Surrey Energy Economics Centre

PROSPECTS FOR THE OIL TANKER MARKET

by

David Hawdon, Leigh Smith and Claus Waaler

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TANKER FREIGHT RATES AND PROFITABILITY

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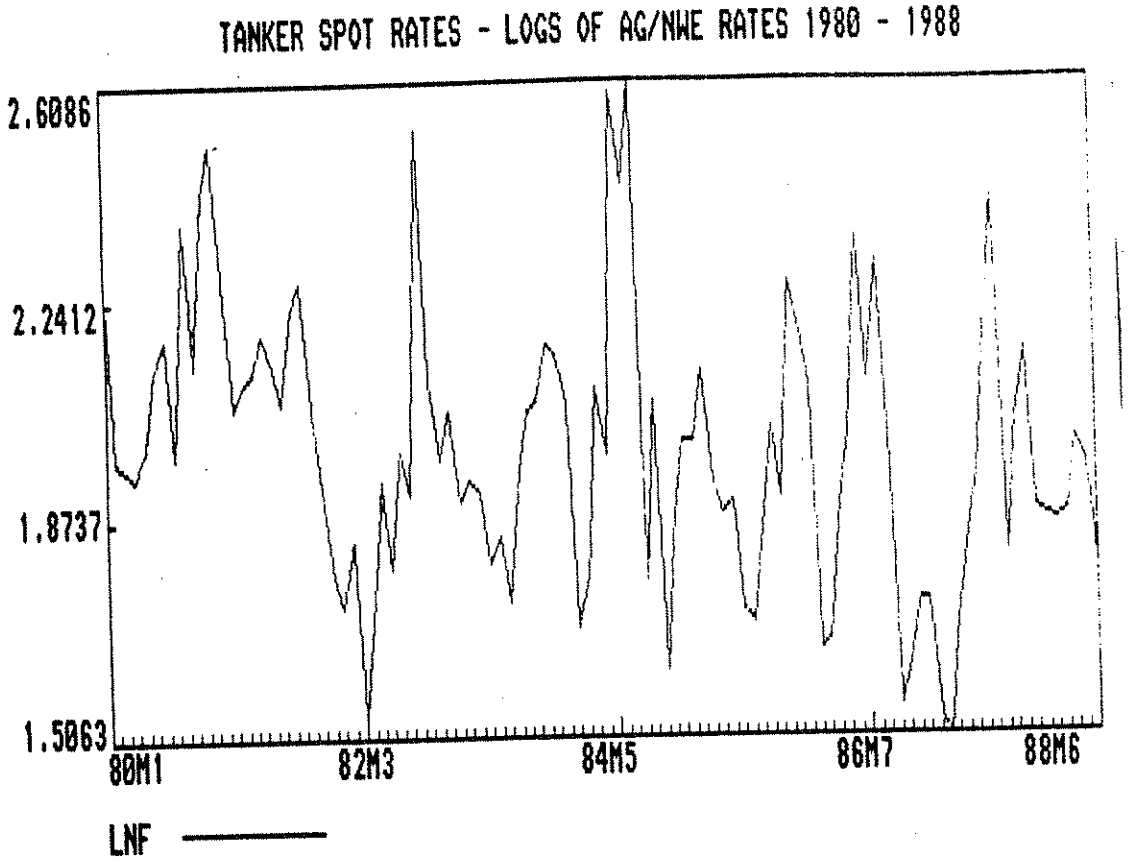
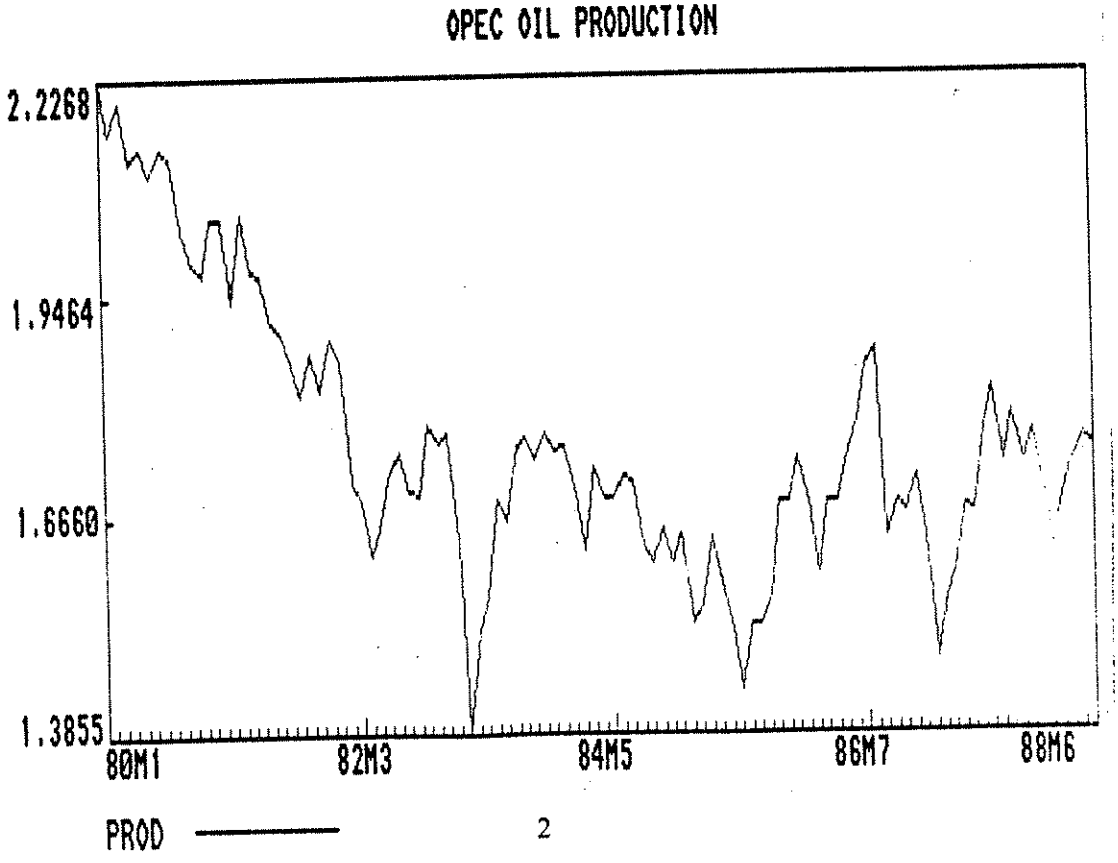
The closing months of 1988 witnessed one of the periodic transformations of the oil tanker market. The general air of subdued confidence with which most operators entered 1988 gave way to a mood of unrestrained optimism judging by reports in the shipping press. This was due largely to two main factors - the ending of the Iraq/Iran conflict which had severely affected the riskiness of tanker operations, and the publication of a number of bullish forecasts of future prospects. Thus Wescol[1] predicted that after the "huge" ship price increases of the recent past, prices are likely to increase throughout 1989. West European shipbuilders[2] expected a doubling in world shipbuilding activity due to an expected increase in world economic activity leading to growth in seaborne trade. These views are in line with those of H.P. Drewry reported in October 1987[3] which predicted that world tanker requirements would rise from 200 million deadweight tons (dwt) in 1985 to 255 million dwt by 1991. They are supported by a recently reported study of the City University Business School which envisaged improved time charter rates in both tanker and bulk shipping[4]. There are, on the other hand, cautionary voices which point to the fundamental uncertainties of the market and which emphasise the difficulty of justifying investment in newbuilding in these circumstances. The objective of this paper is to review tanker market developments over the last eight years, to isolate the major factors determining monthly average rates, and finally to assess the prospects for rates and tanker profitabilities over the next 12 months. I conclude that under most reasonable assumptions, operating existing VLCC tankers will remain a profitable activity throughout 1989, but that profits are likely to be low. There is also the possibility of losses in the event of major restrictions in oil supply.

