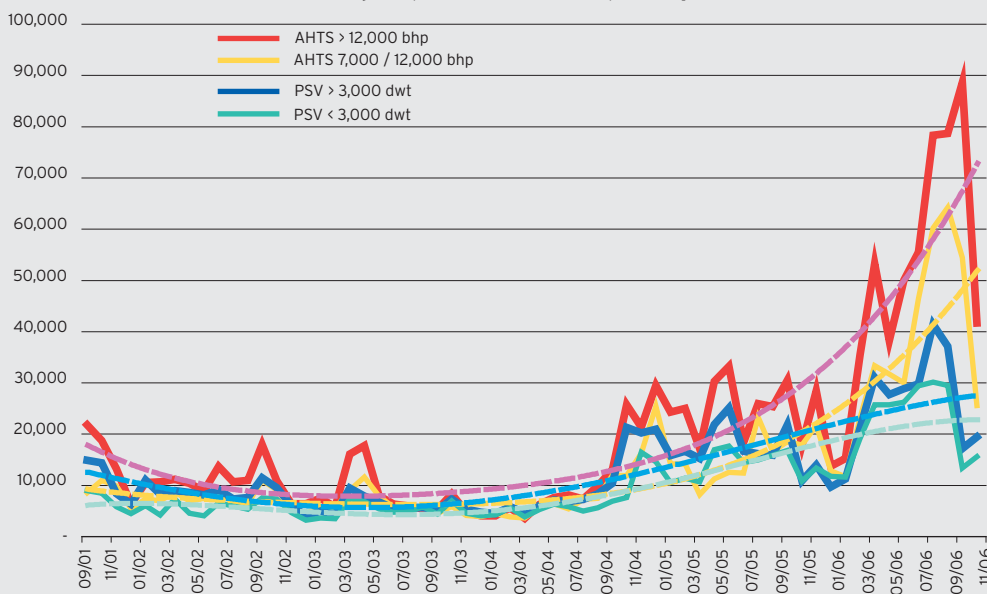
However some owners, like Swire Pacific (Singapore), Tidewater (US), or Bourbon (France) have decided

in 2006 to launch programmes specifically dedicated to renewing or completing their traditional offshore fleet. Others are opting for an external growth to allow them to offer vessels to charterers on a prompter basis. This new orientation is partly in line with the objectives of contractors and oil companies who are looking to promote safety and thus have more modern ships at their disposal. These programmes are different from the very sophisticated ships in that they suffer intense scrutiny on building costs, which translates into selecting simple designs for building numerous ships to the same standards, in shipyards offering cheaper prices than in Western Europe.

These programmes contribute to a near saturation of shipyards throughout the world, but in addition and above all since the beginning of 2006, to suppliers of machinery and equipment also unable to offer prompt delivery dates. For instance, it takes more than 24 months to supply main engines over 2,000 kW and more than 36 months for a low-pressure hydraulic winch of high performance (over 350 t brake power).

NORTH SEA SUPPLY VESSEL MARKET

Average reported rates in £ per day



This saturation causes some owners reluctant to contract with late delivery dates (in certain cases not before early 2010) to delay decisions.

Platform Supply Vessel (PSV)

The PSV fleet of less than 3,000 dwt, and particularly for those under 1,500 dwt, has remained relatively old, despite numerous recent deliveries (half of this part of the fleet is over 20 years on average). Tonnage coming into the fleet has barely filled the place of those leaving it, and newbuilding orders are continuing to be registered by shipyards. In this sector, Rolls Royce has even celebrated its hundredth PSV with the UT755 design (3,000 dwt).

At the same time owners' interest for big PSVs over 3,000 dwt has been reinforced and 2006 has seen the order of nearly 100 ships in this category whilst the average age of the fleet is only about 5 years old. This tendency shows that the deep-sea offshore market is where the major interest lies within the PSV range.

Anchor Handling Tug Supply (AHTS)

Since the revival of orders in 2005, all categories of the AHTS fleet have been registering regular deliveries and numerous new units.

Despite a rejuvenated fleet of ships with a bollard pull of less than 150 t, orders have been sustained at a steady pace.

2006 was noteworthy for the strong development of the upper end of the fleet (AHTS with a bollard pull over 200 t). Important investments have been confirmed at the end of 2006 for AHTS with a bollard pull over 240 t, although shipyards are unable to give prompt delivery:

Siem - Design VS 491 CD - (6 + 6) - 300 t bp - delivery 2009-2010

Farstad - Design UT 731 CD - (4) - 230 t bp - delivery 2009-2010

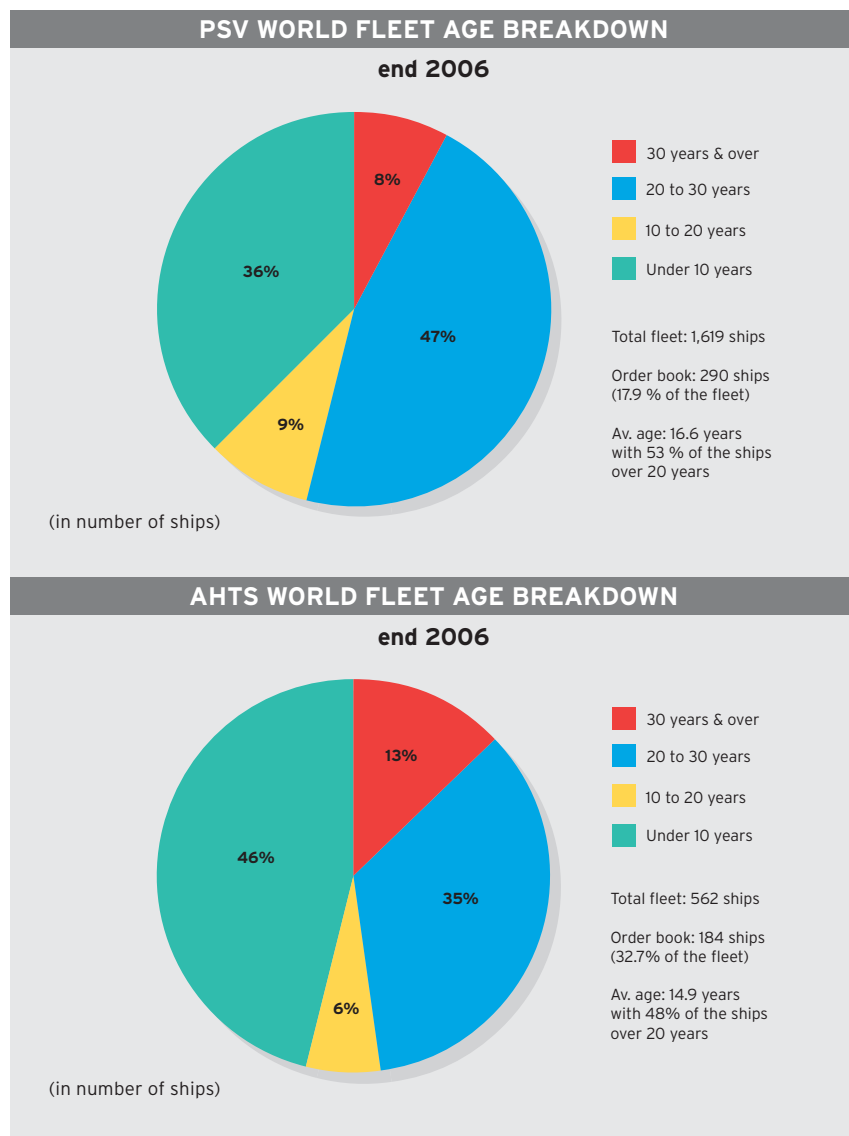
Havila - Design Havyard 845 - (2) - 275 t bp - delivery 2009

Solstad - Design VS - (2) - 300 t bp - delivery 2009

The high acquisition costs of the biggest ships and their size have pushed owners and designers to conceive very powerful multipurpose ships possessing genuine construction and installation capa-

cities. The versatility of these ships carry an added value in a market where construction and installation units are also very much in demand.

Investments in favour of the PSV and AHTS fleet are therefore carrying on, as the sums spent on shipbuilding by Bourbon show, announcing a 1.23 billion euro budget up until 2010. Tidewater are pursuing their programme of renewal and growth, and have already accounted for 131 ships coming into the fleet since 2000 and they are continuing in this vein up until 2008.



DREDGING

The world dredging and land reclamation market has continued to grow strongly, carried by expansion projects and port infrastructure construction as well as oil and gas terminals, together with the construction of artificial islands in the Arab-Persian Gulf, and despite the absence of any big projects in the Singapore region.

2006 was also marked by the launching of several emblematic projects such as the widening of the Panama Canal.

The four main private companies involved in dredging and reclamation have continued to order new dredgers. They do not hide their ambition to renew and even to expand their fleet. A record was established by the Belgian company Jan De Nul, who ordered a dredger of 46,000 cbm (which is close to the size of an Aframax) from the Sestao Bilbao shipyard in Spain.

A true competition for efficiency is under way. It is evidenced by the increase in the size of dredgers, in order to accomplish the first working phase, which implies the displacement of enormous quantities of material. However in the shipbuilding market, these projects often find themselves competing with more traditional projects less difficult to handle for the yards. Some companies have developed their internal engineering upfront thus attracting shipyard interest and enabling them to build such dredgers at acceptable costs and delays.

TOWAGE

Maritime services and port authorities are also experiencing strong pressure to meet the challenges linked to the development of these infrastructures.

In order to be able to respond to clients spread all over the world, tug boat companies are trying to speed up their international coverage by setting themselves up in new zones or merging with smaller players like Switzer Wijmuller and Adsteam did in the course of the second half of 2006.

The development of port services to accommodate big ships is being accompanied by a considerable increase in the bollard pull of tugs, which at the same time are being built in a more and more compact format. Damen are proposing tugs of 24 m in length and with a bollard pull of 68 t (Damen ASD TUG 2411).

This is also the case of terminal tugs, which can achieve a bollard pull of nearly 100 t.

The concept of "terminal tugs" is quickly gaining ground. Recent tenders for terminals, in particular for LNG, require the availability of this type of tugs often classified as "escort tug", which by their power and diversified equipment come close to being offshore ships, whilst at the same time remaining compact enough to work in harbours and narrow areas.

Amongst the most active owners in the area are Lamnalco, Smit, Switzer Wijmuller, Bourbon/Les Abeilles and Boluda who have all participated in one way or another in the tenders for the ports of Ras Laffan (Qatar), Milford Haven (GB), Yemen LNG (Yemen), and Costa Azul (Mexico).

CONSTRUCTION INSTALLATION

The exponential increase in the number of projects for developing offshore fields has continued to trigger a demand in the short and medium term for construction and installation ships, diving vessels and other specialised units.

This lack of means and capacities is obvious, both to offshore contractors implicated in construction programmes and for oil companies who have to ensure the upkeep and maintenance programmes for their oil fields.

Contractors have for a large part got around their need for construction and diving tonnage through mid-term or long term charters from the owners, mainly Norwegian. The latter have perfectly well foreseen this situation by ordering speculatively multi-purpose vessels built for being able to combine construction, ROV works and diving support.

These vessels reach impressive sizes, such as the three ships which DOFCON (from the group DOF ASA) has ordered from the Aker group in March 2006: length 155 m, width 27 m, engine power 21 MW, DP III, accommodation for 145 people. The first two vessels are already under contract with Technip in DSV/construction mode, and the other with Aker in construction mode.

Some contractors such as Subsea 7, Helix Energy, Superior Offshore or Island Offshore/FMC have ordered vessels directly from the shipyards.

This strong demand in the medium term has also given rise to conversion projects, in particular with cable layers, ships which are easy to convert.

2006 saw a sustained activity of support vessels and diving ships, in particular in the North Sea and the Gulf of Mexico. This demand pushed owners to order plenty of ships giving preference to multi-purpose ones, even if it meant increasing the size of some DSVs beyond 120 m, such as the orders with the IHC Merwede shipyard.

In this respect specialised shipyards or those interested in building such ships are unable for the most part to offer any delivery before 2010.



Bourbon Rhode
Anchor Handling Tug, 100 t bollard pull, delivered in 2006 by Keppel Singmarine in Singapore, owned by Bourbon

Owners of very specialised ships such as those capable of laying risers and pipelines or vessels specialised in well intervention have also benefited from the dynamics in this sector.

Installation and construction of oil fields will enjoy in the short term (2007/2008) a particularly sustained activity in all geographical areas and at all water depths.

Nonetheless the number of construction and installation ships on speculative order and which will become available as from 2008, as well as new contractors entering into the market should cause certain players in this sector to be circumspect and to put back their investments programmes.

SEISMIC

The sector continues to consolidate and expand. In the spring of 2006, Schlumberger increased its shareholding in Western Geco and took control of the Danish Odegaard, whilst in the autumn, a year after the purchase of the Norwegian company Geo Explo, Compagnie Générale de Géophysique (CGG) completed its participation in Veritas DG, thus becoming the largest seismic fleet in the world. These entities have now reached an international dimension

and benefit from better financing capabilities. Finally, two other companies have become full time players in the market, Fugro and Wavefield Inseis, whilst the Chinese company BGP has made its entry into the offshore seismic market.

Seismic operators have essentially taken on long term charter new ships or converted ships proposed by Norwegian owners, who have taken an interest in these highly specialised units.

Like the construction and installation sector, cable-laying ships as well as ro-ros have become the candidates of choice for fast conversions.

The oil companies, facing the challenge of renewing their reserves and maintaining the production capacities of fields already in operation, will need to continue to call largely on the expertise of geophysical companies to identify where they need to work and invest, which will have a beneficial effect on this whole sector in 2007.

DRILLING

Following on from 2005, which finished with a sustained growth in demand, 2006 saw the average utilization rate for offshore drilling units of over 90 % this year.

Charter rates for floating, semi-submersibles and highly technical ships are frequently quoted at levels close to half a million dollars per day for long term contracts.

During the course of 2006, 55 drilling units were ordered (18 semi-submersibles, 10 drill ships, and 27 jack-ups). The total number of jack-up rigs on order has thus reached a historic level of 93 units, corresponding to 27 % of the existing fleet.

At the same time more than a dozen units have been or are in the process of being renovated and transformed although they were considered ready for scrapping only three years ago.

Singapore shipyards have captured two-thirds of the orders for new units and the majority of the upgrades and conversions, whilst all the drilling ships have been ordered with Korean yards.

The last available slots for delivery in 2010 should be taken up rapidly.

Abundant financial resources, a persistent high-level know-how, and a good general appreciation of risk have made Norway the main participant in the boom of newbuildings of drilling platforms since 2004. 2006 also saw its role more clearly defined as to the consolidation of



Bourbon Hermes
Platform Supply Vessel, 3 230 dwt,
built in 2005 by the Chinese shipyard
Zhejiang and owned by Bourbon

CONCLUSION

Since the revival in 2004, the magnitude of investments in all sectors of the offshore services market initiated by the owners, the contractors, but also the investors, has overloaded the orderbooks resulting in a near saturation of capacities in the main construction, manufacturing, and assembling yards.

Whilst the short term prospects remain good, the number of deliveries programmed up until 2010 could create a surplus capacity of ships on the market, which could well produce a lowering of freight rates during the next two years. The extent and duration of this phenomenon will depend finally on the continuity of exploration and production programmes of the oil companies, as well as the capacity of contractors and owners to lay-up and scrap their oldest units.

All the segments of the market will probably not be affected simultaneously, which will limit the overcapacities to some sectors.

In the long term, the multiplication of new offshore operators and contractors will certainly allow those with solid financial structures to buy the assets of smaller or weaker companies. 2007 should be a year in which we will see the first consequences in the move towards consolidation, particularly in the drilling and production sector. ■

the sector in particular with Seadrill as a lead player.

This trend should become more pronounced and concerns also some of the new players such as Tanker Pacific Offshore (Singapore) who have acquired two drill ships initially ordered by Mosvold with Samsung Heavy Industries.

Finally the contracts put out by Petrobras in 2006 will allow Brazilian operators access into the deep sea drilling market whilst Chinese operators are also setting their sights on increasing their drilling capacities in these water depths.

PRODUCTION

Oil Majors, the independent oil companies, and the national oil companies are still increasing their investment budgets. Oil and gas prices call for the shortest possible time to bring production into service which results in using floating production systems such as EPS and FPSO. There are more than 110 such systems in operation, but also some 49

units being built which will be brought into service by 2010.

The expansion of the market has considerably benefited the main contractors but has also allowed the entry of new players such as Aker Production in the field of mid-size FPSOs (Suezmax).

Specialised shipyards in the construction and integration of production systems, such as those in Singapore, have rapidly filled up their orderbooks, not only with drilling rigs but also with production systems.

The main yards in South Korea and Singapore have acquired the status of "Main Contractor" with oil companies. Their direct access to EPCI contracts for production systems, as much as the increase in construction costs in this area, has confirmed the expansion strategy for production capacity in China. At the same time the Chinese shipyards conscious of the forthcoming overcapacity in the shipbuilding market, are beginning to declare their ambitions to build new offshore units with higher added value.

The chemical carrier market in 2006

2006 WILL REMAIN A YEAR WHICH PARTICIPANTS INVOLVED IN CHEMICAL CARRIERS AND OTHER SPECIALITY PRODUCTS WILL REMEMBER AS BEING ONE WITHOUT ANY SIGNIFICANT CHANGES IN EITHER TRAFFIC OR RATES. In fact, overall, freight rates were slightly lower, and took a few knocks during the year, but were on average at satisfactory levels. It should be appreciated that freight rates continued to be beneficial to owners at levels higher than the market had known before 2003, even when taking into account the considerable increase in bunker costs.

By and large, owners seem to be relatively optimistic, at least in the short term, and have good grounds for thinking like this. In 2006, time-charter rates stayed at high levels and often above the time-charter-equivalent rates for spot business. The increase in contracted tonnage could justify these rates, with owners calculating their average costs on existing ships in their fleet, or anticipating even better times ahead. It is worth noting however, that stainless steel ships remain relatively scarce in view of a sustained

demand. As an example, modern stainless steel ships of 19,500 dwt have achieved an average of \$1/dwt for a 1 year time-charter.

In addition, the new IMO regulations, which apply as from January 1st 2007, will decrease the number of carriers capable of transporting vegoils and will complicate the transport of some chemical products due to changes in category sizes.

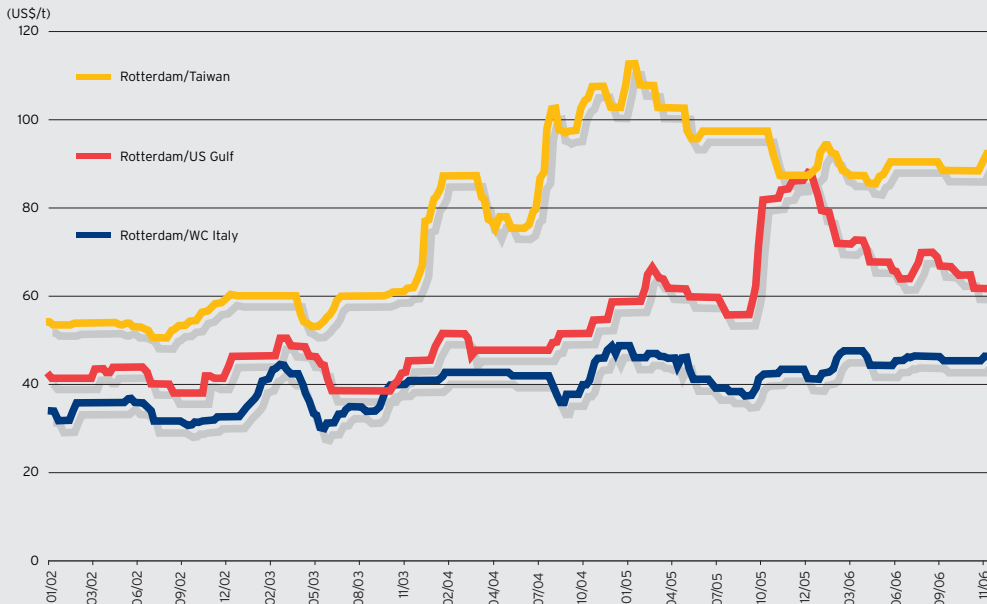
FREIGHT RATES

European short-sea

At the start of the year and for all European trade, demand for chemical carriers was very strong, both for contractual and spot business. This rosy state of affairs was somewhat spoiled in the summer months to varying degrees according to different European routes.

For inter-North European movements, owners enjoyed a euphoric time up until May, when ships were mainly doing contractual work, while the occasional spot business offered a well-remunerated alternative. Thereafter and up until November, the market was fluctuating more, and it was easier to go on the spot

CHEMICAL TANKER SPOT FREIGHT RATES - 2,000 T EASY CHEMICAL



market at more reasonable rates. At the end of the year this tendency was reversed, with owners able to optimise their fleets and spot rates coming under renewed pressure. 2006 was therefore generally a good year for owners, often superior to 2005, mainly due to the amount of contractual business which, after several years of improvement, has today now reached profitable levels. In this geographical zone, contracts

with a bunker price index clause should increase by 2 % to 4 %, and much more without a bunker clause.

In the Mediterranean, the market was quite similar, with however a lower level of activity after the summer. This zone suffers from a lack of readily available modern and approved vessels. The main participants are not renewing their fleets, which makes it hard to find suitable tonnage for charterers, especially



Prinkipo, 10,501 dwt, built in 1982 by the Swedish shipyard Oskarshamn's, owned by Soysay Shipping Transportation and Trading Ltd, Istanbul

in East Med where the majority of the fleet consists of old ships.

The contract renewals are being done at very variable rates. Some owners are requesting fairly considerable increases, in order to come into line with the much more profitable levels achieved on the spot market in 2006.

Long haul movements

After freight rates soared at the end of 2005 for Europe / US movements, rates gradually dropped by nearly 40 %, before stabilising and recovering to levels similar to the period preceding the autumn 2005. On average freight rates went from around \$80/t to nearly \$60/t for 2,000 ton lots. Big movements of aromatics such as benzene, toluene, and alkylates, which had been underpinning a strong market, vanished. Neither the regular support of the refined oil products market, nor the traditional movements of caustic soda, styrene, or sulphuric acid, was able to dissipate this decline.

For US trade into Europe, the tendency was just the opposite. After a drop in the fourth quarter 2005, the market suddenly took off right at the start of 2006, to finish at the end of the year with freight levels which were the same as those for Europe/US movements. In a market dominated by contractual business, regular movements of cumene, MTBE, and styrene allowed prices to remain high and for the export market to revive. For 5,000 ton lots, the freight graph shows a rise from \$35/t to nearly \$50/t, namely close to a 40 % hike. Other chemical products such as phenol and glycol were exported from the US, not counting "new" products such as bio-diesel, which is finding increasing favour in Europe. It has to be said that it was the dramatic external events such as the hurricanes

Katrina and Rita which had contributed to disrupt this traffic, due to the massive import of first necessity goods into the US, but the balance has finally been reinstated.

Traffic from Europe to Asia produced a far more regular pattern, caused by a weaker demand than last year on behalf of Chinese buyers. After a blossoming of the market in 2005, substantial exports of BTX to Taiwan, Korea, and China gave way to specialised chemicals in much smaller lots, such as MMA, IPA, acetic acid, cyclohexane, but also to regular movements of base oils. The strengthening of the Euro unfortunately resulted in European suppliers being less competitive on the export market.

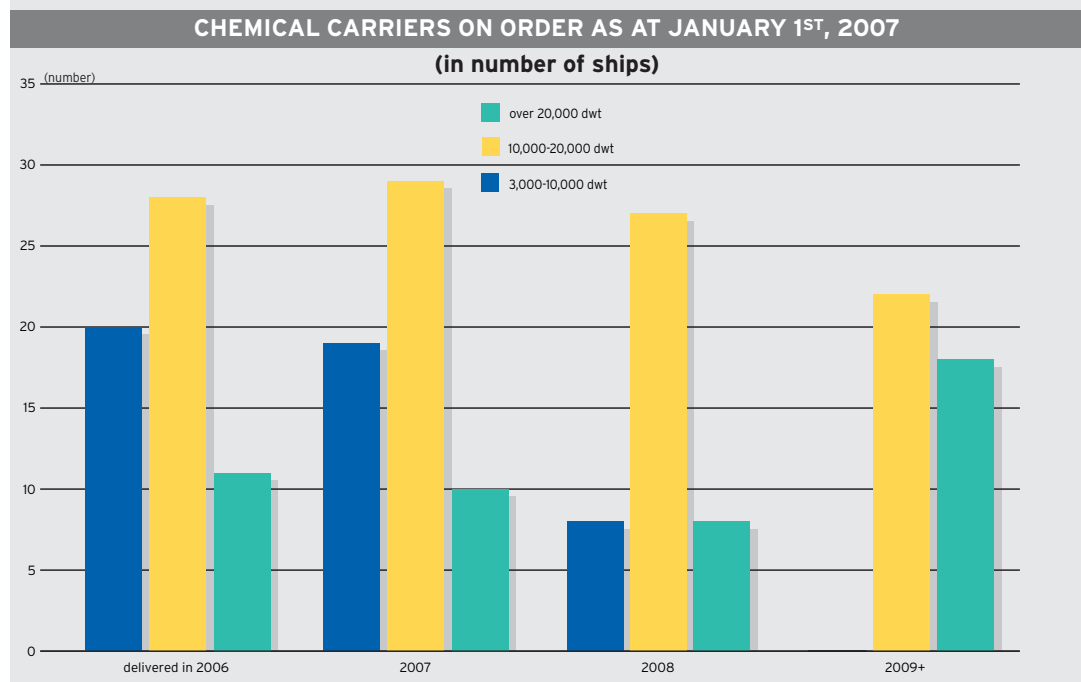
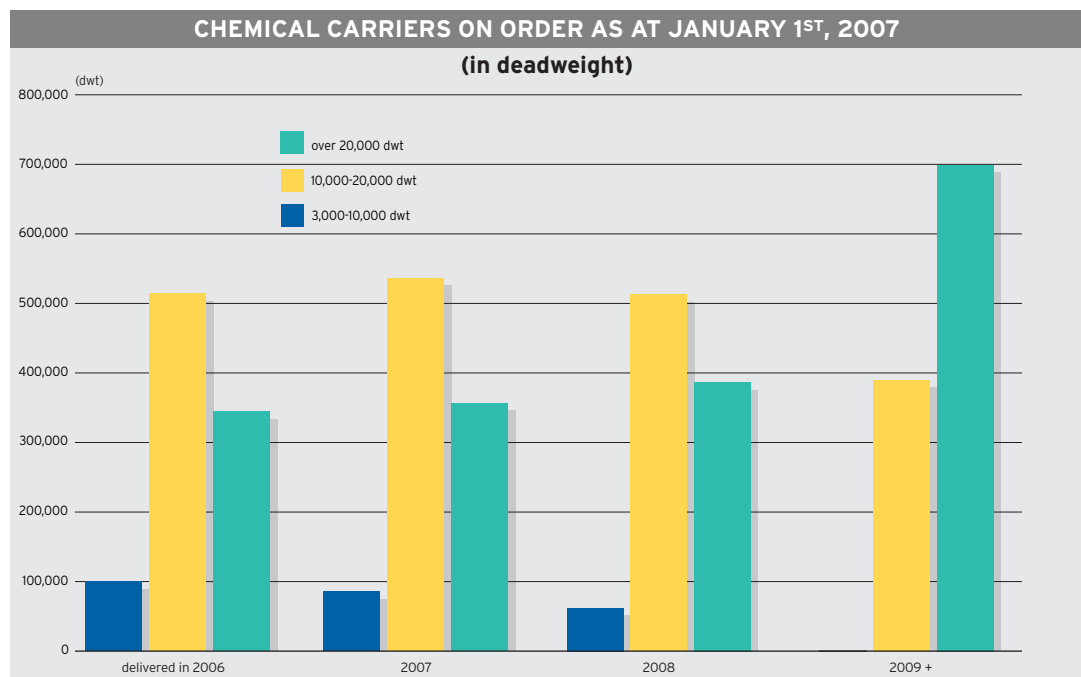
This however did not result in American exporters taking advantage of the situation. Freight rates remained stable, supported by the large quantities of MEG, PX, acetic acid and acrylonitrile. Nonetheless, traditional movements of xylene were visibly absent, making owners hesitant about taking up speculative positions in the Gulf of Mexico. Jo Tankers took the decision no longer to service movements from US to Asia. And in the same manner, Odfjell withdrew from the Caribbean supplies out of the US West Coast. Once again, we have seen owners taking rapid decisions to reorientate in line with sudden changes in the market.

