# Fleet Financial Performance 2007 Mid-Year Review



#### **Summary**

- Fishing income in 2007 is expected to be between 10% 15% up on 2006 for most fleet segments in this
  report.
- Forecast profits for all fleet segments expected to increase in 2007 compared to in 2005.
- Profits as a percentage of earnings likely to decrease in most fleet segments.
- Forecast models for seven key UK fleet segments now included in this report.
- Prices are significantly higher than 2006.
- Skippers in all segments expressed optimism.

#### I. Background

Seafish Economics produces profit forecasts for key fleet segments in January each year and supplements these in summer with further runs of the forecasting models using updated data and a series of interviews with skippers, vessel agents and producer organisations, to give a better idea of the expected financial outcome for the fleet in the current year. Also included are views and opinions relating to various aspects of fisheries management which could be helpful to policy makers seeking to understand the impacts of the current year's management regime.

#### I. I Survey Methods and sample

Seafish staff conducted around 50 interviews in person and by telephone, principally with skippers and vessel owners (79%), but also with vessel agents, fuel agents, associations and producer organisations. Interviewers used a structured interview template, although most of the questions were open, so answers were categorised afterwards for analysis. A copy of the questionnaire is available on request.

Interviewees were based in the north east (56%), south east (4%) and west coast (33%) of Scotland and also in Orkney and Shetland (11%). Vessels represented in the sample include nephrops (18 vessels), over 24m whitefish trawl (10 vessels), whitefish seine netters (single or pair) (6 vessels) and under 24m whitefish trawl (4 vessels).

#### 1.2 Forecast methods

The forecast models contain data on activities in the previous year for every vessel in the segment and these are the base for forecasting activity in the current year. For these forecasts, Marine and Fisheries Agency (MFA) provided data for 2006.

Fish sales prices (UK average) from the first six months of 2007 were used as the basis for fish prices, although there is an adjustment for each individual vessel allowing for its own average price in relation to the national average price for each species.

#### 2. Mood amongst skippers

The general mood in both the nephrops and whitefish fleets is good. Of the 38 views expressed on segment mood, 87% were 'OK, good or very good' and only 13% classed the mood in their segment as being 'poor'. No skippers selected the 'very poor' option for this question.

#### 2.1 Optimism

Nephrops skippers were mostly upbeat, with the majority of respondents saying they were receiving good prices for their catch. Whitefish vessel owners who thought that the mood in their segment was good or

better, said that they were receiving better prices for their fish since the registration of buyers and sellers legislation had been introduced. Some respondents also mentioned that the impact of decommissioning was starting to be felt, with fewer boats now fishing and the fish stocks improving.

#### 2.2 Pessimism

Of the views expressed, 10% of whitefish vessels and 17% of nephrops classed the mood in their segment as being poor. For the whitefish sector this was mostly concerned with the lack of cod quota and, as a result, having to discard valuable cod.

#### 2.3 Future in the industry

Skippers were asked if they still expected to be in the fishing industry in two and five years time. Most still expected to be in the industry in two and five years time with a couple unsure. There was more uncertainty in the nephrops segment than in whitefish. Those that said that they did not expect to be fishing in five years time were planning to retire.

#### 3. Financial Performance

This section covers drivers of income and costs and estimates of the resulting profit levels.

#### 3.1 Income

Fishing income is a function of prices and volume and several factors influence these. Skippers' experiences are reported along with forecasts from the Seafish model.

Volumes are up somewhat on 2006 (see Appendix 9) and prices (see Table I) are up considerably, therefore there is a considerable increase in 2007 income compared to 2005 and 2006.

	Price per tonne (all species)			
	2004*	2005*	2006*	2007**
NS and WoS over 24m single-rig	1,124	834	1,489	1,610
NS and WoS under 24m, >300kW single-rig	1,352	1,572	2,208	2,058
NS and WoS Pair trawl/seine (any length)	1,008	996	1,345	1,550
NS nephrops single-rig	1,504	1,766	2,237	2,326
NS nephrops twin-rig	1,554	1,806	2,245	2,326
WoS nephrops single-rig	1,696	2,065	2,309	2,411
WoS nephrops twin-rig	1,169	1,738	2,406	2,556

Table 1. Average price per tonne for all species, \*2004, 2005 and 2006 includes all vessels with over 50 days at sea. \*\*2007 forecast includes all vessels which meet our minimum rules.

#### Fish sales prices

Although actual sales prices are available via official statistics (see Table 2) it can also be helpful to understand skippers' and owners' views on fish prices and if they feel they have been affected by management rules in 2007.