1. REVIEW OF RATES 1980-88

The period 1980-88 was marked by unparalleled variability in freight rates around no very discernable trend (see Figure 1). Apart from the 19 month period of higher than average rates which lasted from March 1980 to October 1981 the most striking feature of these years

FIGURE 1


TANKER SPOT RATES - LOGS OF AG/NWE RATES 1980 - 1988
2.6086
2.2412
1.8737
1.5063
80M1
82M3
84M5
86M7
88M6
LNF


OPEC OIL PRODUCTION
2.2268
1.9464
1.6660
1.3855
80M1
82M3
84M5
86M7
88M6
PROD

has been the short duration of peaks and troughs and at the same time the spikiness of the series. We can distinguish five major peaks - December 1980, September 1982, July and August 1984, July 1986 and August 1987 with associated troughs in March 1982, January 1984, October 1984 and March 1987 (see Table 1 for details). Most of these were associated with unusual events. In particular, the peaks tended to occur either at or immediately following significant developments in the Iran/Iraq conflict (4 out of 5 cases) with the exception of June to July 1986. The troughs on the other hand were associated with an oversupply of 'ready to sail' tankers, a disequilibrium effect resulting from an inability of the market to adjust speedily to demand changes. The two exceptional movements - a peak in June and July 1986 and a trough in October 1984 occurred at times of significant changes in OPEC oil production

TABLE 1 - FREIGHT RATE CYCLES

Peaks	
1980 M12	Iraq/Iran conflict
1982 M9	Intensification of Iraq/Iran War
1984 M5	Beginning of 'Tanker War'
1986 M6, 7	High OPEC oil production
1987 M8	Intensified tanker bombing
Troughs	
1982 M3	High oil stocks, low demand
1984 M1	Saudi chartering
1984 M10	OPEC quota agreement
1987 M3	Surplus tonnage

Two factors complicate the explanation of freight rate movements in this period. The first is the sheer unpredictability of events in the Iran/Iraq conflict which introduce a high degree of noise into the published data. This uncertainty is likely to have an effect on

tanker chartering behaviour - with business being lower when employment is especially unpredictable and when there are speculative elements in behaviour.

The second complication is the seasonality exhibited by the underlying demand for tanker services. Oil companies tend to order tanker services in anticipation of winter consumption levels. There is no reason to believe that this will have much of an effect on rates in normal circumstances. In abnormal times, however, the coincidences of demands may produce an entirely different outcome.

2. MAIN EXPLANATORY FACTORS

The economic theory of market behaviour under competition provides a framework for organising the principle criteria likely to affect the price of a service like tanker transport. Given market demand and supply functions for tanker transport and a market clearing mechanism we would expect that the freight rate would be determined by three factors - transport demand, fleet supply capacity, and cost. In the case of tanker freight, the issue is complicated by the existence of a variety of rates for different routes. These can in principle be dealt with by using rates measured in terms of Worldscale which expresses rates as a percentage of cost for a standardised vessel along each route. Whilst this is convenient for certain purposes it has some disadvantages for freight rate forecasting.

(1) The basis is not appropriate for the VLCC size of tanker which is still the most important size category for oil transport. Although the producers of the Worldscale index have adjusted the base vessel at various points in time, the current size remains well below that of a VLCC.

(2) Revisions in the cost base of the index are only made twice per year, although this frequency is being increased. It is clear from the behaviour of bunker fuel prices, a major components of cost, that much more frequent revisions are required. The practical effect of this is that at revision times we often observe peculiarities in the behaviour of Worldscale indices reflecting step changes in costs.

We will focus on the most important of the major tanker routes - Gulf to North West Europe (AG/NWE). Its importance is due both to the high volume of traffic it carries and

also to the fact that it is in the Gulf area that the most important changes are likely to occur following the cessation of the Iran/Iraq conflict. Freight rates are expressed in terms of $/long ton of cargo (which converts to $/barrel after dividing by 7.49 for typical Gulf crudes). It is the rate paid by the charterer to cover the voyage costs and make some contribution towards the overheads of the owner. We consider voyage rates rather than time charter or other rates because these others are largely determined by voyage rates.

The demand for transport services arises from trade between oil importers and suppliers. This raises the question of who actually creates the demand at any one time. If we look at the names of charterers published each week in the shipping press we find oil companies to be the largest single grouping. This is not of much help since we do not know whether they are acting as producers' agents, refiners or traders. On the other hand we do know that oil producers are active in the market in a variety of ways. Whenever output exceeds demand, the producers are to be found chartering vessels either as temporary storage such as occurred in the early 1980s, or for transporting oil to distant markets, as recently. Thus the demand for tanker shipping is the sum of the normal demand for consumption plus the producers demand to move or store excess output. The key to understanding the recent behaviour of the market is to realise that the demand for tankers is driven by the production of oil and that oil production decisions are made in a monopolistic market.