With the emergence of the South American market and the application of new transport regulations of certain products starting from January 2007, owners are revising their strategies in the short and medium term with respect to investments and their involvement in certain captive markets. Time-charters for 3 years or more have become the norm and is witness to a reciprocal need between owners and charterers to assure a safe future.

FLEET

Deliveries of new stainless steel chemical carriers was slightly above that of 2005, with 42 ships built totalling 795,000 dwt. A non negligible number of delays in deliveries occurred and they should progressively be coming into service in the course of 2007. But,

unless there is a rapid catching-up of these delays, which were already taking place end 2005, it is likely to see a repeat of these delays at the end of 2007. Tonnage of carriers with delivery next year should however be considerably higher than for this year, reaching a total of nearly 1 million dwt.



2006 saw the 10,000-20,000 dwt category receive the greatest number of ships with 26 carriers for 480,000 dwt. In the category above 20,000 dwt, 9 carriers were delivered for 280,000 dwt.

In the 3,000-10,000 dwt category, less than 10 ships were delivered, which is far below the requirements currently needed for replacement of the existing fleet, but the lack of available docks and the increase in building costs has forced owners to wait for better times, in the belief that the spot trading market is unwilling to accept such high rates. However it is in this category that we have seen the most numerous delays in deliveries, among some thirty ships in this size due in 2007, half are back-logs from the previous year.

Numerous carriers from 12,000 to 15,000 dwt, IMO II and III, equipped

with coated tanks have also been delivered in 2006, and many more will be coming into service between 2007 and 2009. The question is whether these ships will be carrying chemical products or rather refined oil products as was largely the case this year. The same uncertainty also applies to the coated vessels between 37,000-50,000 dwt currently under construction, which should find employment split between chemical products, vegoils, and refined oil products. The answer will depend to a large extent on the freight levels within the different sectors. The substantial number of these ships coming into service makes the dividing line wide open between the chemical product market and that of oil product carriers.

Scrappings of stainless steel ships

was minimal with 11 being withdrawn against 4 in 2005. The rise in steel prices and especially stainless steel has encouraged some owners to take this decision.

At the beginning of the current year, several uncertainties are causing concern in the chemical carrier market; on one hand, delivery of newbuildings at a sustained pace with the risks of an oversupply in the short term and on the other, the impact of new IMO rules and their consequences. It is likely that initially, freight rates will be put under pressure in view of the relative lack of available tonnage, but thereafter there will be a period of uncertainty where market levels will depend to a large extent on the evolution in demand and the fundamentals of the world economy. ■

The second-hand market for small tankers and chemical carriers

2006 WITNESSED THE SAME SCENARIO AS IN PREVIOUS YEARS: AN INCREASE IN SHIP PRICES JUSTIFIED ONLY PARTIALLY BY FIRM FREIGHT RATES.

The market for coated vessels

There were no free handouts: for units of about 7,000 tons and with an equal level of sophistication, the price per cubic metre for a newbuilding resale is about \$2,600 per cbm against only \$1,600 per cbm five years before! At the same time, freight rates (on the basis of 12 months t/c) have experienced an increase of "only" about 35 %!

The resale market out of Turkey continued to lead the pack, even if the very strong increase in building costs leads one to fear that prices have now reached saturation point. Buyers are now only ready to pay very firm prices for vessels with the best specifications and with prompt delivery.

In contrast to bigger size ships, small product-chemical carriers have a very large proportion of their sophisticated equipment conceived and built in the euro zone. Strong demand for such equipment has caused a rise in prices, starting with main engines. The cost of local labour can only slightly compensate for the competition of

imports, especially as these salary costs are themselves getting higher and higher.

Logically, the second-hand market has followed this very strong surge in asset values, with a five year old ship now worth 30 % more than its newbuilding value.

In a market where assets are expensive, it is therefore not surprising to see an important merger and acquisition activity. 2006 was thus the year which saw the acquisition of entire fleets, with for instance Eitzen who took possession of the tanker fleets of Blystad (Norway) and Fouquet-Sacop (France). We should also mention the sale of Brevik to Sirius, of Marpetrol to Sovcom-

fort/Novovship or again of Jakobsen to Fabricius.

Also noteworthy was the petrochemical boom in Asia, which saw transactions taking place between European sellers and Asian buyers, including very modern ships (as seen with the resale of the **Samho hull n°1083** from Blystad to Japanese buyers for a price of \$27m).

This type of ship of around 12,800 tons (14,000 cbm), built in South Korea, has known a resounding success to the point that some observers feared that this particular segment of the market would suffer from a surfeit of supply (125 ships on order but only a fifth already delivered). However this was without taking into account the latest changes in the Marpol regulations concerning vegoils, which favours above all coated ships (either epoxy or Marineline) of 10,000 to 20,000 tons.

This regulation has definitely had an effect on the price of ships, boosting the value of IMO II type ships available on a prompt delivery.

The market for stainless steel tankers

As for stainless steel ships, a growing number of owners are paying today the price for having waited for better times. They now have to renew or enlarge their fleets at prices above those they refused to pay out earlier. As the newbuilding market has primarily been a sellers' market these past three years, there have been few shipyards (in Asia or Europe) ready to accept orders for this type of ship in a context where demand for coated ships (whose construction is less risky) was already flourishing.

The sale price of stainless steel ships has held up well. We can give as example the sale of **Sutra Lima**,



Frosta
5,703 dwt, delivered in 2006 by the Turkish shipyard Celiktekne, owned by Mowinckels

8,400 dwt built by Asakawa in 1995) for \$15.5 million, as well as those of **Bow Wave** and **Bow Wind** by Iino Lines in Japan to Stolt-Nielsen for \$18.5 million each (8,600 dwt, Usuki, six years old). All these sales showed value increases of 25 to 30 % over the transactions completed during 2005.

There is nonetheless realignment in the field between coated vessels and stainless steel ones: the traditional frontier between coated ships on one hand and stainless steel ships on the other, has been displaced to the detriment of the latter. They now have to compete with Marineline coated ships on some of their previously protected markets and are less competitive than the others on petroleum product trades.

This market segment has not been able to escape the strong tendency shared by other sectors of the shipping market, i.e. the increasing disconnection between the ever-rising asset values and freight rates, which are not able to keep up with this

inflationary movement. This discrepancy opens up a bigger risk concerning residual values. The only hope for owners who have committed to these very costly investments relies on an increase in freight rates. In 2007 charterers should not expect any gifts either! ■



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The liquefied petroleum gas shipping market in 2006

Another good vintage with contrasted developments

HIGHLIGHTS

At the end of last year, we were wondering whether the freight rates had reached a ceiling or if they could still increase further, considering the strong upsurge the liquefied gas market had gone through since the end of 2004.

The evolution of the market during the last twelve months shows that both took place, whether it be in the freight sector, characterised by ample variations, or in the products sector where price increases were limited and falls were even recorded.

The factors which enabled us to anticipate a freight price ceiling evolved differently within the different ship size segments, while the general slowing down of the gas products prices (as opposed to crude oil or vessel prices!) was also anticipated.

Both sectors (freight and products) were subject to strong volatility. Let us briefly go through some fundamentals which will still govern the markets in the coming years.

- ◆ Commercial ventures between owners and operators are occurring as we had anticipated: the arrival of new actors, who acquired existing vessels or ordered newbuildings deliveries which will accelerate during 2007, gradually alters previous market structures. Some operators prefer to abandon some specific market segments attached to a particular traffic and size of ship (Maersk / Exmar, AP Moller / Norgas, etc.), while others prefer to join forces through the acquisition of shares or the setting up of new pooling or commercial agreements. (BW Gas / Yara, Maran Gas / BW Gas, Eitzen Gas / Norgas, Unigas / Kosan, A. Veder / De Poli, etc.).
- ◆ The rhythm of orders and deliveries of vessels having been moderate until last year, the increase in transport capacity was limited. This will be slightly different from 2007 onwards, for all sizes of ships! Indeed, the few orders placed in 2004 started to be delivered during 2005-2006, but the far more numerous ones,



Carli Bay
25,000 cbm, delivered in 1998 by Mitsubishi, owned by Exmar

contracted in 2005 or later, will be delivered during the next 3 years! Multiple orders were passed in 2006 with more than 90 firm contracts throughout all sizes, at ever more expensive prices. In contrast to the preceding years, the majority of these orders were booked for vessels exceeding 8,000 cbm, for delivery in 2008, 2009 and even 2010. The increase in construction prices does not seem to have refrained greatly the market players to contract numerous newbuildings in all size segments and mainly larger sizes, which might create in the future some pressure on the freights until the market has been able to absorb these new capacities!

◆ As in 2005, the sales for demolition stagnated: only 5 sales were concluded in 2006, including 2 VLGC's constructed in 1976 and 1978, one 31,000 cbm capacity carrier built in 1977 and two small units of 6,000 and 3,700 cbm of same age. During the first three quarters of the year, the strong market conditions limited the interest for certain operators to demolish their oldest units, especially those whose policies have been to maintain a high standard of quality through high maintenance costs. However, it is a little surprising to see that this trend did not reverse during the last

quarter, when the prices offered by demolition yards were over \$400/ton and the VLGC spot market dropped severely. This situation should evolve during 2007 as long as the demolition prices hold firm. We should also remember that on top of the natural renewing of the fleet, the reinforcement of norms concerning quality constraints, associated with age limits, should further favour the sale for demolition of the oldest units in the next few years.

◆ US imports: Despite the volatility and the severe drop of natural gas prices (Henri Hub price levels going from \$13.75/mmbtu in November 2005 to \$4.50/mmbtu in July 2006 then to \$7.75/mmbtu in November 2006), US imports of ammonia were irregular and limited and the demand for spot voyages decreased all through the year, producing a substantial decrease in the rates for Atlantic round voyages. Simultaneously, the weather recorded excessive heat waves, snow storms, etc. with repercussions on the production of energy plants and on stock levels, causing some temporary increase in LPG imports. The energy prices were already boosted by higher crude prices by mid-year. These increases were however somehow mitigated by the impact

of some new LPG production capacities in the market. These diverse volatility factors permitted the development of numerous well remunerated transatlantic cargoes.

◆ The revised geography of production and consumption zones: the new capacities of gas production of which the LPG associated with the LNG productions in West Africa, North Africa, Middle East - Qatar, Abu Dhabi, Oman, Saudi Arabia - Australia, Norway, etc.) globally estimated at about 24 / 25 million tonnes, have partly started and influenced prices of products and logistical movements towards the large consumption poles, notably emerging countries. Production should progress regularly in 2007 and 2008 and grow more rapidly from 2009 onwards. The development of new traffic flows from production zones to fast consumption zones, for instance from Middle East towards India, has direct repercussions on the number and the duration of voyages for vessels of specific size segments, hence a side effect on larger size tonnage! The ammoniac and chemical gas sectors are also increasingly sensitive to market globalisation and intercontinental arbitrage, the ton-mile factor having a direct impact on the available tonnage (long haul voyages, combination of smaller parcels, etc.).

◆ The next few years should shed some new light as to the impact of the additional volumes of product and their geographical outlet for the demand (consumption) and the offer (production) and their respective weight on transportation logistics. The development of larger size segments, mainly that of VLGC's (75,000 / 85,000 cbm), was till now largely dependant on the regular availability (offer) of LPG molecules, while the petrochemicals and ammoniac markets followed more generally the demand in consump-

tion zones. Will this still be the case when many more millions of tons will come to the market?

◆ The important fluctuations in crude oil and oil product prices had repercussions on the bunker prices among which IFO 380 cst basis Fujairah moved from \$275/t at the end of 2005 to more than \$350/t at mid year, and then decreased to about \$270/t by end 2006. A variation far less important than last year (175 %!), but nevertheless not negligible when it comes to freight levels!

◆ The evolution of climatic conditions now has a permanent impact

on the consumption of LPG. The increase in underground storage capacities (caverns) had somewhat dampened the seasonal character of the trading, but the unusually mild periods seem to get longer and longer every year, with immediate consequences on consumption, rotations of stocks, and trading positions. As well as some awareness of energy wastage, growth of demand in some large consuming areas is thereby affected, while few more millions tons of LPG will come on the market in the next few years. Alternative outlets will have to be looked at...

SITUATION BY SHIP SIZE

VLGC (Very Large Gas Carriers) 70,000 / 85,000 cbm

The spot market was subject to extreme volatility. However, after the strong upsurge of rates during the first two quarters and in spite of a sharp decrease during the last quarter, owners' average annual incomes ended up still in excess of those of the preceding year.

The reference spot rate, MEG/Japan, already at a strong level close to \$45/t at the beginning of the year, increased sharply to reach close to

Similarly to the freight market, product prices were also subject to ample variations, stabilising towards the end of the year at similar or inferior levels to those of the beginning of the year (see table). Freight wise, the levels continued to move up during the first half-year, and then the market stabilised and slowed down during the second half-year.

Product prices evolution

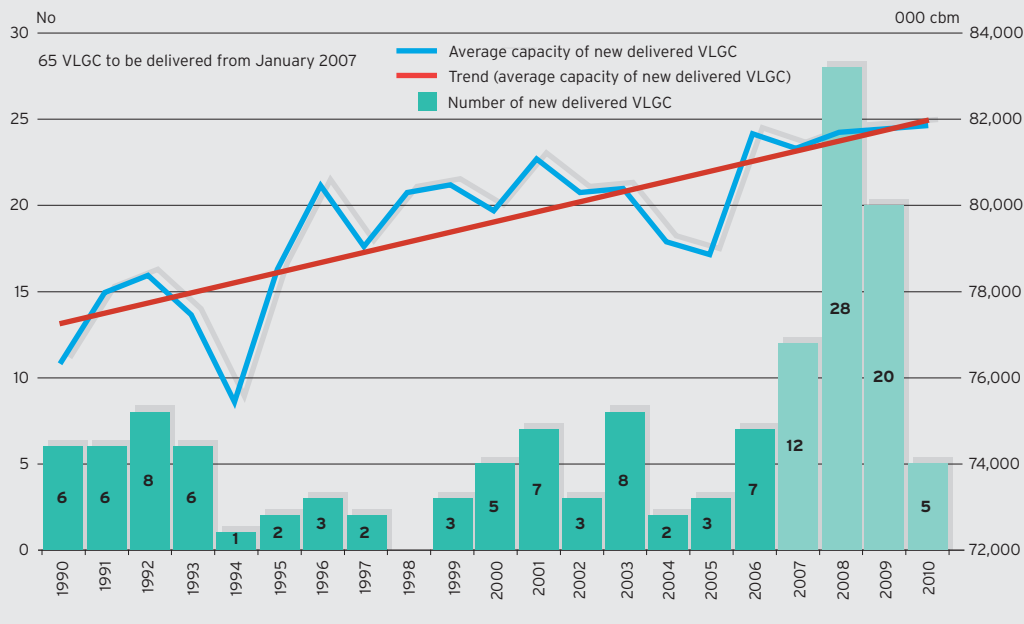
Products	Nov. 2004	Nov. 2005	Nov. 2006	%
Crude oil, Middle East Gulf (\$/bbl)	35.5	52	56.5	9%
Brent crude, North Sea (\$/bbl)	45.2	55.2	58	5%
Naphtha CIF Rotterdam (\$/mt)	365	478.7	510	7%
Natural gas (\$/mmbtu US Henry Hub)	7.80 (Dec.)	13.75	7.75	-44%
Propane CP (contr. price FOB Saudi Arabia) (\$/mt)	463	535	450	-16%
Butane CP (contr. price FOB Saudi Arabia) (\$/mt)	473	555	470	-15%
Anhydrous ammonia (FOB Black Sea) (\$/mt)	270	295	240	-19%
Ethylene (contr. price Europe) (€/mt)	700	825	900	9%
Propylene poly gr (contr. price Europe) (€/mt)	620	810	865	7%
Butadiene (Europe spot) (€/mt)	627	760	890	17%
VCM (CIF Korea/Taiwan) (\$/mt)	800	667	630	-6%

Freight rates evolution

Ships by size/category (cbm)	Nov. 2004	Nov. 2005	Nov. 2006	%
VLGC 75/85,000 cbm spot MEG/Far East (\$/mt)	42	41	30	-27%
VLGC 75/85,000 cbm 6-12 month t/c (\$/mth)	1,050,000	1,080,000	975,000	-10%
LGC 52/59,000 cbm 6-12 month t/c (\$/mth)	800,000	1,100,000	900,000	-18%
24/35,000 cbm 6-12 month t/c (\$/mth)	775,000	1,075,000	975,000	-9%
15/24,000 cbm 6-12 month t/c (\$/mth)	650,000	825,000	750,000	-9%
6/11,000 cbm ethyl. 6-12 month t/c (\$/mth)	575,000	605,000	625,000	3%
4/8,000 cbm semi pres./ref. 6-12 month t/c (\$/mth)	425,000	507,000	515,000	2%
4/8,000 cbm pres. 6-12 month t/c (\$/mth)	325,000	420,000	350,000	-17%

We no longer indicate the average time charter equivalents on spot voyages that exclude any eventual waiting of the vessel by lack of employment between voyages, because the variation in their levels are too strong and not always representative of the market evolution. We will only mention the levels of transactions on mid term on periods lasting from 6 to 12 months.

70,000 TO 84,000 CBM LPG CARRIERS DELIVERED & AVERAGE CAPACITY



\$55/ton by the end of January and came down near to \$40/t by the end of March. A peak level was then attained in July at about \$65/t but this record level did not last long as a regular drop was then experienced until the end of the year when rates close to \$25/t were registered.

The wide gap between such time charter equivalent levels ranging from \$400,000/month to \$1,600,000/month for a VLGC of 82,000 cbm capacity shows the magnitude of the variation. The combination of a limited availability of product and a weaker demand explains this evolution.

As in the preceding years, new LPG production, confirmed or projected for the coming years (Qatar, Emirates, Northern and Western Africa...) contributed to an ever active demand for new vessels, in similar proportions as last year and at ever higher prices, close to \$95 million apiece!

Some 28 VLGC new orders were booked in 2006 (26 in 2005). The total amount of VLGCs in the orderbook -64 units at year end- moved up by nearly 45 % in comparison to the end of 2005. Those newbuildings represent 25 % of the VLGC fleet presently in operation for a total amount of about 110 units and an average age profile of 15 years.

The time charter activity remained limited due to higher levels being

asked and unclear prospects for the next coming years. It was mainly marked by a few long term contracts on behalf of major operators who elected to reinforce their fleet through time charter tonnage at competitive conditions rather than ordering themselves new units. Substantial differences in financing schemes and very competitive ship management conditions between Asian and Western operators permitted such long term transactions, often associated with purchase options.

A few examples of time charter contracts:

Doun NB

78,000 cbm - 15 years - del. 09
890,000 \$/month - APM

Gas Capricorn

79,000 cbm - 3 years - del. 06
1,220,000 \$/month - Petrobras

Cido NB

82,000 cbm - 5 years - del. 10
890,000 \$/month - Mitsui OSK

The activity on the second hand market was limited to a few purchase options exercised by BW Gas on three units which were already within their fleet as time chartered tonnage (**Formosa Apollo, Formosa Bright and Berge Trader**), and the sale of **Nordanger**, 76,000 cbm built in 1992, to Varun for at a reported

price of near to \$60 million. Two units of more than 30 years old were also sold for demolition.

At the same time, Maran Gas created a joint-venture with BW Gas with the sale of a 50 % share in four 84,000 cbm ships ordered at Daewoo in 2005.

Large Gas Carriers 52,000 / 60,000 cbm

As usual, this size segment benefited from the "domino" effect from the two neighbouring segments, VLGC and Midsized, during the main part of the year, as well as long haul voyages emanating from the LPG and ammoniac markets.

The rates were subject to a strong upsurge in the first quarter. However the reduction of US ammoniac imports, partly linked to the price drop of natural gas which comes into the ammoniac fabrication process, caused a drop in demand for transportation on the transatlantic route Black Sea / US, while new production (Australia) was covered by recently delivered units.

Although the freight rates were maintained at relatively firm levels, waiting time in between voyages, due to a lack of employment, reduced the final income of vessels. This sector is still dominated by coa's, and a few time charter contracts were concluded for periods ranging from one to five years at monthly rates close to \$1 million for the youngest units.

No new order was recorded since the six 60,000 cbm newbuildings contracted at the end of last year which are to be delivered during 2008 and 2009.

We should note the sale to Varun of a 57,000 cbm vessel built in 1991, the **Helice** owned by BW Gas, at a strong price of \$60 million for a 15 years old ship! Even though other parameters may be attached to such a transaction, it still reflects

how firm are the second hand market prices in line with those of the newbuilding market!

Let us also mention a triangular operation between Yara, Laeisz and BW Gas through which Laeisz bought Yara's shares in two 60,000 cbm vessels, **Polar Viking** (2004) and **Pacific Viking** (2005), reported at \$83 million a piece. The two units, respectively renamed **BW Herdis** and **BW Hesiod**, were taken back on long term charter by Yara.

No sales for demolition were reported.

Examples of transactions:

Havfrost

57,000 cbm - 12 months - del. 06
1,005,000\$/month - Geogas

Havis

57,000 cbm - 3/5 years - del. 06
925,000\$/month - Koch

Clipper Posh

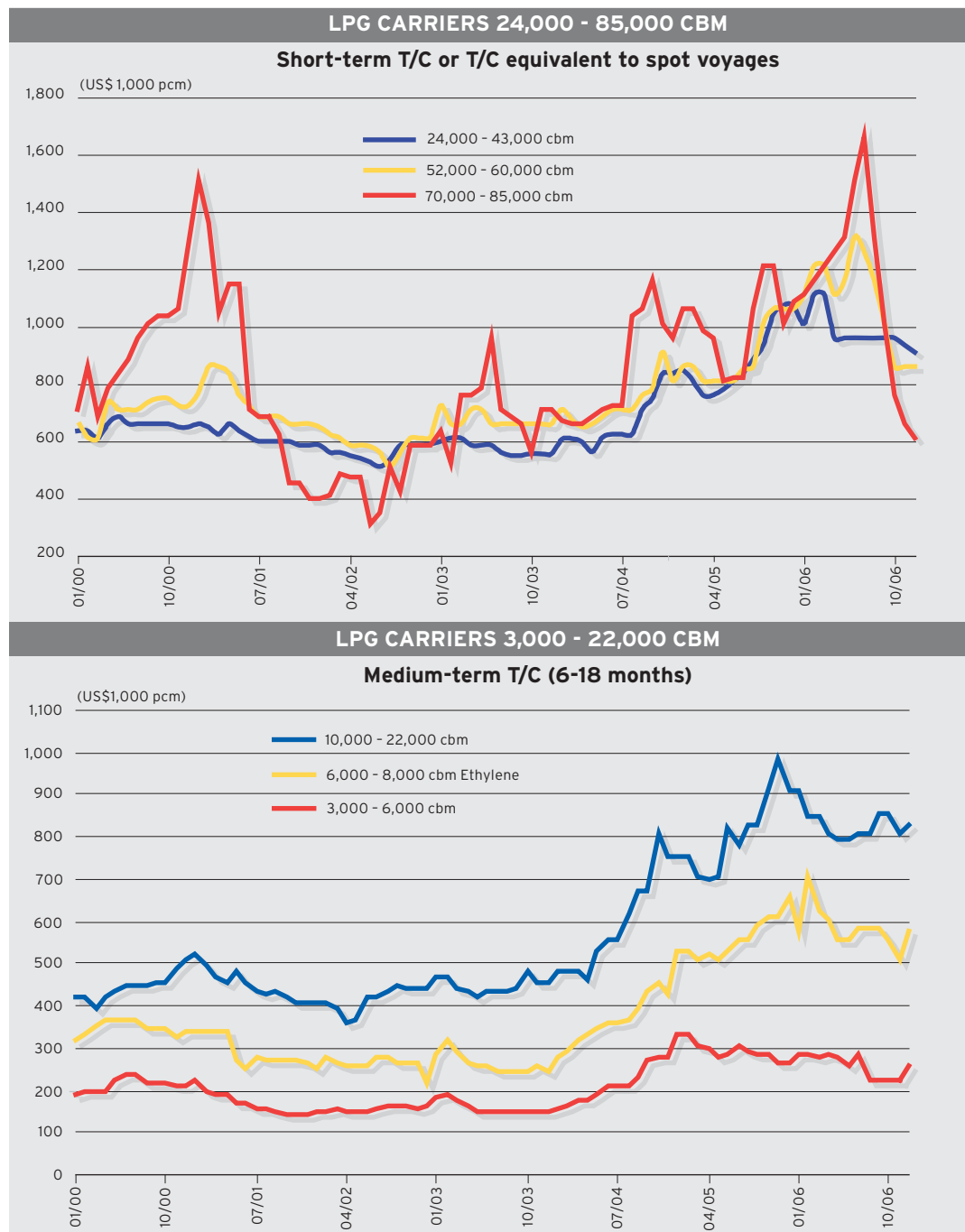
57,000 cbm - 12 months - del. 07
1,000,000\$/month - Tomza

**Midsize carriers
24,000 / 43,000 cbm**

As we had anticipated at the end of last year, the activity of the Midsize vessels stayed globally firm although contrasted, sustained by a firm demand coming from both the ammoniac and the LPG sectors on fast growing trades helped by increased productions.

The spot rates stayed very firm during the first quarter of the year and reached some record levels - more than \$1.8 million time charter equivalent for a 38,000 cbm- on the limited amount of spot voyages which were still contracted due to the reduced availability of spot tonnage.

The second quarter was slower and waiting times in between voyages occurred, a problem that this segment had hardly experienced since some time. The end of the year was



more contrasted, operators of vessels having no choice but to concede some rebate for spot as well as term contracts.

The majority of vessels being already committed on mid to long term charters and coa's in both ammoniac and LPG markets, the spot market remained limited to very specific traffic such as Middle East to India, West Africa to Europe or USA, or inter Asia.

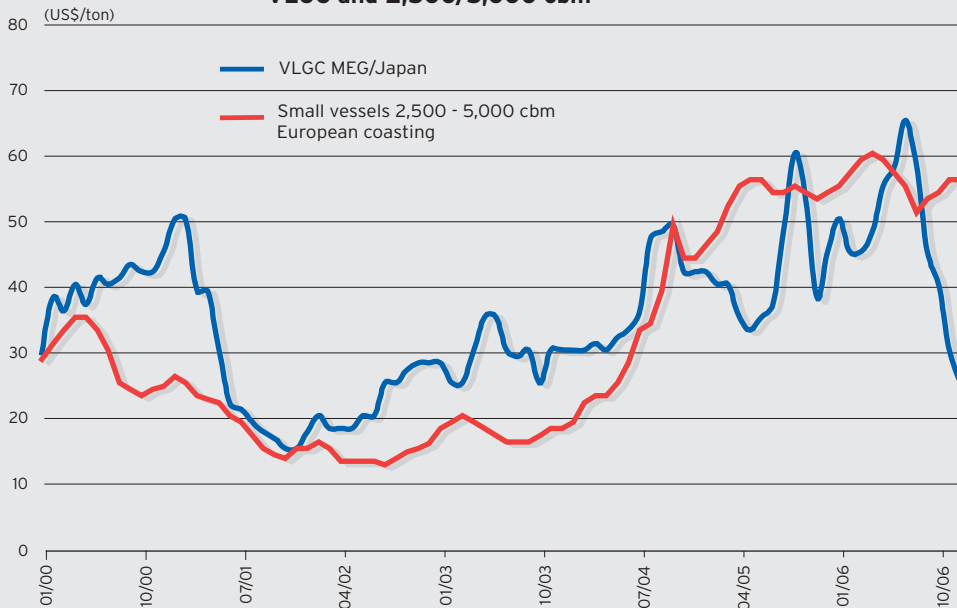
Some longer term transactions ranging from 7 to 15 years were concluded, the operators, acting as owners

as well as charterers, choosing to secure their shipping logistics at fixed conditions, often more attractive than those being subject to annual revisions and market variations.

At year end, the rates for short time charters of 6/12 months for vessels of 30,000 / 38,000 cbm capacity were concluded around \$1million per month, while those of smaller size segment (24,000 / 28,000 cbm) were done at between \$800,000 and \$900,000/month, depending on technical specifications of the vessels.

LPG FREIGHT RATES (SPOT VOYAGES)

VLGC and 2,500/5,000 cbm



Examples of transactions:

Maersk Jade

38,000 cbm - 3 years - del. sept 06
945,000 \$/month - Petrobras

M Krishnatreya

35,000 cbm - 12 months - del. sept 06
990,000 \$/month - IOC

The delivery of 6 new units of 34,000 to 38,000 cbm did not really affect the market, most of them being already committed on mid or long term ammoniac trade.

The situation looks quite different for the 15 vessels due for delivery over the next three years - 9 units scheduled for 2007 - although most of them are also engaged on long term contracts with ammoniac producers and traders, or assigned on captive new trades.

A new player, an already established Greek ship owner, decided to enter the gas market with an order for 4 x 35,000 cbm vessels from Hyundai Mipo, for delivery in 2009, at a reported price of \$65 million per unit.

Once again we should note the major partnership concluded between BW Gas and Yara in which BW Gas bought Yara's participations in 7 vessels sized between 6,000 and 60,000 cbm, as well as taking over existing term charters of three

38,000 cbm vessels among which two new Japanese units chartered beforehand. All these units were hired back by Yara for various periods ranging from 3 to 15 years.

Only one sale for demolition took place, in the middle of the year, that of **Luigi Lagrange**, a 31,311 cbm vessel exclusively employed by in the ammoniac trade since its delivery from the yard in 1976!

Handysize 12,000 / 23,000 cbm

As for larger size ships, this segment benefited from a buoyant market during the first half of the year, thanks to a multitude of deep sea transpacific and transatlantic voyages and a strong diversified demand emanating from the three segments of ammoniac, LPG and the chemical markets.

At the beginning of the year, some spot voyages were concluded at a robust level of time charter equivalent close to \$1.3 million/month on 20,000 / 22,000 cbm ships! Then the market experienced as usually in spring time some slow down as from May/June and more ships incurred more waiting time in between voyages.

The fluctuations and irregularity of deep sea movements of chemical

gas still affect the available capacity at one point in time, thereby creating some volatility in freight rates.

Following a brief upsurge in activity during the summer in propylene movements from the US to Europe and Asia, a limited slowdown took place during the last quarter, forcing the operators of 15,000 / 22,000 cbm vessels to concede some discount on hires for term contracts of 6 to 24 months.

Meanwhile, some new development was registered within the segment with several longer term contracts traded for players opting to cover themselves for periods of up to 5 years, some of them on newbuilding ships due to be delivered in 2007 and 2008, and at terms more favourable to charterers than those obtainable for shorter term.

Two new units from Formosa Plastic, ethylene carriers of 16,500 cbm, delivered prior to the start of the trade for which they had been ordered, found short term employment with traders in the LPG sector at rates slightly over \$600,000\$/month, a competitive rate level for such size and new units.

Examples of transactions:

Navigator Saturn

22,000cbm (00) - 12 months - Oct.06
850,000 \$/month - Hydro NGL

Queen Zenobia

22,950 cbm (02) - 12 months - Nov.06
870,000 \$/month - Sonatrach

Polargas

15,000 cbm (90) - 12 months
Jan.07 - 700,000 \$/month - Enap

Johann Schulte

16,500 cbm (98) - 36 months -
Sept.06 - 640,000 \$/month -
Transammonia

A substantial number of sales of second hand vessels were concluded. Various owners choosing to take advantage of firm prices, resul-

ting from the robust construction prices, others buyers eager to secure tonnage without waiting for late delivery of new units and having second thoughts to any commitments at strong prices!

Within this segment, we have recorded 10 units changing hands, some of those staying under the same commercial management, the owner/seller chartering back the ship from his new owners/buyer for periods going from 2 to 5 years. These transactions were mainly conducted by majors like A.P. Moller, with the vessels **Hans Maersk**, **Niels Maersk** and **Henriette Maersk**, and also by members of the Skandigas pool on **Tycho Brahe** and **Immanuel Kant** sold to already associated or external operators.

18 new orders for ships ranging from 17,000 to 22,000 cbm were recorded in 2006 of which 4 ethylene carriers for Harpain / Hansa Hamburg account, and 14 vessels sizing 20,000 / 22,500 cbm of both refrigerated and semi-pressure type for Maersk, Zodiac, Petredec, Schulte, Geogas and Myawa accounts, all of them for delivery between 2008 and 2010.

These newbuildings were also ordered at robust prices in excess of \$50 million for the standard 20,000 / 22,000 cbm and above \$60 million for the 17,000 cbm ethylene carriers.

Small LPG and chemical gas less than 12,000 cbm

This size category differed from the other segments by staying relatively firm all along the year with far less volatility than in the other segments. The ethylene carriers and the "semi-pressure/refrigerated" ships benefited from a sustained demand during most of the year, whether through coa's nominations or spot market inquiries.



Coral Palmata,
Ethylene carrier, 7,200 cbm, built in 1994 by the Italian shipyard Di Pesaro,
owned by Anthony Veder

Although the petrochemicals coverage experienced less pressure during the last quarter, similarly to larger size ships, vessels employed on those transactions were very busy during the larger part of the year, and the usual ethylene "temporary" movements caused by programmed or accidental shutdowns at the production plants proved to be so numerous that they progressively turned out to be a market by itself!

Demand was indeed sustained thanks to those permanent ethylene voyage inquiries as well as some C4 movements compensating for the butadiene cargo shortage, and the growing demand coming from the LPG sector. Smaller coasters had hardly any waiting time all through the year.

We however have to make some difference between the "full pressure" market (consisting of ships sized between 2,700 to 11,000 cbm) and the "semi-pressure" or "semi-refrigerated" and "ethylene carrier" ships as they are being affected by different market parameters. The time charter level for the "pressure" type ship experienced a slight discount, mainly due to the numerous newbuildings which were delivered over the year -more than 20- as well as to the existing orders -more than 50 units- which are to be delivered during the next few years and which represent a certain "weight" !

The "semi-pressure" or "semi-refrigerated" as well as the ethylene carrier sectors remained bullish, less affected by new unit deliveries (only 3 units of which 2 ethylene carriers of 5,600 cbm). However, despite new production of ethylene being projected over the next few years and the age replacement factor, the orderbook for these vessel types amounts to more than 60 units of which 40 are ethylene carriers!

Examples of transactions:

Betagas

5,500 mt - vcm - Houston/Saloniki
Dec. 06 - \$200/mt - Mitsui

Norgas Shasta

6,000 mt - ethy - Houston/Europe
Jan. 07 - \$215/mt - Mitsubishi

Chemtrans Christian

4,500 mt - propy - Houston/Europe
Jan. 07 - \$220/mt - Summit

Gaschem Snow

10,200 cbm - NH3 - 12 months
Jan. 07 - \$675,000/month - FERTIBERIA

Sigloo Norse

8,300 cbm - LPG - 12 months
Jan. 07 - \$505,000/month - PVDSA

Marte

3,000 cbm - LPG - 12 months
Jan. 07 - \$315,000/month - Ecofuel

Merging and consolidations movements were still numerous, both on behalf of owners having recently entered the gas sector and on behalf of traditional operators.



Gas Oracle,
3,014 cbm built in 1990
by the Japanese shipyard
Teraoka, owned by Stealth
and trading in Black Sea

Several new agreements and ventures were concluded marking a redistribution of specialisations by size and types of ships. Among others let us mention:

- ◆ Norgas and Maersk (MNGC pool) separating and Eitzen Gas simultaneously entering into a JV with M Skaugen/Norgas named ENGC which will operate altogether 32 ships of capacities ranging from 6,000 to 11,000 cbm of which 29 are ethylene carriers.

- ◆ Exmar finally left the small size segment selling to Lauritzen Kosan the remaining shares they had in four 3,200 / 4,000 cbm vessels, as well as selling to Eitzen Gas the remaining purchase options they were still enjoying on 3 ethylene carriers of 10,500 cbm built in 1990/1992 (Polar ships).

- ◆ Stealth (Vafias) moving from 27 units at the beginning of the year to 41 units twelve months later, 8 of which are new-buildings including the 2 recent resale acquisitions of 6,300 and 7,000 cbm which had been ordered by Samos in Japan.

- ◆ Eitzen Gas acquiring the 50 % interest that Lauritzen Kosan held in j/v with Sigas Kosan, consisting of 8 vessels sized between 1,500 and 2,600 cbm.

- ◆ The Unigas pool taking the commercial management of three 10,000 cbm ethylene carriers which had been ordered last year by Japanese interests and were taken on long term time charter by the Norwegian operator Ugland.

The sale and purchase segment was very active with 44 units of size

ranging from 1,200 to 12,000 cbm changing hands during the year.

Many sales were however so called "sales en bloc linked with new tonnage distribution" among existing partners and expanding fleets.

Prospects

The market stayed globally firm and tight during two thirds of the year. The last quarter registered some pause in the activity and freight levels in the larger size segment but the sharp collapse of the VLGC ships which had attained peaks a few months earlier came as a little surprise to many market actors.

The "redistribution" of ship control continues in the small size segment, while the market is opening up more in the middle and larger size. Those various developments could be anticipated since last year after the major consolidation movements.

Newbuildings are being ordered at increasingly high prices and recent transactions were concluded at levels more than 40% higher than the prices registered three years ago!

Although the value of the dollar has weakened, such robust prices added to the sharp increase in running costs (or operational expenses) which are heavily affected by higher crew expenses and the scarcity of qualified officers, should have a substantial bearing on freight rates and necessitate tighter transportation logistics.

Major players have been able to consolidate their presence in the

various segments of the market thanks to the positive results achieved in the sector over the last three years and further specialisation by size segment and geographical movements has remained active and should continue, whether by acquisitions on the second hand market or through new orders.

The price value of ships in service has reached high levels, allowing various actors to consolidate their assets through financial operations without losing the commercial control of the ships. This trend should also continue as long as the market offers good second hand prices and time charter levels.

Besides the very specific VLGC segment, which is often considered as an "extension of the pipeline network of major production sites", and more sensitive to the product supply/demand than other size ships and markets, the overall prospects for the LPG shipping market over the next two years remain promising but probably at levels softer than those recently registered, mainly generated by a limited construction programme when the market was low!

Specific size segments, like those of small « pressure » vessels and ethylene carriers could temporary become more sensitive than others to the integration of new units ordered 2 years ago and soon to be delivered. Nevertheless, the various gas markets have now entered a new cycle marked by higher prices in the hands of a larger number of players. Let us hope that new production, globalisation of trade, consumption growth and the tonnage renewal ratio will all allow safe and healthy operations to continue. ■

The second-hand market for LPG carriers

VLGC AND LGC

In this category, Bergesen Worldwide (BW) strengthened its position by declaring options to purchase at very favourable prices (\$42.5 million each) two ships of 83,000 cbm built in 2001, which have been commercially operating over the last 5 years. They have also lifted a purchase option which they held on the **Berge Trader**, 78,000 cbm built 2006 for \$92.4 million.

After having repurchased the Yara fleet, which comprised 2 ships of 60,000 cbm built in 2004 and 2005, BW resold 49 % of these two ships on the basis of a unit price of \$83 million.

2006 also saw the first VLGC sold on the Indian market with the **Nordanger**, 76,000 cbm built in 1992, bought by Varun for \$62 million. At the end of the year, this same owner further reinforced his position as leader in this market buying the **Helice** 57,000 cbm built in 1991 for \$60 million.

As for the **Hourai Maru**, 75,000 cbm built in 1985, she was sold at the end of the year at around \$25 million to Petredec, who have been using her under time-charter for the last 2 years.

Surprisingly the owners of the two very oldest carriers, the **Gaz Creation**, 79,900 cbm, and the **Gas Bauhinia**, 77,200 cbm, built respectively in 1977 and 1976, judged it profitable to accept the historically high levels which the demolition market was giving in 2006 (between \$400-450/ldt).

MIDSIZE CARRIERS

In 2006, outside the sale of the Yara fleet to BW Gas, this sector of the market saw the sale to MC Shipping of the **Hans Maersk**, 20,000 cbm built in 1993, for around \$40 million, against a 5 year time charter back, and the sale of the **Tycho Brahe** and **Immanuel Kant**, 15,000 cbm built in 1982 and 1983, to the same buyer for around \$31 million en-bloc with a two-year employment attached.

There was only one demolition sale reported, that of the **Luigi Lagrange**, 32,000 cbm built in 1976, sold in the middle of the year for around \$360/ldt with delivery in Fujairah.

LESS THAN 15,000 CBM

The consolidation process in the small size fleet continued this year with the sale by Lauritzen Kosan to Eitzen Gas of 8 semi-refrigerated ships of 1,600 - 2,600 cbm built in the mid-80's and the early 90's.

After investing in the larger sizes, MC Shipping was able to take advantage of the lack of viable projects in the containership market in Germany, to sell their fleet of 6 pressurized ships (3 x 3,200 cbm built in 1990, 2 x 3,500 cbm built in 1995, and 1 x 4,000 cbm built in 1991) to MPC for a total of \$52 million. Simultaneously, MC Shipping took these ships back on a 4 year time-charter, brought 25 % of the necessary equity to the new owner to carry out this investment, namely \$5.4 million.

Throughout the year Stealth continued in the same way as last year,

buying 6 pressurized ships between 3,000 and 7,000 cbm at prices comparable to those achieved in 2005. Like last year, it is interesting to note that the availability of these ships for sale was essentially due to the existence of purchase options exercised by beneficial charterers. Price levels were: 3,300 cbm built in 1995 around \$9.5 million, 5,000 cbm built in 1996 round \$11 million, 5,000 cbm built in 2003 around \$16.7 million, 6,300 cbm built in 2007 around \$22 million, 7,000 cbm built in 2007 for around \$24 million.

In this category as well, only one ship was sold for demolition, the **Norgas Navigator**. ■



Certified since 1997, BRS quality system has again been successfully renewed in 2006 under the new ISO 9001:2000 rules.



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The liquefied natural gas shipping market in 2006

LNG: a market boiling at - 160°C

IN 2005, A LITTLE MORE THAN 140 MILLION TONS OF LNG WERE TRANSPORTED BY SEA. THE FLEET WAS COMPOSED AT THAT TIME OF JUST OVER 190 CARRIERS WITH AN AVERAGE CAPACITY OF ABOUT 125,000 CBM.

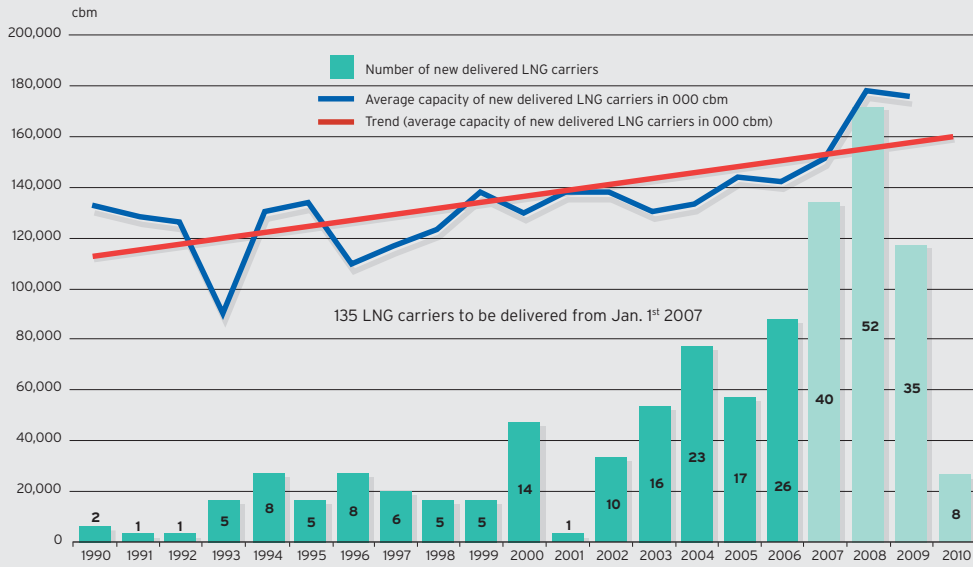
By the end of 2006, the installed world liquefied gas production capacity was slightly over 170 million mt per year, an increase of about 20 %. In fact, some liquefied gas trains came into service at the start of 2006 (Trinidad Train 4, Darwin LNG), some reached their full capacity in the course of 2006 (Idku Train 2), and some were announced operationally at the end of the year (Rasgas II Train 5). At the same time, the fleet of LNG carriers in service reached 220 ships, representing an increase in capacity of 3.7 million cbm over end 2005, an additional carrying capacity of about 15 %, in line with new trains coming into service at the same time. It could be thought that LNG carrying capacity is catching up quickly with the quantities of LNG due to be shipped. However, this observation

needs to be examined more closely, as the start-up of new additional LNG production capacities needs to be compared with the LNG fleet in service, ships to be delivered shortly, as well as the state of the newbuilding orderbook.

THE FLEET

At the end of 2006, 135 ships were on order, mainly in Korean shipyards, for a total volume of nearly 23 million cbm. By comparison the 220 ships currently on the water have a carrying capacity of approximately 27 million cbm. 26 carriers were delivered in 2006 as opposed to some 15 in 2005. 2006 thus saw the first deliveries of ships ordered in 2004, which was a record year in terms of new orders with a total of 66 new contracts. There was also a narrowing gap between the number of ships ordered (32) and the ones delivered in 2006 (26). Hence, with an anticipated 40 deliveries in 2007 this year could mark the start of a reversal in the trend, with fewer orders compared to the number of deliveries. This phenome-

LNG CARRIERS DELIVERED AND AVERAGE CAPACITY



non will be reinforced in 2008, which, with the commissioning of about 50 carriers, will set a peak figure in deliveries. It is therefore interesting to underline that at the moment there is a 50 % decline in the number of orders between 2004 and 2006, a tendency which will have wider repercussions on the shipbuilding market.

This statement needs to be taken into consideration by shipyards, who have organised their production facilities to be able to construct fairly standardised LNG carriers and who have also dimensioned their production capacities in order to meet this growing demand. As of now, the overall newbuilding capacity for LNG carriers is ranging bet-

ween 50 to 55 ships per year, with an upsurge coming from new countries such as China, who are hoping to develop their own building facilities. A certain number of shipyards will probably have to proceed to strategic readjustments in the years to come.

Looking forward to 2010 (without taking into account new orders which could be placed in 2007 and 2008) there will be 332 ships in service below the age of 35 years. If one assumes more restrictive criteria for the use of LNG carriers to be enforced by the Majors, as they did in their vetting policy with oil tankers, there would be around 290 ships in service in 2010 less than 25 years old.

In terms of capacity, 2006 saw the introduction of bigger dimensions with the order in ownership by Nakilat (Qatar) of 9 ships with a capacity of 260,000 cbm (Q-max), and the prospect of additional



Gaz de France Energy,
74,130 cbm, delivered in 2006 by Aker Yards Saint-Nazaire to Gaz de France

© Gilles Crampes

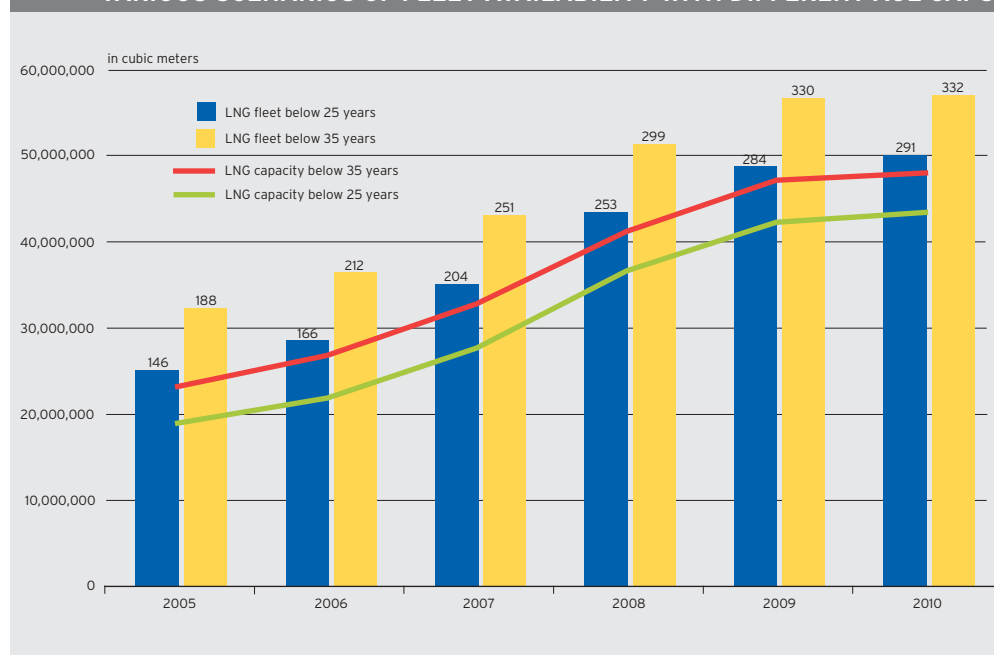
orders starting in 2007 for up to 8 additional Q-max for their Qatargas IV and Rasgas III (Train 7) requirements. These super-carriers will be essentially dedicated to Middle East Gulf / US trade, but represent a noteworthy benchmark in that they will downgrade the traditional 130,000 / 145,000 cbm to the Mid-size category. This size increase is helped also by the introduction of 210,000 cbm Q-flex ships which are currently on order for Qatar. Of the 39 carriers currently on order for Qatar, 36 are 210,000 cbm or 260,000 cbm, amassing between 10 and 15 % of the fleet by 2010.

The immediate effect of this leap in ship size on order is to increase the average carrying capacity of ships in service. It will be 144,000 cbm in 2010 given current orders and for ships under 35 years old, which represents an 18 % increase of the average carrying capacity of ships compared to 2006, when the average was 126,000 cbm.

THE MARKET

A new phenomenon emerged in 2006 which might well be a trend for the years to come: the traditional scheme in the LNG chain, which includes the construction of the ships in the overall scheduling of projects, has been upset by delays occurring with certain production facilities. For example in the Snohvit project in Norway, where the four ships ordered have been delivered and find themselves open on the spot market, or similarly in the Sakhalin project, for which first production has been pushed back to 2008 although the five ships ordered will come onto the market in 2007. This produces the double effect of causing "missing" LNG volumes, as well as producing "supplementary" shipping capacities on the market. Some owners, notably TMT (Taiwan) see an opportunity

VARIOUS SCENARIOS OF FLEET AVAILABILITY WITH DIFFERENT AGE CAPS



arising here and are moving into this new form of "tramping" with LNG carriers on time-charter to relieve the Majors embarrassed with ships without dedicated work. This opening may be of interest for temporary periods and also provides greater flexibility to the market.

Another important phenomenon which occurred in 2006 was the use of LNG carriers as floating storage units for speculative purposes. Following Excelerate Energy, who did it first with the flexibility of re-liquefaction plants on-board their ship, other owners plunged into this new possibility, in particular Shell who used two LNG carriers as floating storage during the autumn. In 2006 eleven ships found such employment for periods extending to as much as four months. This option also provides the possibility to hedge, optimising on different prices notably between Europe and the United States, and to wait for more advantageous market conditions. As for freight rates, 2006 saw levels more than doubling, between \$40,000 and \$90,000 per day,

which indicates tensions and inflexibility in a transitional market. The trend at the end of 2006 is somewhat bearish with the arrival of new capacities due to be delivered in the first quarter of 2007.

A multitude of projects which combine new technologies and new operating methods was also an important aspect of the year 2006: LNG floating storage, offshore discharging buoys, ship to ship transfers, are all elements which now have to be taken into account in the development of the LNG market in years to come. For example, discharging directly in gas form into a land-based pipe network has become possible and the first operation of this kind will be tested in the beginning of 2007 in Teesside. This new operating method heralds a much greater flexibility of LNG use, in line with market expectations. With this direct unloading, the gas becomes one of the rare commodities that can be put directly into a distribution network and available to consumers without intermediary storage or transformation.



© Philippe Dureuil

Provalys,
153,500 cbm, delivered in 2006 by Aker Yards Saint-Nazaire to Gaz de France

It is also interesting to note that the first shipment of LNG into China from Australia took place in May. There was also in 2006 the first Nigerian LNG imports by Iberdrola, representing a little more than 30 % of their requirements.

As for shipyards, we have just gone through a period which has witnessed an amazing leap in technological innovation: a jump in size to 260,000 cbm, twin-propulsion for the big ships, re-liquefaction and re-gas on-board, a new type of CS1 membrane, dual diesel gas-electric propulsion. This should be contrasted with the persistent reputation of the LNG market until now, its traditional conservatism.

One has also observed a certain hedging of bets, especially on behalf of the three largest Korean shipyards, as to the choice of building LNG carriers or conventional ships; some are giving a preference to conventional ships as their mar-

ket price has gone up twice as fast as that of LNG carriers, whereas in terms of work force a LNG represents 2.5 times that of a VLCC; whilst others calculate in terms of dock-capacity used in the shipyard, where a conventional LNG carrier of 160,000 cbm occupies half the space of a VLCC and in addition, thanks to the membrane, the former can be put afloat well before a conventional tanker, thus permitting more ships to be built in the same dock.