The supply of transport is ultimately governed by the available tanker capacity. At any one moment, tankers are used as storage as well as for transport and in the post 1973 period have been in chronic excess supply. The fleet peaked in 1977 at 332 million dwt and because of considerable scrapping and retirement had fallen to around 239 million dwt by 1987. Even so, industry estimates suggest that as much as 76 million dwt are involved in such peripheral activities as part cargo work, slow steaming and storage or are laid up, so that at no time has an upper limit on capacity been approached. Whilst the fleet itself constitutes an upper limit to supply, the tonnage actually searching for employment will be affected by numbers leaving and joining the various activities just mentioned. Movements into and out of the various activities will be affected by relative earnings and we therefore

expect a relatively elastic supply regime to operate.

Prices are likely to be influenced also by changes in underlying cost considerations, of which the most important are fuel, crew and capital costs. Investment in shipping is highly subsidised and so capital costs are unlikely to form an effective constraint on operations. Crew costs, however, have been substantially influenced by productivity changes. In addition they are of the nature of fixed costs so far as an individual voyage is concerned since crew are usually employed on a period basis. Fuel efficiency improved with the large scale substitution of diesel for steam turbines during the 1970s and early 1980s, and also with changes in ship design. It is, nevertheless possible that bunker fuel prices, linked to fuel oil costs, will have some independent impact on rates. One further influence upon costs is exchange rates as freight charges are denominated in US dollars, a weak dollar will curtail shipowners earnings and reduce shippers costs. It is not clear, however, what effect this will have on market rates.

The actual freight model used in this study makes careful allowance for the effects of the international crises prevailing during 1980 to 1988 by including variables for the Iran/Iraq war from September 1980 - mid 1988 (I/I WAR), the onset of the Tanker War in 1984 (D84) and a dummy variable for months of exceptional activity in the conflict (CR). The impact of exogenous demand factors is measured by OPEC production levels as estimated by the Petroleum Economist (PROD). Normal seasonal effects are allowed for using dummy variables for the October to December period of each year (SEAS). These variables appear in the following equation :

$$LNF = CON + a_1.SEAS + a_2.D84 + a_3.IIWAR + a_5.CR + a_6.PROD + a_7.LFLEET + a_8.LBUNK + a_9.LNF(-1)$$

where LNF is the logarithm of freight rates, CON is a constant, LFLEET is the log of Fleet capacity and LBUNK is the log of bunker fuel costs. Rates are seen, from the results of the estimation given in Table 2, to have been quite responsive to variation in production

levels with an elasticity of -0.65. Neither bunker fuel cost nor fleet size, however, would appear to have had a significant impact on rates, but both have correctly signed and sensible coefficients - that on LFLEET indicating that a 1% reduction in supply tends to raise rates by 0.2%. Overall, rates seem to be very sensitive to crises, moderately sensitive to OPEC production levels, but only marginally responsive to variations in fuel costs and in fleet size. Of course it should be stressed that measured variables are only imperfect representations of the true underlying processes - especially OPEC output which is never satisfactorily reported, and which to some extent found alternative outlets via pipelines. Nevertheless, the estimated and actual freight rates are quite close as may be seen from Figure 2.

3. THE OUTLOOK FOR THE SHORT TERM

Certain things may be regarded as given for 1989 as shipbuilding and other work comes to completion. On the basis of work already in hand we might expect that the world tanker fleet will grow by around 7.3 million dwt in the remainder of 1988 and by a further 8.5 million dwt during 1989. This represents a possible expansion to tanker supply of 7% over the period. In addition we know the division of this expansion between crude and products tankers. The products tanker fleet is expected to grow at 8.5% and the crude fleet at 6.3%. The overall picture is one of a fleet in which products vessels are increasingly important. Of course vessel completion may be slowed by industrial disputes (as occurred in Korean yards in early 1988) or by buyer cancellations (less likely).

Again on the supply side, we know the likely expansion and location of refinery capacity and hence the possible extra trade requirements which may arise. New export refineries in the Gulf area should be capable of sending an extra 399,000 b/d of products (ie. 619,000 b/d additional to export refineries less 220,000 b/d import displacement in Iran). The West African trades will be affected by the expansion of Port Harcourt to 160,000 b/d of products capacity. Amongst importers, Korea increased its import capacity by an extra 60,000 b/d in October 1988.

TABLE 2

Ordinary Least Squares Estimation

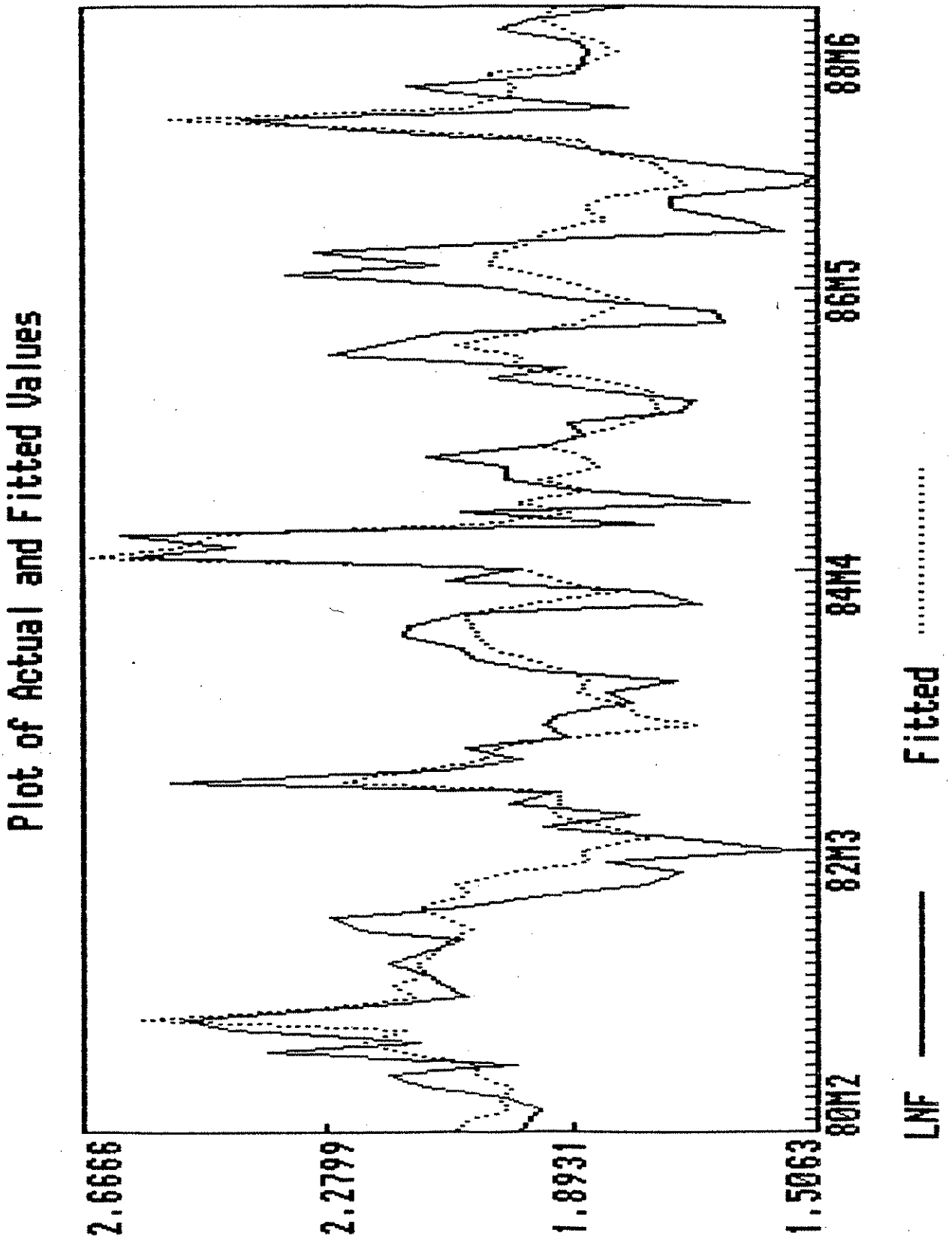
Dependent variable is LNF

101 observations used for estimation from 80M2 to 88M6#

Regressor	Coefficient	Standard Error	T-Ratio
CON	.8614	1.2188	.7067
SEAS	.0472	.0353	1.3389
D84	.4136	.1053	3.9263
IIWAR	.1724	.0686	2.5124
CR	.3106	.0882	3.5212
PROD	.6452	.1535	4.2021
LFLEET	-.1990	.2962	-.6719
LBUNK	.0980	.0862	1.1373
LNF(-1)	.2143	.0813	2.6374

R-Squared	.5841	F-statistic F(8, 92)	16.1491
R-Bar-Squared	.5479	S.E. of Regression	.1575
Residual Sum of Squares	2.2816	Mean of Dependent Variable	1.9865
S.D. of Dependent Variable	.2342	Maximum of Log-likelihood	48.0943
DW-statistic	1.6630	Durbin's h-statistic	2.9338

FIGURE 2


Plot of Actual and Fitted Values
2.6666
2.2799
1.8931
1.5063
80M2
82M3
84M4
86M5
88M6
LNF
Fitted

Less clear is the disposition of the Iranian shuttle fleet employed during the war with Iraq. This amounted to 6 million dwt of shuttle and 3.5 million dwt of storage vessels, which if placed in the tanker market would add 4% to the supply of shipping. Indications are that these vessels will be retained in the immediate future until oil production is restored at Kharg Island. The ultimate impact on the market will depend upon how many are then scrapped due to required repair costs. Most of them are VLCCs and the impact will be largely confined to this sector.

On the requirements side, new oil production from North Yemen, routed through Salif on the Red Sea, will expand exports by 30,000 b/d, by the end of 1988. South Yemen will, providing the Russian built line from Shabwa to Bir Ali is completed on schedule, commence exporting 100,000 b/d in 1989. New Libyan field offshore production is likely to expand from 10,000 to 50,000 b/d to 150,000 b/d within 3 years.

3.i Assessment of Tanker Profitability

The model of freight rates will be used to explore the impact on profits of likely developments in the environment of the tanker market. Before doing so it is worth considering the nature of the various feedbacks likely to be generated by market changes. Links between rates and factors affecting the size of the fleet operate through orders and scrapping. The lags between ordering and delivery and between deciding to scrap and actual demolition are sufficiently long that they may be neglected for 12 month ahead forecasting. In any case the measured impact of the fleet size on rates is, as has been seen, quite uncertain in the short run. What we must however take into account is the impact of earnings on vessel operation conditions. It is well known that optimal performance, which is a function of speed and volume varies with the available freight rate and that in the short run, the only variable factor input is fuel consumption. In particular as rates fall we might expect that owners will reduce input costs by reducing speed and hence fuel consumption. In each of the following scenarios we iterate between freight rate and speed to obtain an optimal combination. The model can be used to calculate the required rate to break-even on the voyage costs. By comparing this break-even rate with the predicted freight rate we

can evaluate the profitability of the vessel in a wide variety of assumptions.

3.ii Prospects for 1988 to 1989 - Alternative Scenarios

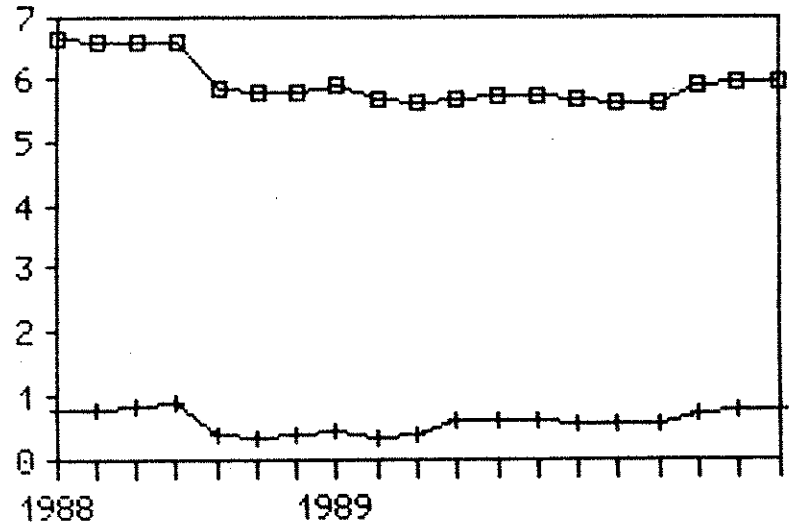
The scenario approach has a number of advantages in assessing market developments. On the one hand it frees us to consider a wide range of possibilities without substantial constraint, except for internal consistency. But secondly, it enables inferences to be drawn about the likely range of values for variables of interest and to assess their sensitivity to extreme assumptions.

For each of the scenarios investigated, we take as given the size of the fleet, which is assumed to grow to 246 million dwt by end 1988 and to 252.5 million dwt by end 1989. This results from known shipbuilding work in progress and from an assumed scrapping rate of 2 million dwt this year and 4 million dwt next year. Also held constant are the operating conditions of the vessel of interest - its engine capability, crew size, etc.