Regarding owners, the purchase by Golar of 20 % of LNG Limited in Australia and also the creation of a joint venture between Exmar and Sadra in Iran, shows the need for owners to create new, innovating partnerships in order to take competitive advantages within the scope of new projects.

In respect of gas terminals, the number of projects in progress in Europe has increased considerably.

In France, announcement was made by 4Gas for the building of a terminal at Le Verdon with a capacity of 6 billion cbm/p.a., followed in November with a project managed by Poweo for a gas terminal at Antifer with a capacity of 8 billion cbm/p.a. With the project under construction between Total and Gaz de France at Fos-Cavaou for a 8 billion cbm/p.a. terminal, the total capacity for regasification in France should double to achieve 40 billion cbm/ p.a. in 2012.

As regards new LNG projects, one should take into account the delays encountered by some of them - for example the "Gorgon" project in Australia planned for 2008 and put back to 2010, but also in West Africa where some projects will be postponed due to the size of the investment. The uncertainties concerning some major LNG projects like the Shtokman project in Russia is likewise one of the significant events in

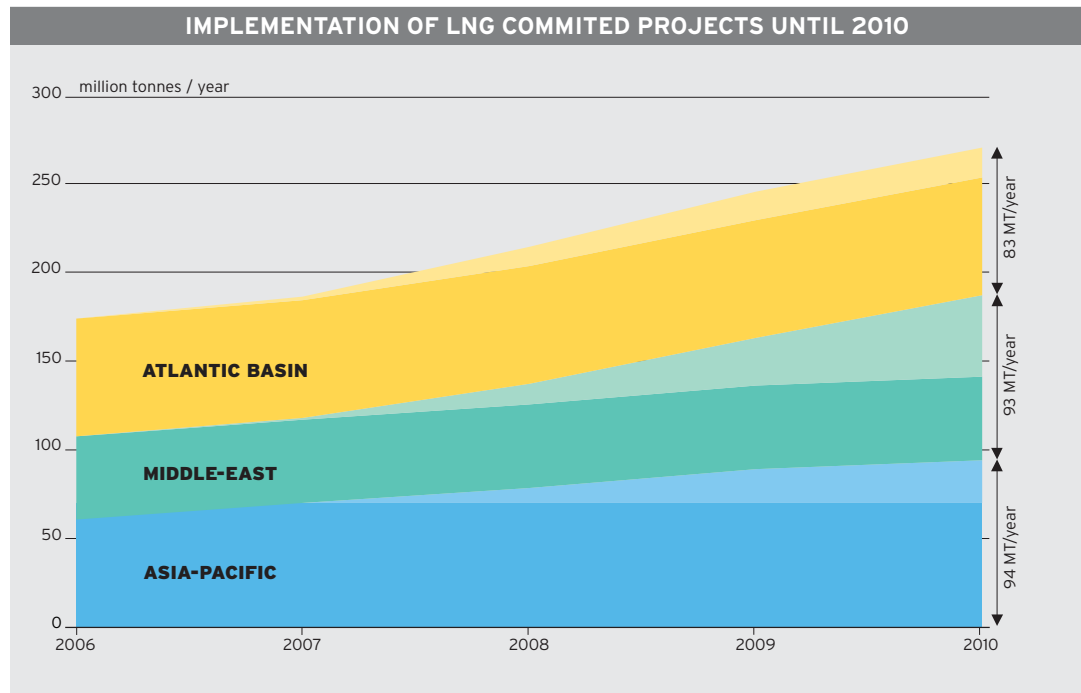
2006. Gas from Shtokman which initially was intended for US destination will now be sent by pipeline to Europe and will be developed by Gazprom on its own without the help of international companies. But this project could see other political swings in 2007. These elements will naturally have an effect on world LNG requirements.

It is therefore important to realize that numerous projects already announced will not be keeping to their timetables and that the delays will have a considerable impact on LNG shipping, since part of the quantities which were anticipated in the coming years will now only be available as from 2010 / 2012.

All these elements obviously pose problems to owners who have ordered traditional LNG carriers (150,000 cbm, steam propelled) on a speculative basis, and also to shipyards which will see a considerable drop in orders in the coming two years. We are witnessing a noticeable evolution in the concept of ships, both in terms of capacity as well as in terms of operating flexibility with a LNG market in full development for which we can offer a few reflected observations.

“Take a break in the rush”

LNG represents an alternative to the widely pronounced depletion of oil resources and is considered as a clean energy. In addition, its exports coming from OPEC producers are not subject to quotas. There is therefore a strong demand for LNG with numerous projects either under scrutiny or subject of speculation in all gas-rich areas identified. Between the announcement of a feasibility study and its realisation, several years can go by, given the importance of the investment in hand and geopolitical considerations. Just as an illustration, if we take only projects for which final

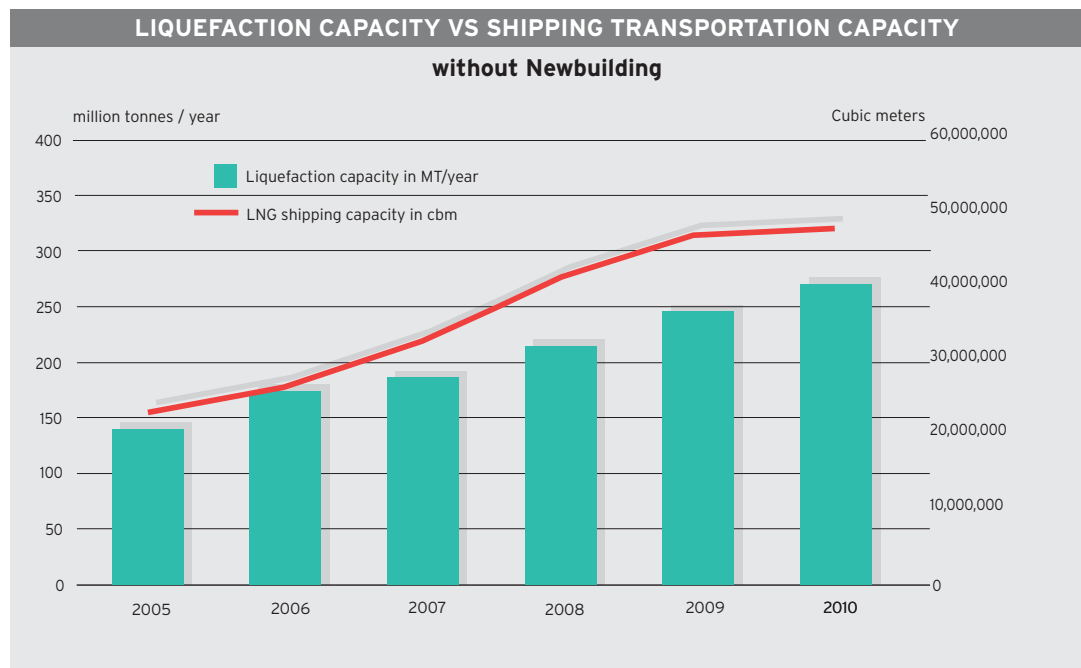


investment decisions have been made, one can expect from now until 2010 that gas liquefaction capacity will expand to about 85 million mt/p.a., taking into account delays from the drawing-board to the construction and the final installation of various projects.

Out of this 85 million mt/p.a. of estimated liquefaction capacity, about 40 million tons will come from the various Qatari projects, for which an additional dozen Q-max and Q-flex ships should be ordered in

2007 for the Train III of Rasgas III and then subsequently for Qatargas IV due to be in service in 2011.

Given identified projects and the orderbook of shipyards, there will be an existing fleet of a little more than 330 LNG carriers under 35 years to carry a shipping requirement of 270 million mt/p.a., and this without any new orders and deliveries before 2010. This orderbook already represents a confirmed increase of over 110 LNG carriers to cover the additional capacities. If





M-Flex LNG

Artist impression of the LNG Tanker Carrier project, **M-Flex LNG** vessel, 90,000 cbm, designed in cooperation with the Korean shipyard Samsung Heavy Industries (SHI), utilising the IHI SPB containment system with possible delivery from 2010 onwards.

one allows for the Qatar quantities which are already covered with 39 ships under order, that then leaves around 70 carriers for some 45 million mt/p.a.

The increase in ton-miles due to new trade movements, in particular with US destination, will surely not be enough to absorb the surplus shipping capacity coming into service (made even larger by the increase in ship sizes on order). In addition, some of the orders which will arise in the course of 2007 for projects integrating the shipping leg, will further increase the number of ships to be delivered before 2010. The surplus capacity expected is also due to the arrival on the market of ships ordered on speculation and ships being delivered prior

to the start-up of the projects for which they were destined.

We are therefore going to enter an interesting context in 2007 and 2008, where the evolution of the orderbook will be a good barometer to judge the surplus capacity looming in 2010. There is a balance to be found between orders due to be placed within this declining trend, which began three years ago, and identifying new niches in the market in particular linked to the development of a spot market, but also for a greater demand in terms of operating flexibility.

It could well be a case of traditional ups and downs with markets in full expansion, as there is clearly a strong demand for LNG being voiced by a number of countries. China

is negotiating broad agreements to secure the quantities necessary for its economic growth, in particular with Iran, as its needs could rise to 20 million mt/p.a. before 2015. The US has also an appetite for LNG, and could diversify their supply sources to include the Atlantic basin, after the disruption of the Shtokman project. There are some gigantic projects in hand including Australia, Nigeria (Brass, OK LNG) and Iran (NIOC LNG, Pars LNG, Persian LNG and the SKS project with Malaysia), which represent an accumulated quantity of 50 million mt/p.a. If some of these projects were to get off the ground shortly, the balance between production and shipping capacities would be largely modified. The related need for new ships would represent a level of orders which would be comparable to that of Qatar over the past three years. The outlook for the LNG market in 2007 therefore shows both promises of a market in full boom as well as reasons for caution given the range of uncertainties. ■

The dry bulk market in 2006

2006 SAW A CONTINUATION OF THE DEMAND LED MARKET THAT STARTED IN 2003, WITH CHINESE IRON ORE IMPORTS REMAINING THE MAIN MOTOR.

On the supply side, the aggregated dwt of the total bulk fleet increased by 8 %, and the year came to a close with the equivalent of 24 % of the existing fleet still on order. The fleets are renewing themselves efficiently, except for the Handysize fleet, 18 years old on average, of which the modern units are under especially strong demand. The increase in size of new ships has again been the norm, with for instance 22 Capes over 180,000 dwt delivered in 2006, and the rapidly growing Supramax fleet having an average age of 5 years, while the other sizes average around 10 to 12 years.

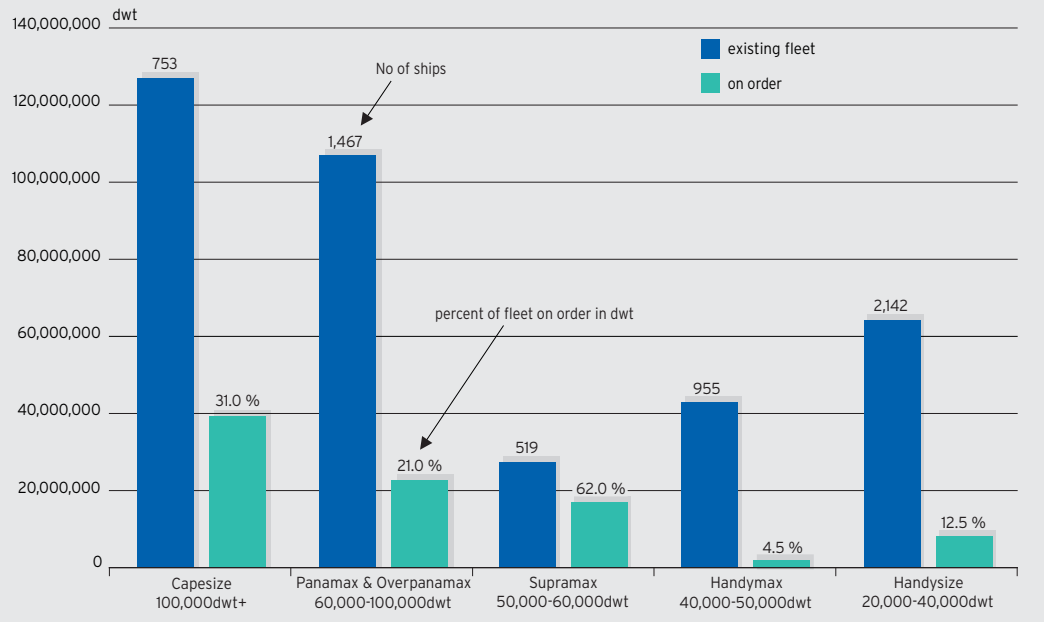
On the demand side, the steel industry remained the driving force for bulk sea-borne trade, accounting for nearly half of the tonnage transported by sea last year. The Chinese steel production saw no signs of slowing growth, despite government efforts to induce this by reducing cash

flow in their economy. This production kept on necessitating iron ore imports from Brazil and Australia, while India also offered an option to China which has been developed throughout the year. As for coal, the rising demand enabled Indonesia to significantly increase their market as a solid exporter towards the Far East, competing with Australia.

As 2005 ended with subdued demand and significantly lower time charter levels than we had experienced during the year, many players and analysts felt that supply and demand were balancing out. The market in the first half of 2006 was comfortable, with Capes asking for over \$30,000/day, Panamax and Handymaxes over \$20,000/day, but not exciting enough to initiate new orders, in competition with the high flying and heavily sought after tanker and container newbuildings.

A sudden swing late January, early February 2006 is explained retroactively by the difficult and very late conclusion of the yearly iron ore pricing negotiations. Suppliers had been holding back

BULK FLEET AND ORDERS



stems and receivers using their stocks, both in an effort to influence in their favour an eventual price adjustment. The shippers prevailed with a 19 % increase and receivers built stocks back up, which gave a positive tone to the market before the price increase became active.

Come April things appeared back to normal, and the markets seemed set for the summer lull. It wasn't until the autumn that the extent of the raid on the Capesize market was evaluated. An Asian owner/operator had remarked the tight balance of supply and demand. Buying derivative Cape time charter paper contracts from everyone who would sell them, he simultaneously took on physical time charter most available Capesize vessels. As the physical market reacted to less availability, he continued his raid all the way up and the indices continued to increase, making his paper derivative position very attractive. With a reported gain on paper of over a billion dollars, there seems to have been ample reserves to absorb waiting time for idle vessels,

as he pushed the market even higher. Most of his paper positions were for fourth quarter 2006 delivery, and it is significant to note that there were no defaults on the paper market, which signifies a growing maturity within the players.

At year end, with a very tight supply/demand ratio, rates were strong in all basins and finished the year with time charter levels of around \$70,000/day for Capesizes.

The heavy demand drive of the market in the second half of 2006 made it unnecessary for owners to accept discounts on routes, who instead went to and stayed in the trades that best suited their available tonnage, and this caused an unusual convergence of all the time charter rates towards one price. Indeed the backhaul rate, which is historically the lowest rate, increased significantly relative to the fronthaul rate; and the Pacific round, generally slightly cheaper than the Atlantic round, was up to 30 % more expensive than the Atlantic round.

Panamaxes and Supramaxes had been riding the wake of Capes, moving in a dampened manner in almost total synchronisation. The autumn saw this synchronisation disappear and then inter-Asian trades seemed to generate their own driving force for these ship types. The high volume of activity in the Pacific was able to absorb the massive Panamax and Handy-Supramax newbuilding deliveries. Consequently owners were reluctant to trade their vessels back to the Atlantic, and thus asked for a premium to deliver these routes. It is remarkable that iron ore exports from India stood at about 96 million tonnes, while coal imports amounted to about 40 million tonnes. By the same token, cement exports from China to the USA increased to an unexpected level of 40 million tonnes. Throughout the spring and summer, the Pacific and Atlantic basins evolved with little correlation, with a spread of between \$5,000 and \$10,000/day.

Surprisingly Supramaxes, although 25 % smaller, were more expensive than Panamaxes during the second quarter, underlining the steady, independent and increasing demand for these vessels, which are able to deliver a wider range of shipments using their own gear.

The smaller Handysizes are even more versatile in their deliveries, their rates are thus less correlated to those of the bigger sizes. Nevertheless their global trend in 2006 was the same, with time charter rates increasing hesitantly during the first half of the year from daily earnings of \$13,500/day in January, to \$16,000/day in June, and then moving into a clear bullish trend to attain \$21,000/day at the end of the year, this due to a clear lack of modern tonnage.

For all these sizes, congestion in ports affects the market signifi-

cantly. The year started with short waiting times at ports, and things were reasonable until mid-year, but thereafter the need for throughput sometimes surpassed the port capacities, which caused increasing waiting times, making tonnage unavailable and putting further pressure on supply in an already bullish market. The longest queues occurred in Newcastle, where ships ended the year having to wait approximately a month. For most other ports, as throughput capacity increased, the congestion problem was no longer.

Overall, the volatility was 30 % lower in 2006 than in 2005, with daily volatility averages of \$770, \$295 and \$110, or 1.8 %, 1.5 % and 0.5 % for the Cape, Panamax and Supramax time charter rates respectively, indicating that 2006 saw the market finding a relative form of stability for the first time since the shipping boom of 2003. The larger fluctuations of the Cape rates are partly due to the smaller number of ships and their direct dependence on the dynamics of the steel and thermal coal markets, making their market less liquid than those of smaller sized vessels. They are also a consequence of the greater volume of FFA contracts signed against their rates, which create psychologically induced swings in the rates.

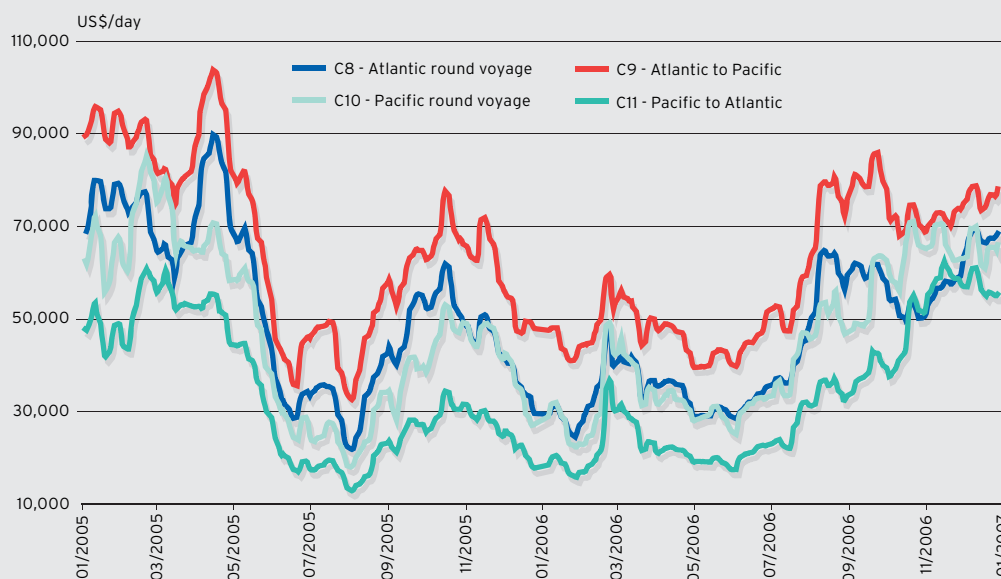
Indeed, the number of companies speculating or performing financial risk management using shipping derivatives is growing rapidly. This year saw for the first time the apparition of Shipping Options as well as a Baltic exchange publication of official FFA volume statistics, giving an idea of the amounts traded and thus making a step away from the traditional secrecy characteristic of this market.

In 2006, FFA trade volume expanded, especially in the second half of

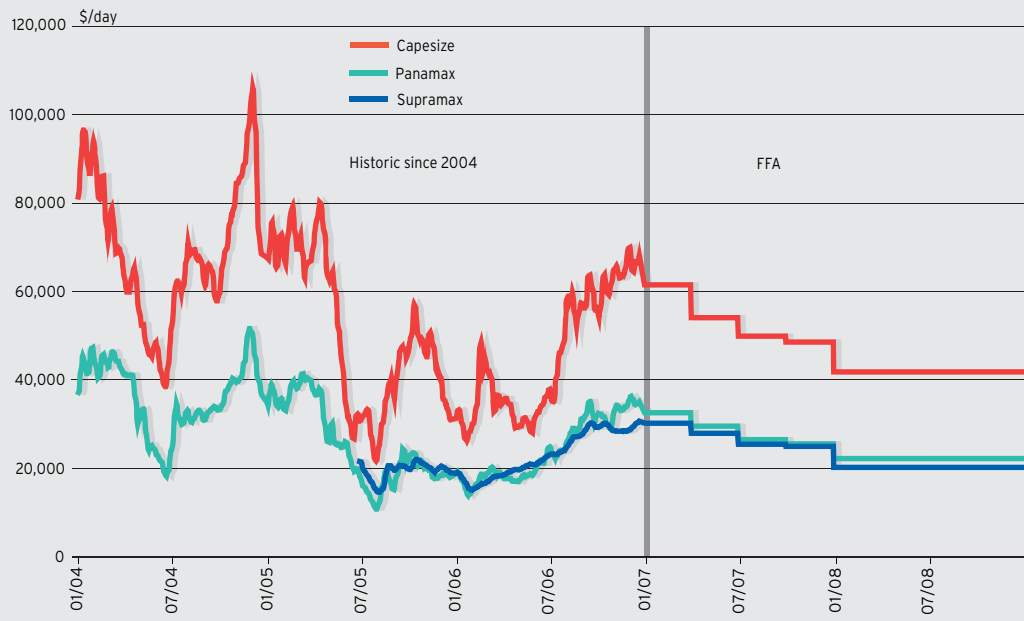


Lake Biwa
68,280 dwt, built in 2002 by the Japanese shipyard Iwagi, owned by Bocimar

CAPE TIMECHARTER RATES SINCE 2005



AVERAGE BULK TIMECHARTER RATES & DERIVATIVES



the year, and the total annual volume traded is now considered to be approaching parity with physical volumes of cargo in a 1:1 ratio. This

growth should continue, as new counterparties enter the marketplace, increasing liquidity, transparency and reliability, which in turn

will attract new players. Banks and hedge funds are currently showing a clear interest for trading commodities and their derivatives, the next logical step appears to be for a number of them to become involved in shipping. The 2006 raid by Far Eastern operators, representing the most fruitful move of the new millennium to date, should inspire others towards trying to master the financial opportunities that lie within the dry bulk shipping market in 2007.

We expect demand to stay firm in the short term, but there looms a huge newbuilding capacity coming on stream in the medium term. Market balance will depend on owners self control! ■

The dry bulk second-hand market

THE SECOND-HAND CAPE SIZE BULK CARRIER MARKET (80,000 DWT & OVER)

At the end of 2005, we finished our article by underlining "China and India's dynamism, which are still the main growth sources for our markets", and wondering "whether this dynamism will be sufficient?"

Looking at the figures, clearly the answer is yes, although a slight uncertainty was perceptible until around the month of March.

We have seen about 80 sales for further trading during last year, and remarkably close to twenty of them concerned Kamsarmaxes. Only three sales for demolition have, to our knowledge, been recorded this year in the Capesize sector, of which one was a combined vessel

(OBO). The two other vessels that came out of the fleet were total losses due to accidents.

By the end of December 2005, a 5 year old Capesize of 172,000 dwt was estimated at about \$57.5 million, beginning of January the value had fallen down to about \$57 million, and by the end of March he would have found a buyer at \$53.5 million. A slight gain in May enabled the market to come back to the levels of the beginning of the year, and from the month of June onwards we entered a clear upward trend which gave, at the end of 2006, a market value at \$80.5 million.

This enthusiasm is of course revealed by the strong number of vessels sold, as well as by the premium paid

for Capesizes deliverable promptly, which can be operated straight away and thus benefit from the strong time charter rates.

Similarly, the yard resales and the most modern vessels, awake the appetite of bold buyers, frustrated by the far away delivery dates they can obtain in the construction yards. We would not be surprised to see vessels deliverable within a year's time, or very shortly, attain the \$100 million level, inconceivable not that long ago.

As for older units, vessels of 165,000 dwt built in 1995, which were negotiated at \$36 million in December 2005, and were then worth \$34.5 million in the end of January 2006, they ended the year at around \$62 million!

A 15 year old vessel of 150,000 dwt, which was worth \$28.75 million in December 2005 saw his price go up to around \$45 million by the end of 2006.

In this end of year 2006, owners' spirits are sky high. However, contradicting what some think, "trees never touch the sky", and a limit will be reached... one day. When and at what level? Call us so that we can discuss this!

THE SECOND-HAND MARKET FOR PANAMAX, HANDYMAX & HANDYSIZE BULK CARRIERS

And one, and two, and three, and four! Four successive years of a "phenomenal" dry bulk freight market has naturally led to the most exciting and profitable period in the maritime industry yet...

The second-hand bulk carrier market over the last twelve months has definitely not been for the faint hearted. Sentiment which has led to traditionally "low" activity months in July and August, once more had centre stage and has this time led to a high number of transactions, with prices recording new highs each week during these two months.

Values which had corrected downwards at the end of 2005, kept their "southern" direction till about the end of the first quarter, when they stabilised. During these first months of the year buyers were mostly cash rich looking to capitalise in the drop of values of the previous 12 months. The second quarter prices recorded little movement and all actors were set for a well earned summer vacation, or so they thought. Round about early June, "sentiment", this wonderful analytical tool which helps all shipping professionals make important decisions, struck! A couple 2/3 year period fixtures, gave existing

owners and "would be" owners a good reason to ask for and pay for more than last done. Most people decided that values had corrected enough, causing a sharp increase in potential buyers, becoming more adventurous and willing to travel further away to inspect ships offered for sale. A higher number of buyers competing for ships inevitably caused prices to increase on a weekly basis.

During the third quarter, freight rates picked up and kept doing so right into the middle of the summer, leading prices in all three size segments and for all ages to record healthy gains. August proved to be one of the busiest "August months" in sale and purchase history, with about 62 sales recorded, of which one-third were Panamaxes.

This continued right up to the end of the year and even over the Christmas and New Year holidays this extra hot second-hand market, kept buyers, sellers and their trusted brokers busy.

Looking at tonnage removed from the market, and although the number of ships ending their lives increased in comparison with last year (in deadweight terms the figures for 2006 are about double those for 2005: about 3.2 million dwt versus about 1.6 million dwt respectively), the sales of vessels for demolition

still proved to be too few and far between, causing prices per ton lightweight to increase to about \$390-410 for those destined to be recycled in India or Bangladesh.

Comparing second-hand values, for the sizes under consideration, at the end of 2006 against those at the end of 2005 we note :

Panamax (68,000-78,000 dwt)

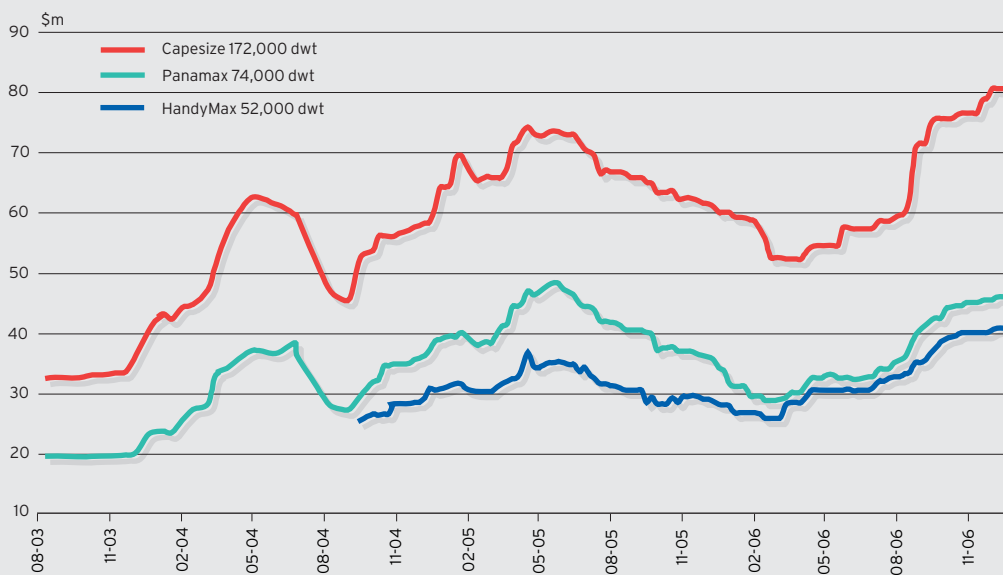
At the end of 2006, a 10 year old Panamax bulk carrier is worth about \$38.0 million, representing an increase in value of about 58 % over the past 12 months, whereas a 5 year old Panamax bulk carrier is worth about \$46.0-46.5 million, which represents about 59 % appreciation when compared to the value of a year earlier in December 2005. Whilst these values are those at the end of 2006, it is worth remembering that during the first and second quarters of 2006, Panamax bulk carriers of 5 and 10 years old were "changing hands" for about \$29.0-30.0 million and \$24.0 million respectively. One of the transactions worth remembering in May, was the "en-bloc" purchase of the Metrostar/Angelopoulos modern Panamax and Kamsarmax fleet (17 vessels including 3 x 76,500 dwt and 14 x 82,800 dwt Kamsarmax size) by the Nasdaq listed owner Quintana Maritime.



Ponta Da Madeira (Brasil)
Pier III expansion with a new shiploader which started operations in September

DRY BULK CARRIER SECOND-HAND PRICES

(5 years old ships - weekly update)



Supra/Handymax (42,500-55,500 dwt)

At the end of 2006 a 10 year old Handymax (45,000 dwt) bulk carrier is worth about \$31.0-31.5 million, representing an increase in value of about 48% over a period of 12 months whilst a 5 year old Supra-Handymax (52,000 dwt) bulk carrier is worth about \$40.0-41.0 million recording a value appreciation of 56% compared to the same period one year earlier, December 2005.

Handysize (21,000-36,500 dwt)

At the end of 2006 a 10 year old Handysize bulk carrier is worth about \$23.0 million, representing an increase in value of about 21% over a period of 12 months. During the same period, the value of a 5 year old Handy bulk carrier recorded an appreciation of about 14% and, at the end of 2006, stands at about \$28.5 million. Looking back over the past four years of this "bull" market, we note that this size group offers steady appreciation in value albeit in a less spectacular manner than the fluctuations in value recorded for the larger sizes.

After the four great years the maritime industry has experienced, every shipping professional is won-

dering and trying to answer the questions: "What's next?" and "Where do we go from here?"

It worth noting that although freight rates are below their 2005 record levels, bulk carrier second-hand values for all sizes are at "all time highs", higher than the records set during the last quarter of 2004 and the first quarter of 2005. The Baltic freight indices are at their highest point since December 2005 but still much lower than the peaks reached at the end of 2004 and first quarter of 2005, so can we expect a further increase in values?

The agreement of iron ore prices (between miners and steel mills) earlier than usual, will most likely lead to a surge in chartering activity and a freight rate increase at least until the new prices take effect, in the second quarter. We would therefore expect owners of second-hand tonnage to adjust their price ideas upwards.

For the next 12 months we are cautiously optimistic, would expect less volatility, with a tendency for values to increase across the board, mainly due to the following reasons familiar to all regular readers of shipping market reports: China's continued double-digit growth, with

India not far behind. The number of newbuilding orders (all ship types) increased dramatically during 2006 (ahead of new rules and regulations), giving shipyards full orderbooks till 2010. The last few years of this "bull" market have created enormous amounts of "cash" and consequently "seriously cash rich" shipping investors. When this cash seeks investment in a shipping project, it is logical that prices will not ease off their present peaks. Last but not least, we are back into a "seller's market" as opposed to last year and as such we shall see an ever increasing number of buyers competing for the same vessel, thus driving up the eventual sale price.

A shipping investor contemplating a purchase of a modern vessel, should probably finalise it sooner rather than later. Older vessels should be considered too but extreme caution should be exercised with the most important parameter being "condition". If on the other hand a sale is to be considered, prices are at all time highs (again, last time end 2004-early 2005) so maybe now is a good time to sell. If the asset is "mature" and it's owner has been able to use it for a number of years, including the past four years, there is only one way forward: "sell, sell, sell".

To summarise, freight markets seemingly keeping their momentum, a growing number of cash rich investors seeking to purchase second-hand vessels, Chinese and Indian economies recording strong annual growth, shipyards with full orderbooks till 2010 and the stage is set for another interesting year during which we expect prices of second-hand bulk carriers to keep their upward trend. ■



BRS Futures Ltd was set up in 2003 and is a subsidiary of one of the most respected and long-established international shipbroking firms, Barry Rogliano Salles of France.

The parent company has more than 150 years' experience in providing a range of services to clients in the shipping industry.

The last few years have seen substantial growth in the use of derivatives to manage exposure to risk in many markets. The international shipping market is no exception, and in response to clients' needs, BRS has added freight derivatives to the range of services it provides.

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The containership market in 2006

2006 WAS A YEAR OF SUSPENSE. TONNAGE HAS POURED IN TO THE MARKET, and the cellular fleet capacity has risen by 16 % in twelve months. Furthermore, the large ship segment -over 4,000 teu- contributed to 73 % of the capacity delivered. Such ships are highly efficient, with speeds of 24-25 knots, reaching even 27 knots for a few of them. Filling all that extra capacity first appeared as a challenge, with shippers awaiting signs of overcapacity to exert pressure on anxious carriers. But in the end, this challenge was fulfilled.

Repeated forecasts stating that the offer would outstrip the demand have worked to a point, as box rates were driven down by the sentiment that there were too many ships around. It is true that there were some breathtaking moments when the transpacific high season ended in October, with ship demand reaching a low point while Far East yards continued to deliver ships at a pace approaching 4,000 teu per day.

All was right again by December, and the early weeks of 2007 have confirmed the bullish trend. The rise of the euro against the dollar during the last quarter of 2006 also helped to fill ships, as explained later. Actually, two prominent car-

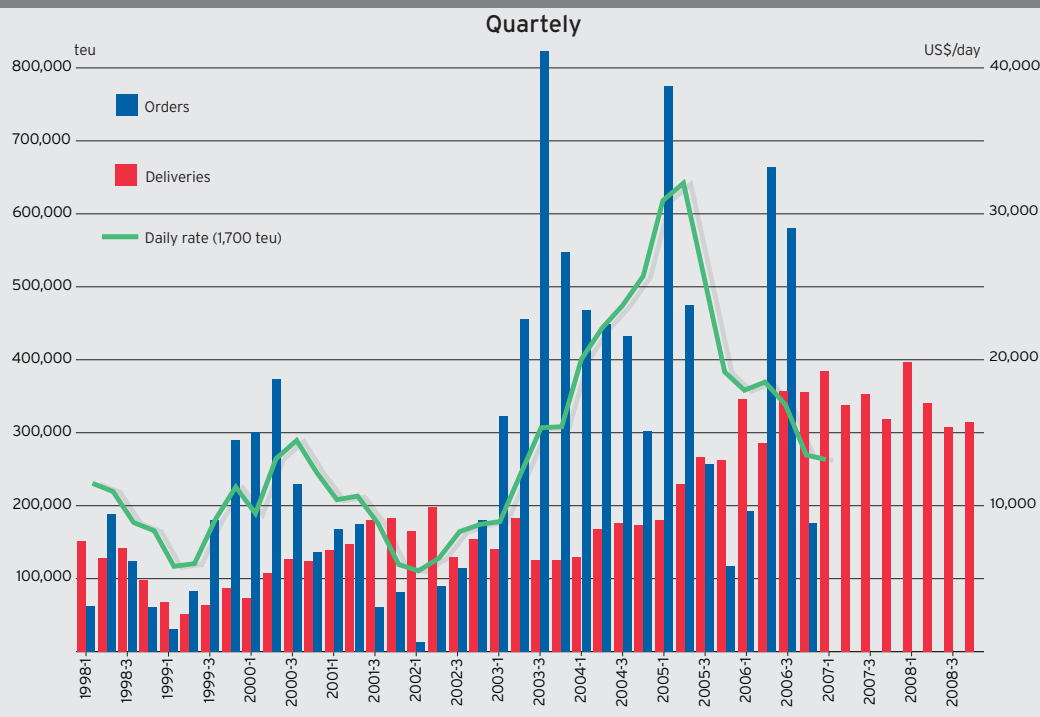
riers, MSC and CMA CGM, took advantage of the autumn lows to build up market shares by taking the ships released by less audacious rivals.

So, while some carriers talk of overcapacity and release the ships they cannot fill, others take them to fulfil their increasing capacity requirements. This market share race also keeps the rates under pressure as the temptation is big to offer competitive rates in order to attract shippers, although it is far from being the only factor in the equation.

With China continuing to feed norias of giant containerships and India exports surging, carriers are confident that 2007 will be a good vintage. They have revived plans to raise rates on most key routes and hope for better returns. Even the mixed US economic figures do not bring the same worries as only two or three years ago. Globalisation has rendered world trade less sensitive to the fluctuations of the US economy. Eastern Europe economies are developing fast and trade between developing countries has also surged.

This is well illustrated by increasing volumes transiting through the Black Sea and the Baltic sector, while the China-India-Middle East trades are flourishing. This

CELLULAR SHIPS: DELIVERIES AND ORDERS



Source: BRS-Alphaliner

Evolution of the cellular fleet 1988-2010

Year	Number	Teu	Progr.
1988	1,156	1,494,766	
1989	1,189	1,601,020	7.1%
1990	1,239	1,707,757	6.7%
1991	1,311	1,846,893	8.1%
1992	1,398	2,006,100	8.6%
1993	1,489	2,202,398	9.8%
1994	1,592	2,385,927	8.3%
1995	1,739	2,652,421	11.2%
1996	1,913	2,980,909	12.4%
1997	2,108	3,359,195	12.7%
1998	2,337	3,866,740	15.1%
1999	2,517	4,288,121	10.9%
2000	2,616	4,517,529	5.3%
2001	2,740	4,928,347	9.1%
2002	2,897	5,531,695	12.2%
2003	3,038	6,115,165	10.5%
2004	3,179	6,657,430	8.9%
2005	3,352	7,307,856	9.8%
2006	3,611	8,247,112	12.9%
2007	3,949	9,574,035	16.1%
2008	4,448	11,076,437	15.7%
2009	4,896	12,699,054	14.6%
2010	5,195	13,992,469	10.2%

Figures are given at 1st January of each year
 Figures for 2007 to 2009 are derived from the orderbook

Source: BRS-Alphaliner

has helped to fill the East-West ships while new services targeting these sectors have been developed, and have absorbed a lot of tonnage during the past two years. China's strengthening economic ties with Africa start to generate a boom on the China-Africa trades, absorbing quantities of 1,500-2,500 teu ships, be it feeders connecting to Middle East hubs or deployed on direct services.

THE EURO US\$ PARITY IMPACT

So, the market is still in carriers' hands. The seasonal effect put aside, it is remarkable to see how the huge capacity delivered in 2006 has been absorbed by market growth. However, the US\$/euro parity has helped to maintain ships close to full, especially on East-West routes.

The stronger the euro is against the dollar, the longer the distance run by the average East-West container is. A strong euro gives European buyers a bigger purchasing power, thus creating an incentive to replenish stocks in the euro zone. It benefits directly the Asia-Europe lines. On the contrary, the relative weakness of the US\$ and lower economic expectations in the US has kept a lid on Far East-US trade (it has moderated the growth).

So, with a strong euro, Chinese and other Asian exports tend to proceed to Europe instead of the US.

As it necessitates on average eight ships for a typical Far East-Europe loop instead of roughly an average of six ships per loop for the Far East-USWC / Far East-USEC trade (figure weighed for the number of loops), it has helped to maintain capacity demand at a good level as the euro went stronger against the dollar during the last months of 2006, and has since stabilized in a 1.25-1.30 range.

Sustained demand in Eastern Europe has also helped to fill Far East-Europe ships, it is thus not surprising that most of the VLCS's delivered have flowed on the Far East-Europe route, and not on the Far East-US route. The filling ratio is alas acceptable in one direction only, and ships have to reposition themselves in Asia with huge quantities of empty boxes, alongside with loaded boxes carried at depressed rates.

THE INDIA FACTOR

Another key factor has been the emergence of India as an exporting (and importing) force. It has not only concerned the India-US or India-Europe trade, but also the India-China, India-Korea and India-Japan trades. India's GNP growth rate for 2006 is estimated at 9 % and compares to China's 10 % GNP progression.

However, India could meet difficulties in maintaining such a rate. Factories are running at near full capacity, making it difficult to keep inflation under control. Basic infrastructures, a responsibility of the government -such as roads or electricity production-, are hardly sufficient to cope with developments in the private sector. The government met success in fostering economic development for the past 15 years, but it did not itself follow the pace. The port sector is also under stress, and there is a fear of terminal shortage if the Indian trade continues to grow at its current pace.

Whatever the future will be, the booming Indian economy has been a boon to help fill ships in 2006. Volumes shipped justify today more direct services, at the expense of feeding through Colombo or the Middle East and SE Asia hubs. Even Chennai will be inserted in March 2007 in two services which will connect the port directly to the

Atlantic basin for the first time, including a direct Chennai-US connection.

So, many positive factors have helped to absorb a fleet growth of 16 % in 2006 (in teu terms) and it seems on its way to absorb the 15 % growth expected for 2007. All sounds well, except that falling profits have been experienced by most operators this year, as they were confronted with a fall in box rates despite good filling ratios, but also to increases in bunker costs (at least at the beginning of the year), to high newbuilding prices and to charter rates still at a relatively high level.

As for scrappings, the figure will remain insignificant, unless a sudden and unexpected slump precipitate ships to the breakers' yards. Only 25,000 teu have been scrapped for the whole of 2006, after an absence of scrapping in 2005

The longer term (say 10-15 years) is perhaps less rosy. With Asian exporting nations getting richer, product-

ion costs will follow. It must then be borne in mind that when TV sets -or anything else- will become competitive to be produced massively in, say, eastern Europe (or Africa - who knows?), against China, it will encroach on Chinese exports to Europe. Beware for the future transportation demand!

It will not however happen overnight, and when it will happen, it will have its positive side, as carriers will be at least in a position to raise profitable money on return legs from Europe and North America to Asia. The current -although moderate- appreciation of Asian currencies, with the yuan in the forefront, of course plays a role in this direction, in helping to re-establish the balance.

But too fast a rise of Asian currencies could trigger a backlash, as some countries could be tempted to take steps to reverse it, in order to protect their export power, as experienced in Thailand since the last weeks of 2006.



CMA CGM Iguacu (ex-Rio Adour)
2,490 teu, built in 2006 by the German shipyard HDW, owned by MPC Steamship and chartered by CMA CGM

There has been a modest burst in containership sales for scrap in 2006, which lead a few veterans aged 26-30 years to the scrapyards, lifting cellular ship scrappings to 25,000 teu.

In 2004, only five containerships totalling 2,454 teu were deleted while the year 2005 was marked by the absence of containership scrappings. The lower expectations of today's market and the influx of newbuildings at a rate of an average 4,000 teu everyday for the 24 months to come, will inevitably lead to further sales.

However, they are not expected to reach a significant proportion of the newbuilding influx. Historical records show that containerships are scrapped at an average age of 27 years. Assuming all ships reaching 27 years of age and above at the end of 2008 are scrapped, the figure would reach 360 ships totalling 380,000 teu.

Assuming that a slump precipitates ships reaching 25 years of age at the end of 2008 to the scrapyard, the total figure would then reach 504 ships totalling 556,000 teu.

In the unlikely event that ships reaching 23 years of age at the end of 2008 are scrapped, the figure would come at 683 ships totalling 826,000 teu.

As a comparison, newbuilding deliveries are expected to reach a total of some 900 ships for 3 million teu during the years 2006 and 2007. As newcomers are faster than their older counterparts, the imbalance is actually still larger. The average speed at which each teu will circulate on ships delivered in 2007-2008 stands at 23.5 knots (figure weighed with capacity, the average ship speed standing at 21.7 knots). For existing ships of 23 years and above, the

weighed speed per teu stands at 18.9 knots for an average ships speed of 17 knots (note: the speed considered in these calculations is the contractual commercial speed).

Conversely, it must be emphasized that the older ships will remove more deadweight capacity in comparison with the new ones. Ships over 23 years offer a dwt per teu ratio of 16 tons, against a ratio of 12.5 tons per teu for the ships to be delivered in 2007-2008. As a result, taking into account ships over 27 years as an example, the ratio between newbuilding deliveries and ships delivered to scrap stands at 8 in teu terms but stands only at 6 in dwt terms. It makes a notable difference when ships at extreme ends of the age range are compared.

Summary of figures quoted above (cellular tonnage):

- ◆ Ships delivered 2007-2008 => 904 ships / 3,050,000 teu / 38 million dwt
- ◆ Ships of 27 years and above at end 2008 => 360 ships / 380,000 teu / 6.3 million dwt
- ◆ Ships of 25 years and above at end 2008 => 504 ships / 556,000 teu / 9.2 million dwt
- ◆ Ships of 23 years and above at end 2008 => 683 ships / 826,000 teu / 13.4 million dwt
- ◆ Average ship speed for ships delivered 2007-2008: 21.7 knots
- ◆ Average teu speed for ships delivered 2007-2008: 23.5 knots
- ◆ Average ship speed for existing ships of 23 years and more: 17.0 knots
- ◆ Average teu speed for existing ships of 23 years and more: 18.9 knots

- ◆ Ratio dwt per teu for ships delivered 2007-2008: 12.5 tons/teu
- ◆ Ratio dwt per teu for ships of 23 years and more: 16.0 tons/teu

The case of the non-celled tonnage

We are completing these figures with a case by case analysis of non-celled tonnage deployed on liner trades which will reach the age of 27 years by end 2008. Some 210 ships are concerned, totalling 2.8 million dwt and 120,000 teu.

About 100 of them are employed on trades with a mix of containers, breakbulk and rolling stock. Another 110 of them are identified as operating on pure container services (including feeder trades) or at least on services largely dominated by containers. These 110 ships total 45,000 teu and 1 million dwt, which is a drop in the ocean of cellular newbuilding deliveries.

These latter ships add to the 380,000 teu of cellular tonnage which will reach the same 27 years of age by the end of 2008, boosting the total to 425,000 teu. So, contrary to a general belief, the aged multipurpose tonnage still working on full container trades does not weigh much in today's container trades.

Most of these non-celled full container veterans are deployed on local feeder loops or regional services in the Indian Ocean, SE Asia, Med and Caribbean sectors, where modern tonnage is often too expensive to operate. Ships of some 35 years old are even still acting as full container carriers on these trades. They are often former conventional tween-deckers, adapted to containers with sometimes their gear also adapted or squarely removed.

THE OPERATORS

Most large carriers have lost money during 2006, or at least made much smaller profits than in 2005. The main reasons lie in a fall in box rates coupled with high bunker costs and charter hire burdens from costly charters concluded at the peak of the market in mid-2005. A seasoned optimism leads to think that profits will be back in 2007 thanks to a rise

in box rates. The first quarter of 2006 was marked by the integration of the Maersk Sealand and P&O Nedlloyd networks in new sets of services under the Maersk Line label. This has not only concerned Maersk, as many joint services involving P&O Nedlloyd (PONL) have been shaken, and agreements were dissolved, with Maersk giving notice of its exit as soon as it took full

control of PONL in August 2005 (it was mostly six months notices, with February 2006 being the average date for the effective dissolution).

Interestingly, in its February 2006 service recomposition, Maersk retained a mix of relay services and direct services to cover identical trades. PONL favoured the direct services while Maersk developed its services around the hub and spoke system.

It is not clear initially if this choice was to be a more or less definitive one, or if Maersk saw it as a temporary choice, perhaps not to overburden its East-West arterial services with ex-PONL volumes.

Whatever the Maersk strategy was at the time, the company has initiated again a vast recomposition of its network during the second half 2006, and it is not yet finished. Maersk puts again the emphasis on its favorite hub and spoke system, dropping one after the other the direct services inherited from PONL.

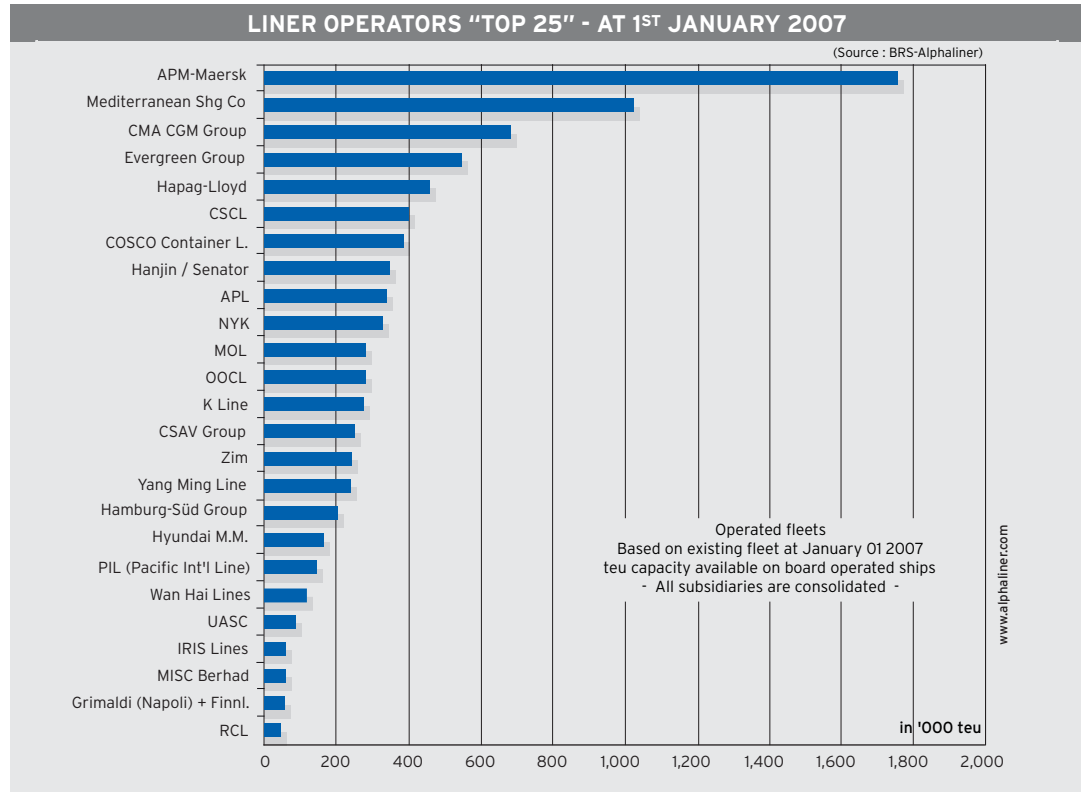
This recomposition of the Maersk Line network may have been accelerated by the loss of customers it experienced, and hence of volume, with probably a serious adverse effect on the filling ratio of its large ships deployed on the arterial East-West routes. It is also probably for this same reason that Maersk did not renew charters on several 4,000 teu ships and even had to sublet such ships.

While the A.P. Moller-Maersk fleet grew by 5.7 % during 2006, its closest rival, MSC enjoyed a fleet rise of 30 %. It broke the one million teu mark in November 2006 and its fleet reached 1.02 million teu on 1 st January 2007, against 1.76 million teu for APM-Maersk. Despite an incessant flow of newbuildings (including no less than 15 VLCS), MSC did not have enough ships to fulfil its requirements. So, it swooped on the ships released by Maersk, CSAV or Hanjin.

CMA CGM consolidated its third rank with a fleet growth of 35 %, pushing its fleet to 685,000 teu. Like MSC, CMA CGM has taken many ships unwanted by others and its network continues to develop at an amazing pace, with the launch of new services focusing on the southern hemisphere. These new services are run by ships ranging from 1,000 to 3,000 teu, and have been the most prolific charterers in this size range.

Hamburg-Süd has strengthened its presence on the ANZ trades with the purchase of the Fesco services cover-

ring this sector. Two national carriers have also developed successfully their network and fleet: S.C.



The collective market share of the three world leading lines, Maersk Line, MSC and CMA CGM, has grown from 32.4 % to 33.1 % in terms of teu capacity during the year 2006, according to figures produced by BRS-Alphaliner. Taking by comparison the figures at 1st January 2000, the three leading lines at the time, Maersk Sealand, Evergreen and P & O Nedlloyd, had a combined market share of 23.7 %.

However, the growth in 2006 was far from being equally shared by the three leading lines. Maersk Line still dominated the market with a share of 16.8 % on 1st January 2007 but this was down from 18.2 % a year ago, reflecting the difficulties the company experienced in integrating P&O Nedlloyd. On the contrary, both MSC and CMA CGM have clearly strengthened their positions. MSC has increased its share from 8.6 % to 9.5 %, while CMA CGM logged an increase from 5.6 % to 6.5%.

MSC and CMA CGM are even to continue boosting their positions as they are taking the ships that others are discharging -or subletting. It looks like the size and coverage extent of these two carriers give them more confidence in the future than smaller carriers, and they are probably in a better position to sustain lower rates, partly thanks to economies of scale and through distinct commercial flair. It will allow them to drain cargo from smaller competitors and to continue growing faster than the rest.

Consolidation wave in the intra-Europe trades

2006 has been an eventful year in the intra Europe container trades, with an acceleration of the consolidation momentum, which took off in 2005, with two Icelandic companies, Eimskip and Samskip, and a Belgian one, Delphis, leading the game for door-to-door container services, while Grimaldi became a leader on the pan-European trade running from the upper Baltic to the eastern Med with its bid on Finnlines (against Finnlines wish - Grimaldi could still retract as per situation at time of writing).

On the other side, APM-Maersk has offloaded its intra Europe door-to-door container businesses Portlink and Norfolkline Containers, while Finnlines sold Team Lines to Grimaldi took control of 50 % of the Finnish company. North Sea roro operators such as DFDS-Tor Line and Cobelfret are also in an acquisitive mood.