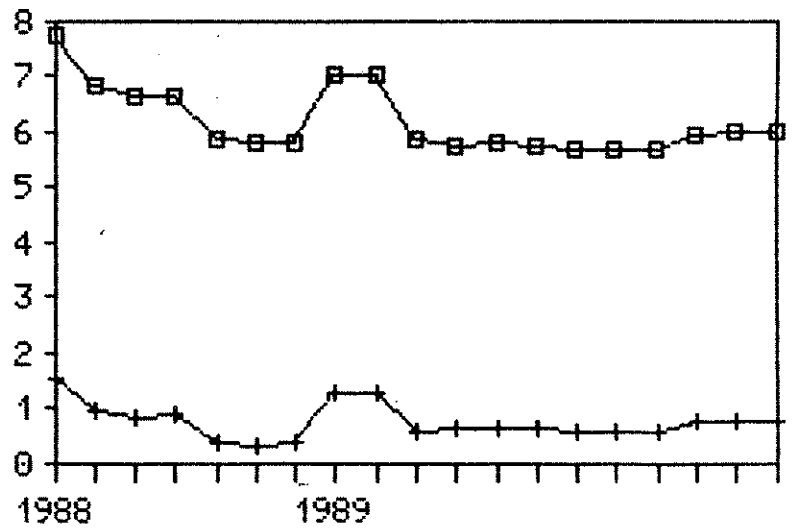
Major uncertainty surrounds OPEC production levels, bunker prices, and the political situation in the Gulf area. In Scenario 1 (see Figure 3) we explore a situation of continuing high production levels by OPEC. In such circumstances, bunker fuel prices are expected to remain low, but there is no international crisis such as has perturbed the tanker market over recent years. Costs other than fuel costs are expected to remain at the same levels as in 1987/88 in real terms. This kind of scenario might be expected if Iraq and Iran cannot resolve their differences and expand output without regard to price effects. The freight rate is expected to commence at a low level due to the absence of crises, then to rise to $5.92 per ton (WS29) by December 1988 and to $6.00 (WS29) by 1989. The vessel speed rises from just over 12.5 knots to 14 knots by end of the period and after initial losses in 1988 it is able to cover voyage costs even with part cargos. Clearly profitability is increased if full cargoes are available and the surplus of revenue over voyage costs increases from $0.79 to $2.14 ton. A variant of this scenario (Scenario 2 in Figure 3) has a crisis occurring in January/ February 1988 which causes rates to peak at $7.04 (WS34) and then decline rapidly.

RATES AND UNIT PROFIT 1988 1989

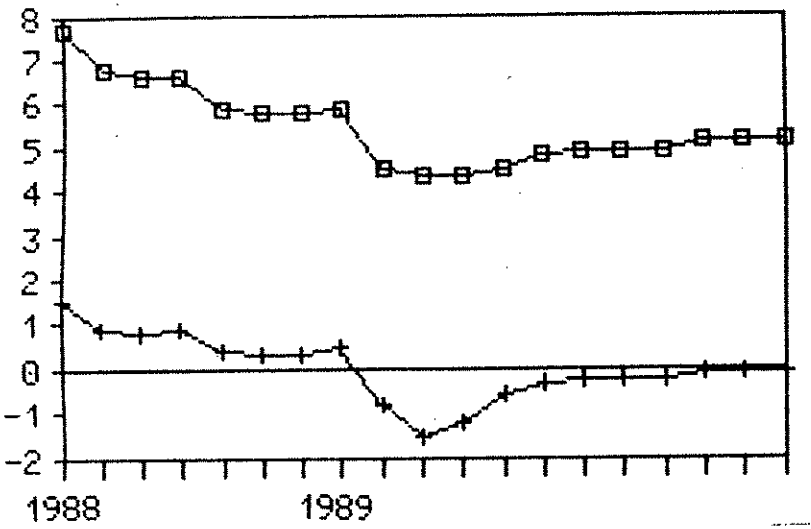
SCENARIO 1



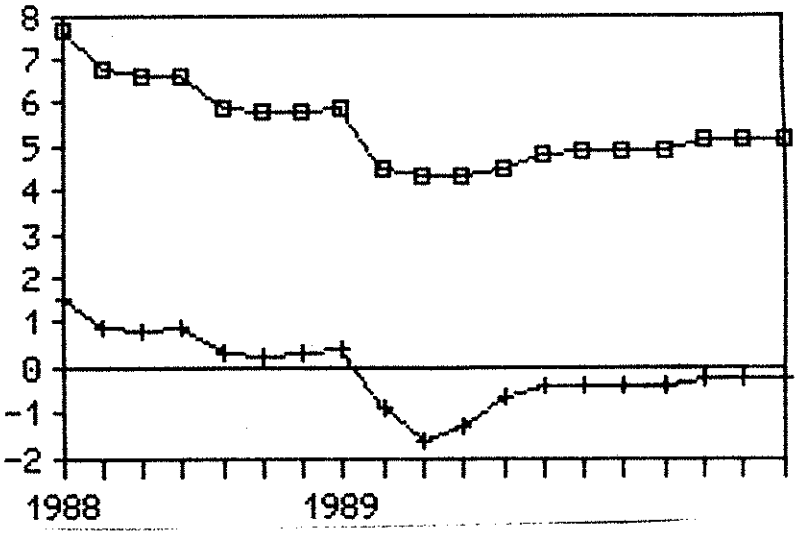
SCENARIO 2



SCENARIO 3



SCENARIO 4



□ FREIGHT RATES ($/T) + UNIT PROFIT

FIGURE 3

By contrast, a scenario in which OPEC agrees by early 1989 to reduce output in an attempt to raise oil prices (Scenario 3) has serious consequences for profitability. We allow output to rise until February 1989 and then reduce output sharply. Rates begin with a gradual climb back to $6 but then collapse to $4.14 in March, which do not even cover voyage costs of low speed (10.7 knots) operation. Bunker prices rise but have little impact on freight rates although they do contribute to losses. The market remains unprofitable until end 1989. Only a reduction in fleet size through intensified scrapping efforts of around 20 million dwt would restore the market to profitable operation.

So far we have not considered the impact of inflationary rises in non fuel costs. Port charges have risen substantially in recent years, especially in Western Europe, so that a modest 6% per year rise for 1988/89 is not at an unreasonable assumption. The impact in Scenario 1 - the high oil production scenario - is to reduce the surplus somewhat, but of itself is insufficient to alter the profitability of the vessel throughout 1989. In the low oil production scenario (Scenario 4), except for the latter part of 1988, losses are as expected worsened.