Samskip

- ◆ Samskip acquired in March 2005 Dutch intermodal operator Geest North Sea Line (GNSL)
- ◆ In July 2005, Samskip bought UK-based shortsea shipping operator Seawheel Ltd.
- ◆ In September 2006, Samskip established its own organisation in Spain, taking over all shortsea activities from its existing partner, Odiel Bilbao SA.
- ◆ In September 2006, Samskip dropped the GNSL brand and applied the Samskip brand to its European shipping network, which covers all NW Europe, including the UK and Baltic.

Eimskip

- ◆ Eimskip bought a 50 % equity stake in Kursiu Linija (Lithuania) in May 2006 and took control of the whole company in September. Kursiu Linija offers door to door

services in the Baltic States, Poland, Russia, United Kingdom and Northern Europe.

- ◆ In September 2006, Eimskip took control of Finnish carrier Containerships OY through a joint venture under the name Containerships Group (CS). CS is headquartered in Helsinki and covers trades between Finland, Germany and the UK. Kursiu Linija has been since integrated within CS operations.

Delphis

- ◆ When created in March 2004 (with first services opening in May), Delphis ambitioned to become a leading force in intra Europe transport and feederage. It has now achieved this with a network stretching from the upper Baltic to Gibraltar through both organic growth and the acquisitions in 2006 of Team Lines and Portlink.
- ◆ Germany-based Team Lines has been purchased in July 2006 from Finnlines. Team Lines provides transportation and feederage services between North Sea ports and the Scandinavia and Baltic area.
- ◆ Portlink NV was bought in August 2006 from Safmarine Container Lines NV, itself a division of the A.P. Moller-Maersk Group. Portlink operated regional door-to-door services between the Benelux-UK-Le Havre area and Iberia, a sector already covered by Delphis.
- ◆ Delphis has since then extended the Team Lines brand to its other intra Europe operations, i.e. the former Portlink services and the Delphis original services.

DFDS

- ◆ In August 2006, DFDS A/S has bought Norfolk Line Containers B.V., operating

container shipping activities between the Continent and Ireland, from Norfolk Holdings B.V., a division of the A.P. Moller-Maersk Group. The entity has been renamed DFDS Container Line BV and allows DFDS Tor Line to strengthen its market position within the lo-lo container shipping segment, thereby obtaining synergies between the existing DFDS Tor Line container activities in DFDS Lys Line and DFDS Suardiaz Line, connecting the North Sea, the Irish Sea and Spain.

Other significant deals

- ◆ During 2006, UK-based 3A Marine Holdings (founded in 2004) has purchased Contaz Line (NW Europe-Greece-Turkey), and has set up Europe Line (Rotterdam-Ireland - together with Johnson Stevens Agencies UK) and Balticon Line (Antwerp-Baltic).
- ◆ In September 2006, Tschudi Shipping Company AS, Norway, has acquired full ownership of the short sea liner company TECO Lines AS through its fully owned subsidiary Estonian Shipping Company AS (ESCO). ESCO purchased the remaining 50 % of shares in TECO Lines AS from Samskip. TECO Lines offers door to door services between the UK-Continent and the Baltic Sea.
- ◆ In January 2006, Trans-Baltica Container Line Limited has launched a weekly container service connecting Hamburg, Bremerhaven and the Russian enclave of Kaliningrad. Trans-Baltica is headquartered at Jersey and managed by Mann & Sons (London) Limited, affiliated to Mann Lines GmbH of Bremen.
- ◆ In January 2006, Cobelfret (Belgium) has bought the cross channel ferry business Dart Line from South Africa-based Bidvest Group.

India and MISC Berhad, as part of policies to reaffirm their presence.

A few small to medium size operators have logged a remarkable progression. The most prominent of them is Emirates Shipping Line, a new operator established in early 2006. It has built up a fleet of eight chartered ships totalling 24,600 teu within only eight months and has launched six long haul services (three as vessel provider + three as slot buyer), in partnership with various operators.

Delphis NV and Eimskip have strengthened their positions through acquisitions while US Lines, EWL, Nile-Dutch Shipping, TS Lines and -on a smaller scale- Fair Wind Shipping have significantly increased their fleets through commercial expansion. Vietnam state-owned company Vinalines development projects start to bear fruit and should be boosted by the admission of Vietnam in the WTO in January 2007.

THE CHARTER MARKET

The incessant influx of newbuildings and the end of the high transpacific season (June-October -a period during which a lot of goods, including toys, are imported in the perspective of the Christmas and New Year period of high consumption) have led to a softening in charter rates at the end of the year. Rates remained however high by historical standards.

The rates have begun to rise again in early 2007. The charter activity picked up strongly in January and the feeling is that there will not be enough ships around, despite the 1.5 million teu which are to enter the market in 2007.

In 2006, we recorded 691 fixtures for ships of more than 1,000 teu. That is 25 % higher than in 2005, but still well under the 1,100 to 1,400 fixtures recorded annually in 2002-2004. Part of the explanation lies in the high number of 24-36 months fixtu-

res in 2005, which has dried up the pool of redelivered ships in 2006.

Hamburg-Süd has strngthened its presence on the ANZ trades with the purchase of the Fresco services covering this sector.

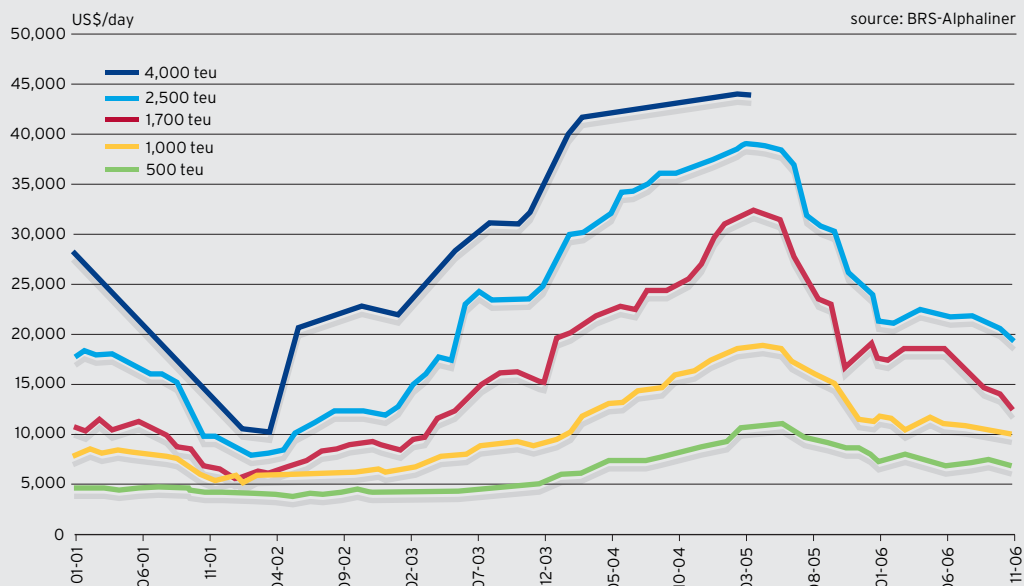
The market remains dominated by a few players. In 2007, A.P. Moller-Maersk, MSC and CMA CGM contributed to 30 % of the chartering activity for ships larger than 1,000 teu.

A few smaller lines took also a fair share of the activity, despite their relatively small sizes, as they launched new services or developed their networks. Heading them is Emirates Shipping Line, which launched several services with 2,000-3,000 teu ships, and S.C. India, which came back on the market with a strong commitment to participate to the booming Indian trade. Some niche carriers have helped to soak up the market in the 1,000-1,500 teu range to develop their services. This was the case of US Lines, EWL and TS Lines. Delphis has also taken several ships of around 1,100 teu, but in most cases with the aim of subletting them.

During the fourth quarter of 2006, the market was characterised by a unusually high number of sublets of ships of all sizes, including two units of 8,500 teu sublet by CMA CGM to MSC. Actually, MSC, CMA CGM and newcomer Emirates Shipping Line have been among the most active charterers, taking the ships that others were discharging -or subletting.

Operators having freed up or sublet ships include mostly CSAV, Hanjin-Senator, K Line and Maersk Line (although the latter remains the most prolific charterer for 2006 and two thirds of its activity was concentrated in the first half of the year). On their side, the three main partners of Grand Alliance (Hapag-Lloyd + NYK + OOCL) and the members of the New World Alliance (APL + MOL + HMM) have frozen some of their capacity during the current winter season, profiting also from this occasion to dry dock ships in preparation for the next high season. CKYH has also adjusted capacities and Maersk Line has reduced its transpacific capacity to adjust for the seasonal lows.

EVOLUTION OF CHARTER RATES - 2001-2006
(12 months t/c rates)



Duration of charter periods in relation to year of charter contract

Number of fixtures reported in 2002 / 2003 / 2004 / 2005 / 2006 and share of total number of fixtures for selected size ranges

Duration	< 8 months		9-18 months		24-40 months		> 40 months		Total
	No	%	No	%	No	%	No	%	
Size 4,000 - 5,000 teu									
2002	8	27%	11	37%	6	20%	5	17%	30
2003	5	12%	4	9%	13	30%	21	49%	43
2004	8	11%	0	0%	2	3%	61	86%	71
2005	2	5%	0	0%	0	0%	36	95%	38
2006	4	10%	4	10%	0	0%	34	81%	42
Size 3,000 - 4,000 teu									
2002	40	44%	38	42%	7	8%	5	6%	90
2003	15	17%	25	29%	41	48%	5	6%	86
2004	6	15%	0	0%	10	25%	24	60%	40
2005	4	11%	0	0%	1	3%	32	86%	37
2006	4	11%	2	5%	23	61%	9	24%	38
Size 2,400 - 3,000 teu									
2002	42	48%	40	46%	0	0%	5	6%	87
2003	25	19%	35	27%	58	44%	14	11%	132
2004	11	8%	6	4%	35	25%	88	63%	140
2005	17	24%	2	3%	12	17%	39	56%	70
2006	23	21%	16	15%	49	46%	19	18%	107
Size 1,500 - 1,750 teu									
2002	285	77%	80	22%	7	2%	0	0%	372
2003	190	55%	130	37%	24	7%	4	1%	348
2004	52	21%	63	26%	112	46%	16	7%	243
2005	45	45%	20	20%	16	16%	19	19%	100
2006	48	33%	67	47%	27	19%	2	1%	144
Size 1,000 - 1,250 teu									
2002	257	81%	56	18%	5	2%	0	0%	318
2003	208	66%	95	30%	6	2%	4	1%	313
2004	54	22%	67	27%	108	43%	20	8%	249
2005	22	18%	28	22%	27	22%	48	38%	125
2006	64	42%	73	47%	11	7%	6	4%	154

Note: charters resulting from lifted options are not representative and are ignored

Source: BRS-Alphaliner

With sustained volume growth during the first half of 2006 absorbing newbuilding deliveries, charter rates remained quite steady during the first eight months of 2006, and started to slip in September to then reach a low in December. They began to recover after the New Year 2007. The market is to remain on the owners' side for some time, although they have smaller margins than during the past two years, which causes more moderate rates.

As the rates have returned to more familiar figures, there was less incentive to charter ships for periods of 24-

48 months in return of a discount (from a charterer viewpoint), or to anticipate a future shortage, marking the return of the usual 12 month periods for medium-sized ships. Owners are also reluctant to commit their ships to long periods at the lower rates observed, as they are betting on a tighter market allowing better returns. The table "Duration of charter periods" puts this well in evidence, especially for ships of 1,500-1,750 teu.

However, long term deals still remain on the cards for large newbuildings fixed with long term plans in perspective, and prospects for 2007 lead

one to think that long periods will make their comeback for medium sized ships of 2,000-3,500 teu.

Although charter rates have softened to levels well below the exceptional highs observed in 2005, they remain quite remunerative for owners of existing tonnage and for newbuildings ordered at cheap prices in 2003 and early 2004. They are however comparably less profitable for newbuildings contracted at higher prices since mid-2004, which are now starting to flow from the shipyards.

The opinion remains that rates were quite low at the end of 2006. It is true, but it has to be put into an historical perspective. For example, when the rates for 2,500 teu ships reached their lowest point in December 2006, they were a pinch under the highest point recorded during the previous peak period in 2000. Inflation has of course taken its share in six years time and the gap is thus slightly larger than it seems, but the recent lows are far from dramatic, and rates have even recovered in January 2007.

"Interestingly, this plunge [end 2006] concerned ships chartered for periods of around 6 months while rates remain firm for longer periods of 12-24 months. It gave the strange feeling that, contrary to the good order, short term fixtures command discounted rates against long term ones! In fact, it reflects the confidence owners have that the medium to long term demand will remain firm, whereas lower rates were accepted only to cover the winter gap. As a result, the market has been very confused over the last weeks of 2006, with charter rates showing large discrepancies". We took this assertion in our last year annual report without changing it a iota, except the reference year. History has simply repeated itself in 2006, at least in relative terms as absolute rates are indeed different year on year.

Going on with what we wrote last year, "lenders of container tonnage have been at least since the 2002 upturn. Charter rates have increased five fold between early 2002 and mid-2005 as ships went in short supply, but this bullish trend has now faded away". We add today that although not as bullish as before, the chartering activity remains high, and the market remains buoyant.

Average charter rates recorded in 2006 are in line with average rates observed during the past five years, and well above the average rates observed during the past ten years, as demonstrated in the graph "Evolution of charter rates".

As far as the supply is concerned, tonnage left free of employment for 2007 is roughly 70-100 % higher than 12 months ago, as shown in the graph "Availability of ships for charter (as at 01 January 2007)". The situation is thus less favourable than last year, and by definition does not take into account the possible sudden relets of supernumerary ships. However, the exceptional chartering activity observed in January 2007 has defused risks of ships left unemployed.

A good index of future market tightness is the ratio of tonnage on order still left unfixed. And this year, the omens are less favourable than last year. We found that -in early January- some 72 % of the total capacity on order (4.7 million teu) is assigned to operators (as owners or charterers). When breaking down by year of delivery, we observe that 75 % of the capacity planned for delivery in 2007 is assigned, leaving 25 % of the fleet still without employment. Last year, these figures were 80 % and 86 %, respectively, with only 14 % left without employment. However, like last year, there are no newbuildings over 4,000 teu left without a commitment for 2007.

Availability of ships for charter (comparison 12 months)								
This table provides a comparison between the ships available for charter at 12 months intervals								
1st Jan. 2007	2007 Exp.	2007 Nbdg.	Total	2008 Exp.	2008 Nbdg.	Total	Existing	Charter
4,000-5,000 teu	13	0	13	7	14	21	346	164
3,000-4,000 teu	28	13	41	16	16	32	282	129
2,500-3,000 teu	39	33	72	45	35	80	333	210
2,000-2,500 teu	60	12	72	44	3	47	315	183
1,500-2,000 teu	160	30	190	75	38	113	466	302
1st Jan. 2006	2006 Exp.	2006 Nbdg.	Total	2007 Exp.	2007 Nbdg.	Total	Existing	Charter
4,000-5,000 teu	5	1	6	16	2	18	309	142
3,000-4,000 teu	25	3	28	28	22	50	266	118
2,500-3,000 teu	25	20	45	22	41	63	279	174
2,000-2,500 teu	33	3	36	54	14	68	313	180
1,500-2,000 teu	105	14	119	80	31	111	444	290
1st Jan. 2005	2005 Exp.	2005 Nbdg.	Total	2006 Exp.	2006 Nbdg.	Total	Existing	Charter
4,000-5,000 teu	1	0	1	7	4	11	268	111
3,000-4,000 teu	23	2	25	20	10	30	265	107
2,500-3,000 teu	14	5	19	26	26	52	249	145
2,000-2,500 teu	29	2	31	33	2	35	300	172
1,500-2,000 teu	65	6	71	81	6	87	425	281
1st Jan. 2004	2004 Exp.	2004 Nbdg.	Total	2005 Exp.	2005 Nbdg.	Total	Existing	Charter
4,000-5,000 teu	6	1	7	9	18	27	252	n/a
3,000-4,000 teu	20	7	27	33	3	36	254	n/a
2,500-3,000 teu	25	5	30	n/a	25	n/a	229	n/a
2,000-2,500 teu	65	0	65	n/a	n/a	n/a	287	n/a
1,500-2,000 teu	200	n/a	n/a	n/a	n/a	n/a	415	n/a

Exp: number of ships for which the charter expires in the reference year (and no options attached)

Nbdg: newbuildings believed free of charter in the reference year

Existing: total existing fleet as at 1st Jan 2007

Charter: indicates the number of ships on charter from non-operating owners (existing fleet)

Note 1: As the duration of charters decreases with size, indication of the number of charters due to expire in 2007 for the small sizes is only given as an indication (roll over from 2006 charters)

Note 2: Optional periods -when known- are assumed as exercised (expiry at end of optional period).

Note 3: Availability for 2007 may include ships available in 2006 if chartered for 12 months (for example).

These are positive signs against the Damocles sword represented by the forecasted 15.7 % growth in 2007 in teu terms. Worth noting, the figure stands at only +14.5% in dwt terms, and the deadweight is probably a better yardstick to assess future imbalances.

Ships of over 2,000 teu

Last October, 13 ships of 4,000 teu to 6,350 teu were unexpectedly released on the market by their operators, for periods ranging from 6 months to 3.5 years either as

sublets or as owned ships, becoming supernumerary on their networks. MSC and CMA CGM took eleven of them while UASC and MISC took one each. The ships were disposed by Maersk, CSAV and K Line. Rates paid were in the region of \$ 28-30,000 for 4,500 teu units.

13 ships of 4,000-5,000 teu will see their charters expire in 2007 (and free of optional periods) while no newbuilding in this size range is left available.

In the 3,000-4,000 teu size range, 28 ships will end their charters

The cellular fleet will grow from 9.6 million teu in January 2007 to 14 million teu in January 2010, taking into account the existing orderbook and without demolition, as per BRS-Alphaliner records.

Some reasonable demolition will probably roughly compensate the few more orders that will be concluded for 2009 deliveries. The annual fleet growth will then stand at 13.5 % on average during the three years to come.

After the 16 % increase recorded in 2006, the fleet is expected to increase by 15.7 % during 2007 and 14.7 % during 2008. For the year 2009, the figure falls to 10.2 %, but as there is still spare building capacity for medium-size and small-size ships for 2009 delivery, this latter figure will be higher.

In 2006, 401 cellular ships for 1.6 million teu were contacted, at a global value of \$24.2 billion. Contracting activity was very timid at the start of 2006, and then surged during the Spring-Summer 2006, before ceasing all of a sudden in October.

Only 82 ships for 185,000 teu were ordered during the first quarter 2006, then 117 for 670,000 teu during the second quarter, 146 ships for 573,000 teu during the third quarter, and only 56 ships for 170,000 teu during the fourth quarter.

On the 1st January 2007, the orderbook stood at 4.7 million teu, representing 49.5 % of the existing fleet, down from 60 % at its peak, in July 2005. Orders stretch until end 2010 for large ships.

The VLCS fleet (ships over 7,500 teu) comprises 147 ships in service and 160 on order.

As far as individual ships are concerned, the ship of the year is incontestably the **Emma Maersk**, with a capacity that Alphaliner has estimated at 14,300 teu, i.e. 50 % more than the largest containerships afloat (she is officially declared as a 11,000 teu ship). This series comprises eight ships, which will all be delivered by January 2008, and will run on a specific loop connecting China to Europe.

during 2007 while a further 13 new-buildings have yet to find a charterer.

In the 2,000-3,000 teu size range, some 100 ships will end their commitment during 2007, while a further 45 to come out from the shipyards had yet to find an employment, representing 22 % of the total existing pool of ships in this size range, based on figures at 1st January.

An interesting trend observed mostly during the second half of 2006 is the increasing rate gap between geared and gearless ships. At the end of 2006, the gap reached 10 %. Many newbuildings in the mid-2,000 teu size are prepared for cranes, with owners sometimes opting for cranes only weeks before delivery, sometimes in conjunction with a potential charter (with some notice as cranes are not available at the nearby supermarket). With such a rate differential, it is worth paying the extra 2-3 % required to install the cranes. But it must be remembered that in depressed times, being geared or gearless does not make much difference.

Ships of 1,500-2,000 teu

The 1,500-2,000 teu range is a popular one, counting 466 ships, of which 302 are charter market ships.

The market absorbs swiftly the ships made available at the end of their charters. There are another 150 units on order for this size range only. Many of these ships are replaced by 2,500 teu ships on the services which employ them, but several new services were launched during 2006 with ships of 1,700 teu or so.

They also remain popular for regional large scale relay services, such as between the Caribbean hubs and Latin America or between Algeciras and West Africa, to quote only these examples.

But should the market collapse, our feeling is that this range could suffer more than others simply because there are not enough regional niches to accommodate them while they are still too big to flow in large quantities onto local feeder trades.

For the still rare ice-strengthened units (1A) in the 1,500-1,750 teu size range, the future is promising as they will become the workhorses for the high volume feeder routes in the Baltic, starting with the St Petersburg-related ones on which several have started to be deployed in 2006.

Ships of 500-1,500 teu

Smaller ships, under 1,500 teu, are doing well. The demand remains

sustained as it is driven by the huge feeder volumes generated by intercontinental services run with VLCS and other large mainline ships. There is no risk of overcapacity in the medium term in this size range, especially for ships of 900-1,200 teu.

The demand is to stay strong for such ships as many local terminals have limitations on draft or length or both, and cannot go beyond them unless new terminals are built from scratch. In many cases, terminals are located on rivers or are accessible only through shallow channels.

For example, the booming Vietnam market will continue to be served in the foreseeable future with ships not exceeding 1,500 teu. Vietnam generates volumes which could now justify direct calls by main line ships, especially as it benefits from an advantageous position, right on the route of mainline ships. But it relies instead upon feeder routes over Singapore, Port Kelang, Tanjung Pelepas, Hong Kong and Kaohsiung due to port limitations.

Another example concerns Calcutta and Chittagong. Although not advantaged by their geographical positions, far from the East-West routes, they could be served by niche intercontinental services, in the way Thailand is

through the Laem Chabang deep water port. Coastal shallow waters in the northern Bengal Bay are however a big drawback. Both these ports, and ports in the immediate vicinity, will continue to be served by ships under 1,200 teu for some time.

Ships of 900-1,100 teu have also started in 2006 to replace ships of 700-800 teu on a few services linking Benelux and Germany to the Lower Baltic and UK-Ireland. This trend will continue in 2007 and beyond. Actually, similar trends are observed in all regional and feeder markets.

Besides, there is a fair amount of multipurpose (non-celled) ships used as pure containerships, which in other times were mostly used on non-container trades. It is especially true for the 1,300-1,400 teu range.

The eleven ships of the 'C-box' class (1,301 teu - built 1998-2000), have been employed throughout 2006 on container services (MSC and CMA CGM) or on liner services with a strong container bias (NileDutch Shipping).

As for smaller modern ships of 500-700 teu, they continue to attract good rates, especially the geared ones. After years of flat rates, this size range has at last seen a revival during the first months of 2004 to reach a climax in May-June 2005. Rates have since receded, but remain sustained and have comparatively been less affected than the larger sizes by the general charter rates drop of the late months of 2006, as clearly shown in the table "Average rates for 12 months charters 1993-2006". ■

Cellular ships: deliveries and orders - year 2006

Size range	Deliveries			Orders		
	nb	teu	US\$ M	nb	teu	US\$ M
> 7,500 teu	61	541,616	4,867	62	583,790	7,970
6,000 / 7,499 teu	22	146,949	1,550	41	263,820	4,070
5,500 / 5,999 teu	12	68,253	681			
5,000 / 5,499 teu	13	65,642	684	19	97,670	1,371
4,500 / 4,999 teu	13	61,560	614	8	39,128	580
4,000 / 4,499 teu	24	101,250	1,109	62	264,734	3,826
3,500 / 3,999 teu	5	17,670	215	16	56,980	824
3,000 / 3,499 teu	12	38,950	459	25	83,075	1,255
2,500 / 2,999 teu	55	149,652	2,052	19	50,706	881
2,000 / 2,499 teu	5	12,430	180			
1,750 / 1,999 teu	12	21,942	329	11	19,785	375
1,500 / 1,749 teu	15	25,044	387	31	53,207	1,001
1,250 / 1,499 teu	10	13,998	233	41	54,656	1,135
1,000 / 1,249 teu	38	42,135	742	27	29,296	595
750 / 999 teu	39	34,785	694	35	30,980	657
500 / 749 teu	17	11,386	235	8	5,416	152
350 / 499 teu	3	1,207	25			
TOTAL	261	939,698	9,982	522	1,617,352	27,149

Prices shown at delivery correspond to contractual prices at the time of order
Source : BRS-Alphaliner

The world liner fleet will reach 11 million teu in April 2007

The world liner fleet (see note) has passed the 10 million teu mark in August 2006, for a total tonnage of 143 million dwt, according to BRS-Alphaliner data. The figure includes all types of ships effectively deployed on liner trades, in the common acceptance of the term (5,626 ships are involved). The cellular ships contribute to 90.7 % of this figure. The remaining 9.3 % is shared by non-celled container ships, multipurpose tonnage and roro ships. We expect that the 11 million teu mark will be reached in April 2007.

Previous and forecasted "round" million teu figures capacities stand as follows:

- > 6 million teu (94 million dwt => 15.67 tons per teu) in July 2001
- > 7 million teu (106 million dwt => 15.14 tons per teu) in April 2003
- > 8 million teu (118 million dwt => 14.75 tons per teu) in October 2004
- > 9 million teu (130 million dwt => 14.44 tons per teu) in November 2005

> 10 million teu (143 million dwt => 14.30 tons per teu) in August 2006

> 11 million teu (155 million dwt => 14.10 tons per teu) in April 2007 (forecast)

Time to reach the "next" Mteu

> 6 million teu to 7 million teu in 21 months

> 7 million teu to 8 million teu in 18 months

> 8 million teu to 9 million teu in 13 months

> 9 million teu to 10 million teu in 9 months

> 10 million teu to 11 million teu in 8 months (expected)

**** Note **** : This count includes all the ships deployed on liner services in the common acceptance of the term. Given this common acceptance, we exclude a number of specific more or less regular services such as the parcel trades (steel and other neo-bulk products), pure forest product trades or pure vehicle carrying services. Given this, the numerous multipurpose cargo vessels and conbulklers deployed on non-liner trades or on tramp trades are NOT included in the above figures (even if container fitted), although they are shown in the Alphaliner database.

Straight sales & mergers

- ◆ Hamburg-Süd (Germany) has purchased the Fesco's ANZ-related services from Fesco Ocean Management Ltd, a subsidiary of the Far Eastern Shipping Company PLC (Fesco - Russia).
- ◆ Delphis NV (Belgium) has purchased Team Lines GmbH from Finnlines plc (Finland).
- ◆ Delphis NV (Belgium) has purchased Portlink from Safmarine Container Lines NV (Belgium).
- ◆ Grimaldi (Italy) has launched a bid on Finnlines plc and raised its share in the company to 50.7 %.
- ◆ Eimskip (Iceland) has purchased Kursiu Linija (Lithuania) and has later integrated it within the Containerships Group (see below).
- ◆ Eimskip (Iceland) and Container Finance Ltd Oy (Finland) have formed a 65 % / 35 % joint venture under the name Containerships Group, with an option enabling Eimskip to increase its shareholding to 100 % of the j/v.
- ◆ Samskip (Iceland) has established its own organisation in Spain, taking over all shortsea activities from its existing partner, Odjel Bilbao SA.
- ◆ Tschudi Shipping Company AS (Norway) has acquired full ownership of the short sea liner company TECO Lines AS through its subsidiary Estonian Shipping Company AS (ESCO). ESCO purchased the remaining 50 % shares in TECO Lines AS from Samskip.
- ◆ DFDS A/S has purchased Norfolk Line Containers BV (Netherlands) from Norfolk Holdings B.V., a member of the A.P. Moller-Maersk Group. This company operating container door-to-door services between the Continent and Ireland has been renamed DFDS Container Line BV.
- ◆ Swedish Orient Line AB (Sweden) took over the Baltic-Med service

previously run by Sol-Niver Lines (Niver Lines, Greece, left).