Finally, the model may be used to explore the impact of releasing the Iranian shuttle fleet of 7 million dwt on to the market. Supposing this were to happen in January 1989, the immediate impact is estimated to be a reduction of rates by 1% from $5.92 to $5.88 per ton. and of tanker profitability by 6%. The ultimate impact would depend upon the proportion scrapped/retired, but throughout 1989, tanker operations would remain unprofitable.

4. CONCLUSIONS

Comparisons of the scenarios reveals that over the next 12 months or so, profitability is likely to be either quite low or non existent in this important part of the tanker market. In the event of OPEC restraining oil production levels losses are likely to be made, unless some crisis disrupts the market and sends owners scurrying for tankers to secure supplies. In the longer run, this should accelerate scrapping and eventually restore equilibrium in the market. Although these conclusions are based upon a limited number of scenario

experiments, the model can be used to explore the market in much greater detail if required.

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PROSPECTS FOR THE OIL TANKER MARKET

by Leigh Smith
Energy Markets' Correspondent, Lloyd's List.

This year's most significant event for both the tanker and oil markets has been the end of the Gulf War.

The war had taken on an almost permanent status in the maritime scene and despite all the protests from shipping organisations and the calls for an end to hostilities against neutral shipping, the attacks on tankers and other vessels actually accelerated this year.

According to Intertanko, 383 vessels have been attacked since the tanker war began in 1984, including 62 tankers of 11 million tonnes. Recent research by Lloyd's List shows that over 400 lives have been lost in the maritime sector because of the war.

There were also times when the closure of the Strait of Hormuz seemed a very real possibility and an oil supply crisis threatened.

It is not surprising, then, that when Iran suddenly announced that it was prepared to accept the terms of a UN sponsored cease-fire there was general jubilation, not least in the oil markets which had been looking for some good news all year.

OPEC's success in pegging oil prices at $18 per barrel through 1987 did much to erase the nightmare of $8 per barrel the year before. But throughout 1988, it became increasingly clear that discipline within the organisation was crumbling along with a quota system whose flaws were becoming obvious.

Initially there were three key problems:

1. The refusal of Iraq to accept a quota and its expansion of oil production.
2. The so-called 'Neutral Zone' - an area between Kuwait and Saudi Arabia of disputed sovereignty whose 400,000 barrels a day oil production was being used to sponsor Iraq's war effort.
3. The treatment of condensates. Kuwait, especially, has complained that Venezuela counts a certain proportion of its crude production as condensate, thus bypassing its quota. The South American country argues that its debt problem and large population should entitle it to produce more oil to enhance revenues. This cuts no ice with the Kuwaitis who are now carrying out earlier threats to exceed their OPEC quota in retaliation.

If these problems were not enough, and the spectacle of the oil price sliding down to $14 in July provided ample evidence of their impact, the early summer brought with it a further threat to the stability of the oil market.

The United Arab Emirates gave the go-ahead in June for a large increase in output which shattered its quota and heralded a huge rift within OPEC. UAE production rose from 1.1m barrels a day - itself 200,000 barrels a day more than its official ceiling - 1.5m barrels a day.

But this sudden likelihood of a Gulf cease fire injected an overdose of optimism into the oil markets.

With Iran and Iraq no longer at war, so the reasoning went, the powerful Gulf nations would no longer be divided by open hostility. Iraq, which had been producing at around 2.7m barrels a day, could be brought into the quota system. Moreover, Neutral

Zone production would no longer be needed to fund the Iraqi war effort and could therefore be brought into either the Saudi or Kuwaiti quotas.

Somehow the return to harmony in the Gulf would quieten the UAE's demands for a higher share of the market, and the condensate problem could be dealt with on a technical basis at the November summit.

Optimists also tended to support the conspiracy theory. They said the price collapse during the first half of 1988 had been engineered by the Arab nations deliberately to undermine Iran's ability to pay for the war. Iran had been forced to look for a cease-fire because of an economic crisis brought on by falling oil revenues. With the war over, everyone could return to their quotas and $18 per barrel.

After the initial euphoria died down, the markets realised that it was not going to be easy to drag Iraq into a quota system at a time when the country needed all the revenue it could get to finance the huge burden of reconstruction.

Even if Iraq would agree to a quota its condition of acceptance was parity with Iran, something the Islamic Republic had repeatedly said it would block.

Ironically, despite all the speculation about Iran and Iraq's ability to increase production during the next year, the real problem for the markets came from Saudi Arabia, traditionally the stabilising factor in OPEC and one of the most conservative of the Arab countries.

Saudi was previously known as a swing producer - it would increase or decrease its output within OPEC to ensure consistency of supplies. But in the second half of the year, Saudi production rose from its quota level of 4.3m barrels a day to 5.5m or even higher.

Kuwait responded by increasing production from 1.1m barrels a day to 1.5m barrels - 600,000 barrels over its quota - while UAE defiance reached the point where it doubled the limit set for it by OPEC. Total OPEC production last month at around 21m barrels a day exceed the official ceiling by 6m barrels.

Some observers believe that Saudi and the Arab nations are still engineering a low oil price to show the rest of the organisation the effects of continued overproduction on their revenues. This will encourage less disciplined states to accept an agreement at the November summit over problems like the condensate issue. It also shows Iran and Iraq what would happen if they decided to increase production to fund the rebuilding of their economies and puts pressure on them to agree on Iraq's return to the fold.

The effect on the tanker market of the dramatic rise in output from the Persian Gulf following the end of the war have been spectacular. Demand for the world' biggest vessels - the very large and ultra large crude carriers - has risen sharply.

Saudi Arabia has been using its own chartering organisation to take blocks of ten ships or more capable of carrying millions of tonnes of oil. Majors like Exxon have also been very active booking similar numbers of large vessels, and freight rates have risen by 50 per cent in some cases.

In 1986 a similar boom occurred when Saudi abandoned the role of swing producer in an attempt to capture a greater share of the oil market. The subsequent oil price crash led to the abandonment of this policy and the current set of production ceilings.

A very conservative forecast made before the end of the Gulf war predicted that a rise of 1m barrels a day from Iran and Iraq alone would result in a 4 per cent increase in total oil trades including a 15 per cent rise in Gulf exports. Such an increase was only of substantial benefit to ships of 150,000 tonnes and over.

In reality, the increase in trade has been much greater. But because the routes involved have tended to be long-haul, economies of scale mean that the increased demand has benefitted mainly larger ships.