- ◆ Clipper Elite Carriers Ltd (a member of the Clipper Group, Denmark) has sold its majority share in CEC Lines Ltd to Oldendorff Carriers (Germany). Belgian company Flamar has retained its minority share. Effective August 2006, CEC Lines ceased trading under this name, and was renamed 'Oldendorff Express Lines' (OXL).
- ◆ 3A Marine Holdings (UK - founded in 2004) has purchased Contaz Holdings (UK), which manages the Contaz Line service (NW Europe-Greece-Turkey).
- ◆ Pacific International Lines (PIL, Singapore) has purchased a significant interest in Pacific Direct Line (PDL, Wallis & Futuna), which offers services in Oceania.
- ◆ Bore, a member of the Rettig Group (Finland), has purchased Rederi Ab Engship (Finland) from the Engblom family.
- ◆ Cobelfret (Belgium) has bought the cross channel ferry business Dart Line from South Africa-based Bidvest Group.

New operators of liner services

- ◆ Emirates Shipping Line FZE was formed in April. Registered in Dubai, the company is commercially headquartered in Dubai and Hong Kong. It launched six services in partnership with other lines.
- ◆ Formosa Plastics Marine Corp. (FPMC), the shipping arm of the Taiwan oil and petrochemical company Formosa Plastics, has launched its own container services between Taiwan and China, with its own and chartered tonnage.
- ◆ Singapore-based transport organiser Ja Vesta (Pte) Ltd has launched its own service on the Singapore-Chittagong feeder route with chartered tonnage.

◆ Mega & Forbes, a Pakistani agency, launched its own UAE-Pakistan feeder services with chartered tonnage.

- ◆ Pan Australia Shipping, a division of Australia-based Pan Logistics, has launched an Australian coastal service (Boomerang' service). It closed after six months of operation.
- ◆ The Shannon Foynes Port Co, which manages the ports in the Shannon estuary, Ireland (Limerick and Foynes), has inaugurated a Rotterdam-Foynes shuttle.
- ◆ C.T. Navigation SA, Taiwan, made a comeback with the launch of a service linking Taiwan, Hong Kong and Haiphong. C.T. Nav had suspended its services in November 2004.
- ◆ UK-based 3A Marine Holdings (founded in 2004) has set up Europe Line (Rotterdam-Ireland - together with Johnson Stevens Agencies UK) and Balticon Line (Antwerp-Baltic). It has also purchased Contaz Holdings (UK), which manages the Contaz Line (NW Europe-Greece-Turkey).
- ◆ Trans-Baltica Container Line Limited has launched services connecting Hamburg, Bremerhaven and the Russian enclave of Kaliningrad. Trans-Baltica is headquartered at Jersey and managed by Mann & Sons (London) Limited, affiliated to Mann Lines GmbH of Bremen.

Cessations of activity in liner shipping

- ◆ Great Western Steamship Co (GWSC - USA) has ceased trading and has been put into liquidation. GWSC was a partner of the 'Americas Alliance' (AA), a Vessel Sharing Agreement set up in February 2005 with U.S. Lines and Maruba to operate a China-US service.
- ◆ Saturn Container Lines, India, closed their own Port Kelang-India service (launched in 2005).

◆ Pan Australia Shipping has closed the Australian coastal service ('Boomerang' service) it launched in March 2006.

Significant other moves

◆ As of 12 February 2006, Maersk Sealand and P&O Nedlloyd started to trade as Maersk Line.

◆ Norasia Container Lines has changed its name to CSAV Norasia.

◆ The Geest North Sea Line and Seawheel brands (operators purchased in 2005 by Samskip) have been dropped.

◆ The China Navigation Co (CNCO), a Hong Kong-based subsidiary of the UK-based Swire Group, has rebranded several of its shipping services under a new company recently incorporated in the UK: "Swire Shipping Ltd". The following brands were consolidated within the new company: Australia Pacific Islands Line (APIL), Chief Container Service, Crocodile Line, Indotrans, Indotrans Pacific and New Guinea Pacific Line. The Bank Line will also later be brought within the new company.

◆ CSAV (Chile) affiliate 'Montemar Maritima S.A.' has been renamed

'Compania Libra de Navegacion Uruguay S.A.' and has been affiliated to the Brazilian company Companhia Libra de Navegacao, also controlled by CSAV (The Montemar brand has disappeared).

◆ Iceland-based Avion Group, which bought Eimskip in 2005, has changed its name to 'Hlutafelagid Eimskipafelag Islands' (Eimskip' in short)

◆ Kawasaki Kisen Kaisha Ltd (K Line) (Japan) and Hanjin Shipping Co Ltd (South Korea) have swapped shares in a proportion of around 3 %.

◆ The Hamburg Süd group has replaced its brand Ybarra y Cía. Sudamérica S.A. (Ybarra Sud) with the brand Hamburg Süd Iberia S.A., effective 1st January 2007 (Ybarra Sud came under full control of Hamburg Süd on 31 December 2005).

◆ Lloyd Triestino di Navigazione SpA officially became Italia Marittima SpA (ITS) in February 2006.

◆ Evergreen Group announced that it would unify its three brands Evergreen Marine Corp (Taiwan) Ltd (EMC), Italia Marittima SpA (ITS) and Hatsu Marine Ltd (HML) under the unified common trade name 'Evergreen Line' (effective 1st May 2007).

◆ The organisational consolidation of Hapag-Lloyd AG and Hapag-Lloyd Container Linie GmbH (HLCL) already realised in 2005 has been formalized in 2006 in the context of the integration of CP Ships. Besides, all the CP Ships services were integrated into Hapag-Lloyd's network by September.

◆ CoMaNav (Compagnie Marocaine de Navigation) has laid out plans for its privatization.

◆ Monaco-based SAMAMA, a company controlled by Israeli shipowner Sammy Ofer, has acquired a supplementary 8.7 % stake in Hanjin Shipping Ltd (South Korea), later partly resold (asset play).

◆ Geveran Trading, a Cyprus-based firm which is part of Greenwich Holding Ltd, a company indirectly controlled by Norwegian shipowner John Fredriksen, raised its share in Hyundai Merchant Marine (South Korea), triggering a reaction by HMM main shareholders to counteract what was interpreted as a possible attempt by Geveran to take control of the company.

The second-hand containership market in 2006

OUT OF BREATH?

The evolution of the second-hand market for containerships since 2004 can be resumed with some figures, representing respectively the number of effected transactions:

- ◆ in 2004: 265 cellular ships and 40 multipurpose
- ◆ in 2005: 140 cellular ships and 46 multipurpose
- ◆ in 2006: 133 cellular ships and 15 multipurpose

In view of these figures, three main factors explain this trend. The emerging Chinese market literally "boosted" the second-hand market in 2003 and 2004. 2005 was a year of consolidation where we saw a loosening of controls in the market.

Finally, and even though the Chinese market enjoyed a jump of 11.3 % in the second half of 2006 thanks to the strength of its investments and exports, all the experts expect that we shall see the pace slackening over the next 2 to 3 years to come. For our part we believe that a reasonable rate of growth will be maintained but with the accent on consumption rather than investment.

It would be however unwise to ignore the containership market's potential to surprise us again and suddenly bounce back, as it did in 2004 when an extended crisis seemed on the horizon.

2006 therefore experienced a certain general gloom and more especially for ships below 2,000 teu, up till now extremely popular. It is interesting to observe in contrast the relative stability of prices for the 'big carriers' over 2,000 teu.

As was the case last year, the declining trend picked up pace after the summer. Also, faced with the clear drop in the freight market, owners of small and medium units finally resigned and adjusted their expectations in terms of their selling prices.

The proportion of German buyers, traditionally very important in the category of 2,000 teu ships and bigger, was 25 % this year. Certainly a respectable score, but well below that of previous years. This evolution is the result of the poor ratio of returns offered by this container market. Modern ships were all ordered or bought on the second-hand market at prices which are no longer justified today in view of current freight rates. This reality is

even more pronounced in terms of long term chartering where the proposed rates are even lower and the return ratios are clearly negative in the short and medium term.

Containerships less than 900 teu

The drop in activity is situated especially in this category of ships, where freight rates particularly suffered this year. Prices remained, nonetheless, relatively high as witnessed by the 3 containerships of Interorient (737 teu -geared - built in 1998 by Jinling) sold at a price of \$14 million each in Germany. There was also the combined sale of the **Perceiver** and **Conceiver** (538 teu - non geared - built in 1994 by Sietas) belonging to Delphis, at a price of \$10 million each, combined with a chart for 3 years at a rate of \$9,650 per day. Still there were very few speculative buyers in this category, which consequently reflects a fairly solid confidence in the short term from the buyers.

Containerships from 900 to 2,000 teu

This size has historically dominated all others in terms of buying and selling activity. It has been surpassed today by the category of very big carriers of 3,000 teu or more. The period now seems remote when CMA CGM, Ofer, MSC or even Komrovsky were squabbling over the acquisition of such and such a ship of 1,200 or 1,700 teu, making incredible bids and counters, although always justified by a relentless freight market. The calm

Sales of cellular containerships by size

	2004	2005	2006
Less than 900 teu:	82	49	30
From 900 to 2,000 teu:	83	53	36
From 2,000 to 3,000 teu:	42	22	24
Over 3,000 teu:	58	19	43
Total	265	140	133

Containerships fleet evolution by size

in number of ships	1 st January 2007	1 st January 2011
Under 900 teu	1,109	1,305
900 to 2,000 teu	1,060	1,406
2,000 to 3,000 teu	648	807
Over 3,000 teu	1,132	1,757
Total	3,949	5,272

which has returned to the freight rates has considerably slowed down activity of potential buyers.

It should be noted that a little less than half (15) of the ships sold dated from 1990 and before. Should we detect a certain sign of frivolousness from buyers who hesitate to invest in the long run in this size of ship? Whatever the reason, it seems clear that the aspirations of 'modern' shipowners are still too far apart from the reality of the market and thus from that of the majority of buyers. Some examples of sales:

The **Nordsun** - built in 1991 in Germany - geared - 1,158 teu - 17 knots, sold in May 2006 at \$16 million with an attached charter up until August 2007 at a price of \$16,000 per day. The charter rate was about \$5,000 above the going market rate. Meanwhile it is interesting to note that this ship was already proposed for sale at a price of \$22 million in 2005!

The **Nordcliff**, sister ship to the above, built in 1991, sold in November 2006 at a price of \$14 million with an attached charter up until November 2007 at a rate of \$14,000 per day.

Containerships from 2,000 to 3,000 teu

One observes in this size category a certain stability in the number of sales and the price levels compared to the end of 2005. The scarcity of offers has compensated for the drop in freight rates. Thus, despite a decrease in profitability of 15 %-

20% during the year, there has been no real significant decline in sale prices. If 12 out of the 22 sales were over 15 years old, in this case it is due more to a lack of offers than to any real faith in the future.

We can note the sale of 3 ships of Tsakos, under construction and for delivery in 2006, the **Irenes Respect**, **Irenes Relief**, and **Irenes Resolve**, in May for the price of \$58 million per unit. This price is similar to that achieved in 2005, which indicates the good standing of the market...

...even for the oldest ships, the **Trade Mapple** and **Trade Harvest**, built in 1995 by Hyundai - 2,227 teu (2,010 teu at 14 tons!) - non geared, sold in May 2006 at a price of \$35 million each, against an attached charter party at a 'modest' \$13,250 per day, running through till October 2007. Out of interest, these ships had been bought by the current seller in August 2003 slightly below \$20 million!

Containerships over 3,000 teu

This segment is on a different level and has literally exploded compared to last year without however attaining the peaks of 2004. If there are between 150 and 300 ships which will be delivered between now and December 2010 for each of the previous categories, no less than 620 ships of over 3,000 teu are currently on order.

One of the most surprising sales was done by the Swiss owner MSC who bought from the German Conti

Rederei 10 ships of 4,254 teu built by Zhejiang and deliverable between December 2007 and November 2011, for an average sum of \$58 million apiece. It is worth noting that the construction price for such a ship has increased and is in the region of \$61/62 million end 2006 for a delivery in 2011.

There are therefore two distinct trends which correspond to two realities. The first concerns ships of 2,000-3,000 teu, which correspond to the immediate needs of the market or over the short/medium term. This market closely sticks to current freight levels and the forecasts for 2-3 years. This explains why we have seen a significant weakening of prices and volumes, as a large part of investors have abandoned this part of the market.

The second is relative to the impressive cash reserves that owners have put aside over the past years and which is waiting to be re-injected back into the system. Investing massively in Panamax and over-Panamax seems to be far more reassuring in the long term, given the evolution of trade movements. Joint-ventures are multiplying, agreements expand, trade develops, and it seems therefore logical that the size of ships will follow suit. "Big" seems to be always "Beautiful"! ■

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The ro-ro market in 2006

IN LINE WITH OUR ANTICIPATIONS, THE RO-RO MARKET IN 2006 PRESENTED THE SAME STRUCTURAL FEATURES AS IN 2005, with chartering activity shrinking while at the same time rates in certain segments continued their upward trend.

New orders for pure ro-ro vessels placed throughout the course of the year amounted to 13, of which not a single one is destined for the tramp market. Among the specialized vessels, ro-ros are clearly the ones being ordered the least. By comparison, the number of new orders for PCC/PCTC vessels stood at 58 units.

Of the 9 units delivered throughout the year, all were deployed by the same liner operators that ordered them in the first place, namely the likes of Spliethoff's / Transfennica, DFDS, Cobelfret and UN Ro-Ro. This confirms the trend established over the past few years that sees liner operators, with a few exceptions, as the only actors placing new orders. The

latter are high performance vessels characterized by state-of-the-art fuel efficiency systems with speeds in excess of 20 knots and capacities in excess of 2,000 lane meters (lm).

During this same period, 10 units were sold for scrap, with an average of around 1,000 lm and 16 knots.

In comparison, 2005 saw 5 deliveries, of which 4 were destined for operators, 24 new orders, which all were destined for operators, and 7 scrappings.

While scrappings appear to be outpacing deliveries, available capacity is not being lost but is rather increasing, as overall scrappings in 2006 amounted to approximately 10,000 lm, whilst overall deliveries accounted for more than 20,000 lm (in 2005 the figures were approximately 2,000 lm and 16,000 lm for scrappings and deliveries respectively). The problem lies in the fact that the overwhelming majority of new ships delivered are deployed by operators, which means that

Timca

Ro-ro vessel, 2,963 lm, 192 teu, 22 knots, ice class 1A super, delivered in 2006 by the Polish shipyard SSN, owned by Transfennica (Spliethoff Group)



there are increasingly fewer vessels available on the tramp market. 2006 was, therefore, perhaps the first year that showed the first real effects of the looming tonnage crunch.

Indeed, finding suitable ships and, at times, even ships in general, became increasingly difficult during 2006.

This led in the first place to a structural comeback throughout the year of charter rates in size segments from 1,200 lm and above. For example, we noted the following average time charter rates for the below sizes:

1,400 lm - 15 knots: €8,000 per day / pro rata (pdpr) circa

1,700 lm - 16 knots: €9,200 pdpr circa

2,000 lm - 19 knots: €11,500 pdpr circa

2,500 lm - 21 knots: €16,000 pdpr circa

The established two-tier market became even more entrenched, with units below 1,200 lm, characterized by low speeds, high consumption, and often obsolete configurations, seeing rates stagnate and on some occasions even fall. Certain of these units had an easier time finding employment thanks to their car-friendly configuration, making them a viable second-choice for the all-

hungry car-trade operators. The latter however turned out to be pickier than in the past, no longer contenting themselves with any car-friendly unit, but seeking tonnage endowed with decent speed and consumption as well as more flexible deck configurations.

In the second place, the year was characterized by a healthy volume of sale and purchase deals. While 10 ships changed hands in 2005, this number more than trebled in 2006, reaching a staggering 34, with prices remaining firm all along.

On the newbuilding side, the fall in orders compared to 2005 can likely be attributed to 3 key factors:

- a) the very limited number of yards proficient in ro-ro construction;
- b) the reluctance of mainly Far Eastern yards and "virgin" yards to accept ro-ro orders - which are seen as costly and not as lucrative or easy as, for example, bulk carriers or containerships;
- c) continued high newbuilding prices.

Industry consolidation continued unabated, with more "industry veterans" taking a bow whilst the few large-scale operators bolstered their market positions even further.

In addition, 2006 witnessed the now well-established correlation between global geopolitics and ro-ros. Amongst the most active players in the tramp market were

the Ministries of Defence (MODs), hard-pressed to secure tonnage for their military needs. Most of these requirements continued to be spot ones, but some, like the French and the Danish, were for long term contracts. Admiral Danish Fleet (ADF) chartered the **Stena Forwarder** from Stena RoRo for 5 years, bringing the number of vessels under its control to 3. The French awarded their latest re-supply tender to Compagnie Maritime Nantaise (MN) with their freshly purchased **MN Pelican ex-Trans Botnia**, taking the number of units on charter from this owner also to three. It is worth mentioning here that the most regular and reliable tonnage providers to the MODs for their spot requirements continue to be those operators flexible enough to be able to shuffle and release their own vessels while relying on the market to cover their own needs. The most noteworthy examples are Transprocon and Fastline.

Contrary to the expectations of many, the Lebanon crisis did not turn out to be a rate bonanza and as such stood out as an exception. This was due to the following main reasons: the conflict itself was short-lived, the volumes of material shipped comparatively small, and the location was relatively close both in terms of proximity to tonnage supplies and of duration of the voyages.

To illustrate the above points, we point out the following representative developments:

◆ Grimaldi Naples' launch of a takeover bid for Finnlines. If successful it holds the potential to create interesting synergies between the two groups. Earlier in the year, Grimaldi set up Malta Motorways of the Seas (MMOS), following the stalemate with the General Workers Union during the course of the acquisition of former Maltese operator Sea Malta, which in the meantime has bowed out. Grimaldi also purchased numerous second hand units:

1. the sisterships **Eurocargo Europa ex-Tor Scandia** and **Eurocargo Africa ex-Tor Flandria** (2,874 lm - 17 knots - 1981 built) at a reported price of €23.0 million en bloc

2. the **Commodore** (2,180 lm - 13 knots - 1992 built) for approximately \$12.0 million

3. the **Maltese Falcon** (1,680 lm - 16 knots - 1978 built) for approximately \$5.0 million

◆ The purchase of Engship by compatriot Rettig, whose combined fleet counts ten ro-ros, the **Garden** having been sold during the year, all of which on long term charters.

◆ The acquisition of Dart Line by Cobelfret, making the latter the largest carrier in the southern North Sea serving trailers, new vehicles, and containers. Earlier in the year Cobelfret placed an order for 4 units (2,600 lm - 19 knots speed) from Flensburger for deliveries 2008/2009 with options for 6 more units. Moreover, in line with the tendency of operators to hold an ever more logistics profile, we point out the take-over by Cobelfret of the Simon Group's Humber Sea Terminal, which is also used by Stena and Norfolkline.

◆ The retrenchment of Superfast Ferries, which exited the Baltic ferry

trade with the sale to Tallink of their 3 ferries (**Superfast VII, VIII, IX**) and then chartered out their **Nordia**, leaving only the smaller **Marin**, also destined to go.

◆ The award for the management of Transmanche Ferries Service to the Louis Dreyfus Group's subsidiary, LD Lines, also still very active on the chartering market. In addition, through its joint venture with Leif Höegh, Fret Cetam, an order for two newbuildings with 700 ceu capacity each was placed with Singapore Technologies for the construction of two more dedicated Airbus vessels. Towards the end of the year Fret Cetam also chartered-in an additional unit, the **Nordia**, to run alongside their **Ville de Bordeaux**.

◆ Dubai Ports World purchase of P&O for approximately £3.3 billion.

◆ The continued appetite for tonnage of DFDS, which chartered for 10 years each two newbuildings ordered by Nordic Holdings (2,681 lm - 20 knots) to be built at Jinling in China and due for delivery in 2008. One cannot also discount their intense activity on the ferry side.

◆ Celtic Link's hunger for tonnage. Established in 2005 to take over the former P&O freight route between Rosslare and Cherbourg with their owned ferry **Diplomat**, ex-**European Diplomat**, they have proceeded to charter 3 more units, so it will be interesting to follow the evolution of this operator.

1. the **Celtic Star** ex-**Northern Star** (1,200 lm - 20 knots)

2. the **Celtic Mist** ex-**Klaipeda** (ro-pax - 1,600 lm - 15 knots - 300 pax)

3. the **Celtic Sun** ex-**Carmen B** (2,100 lm - 18 knots)

◆ Rettig's decision to proceed with 3 more conversions following the success of the conversion of the **Transgard** into a PCC backed by 10 years t/c from UECC.

◆ Acciona Trasmediterranea's continued activity on all fronts: chartering ro-ro and ro-pax tonnage; launching a new ferry route between Bilbao and Portsmouth; ordering 2 ro-ro units able 3,500 lm plus 100 cars and 26 knots with an option for further 2 from Navantia; and taking over Euroferrys.

◆ Stena's order for 2 large ro-pax vessels, dubbed the "world's largest", 5,500 lm and 1,200 pax at Aker Yards.

With large orderbooks and considerable deliveries on the horizon, we could expect some operators to start shedding older tonnage. However, it remains unclear what the final allocation of these older units will turn out to be and whether they will find their way into the tramp market. So far this has not been the case.

The picture for the near future in terms of prospects of tonnage availability in the tramp market turns even bleaker when noting that most players are further investing in the ro-pax concept at the expense of pure ro-ros. It therefore appears that the time is not yet ripe for attracting investment in new tonnage for the tramp market, taking into account that newbuilding prices remain high and that charter rates are still too low in terms of return on investment. We therefore foresee even less activity during 2007 in terms of volume of chartering, as well as a further widening of the gap in this two-tier market. ■

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The marine insurance market in 2006

A CAP-MARINE SHORT REVIEW OF LATEST STATISTICS ON 2005-2006 MARINE INSURANCE. The report covers trends and developments in the different marine class of business in 2006. This report includes a brief overview of the changes occurring in the P&I Market in response to the escalation of claims and prospective legislative issues.

UNCERTAINTY AND VOLATILITY

Despite no real general increase in premium rates and the uncertainties which persist as to the final costs of some major claims, the insurance sector in Europe should enjoy a good year in 2006. As Insurance brokers we may see some divergence in the risk appreciation of underwriting policies between insurers, but the shipowners and traders continued to benefit from competitive rates.

The world of marine insurance never ceases to amaze and receive tremendous press coverage with the culminating IUMI conference declaring that nothing has

changed in the Marine Market. Actually, whilst most sectors of the insurance industry are reporting increased income and profits, hull underwriters, as an industry, are unable to achieve the necessary balance between exposure, i.e. potential claims, and actual claims costs on one side and risk remuneration, i.e. premium, on the other.

No significant pricing improvements have been observed in the hull market in 2006. The 2006 hurricane season produced only one storm with catastrophic proportions, tropical storm Ernesto, which caused close to \$250 million in insured property damages, but had no impact on the marine market.

However, increased competition from a larger number of underwriters in the major market places (UK, Norway, Japan, France, Italy, USA, Spain) has led to some softening in the year-end results, including sometimes small reductions in rates for clients with excellent to clean loss records.

Marine insurance premiums: worldwide figures (US\$ billion - as reported per end of August 2005)					
	Global Hull	Transport/Cargo	Marine Liability	Offshore/Energy	Total
2005	4,772	9,279	1,231	1,696	17,260
2004	4,540	9,923	1,145	1,551	17,178
2003	4,026	9,129	1,152	1,753	16,076
Index 2003-2004*	12.8%	8.7%	-0.7%	-11.5%	6.9%
Index 2004-2005*	5.1%	-6.5%	7.6%	9.3%	0.5%

*Index based on figures from Associations who have reported in both years. The index reflects changes in country activity, exchange rates in addition to premium increases and is thus not a renewal index! As some countries only report total marine premium without splitting into classes, the sum of these classes might in some cases be slightly less than the "total" sum.

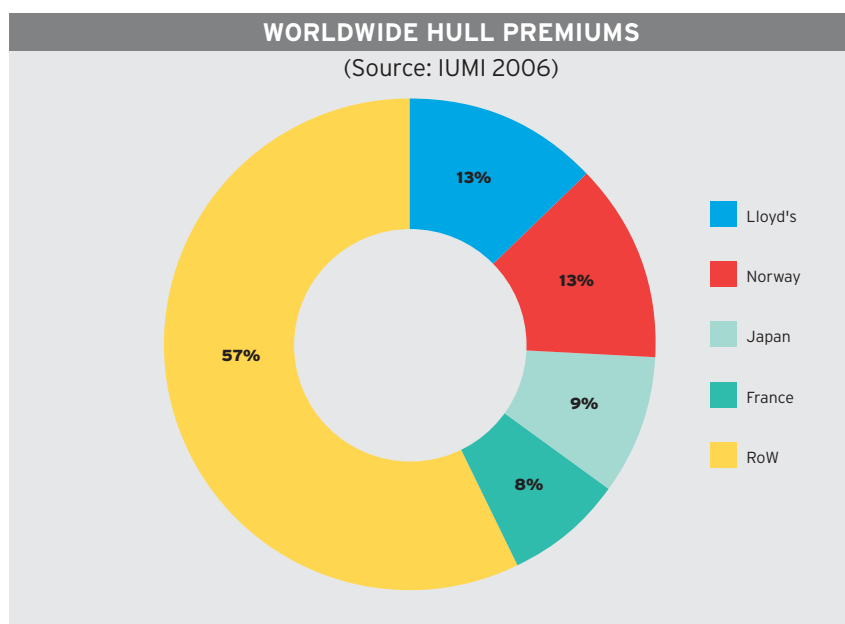
Global premiums 2003-2005 - Source: IUMI, Tokyo Conference 2006

Cargo markets continued to attract capacity and to write huge amounts of business. The delivery of new-buildings such as large container-ships is pushing up the risk profile potentially over \$1bn, not including the hull value. Even if "ultra large container ship" (ULCS) should perhaps mean "ultra large claims scenario", (Matthew O'Sullivan Munich Re, speaking at the Tokyo Conference in 2006) the insurance market has the capacity to respond to escalating size and value of these types of risks and to support the increase in world trade.

Loss ratio, hull & cargo premiums combined, improved by 2 points from 73 % in 2004 to 71 % in 2005;

The premium income of the building-risk sector has now much improved and has maybe reached a figure of \$300m per year. The introduction of the JH143 shipyard-risk warranty, and higher deductibles for cruise vessels as close to \$500,000 and other loss-control initiatives have resulted in fewer and less costly claims.