The question which now has to be faced is how long can this last? Fortunately, the timing of this seminar allows speculation along a number of different paths.

The most likely scenario is an OPEC agreement on a new quota system to include Iraq. One City analyst has forecast that the current favourite for a new ceiling - 19m barrels a day - could be achieved by raising Iran's quota to 2.7m barrels and giving Iraq parity. The UAE could get an increase to 1.5m barrels and the Neutral Zone would be included at 0.4m barrels. All other OPEC member would stay the same, giving them a quota of 15.06m barrels.

This commentator predicts a demand of 19.1m barrels per day for OPEC oil in the first half of 1989, rising to 20 million barrels for the second half. However, first half demand is likely to be hampered by the build-up of oil stocks since this summer and the oil price will be low - perhaps within the range of $13 - 15 per barrel for an extended period.

The implication then, is for a fall-off in demand for tanker tonnage after the OPEC meeting if agreement is reached and a slow start to 1989. In other words, consumers are expected to draw on their stocks and this will reduce the need the ship-out oil from the producers. If things go to plan and stocks are reduced, tankers in the long-haul trades will enjoy a better second half.

A second scenario could see no agreement reached at the November meeting and a serious slump in oil prices to $10 and below. With prices at a very low level, it becomes attractive for industries burning other fossil fuels, namely coal and gas, to switch to oil if equipment is suitable. Dual-fuel power stations, for example, offer the

best of both worlds. This in turn could stimulate demand for oil although probably not enough to begin to lift prices again.

If OPEC does keep the taps turned on, a high level of output could provide more employment for tankers either for transport or storage.

The possibility of a third scenario must not be discounted; that of Iran and Iraq accepting a realignment of OPEC initially, but disregarding output constraints once they were in a position to increase production.

Iranian production peaked at nearly 6m barrels a day in the late 1970s, but output has since been constrained by war damage to its various export terminals. Its recent output has been at around its official OPEC quota but analysts predict that it could sustain production at roughly 3m barrels a day. By 1990, exports could more than double from around 1.4m barrels a day to 3m barrels just by using existing export terminals in the Gulf.

Recent production levels from Iraq have averaged about 2.7m barrels a day, with exports in the region of 2.3m barrels. Its current sustainable production capacity is around 4m barrels a day, but it does not have the export facilities to exploit this capacity. However, over the next 12-18 months, Iraqi export capacity will more than double to around 5m barrels a day.

The new pipeline across Saudi Arabia to Yanbu on the Red Sea is scheduled for completion in September 1989 and Iraq's net export capacity will increase by 650,000 barrels a day. In addition, four single buoy moorings are reported to be available in Singapore, and if these were installed during the next year, they would increase Iraq's ability to ship out oil by around 2m barrels per day.

These forecasts illustrate that there is considerable room for disagreement within OPEC in the near future, even if an agreement is reached at the coming conference. In the event of a confrontation between, say Saudi Arabia and Iraq, leading to an output duel, tankers in the larger size range would be used to export the oil.

Looking long term, it seems likely that OPEC will regain better control over the oil markets in the mid-1990s. If oil prices until that period remain low, the incentive for non-OPEC producers to seek out and exploit costly new reserves will be reduced. Meanwhile, oil demand has been forecast to increase by around 2 per cent per year, due mainly to the emergence of developing countries. Because OPEC nations, particularly in the Gulf, control the majority of the world's recoverable reserves, they will be called upon when other supplies prove inadequate. This again would be good for the tanker market, as it implies that a greater proportion of the world's oil requirements would have to be transported by sea.

These factors are all part of the demand side of the equation which determines the fortunes of the tanker world. What of the supply?

There has been a growing feeling within the shipping world over the past couple of years that things have finally taken a turn for the better. This is particularly true of the tanker sector. From 1970 to 1978, the tanker fleet rose from 131 million tonnes to a record 332 million tonnes, an average yearly growth of 12.3 per cent. But this was a hang-over from the boom days before the oil shock of 1973 and there was simply not enough business to absorb all the capacity. By 1983 inactive tankers had soared to a massive 90 million tonnes.

When idle tonnage was at its peak there was a huge effort to reduce the surplus. In the years 1982-85 an average of 24 millions tons a year was sold for demolition. The result has been a reduction in the fleet by an average 5.3 per cent per year for the

past five years to bring the total to a more manageable 229 million tonnes. Idle tanker tonnage now stands at a mere 7.6m tons.

Significantly, this year has seen a dramatic slowing down in the demolition market with only 2.3m tonnes sold for scrap so far, compared to a total of over 7m tonnes in 1987.

One factor not fully taken into account yet is the impact of the Iranian shuttle tanker fleet on the market following a decision to ease its operation. The shuttle between Kharg Island and Larak Island provided a means by which owners could load Iranian oil in relatively low risk waters. It has been estimated that anything up to 25 vessels of 6 million tonnes were employed on the shuttle itself, with a further 3m tonnes acting as floating storage at Larak.

The vessels employed on the service, rank as some of the worst-equipped tonnage in the world fleet. The shuttle provided one of the rare opportunities for vessels not meeting IMO standards to trade. Already, there has been a dispute over some former shuttle tankers, with alleged deficiencies, being held at Rotterdam. It will be interesting to see if the bulk of these vessels now go to scrap, which they undoubtedly would have done had it not been for the Gulf war, or whether the prospect of higher rates lures them back to international trading. There have been reports that the National Iranian Tanker Company wants to take at least some of the former shuttle fleet for worldwide operations in pursuit of a policy to increase the amount of oil lifted on a cif basis from 35 to 50 per cent.

One other significant development that has come to prominence this year is the re-integration of the oil industry. In the 1970s the industry experienced a series of nationalisations as producers attempted to take control of their resources. As a result, upstream and downstream activities became divided between the producing countries and the multinationals. At the same time, there was an explosion of spot

market sales from only 5 per cent of the world's crude in 1978 to up 60 per cent in the 1980s.

As part of a move to reduce dependence on spot market sales, and to ensure a market for their oil, producing countries are now investing in the downstream sector in consumer nations. Kuwait, Venezuela and more recently Saudi Arabia have all followed this route and it is a growing trend.

The regular requirements in foreign markets could lead these countries to invest in shipping or to time charter vessels for dedicated routes, rather than relying on the volatility of the spot market where a prolonged period of high rates could wipe out the profit margin on a long-term contract.