The fluctuating insurance cycle is a major uncertainty for both the shipping and insurance industry. The more disciplined underwriters are still unable to influence the cycle due to the market forces, with supply and demand still driving the rates.



Major French hull insurers		
Companies	S&P Rating	% of French market
AXA Corporate Solutions	AA	25 %
Allianz G.S. & Specilty	AA-	20 %
Groupama Transport	A	17 %
Generali	BBB ppi	16 %
(IUMI Ocean Hull Committee 2005 figures)		78 % of the market

French Marine Hull Insurance Market in the world

French marine hull insurance market is fourth in the world with an 8 % share of the world market.

The underwriting policy of the French market in 2006 was guided

by strategic continuity based on successful renewals, operational prudence and accuracy. The French Marine insurance companies continue to be strong and represent a stable insurance markets for our clients.

French Marine Cargo Insurance Market in the world

France is a strong marine cargo market in the European Market scene and is ranked fifth in the world (2005 figures) coming down from third place in 2004 after Japan and Germany.

Despite this drop in ranking, the French Marine Cargo market confirms its dynamism with an 8 % market share in the world, which is the same as the Lloyd's market. This insurance sector, as in previous years, is characterized by periods of intense price competition due to excessive underwriting capacity and more favourable periods when shortages of underwriting capacity permit higher premium levels. In 2006, overcapacity was the predominant characteristic.

Despite some major losses, the claims experience and the financial results have been favourable and many underwriters have been inclined to offer price reductions to maintain their accounts or to gain new business.

Many were expecting that the booming of the shipping industry and economic expansion of global trade would produce a substantial increase in the premium income. The recorded results have not really met the expectations and growth in marine cargo premium income remains moderate [see below the 2004/05 evolution].

EXAMINING THE KEY ISSUES

Increased severity for both Hull and Loss of Hire claims

The increase cost of repairs and its impact on claims remain a concern for the hull underwriters and to a certain extent for the P&I insurers especially where they are covering the collision Liability risk. Another concern is the lack of availability for

Evolution of insurance premiums French domestic and cross-border production - including risk acceptance			
Millions Euros	2005	2004	Variation
Hull	497.3	450.8	+9.35 %
Cargo	759.0	733.9	+3.30 %
Total	1 256.3	1 184.7	+5.60 %

The substantial cost of the natural disasters including hurricanes that occurred in the second half of 2005 in the world have not reversed the cargo market's downward cycle and as a result this downward trend will probably continue throughout 2007.

ship repair at yards which is principally caused by very high new-building activity. Finding the time to carry out repairs is proving problematic and more costly thus long haul towage to find a suitable yard is becoming more commonplace. This causes hardship for both hull and loss of hire claims. There are also delays in obtaining spare parts, especially for engines. This results in greater loss of income for shipowners.

Risk assessment and Loss prevention: a common goal

Unfortunately, quality campaigns and the regulations enacted by the European Commission, supported by the IMO, are not sufficient to eliminate substandard vessels. During the IUMI Conference 2006, underwriters emphasized that they wish to be an additional force in such a fight and encourage more and more loss prevention actions and ships inspections. On the cargo side, 54% (source UK P&I Club) of the cargo claims resulted from a structural or mechanical defect of the vessel or to defective equipment. On their side the International Group Clubs have agreed on a procedure for sharing information about the technical condition of registered vessels. Substandard ship problems are in reality caused by a combination of substandard ship structures, substandard shipowners, substandard crews, substandard charterers,

substandard insurers, and substandard classification societies.

According to Equasis [class status membership at 31-12-2005], only 53 % of the world fleet - by number- is classed with an IACS (International Association of Classification Societies) member. The breakdown of the balance being 4 % non IACS vessels, 5 % IACS withdrawn and 38% class not recorded

The P&I market: a significant rise in the average value of claims

There has been a large deterioration in International Group pool* claims in 2006. Claims reported to the pool in the first 10 months of 2006/07 reached \$173m, compared with just \$28m in the same period of 2005, \$85m in 2004, \$66m in 2003, \$13m in 2002 and \$11m in 2001.

With respect to General Increases, market analysts suggest that the P&I clubs are failing to raise their premium incomes despite escalating claims and hefty general increases imposed at successive renewals. An analysis of the clubs shows that in terms of premium per gross ton (gt) insured the income of the clubs fell by 5.4 % through the last reported year. The general increase for the 2005/2006 year averaged 8.8 %, but the report

* Part of the claim exceeding the retention limit of one Club, then supported by all the other Clubs.



Vedettes de Bréhat / Cap Marine with Servane Escofier, 2nd of the Route du Rhum race 2006 on class 50 feet monohull

shows the premium rate achieved was maybe minus 3 % in gt terms.

This is certainly attributable, among other reasons, to the hard competition the Clubs are facing to get new business where the restrictions of the International Group Agreement do not apply, and to the "churn" effect: when a ship-owner sells an older vessel and replaces it with a newbuilding of similar size, the newbuilding will pay a premium which generally will not compensate the premium generated by the older vessel. TradeWinds reported on Jan.19, 2007 that a European bulker owner paying about \$2.50 per gt was quoted \$1.45 per gt for new tonnage, although the claims records warranted a rise to about \$4 per gt.

Cruises vessels and passenger ships

The cruise sector may be particularly affected because of the 2002 Athens Protocol relating to the carriage of passengers and their luggage by sea, which will push the limit of liability over \$2bn for a very large ship. In 2006 the European Commission proposed to incorpo-

rate the 2002 Athens Protocol into EC law and to extend the application of this Protocol to domestic sea transport and to inland waterways. The protocol should be in force within 2 years time.

The plan to load a much higher proportion of the P&I clubs' collective excess of loss reinsurance costs on to passenger vessels is already sparking controversy as the cruise and ferry sector's contribution has more than doubled in the past five years to the current figure of \$0.8006 per gt, which is 18 % more than crude tankers and well over double the rate paid by clean tankers or dry-cargo vessels.

Passenger ships reinsurance costs could rise by between 62.5 % and 75 %.

Greater levels of legislation will have the inevitable result of increasing liabilities and therefore the potential for claims.

POSSIBLE EFFECTS

More costly claims, more sophisticated risks, larger vessels, more liabilities, more legislative issues.

In light of this, the shipowners and charterers will probably see premium increases in the P&I markets for the next two renewals up to and including February 2009.

The immediate effect on 20th February 2007 P&I Mutual renewals

- ◆ Cover for passenger and crew risks combined is reduced to a maximum \$3 billion
- ◆ A sub-limit of \$2 billion shall apply to passenger risks, much lower than the limit of P&I cover based on 2.50 % of the limitation value of the world fleet under the 1976 limitation convention, i.e. around \$4.25 bn to \$5.5 bn currently available. Large passenger ship operators may be left with uninsured liabilities above \$2 bn.
- ◆ An extra \$1 bn of overspill reinsurance
- ◆ Club retention is increased from \$6 million to \$7 million
- ◆ Retention will double for ships suspected of being substandard.
- ◆ Maximum limit for terrorism and war cover \$500 million

The future effect of the Solvency II Directive

The ongoing developments of the new European solvency regime (known as Solvency II) will include fundamental changes in the solvency margin, i.e. the minimum amount of extra capital that an insurance provider must have to fall back on in unforeseen circumstances. Insurers shall have to review the methodology to align the capital requirements more closely with risks.

War and terrorism, geopolitical uncertainty

Since the events of September 11, 2001, it has become apparent that the vast maritime transportation system is particularly vulnerable and subject to terrorist attacks from previously un contemplated sources. However, since the year 2000, the sector has recorded only two major marine events: Al Qaeda not only attacked the **USS Cole**, but scored a grim success on October 6, 2002 against a French/Belgium tanker, the 299,364 dwt **Limburg**, rammed by an explosives-laden boat off the port of Ash Shihr at Mukallah, 353 miles (570 km) east of Aden. A crewman was killed and the double-hulled tanker was breached.

The impact on the Yemeni economy was immediate, as maritime insurers tripled their rates.

Nevertheless, the potential problems posed by seaborne terrorism should not hide the fact that the danger posed by the new generation of pirates is all too real and a permanent nuisance.

In 2006, there were 239 attacks on ships, compared to 276 in 2005 and 329 in 2004 says the annual IMB report, which is based on statistics compiled by the IMB Piracy Reporting Centre (PRC) in Kuala Lumpur. Although the number of attacks world-wide has declined, piracy continues to plague hotspots such as Bangladesh, Nigeria, Somalia, and the ports of Chittagong in Bangladesh and Santos in Brazil.

Indonesia still accounted for more attacks than any other country, consolidating its position as the world's top piracy hotspot. Nigerian waters also remain extremely dangerous.

Nigerian attacks have great potential for violence, with pirates reported as carrying guns, knives or both in most instances. A growing trend in Nigeria is the large number of pirates involved in attacks. In one instance, 40 people attacked a ves-

sel from three canoes and kidnapped four crew members. In another, a ship was attacked by 23 pirates armed with knives. These attacks are symptomatic of a rise in the number of incidents against foreign oil workers in Nigeria.

The Malacca Straits have been dropped from Lloyd's of London's list of dangerous waterways. This decision is thought to be largely the result of improvements to security implemented by the littoral states bordering the Straits.

Worldwide, there have been more attacks on container ships (37/24) and fishing boats (15/3) in the first nine months of 2006 compared with the same period last year, while the number of attacks on bulk carriers, general cargo ships and tankers has diminished.

In the absence of major events, the war risks insurance markets have witnessed in 2006 and already in 2007 a significant drop in premium rates. The main cause has been the continuing downward trend in rating these risks coupled with improved international market terms.

Thus exceptional risks coverage for war, terrorist acts and seizure, experienced a cheap protection for shipowners and traders. ■



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French shipyards deliveries and orderbook in 2006

Aker Yards Saint-Nazaire

Ships delivered in 2006

M 32	Gaz de France Energy LNG tanker	2006 74,130 cbm	Gaz de France 219.5 m x 34.9 m Diesel gas electric - 18,560 kW	on 9.93 m 18.2 K.
N 32	Provalys LNG tanker	2006 153,500 cbm	Gaz de France 290.0 m x 43.3 m Diesel gas electric - 28,000 kW	on 11.75 m 19.5 K.
Q 32	MSC Musica Cruise vessel	2006 89,600 gt - 2,550 lower berths 1,275 cab	MSC 293.8 m x 32.2 m Diesel electric - 2 x 17,000 kW	on 7.85 m 23 K.

Ships on order as at 1/1/2007

A 33 B 33	MSC Fantasia MSC Serenata Cruise vessels	2008 2009 133,500 gt - 3,300 lower berths 1,650 cab	MSC -	333.0 m
C 33 D 33	- Cruise vessels	2010 2009 148,000 gt - 4,200 lower berths 2,100 cab	NCL -	325.0 m x 40.0 m
P 32	Gazelys LNG tanker	2007 153,500 cbm	Gaz de France 290.0 m x 43.3 m Diesel gas electric - 28,000 kW	on 11.75 m 19.5 K.
R 32	MSC Orchestra Cruise vessel	2007 89,600 gt - 2,550 lower berths 1,275 cab	MSC 293.8 m x 32.2 m Diesel electric - 2 x 17,000 kW	on 7.85 m 23 K.
S 32	MSC Poesia Cruise vessel	2008 89,600 gt - 2,550 lower berths 1,275 cab	MSC 293.8 m x 32.2 m Diesel electric - 2 x 17,000 kW	on 7.85 m 23 K.

Aker Yards Lorient

Ships delivered in 2006

-	Anatife Product tanker	2006	Départements du Morbihan et de Vendée 41.5 m x 7.6 m 310 cbm	on 2.45 m
-	Bangor Ferry	2006	Conseil Général du Morbihan 46.0 m x 12.0 m 2 x 780 kW - ABC	on 2.75 m 12.5 K.
829	Kogo Yacht	2006	- 71.7 m x 13.5 m Diesel electric - 2 x 1,500 kW	on 3.75 m 16 K.

Ship on order as at 1/1/2007

-	- Ferry	2008	Conseil Général du Morbihan 46.0 m x 12.0 m 2 x 780 kW - ABC	on 2.75 m 12.5 K.
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Constructions Mécaniques de Normandie

Ships delivered in 2006

-	- Corvette	2006	United Arab Emirates BR 70 68.0 m x 11.0 m MTU V895 TE920	35 K.
-	Bermie Yacht	2006	Netanya 8 Marine 58.0 m x 11.2 m 2 x 1,641 kW	15.4 K.

Ships on order as at 1/1/2007

-	Netanya 8 Yacht	2007	Netanya 8 Marine 58.0 m x 11.2 m 2 x 1,641 kW	15.4 K.
-	Project 801 - Slipstream Project 802 Yachts	2008 2008	- 58.0 m x 11.2 m 2 x 1,641 kW	15.4 K.

Chantiers Piriou

Ships delivered in 2006

C 265	Surfer 323 Crew boat	2006 201 ums 91 passengers	Compagnie Surf 34.3 m x 6.7 m 3 x 1,455 kW	on 3 m
C 266	Charles Gilberte Trawler	2006 154 ums	Delponte 24.9 m	
C 275	Trevignon	2006	Cobrecaf	
C 276	Drennec Tuna boats	2006 2,319 ums	- 83.2 m x 13.8 m 4,000 kW - Wartsila 8L32	on 6.7 m 17.5 K.
C 277	Transud Barge	2006 235 ums	Transud 39.2 m	
C 279	War Roag IV Fish boat	2006 66.86 ums	Sas de la Baie - C/O DLM 17.0 m	
FC 08	Les Casquets	2006	Armement La Houle	
FC 09	La Houle Trawlers	2006 181 ums	- 22.8 m	

Ships on order as at 1/1/2007

C 280	-	2007	Les Abeilles	
C 281	-	2007	-	
C 282	-	2008	-	
C 283	-	2008	-	
C 284	-	2008	-	
C 285	-	2008	-	
C 286	-	2008	-	
C 287	-	2008	-	
	Tugs		30.3 m	
C 288	Surfer 324	2007	Compagnie Surf	
C 290	Surfer 325 Crew boats	2007 201 ums 91 passengers	- 34.0 m	
C 293	-	2007	Vedettes de Paris	
C 294	- Passenger river boats	2007	- 30.0 m	

French deliveries and orderbook to foreign shipyards in 2006

Ships delivered in 2006

Yangzhou Dayang (China)

DY401	Bourbon Thera AHTS	2006 1,500 dwt CW 80t	Bourbon 4,795 kW
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Zhejiang (China)

ZJB03-117	Bourbon Hector	2006	Bourbon
ZJB03-120	Bourbon Hestia	2006	-
ZJB03-121	Bourbon Harmonie	2006	-
ZJB03-122	Bourbon Hemera	2006	-
ZJB03-123	Bourbon Helene	2006	-
ZJB03-133	Bourbon Homere PSV	2006 3,230 dwt GPA 670	Bourbon 73.2 m x 16.5 m 5,475 kW - Cummins on 5.50 m 13 K.

Aker Brevik (Norway)

36	Cap Aiguades Small product tanker	2006 3,536 dwt - 2,000 gt	Maritima 89.2 m x 13.8 m 2 x 1,080 kW - Warsila 6L20 on 5 m 12 K.
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Fjellstrand (Norway)

1674	Le Châtelet Catamaran	2006 442 pax	Compagnie Yeu Continent 45.5 m x 11.2 m 4 x 1,900 kW - Cummins on 1.5 m 32 K.
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Ulstein Verft (Norway)

273	Bourbon Orca AHTS	2006 180 t bp - DP2 - SAHS AX104	Bourbon 86.2 x 18.5 m 11,520 kW 17.5 K.
274	Bourbon Dolphin AHTS	2006 200 t bp A102	Bourbon 75.2 x 17.0 m
275	Bourbon Mistral PSV	2006 4,720 dwt PX105	Bourbon 88.8 x 19.0 m 6,320 kW on 6.6 m 16 K.

Keppel (Singapore)

282	Bourbon Artemis	2006	Bourbon
293	Bourbon Astyanax AHTS	2006 2,100 dwt - 120 t bp CW 120	Bourbon - 67.0 m x 15.40 m 8,120 kW - Caterpillar on 6.10 m 14 K.

298 299	Bourbon Rhode Bourbon Rhesos AHTS	2006 2006	Bourbon -	
		650 dwt CW 100 - 100 t bp		
Hyundai Mipo (South Korea)				
0421 0422 0423	CMA CGM Violet CMA CGM Camellia CMA CGM Dahlia	2006 2006 2006	CMA CGM - -	
	Container carriers	38,200 dwt - 2,824 teu	222.17 x 30.0 m 34,300 kW - B&W	on 12 m 23 K.
Hyundai Samho (South Korea)				
S-254 S-255	CMA CGM Traviata CMA CGM Medea	2006 2006	CMA CGM -	
	Container carriers	100,400 dwt - 8,189 teu	334.0 m x 42.8 m 70,306 kW - B&W	on 14,50 m 25.4 K.
S-253 S-256	CMA CGM Tosca CMA CGM Norma	2006 2006	CMA CGM -	
	Container carriers	118,740 dwt - 9,163 teu	350.0 m x 42.8 m 70,306 kW - B&W	on 14,50 m 25.4 K.
S-279	CMA CGM Orca	2006	CMA CGM	
	Container carrier	65,890 dwt - 5,060 teu	294.1 m x 32.2 m 69,840 bhp - B&W	on 13,50 m 25.1 K.
Hyundai Ulsan (South Korea)				
1647	CMA CGM Nabucco	2006	CMA CGM	
	Container carrier	100,400 dwt - 8,189 teu	334.0 m x 42.8 m 70,306 kW - B&W	on 14,50 m 25.4 K.
1648 1649	CMA CGM Fidelio CMA CGM Rigoletto	2006 2006	CMA CGM -	
	Container carriers	118,740 dwt - 9,163 teu	350 m x 42.80 m 70,306 kW - B&W	on 14,50 m 25.4 K.
STX Chinhae (South Korea)				
1225	Maohi	2006	Socatra	
	MR product tanker	46,177 dwt	183.0 m x 32.2 m 11,100 bhp - B&W	
H.J. Barreras (Spain)				
1629	Guyenne	2006	Petromarine	
	Small product tanker	11,345 dwt double hull - IMO II	119.8 m x 18.8 m 4,320 kW	14 K.
1646	Seven Sisters	2006	Transmanche Ferries	
	Passenger ferry	2,800 dwt - 18,564 gt 600 pax	142.4 x 24.2 m 25,704 bhp - Wartsila	on 5,70 m 22 K.
Torgem (Turkey)				
84	Majorque	2006	Petromarine	
	Product tanker	3,300 dwt	79.90 m x 14.25 m 2,560 bhp - Caterpillar	on 5 m 12 K.
Yardimci (Turkey)				
40	FS Charlotte	2006	Fouquet Sacop (Eitzen Chemical)	
	Small product tanker	12,790 dwt	129.0 m x 22.0 m 7,341 bhp - MAK	
54	FS Camille	2006	Fouquet Sacop (Eitzen Chemical)	
	Small product tanker	3,900 dwt	79.9 m x 15.0 m 3,046 bhp - Wartisla	

Ships on order as at 1/1/2007

Dalian SIC (China)

-	-	2008	CMA CGM
-	-	2008	-
	Container carriers	50,500 dwt - 4,250 teu	263.2 m x 32.2 m on 12.80 m

FPSO-5

-	-	2007	Total
	Offshore production & storage unit	150,000 dwt	

Jinling (China)

-	-	2007	Brostrom
	MR product tanker	37,500 dwt IMO II - Double hull	

Yangzhou Dayang (China)

-	-	2007	Bourbon
-	-	2007	-
-	-	2007	-
-	-	2007	-
-	-	2007	-
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-	-	2010	-
-	-	2010	-
-	-	2011	-
-	-	2011	-
	AHTS	1,500 dwt GPA 254 type	

DY 402	Lars Grael	2007	Compagnie Surf
DY 403	Bourbon Themis	2007	-
DY 404	Bourbon Thalie	2007	-
	AHTS	1,500 dwt 80T bp Conan Wu type	4,795 kW

DY 405	Bourbon Thetys	2007	Bourbon
DY 406	Bourbon Theia	2007	-
	AHTS	1,500 dwt 80T bp Conan Wu type	5,285 kW

DY 609	Bourbon Sirius	2007	Bourbon
DY 610	Bourbon Sagitta	2007	-
	AHTS	1,800 dwt GPA 254	3,960 kW

DY 611	Bourbon Sextans	2007	Bourbon
DY 612	Bourbon Syrma	2007	-
	AHTS	1,800 dwt 70T bp Conan Wu	3,960 kW

DY 801	-	2007	Bourbon
DY 802	-	2007	-
DY 803	-	2007	-
DY 804	-	2008	-
DY 805	-	2008	-
DY 806	-	2008	-
DY 807	-	2008	-
DY 808	-	2008	-
DY 809	-	2009	-
DY 810	-	2009	-
PSV		1,600 dwt GPA 654 type	2,905 kW

Zhejiang (China)

ZJB03-134	Bourbon Himalia	2007	Bourbon
PSV		3,230 dwt GPA 670	73.2 m x 16.5 m 5,475 kW - Cummins on 5.50 m 13 K.

ZJB05-145	-	2007	Bourbon
ZJB05-146	-	2008	-
ZJB05-147	-	2008	-
ZJB05-148	-	2008	-
PSV		4,847 dwt P105 design Ulstein type	3,745 kW

ZJB06-155	-	2007	Bourbon
ZJB06-156	-	2007	-
ZJB06-157	-	2007	-
ZJB06-158	-	2007	-
ZJB06-159	-	2007	-
ZJB06-160	-	2008	-
ZJB06-161	-	2008	-
ZJB06-162	-	2008	-
PSV		GPA 670 type	4,002 kW

Grandweld (Dubai)

H 033/06	-	2008	Bourbon
H 034/06	-	2008	-
H 035/06	-	2008	-
H 036/06	-	2008	-
Crew boats			

Aker Finnyards (Finland)

1357	Cotentin	2007	Brittany Ferries
1362	Armorique	2008	-
Passenger ferries		6,200 dwt - 2,200 lm 600 pax - 120 cab	165.0 x 26.8 m on 6.3 m 23 K.

Bharati (India)

322	Bourbon Atlas	2007	Bourbon
323	Bourbon Altair	2007	-
348	-	2008	-
349	-	2008	-
MPSV		2,000 dwt 60M Conan Wu type	

352	-	2008	Bourbon
353	-	2008	-
354	-	2008	-
355	-	2008	-
356	-	2008	-
AHTS		2,100 dwt 120T Conan Wu type	8,120 kW

Damen Gorinchem (Netherlands)

511519	Abeille Sparten	2007	Les Abeilles
511520	Abeille Malabata	2007	-
511524	Abeille Cires	2007	-
511525	Abeille Dalia	2007	-
511539	-	2007	-
511540	-	2008	-
511541	-	2008	-
511542	-	2008	-

Tugs

ASD 2810 type

De Hoop Lobith (Netherlands)

422	Bourbon Trieste	2007	Bourbon
	MPSV	4,300 dwt	

Aker Brevik (Norway) hull built by Aker Braila in Romania

60	-	2008	Maritima
61	-	2008	-

Small product tankers

3,150 dwt

Double hull

1,836 kW

Hanjin Subic bay (Philippines)

PN001	-	2008	CMA CGM
PN002	-	2008	-
PN003	-	2009	-
PN004	-	2009	-
PN005	-	2009	-
PN006	-	2009	-

Container carriers

58,213 dwt - 4,389 teu

Double hull

36,500 kW

Singapore TS&E (Singapore)

615	-	2008	Cetam
616	-	2008	-

Roros

3,500 dwt - 3,120 lm

8,000 kW

19 K.

Daewoo Shipbuilding & Marine Engineering (South Korea)

-	-	2008	CMA CGM (on charter)
-	-	2008	-
-	-	2009	-
-	-	2009	-

Container carriers

120,000 dwt - 9,710 teu

25 K.

4125	-	2008	CMA CGM (on charter)
4126	-	2008	-

Container carriers

120,000 dwt - 9,710 teu

25 K.

4127	-	2009	CMA CGM
4128	-	2009	-

Container carriers

120,000 dwt - 9,710 teu

25 K.

Hanjin Busan (South Korea)

184	-	2008	CMA CGM
185	-	2008	-

Container carriers

58,500 dwt - 4,400 teu

282.1 x 32.2 m

62,080 bhp - B&W

on 13.02 m

202	-	2009	CMA CGM
203	-	2009	-
204	-	2009	-
205	-	2009	-

Container carriers

85,250 dwt - 6,408 teu

25.6 K.

Hyundai Samho (South Korea)

S-280	CMA CGM Dolphin	2007	CMA CGM
	Container carrier	65,990 dwt - 5,060 teu	294.1 m x 32.2 m 69,840 bhp - B&W on 13.50 m 23.5 K.
S-320	-	2007	CMA CGM
S-321	-	2007	-
	Container carriers	21,000 dwt - 1,691 teu	

Hyundai Ulsan (South Korea)

1710	CMA CGM Blue Whale	2007	CMA CGM
1711	CMA CGM White Shark	2007	-
1768	CMA CGM Marlin	2007	-
1769	CMA CGM Kingfish	2007	-
1770	CMA CGM Swordfish	2007	-
1771	CMA CGM Tarpon	2007	-
1826	-	2008	-
1827	-	2008	-
1828	-	2008	-
1829	-	2008	-
	Container carriers	65,990 dwt - 5,078 teu	294.1 m x 32.2 m 69,840 bhp - B&W on 13.50 m 23.5 K.

1870	CMA CGM Herodote	2007	CMA CGM
1871	CMA CGM Homere	2007	-
1872	-	2007	-
	Container carriers	21,000 dwt - 1,691 teu	

1890	-	2008	CMA CGM
1891	-	2008	
1892	-	2008	
1893	-	2008	
	Container carriers	120,000 dwt - 9,710 teu	25 K.

1992	-	2009	CMA CGM
1993	-	2009	-
1994	-	2009	-
1995	-	2009	-
1996	-	2009	-
1997	-	2010	-
1998	-	2010	-
1999	-	2010	-
	Container carriers	130,000 dwt - 11,400 teu	72,079 kW 24.7 K.

-	-	2008	Total
	Offshore production & storage unit	360,000 dwt	

JB Heavy (South Korea)

-	-	2007	CMA CGM
-	-	2007	-
-	-	2007	-
-	-	2007	-
	Container carriers	13,900 dwt - 1,118 teu	18 K.

Freire (Spain)

644	-	2007	Thomas L
645	-	2007	-
	Tugs		2,574 kW

Anadolu (Turkey)

204	FS Sara	2007	Fouquet Sacop (Eitzen Chemical)
	Small product tanker	8,125 dwt IMO II - Double hull	3,264 kW - MAK

RMK (Turkey)

65	Chantaco	2007	Petromarine
66	Chiberta	2007	-
	Small product tankers	19,000 dwt IMO II - Ice 1A	6,800 kW - Wartsila

Tersan (Turkey)

14	Lamentin	2007	Petromarine
15	Lacanau	2007	-
17	Lascaux	2007	-
	Small product tankers	10,800 dwt IMO II - Double hull	4,800 kW - MAK

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