This year the tanker fleet is expected to grow for the first time in a number of years. The recent growth in oil production has benefitted the tanker sector in the short term and there are indications that in the long-term the Middle East will once again become the focus of world oil supplies. However, the market is only now beginning to recover from the crazy days of 1973 when boom turned to bust almost overnight.

I can only echo the sentiments of many others in the shipping world and hope that the banks and financiers have learned their lesson and do not back another surge of dangerous speculation.

PROSPECTS FOR THE OIL TANKER MARKET

by Claus Waaler
Senior Analyst, John I. Jacobs.

[The following are the rough notes upon which Claus Waaler based his talk.]

When I was originally asked to deliver this paper, about two months ago, the tanker market was uninspiring and with very little prospect of any great improvement in sight.

How wrong can one be?

Within the last month, the market has been turned upside down.

Production has soared from an OPEC target of 16 million barrels to 21 million daily.

Tanker rates have rocketed - second hand prices for tankers have reached an all time peak - newbuilding contracts are being concluded in increasing numbers - banker are offering credits again - private capital is pouring into shipping and governments are standing by with subsidies.

So what does this all mean?

Let us take one step back and ask that very question, "What are the real prospects for the tanker market in 1989?".

Are we being caught up in a moment of mass hysteria, created by a tiff within OPEC, or is the tanker market heading for a brighter and more prosperous future?

In my view, the single most important event in 1988 was the ceasefire agreed between Iran and Iraq - this will have a far reaching effect on the market for years to come.

The effect on the tanker market was almost immediate - although, initially in a negative way.

Why? Suddenly - almost overnight, we were faced with an instant increase in tonnage willing to load out of the Arabian Gulf - tonnage which until the termination of hostilities were unwilling to run the gauntlet through Hormuz and up through the Gulf itself.

This made most owners take a very negative attitude, fearful that the market would not be able to cope with this increase in tonnage. Another fear crept into the minds of owners - what would the Iranians do with the 30 or so vessels used for shuttle trading? Would they be released back on the market adding further tonnage to what was seen already as a overtonnaged situation?

The fear was shortlived and proved unfounded.

Instead the two warring countries pushed up production almost immediately. This was met with an increase of production in West Africa and Kuwait was not far behind.

OPEC quotas were falling like a house of cards and when the mighty Saudis pushed heavily discounted oil on to the market, and pushed the production up, the immediate demand for tankers was obvious.

Rates for VLCCs moved from world scale 30 to world scale 50 for a voyage to the West, or in dollars and cents from 1.3 million of freight to 2.1 million for a

250,000 tonner on a voyage from Ras Tanura to Rotterdam via Cape of Good Hope.

It was suddenly a boom market. Will this continue in 1989?

I think not boom, but fair, if wisely handled.

I believe an agreement will be reached within OPEC on production very soon and actually as we are speaking already some restraint has been introduced between the producing countries. Furthermore, a more stable and varied supply of oil will be available around the world.

To start with the Soviet Union.

It should be remembered that during the war between Iran and Iraq the Soviets filled a gap in the market for the Iraqis and also supplied their satellite dominions with oil. This Russian oil will now have to find a new market and also compete with the supply available from the Middle East, and I believe Eastern Europe will switch to Iran and Iraq for cheap oil based on barter deals which will leave the Russians fighting for new customers.

This in turn could require transportation from Soviet outlets but in my opinion not with a great effect on the tanker market.

Another important, but often overlooked fact is the construction of additional pipelines for transportation of both crude and products, to the Red Sea and the Mediterranean, cutting down on the long haul transportation and creating short haul voyages. China is slowly emerging as a major supplier and has a ready market in Japan, again cutting out some longhaul mileage and thereby reducing the ton-mileage gained in other areas.

We must also keep in mind the present plans for a Suez Canal expansion. At the moment tankers can carry up to about 135,000 tons of crude through the canal, however it is reported that the Canal Authorities have started dredging, in order to be able to accommodate fully laden tankers of up to 200,000 dwt, with a completion date estimated to be in early 1990. This will enable about a total of 16.4 million dwt of current fleet tonnage to pass through the canal fully laden.

To give you a figure based on going through the Suez Canal for a voyage to Rotterdam instead of via Cape, the number of trips per year will increase from 5.2 to 6.9 at 12 knots, which in return means about a 32 per cent increased capacity. A sobering thought!

Let us now turn our eyes to the supply and demand situation. I think the general opinion is that 1989 will see a world wide increase in oil consumption of between 1 - 1.5 per cent , and it is roughly calculated, that each 1 per cent increase in free world consumption, increases large tanker demand by about 6 per cent.

The consumption in the free world is not likely to push much past the figures just mentioned. Just because the price of gasoline is going down it does not mean we go out and suddenly drive more - cars are more and more economical - consumption is not likely to jump - so for 1989, I think a 1 per cent increase will be a fair assumption.

The one country which is still increasing consumption well above the rest of the free world is the United States. Here an increase of almost 2 per cent is expected for 1989 which would be the highest so far in the 1980s. There are now strong forces trying to make the US act to reverse the oil import. However, the US cannot function economically nor militarily without fuel, and the US has the world's largest oil demand, in fact, nearly half of all the oil used by non communist

countries is burned in the US. Nearly two thirds of the oil is used for transportation.

Action is being taken to limit US oil imports on a political level, and it is interesting to note that the US oil consumption per capita is 243 per cent higher than in Japan.

In real terms the gasoline price in the US at the pump is the lowest for more than 30 years. Finally every million barrels of oil imported adds 7 million dollars to the trade deficit.

The price of oil for 1989 is of course something we would all dearly like to get right, and what a wonderful thought it would be - to imagine a stable year.

Personally and I am sticking my neck out here - I would be very surprised if the price on an average would exceed 14.00 dollars for the year. To show you the difference of opinion Salomon Brother forecasts up to 18 dollars in 1989 - Kleinwort Benson analysts are looking for 16 dollar average next year and Smith New Court says it is bullish and is in the 15 - 18 dollar price camp.

The OPEC meeting on the 21st is important and the Secretary General must ensure this meeting does not end in disarray and also ensure that Iraq does not continue its 'go it alone' policy.

To illustrate the difficulties in predicting the future let me tell that some years ago a very famous gypsy fortune teller who had consistently read the future correctly for many well known personalities was invited on television for a interview and of course eventually the question was asked, "How do you do it?" and the gypsy woman calmly said, "With a good fortune of guessing but mainly, luck!".

We can say the same for the tanker market in 1989; a good deal of guessing, but with some luck we might get it right!