When asked if they felt that prices had been affected by management rules in 2007, 61% of skippers felt that they had not. 21% of Nephrops skippers felt that management rules had a positive impact, with the majority saying it was due to the registration of buyers and sellers. Half of the whitefish skippers also said that prices had been affected by the management rules, and the registration of buyers and sellers was again cited as being the main source of improvement.

<sup>&</sup>lt;sup>1</sup> For details of the minimum rules please see Appendix 11.

	Average UK price per tonne 2006	Average UK price per tonne Jan - June 07	Change as % of 2006 price
Anglerfish	2,625	2,339	-11%
Cod	1,725	1,651	-4%
Haddock	1,196	1,402	17%
Hake	2,836	1,637	-42%
Lemon sole	3,303	3,545	7%
Megrims	2,809	2,455	-13%
Nephrops	2,805	2,899	3%
Plaice	1,226	1,171	-4%
Saithe	512	519	1%
Skate/rays	1,186	1,169	-1%
Whiting	817	1,018	25%

Table 2. Summary of UK average prices in 2006 and prices for period January to June 2007. Source: MFA

#### Volume

Skippers estimated their quota uptake compared to last year and most thought it was higher for the same time of year. This was particularly the case for cod, less of an issue for haddock and nephrops.

Just over half of skippers asked thought that fish was no easier or harder to find this year compared to last, but nearly 25% thought that cod, in particular, was easier to find this year. Those who mentioned abundance of cod all said there was more around, especially smaller cod.

Around half of skippers asked thought that sizes of fish were about the same as last year, but a third thought sizes were typically bigger than last year.

In response to an open question about the general situation with illegal landings, the overwhelming response was that there are none. Many said that this was no longer a topic discussed among skippers. Several said that they were grateful for the buyers and sellers legislation and its positive effect on the market.

#### Non-fishing income

Vessels have still been involved in oil work to supplement their income. Skippers from whitefish and nephrops segments view this source of income as a fall-back situation when fishing activities are not sufficient for a full year's profitable work. A few respondents commented that the oil work meant they had some guaranteed and steady income through the year.

#### Skippers' estimates of income

Skippers estimated their expected fishing income (gross earnings) for the current year. Average expected fishing income for nephrops vessels in our sample was £220,000 and average expected fishing income for whitefish vessels was £866,000 (based on four seiners, two under 24m and four over 24m vessels).

#### Model forecasts of income

The updated model forecast average income (including non fishing earnings) for 2007 is £1,522,000 for the over 24m segment and £682,000 for the under 24m >300kW segment. For the over 24m segment, average fishing income is forecast to be £1,432,000 for 2007 (see Table 3). This figure is 15% higher than the average 2006 declared fishing income of £1,244,000 (based on official MFA data, average income for vessels which met the same minimum rules that are applied in the forecast model)². For the under 24m segment, average fishing income is forecast to be £651,000 for 2007, which is 8% higher than the average 2006 declared fishing income of £603,000 (based on official MFA data, average income for vessels which met the same minimum rules that are applied in the forecast model).

<sup>&</sup>lt;sup>2</sup> The minimum rules for inclusion in the model outputs are designed to exclude vessels with low activity from the calculation of average performance. This rule means that the figures presented are the average for active vessels. For details of minimum rules see appendix 11.

	Average 2004	Average 2005	Average 2006	Average 2007*	Percent
	declared	declared	declared	forecast fishing	change
	fishing income	fishing income	fishing income	income	from
	(£)	(£)	(£)	(£)	2006 to
					2007
NS and WoS over 24m single-rig	1,205,000	1,062,000	1,218,000	1,432,000	15%
NS and WoS under 24m,	350,000	596,000	578,000	<b>451,000</b>	00/
>300kW single-rig	358,000	376,000	376,000	651,000	8%
NS and WoS Pair trawl/seine	509,000	579,000	621,000	844,000	200/
(any length)	309,000	377,000	621,000	044,000	28%
NS nephrops single-rig	366,000	346,000	284,000	364,000	13%
NS nephrops twin-rig	383,000	475,000	480,000	552,000	14%
WoS nephrops single-rig	198,000	292,000	140,000	162,000	11%
WoS nephrops twin-rig	324,000	292,000	235,000	266,000	11%

Table 3. Comparison of average declared fishing income for vessels fishing over 50 days in 2004, 2005 and 2006 with the average forecast fishing income for 2007\*.

The forecasts of income are based on volumes caught by each vessel in 2006 as a proportion of the UK quota, and on each vessel's prices in relation to average prices (Table 2). Prices have been updated in the model to reflect the average UK prices for January to June 2007 (Table 4). There is also a contribution from non-fishing income.

	NS and	NS and WoS	NS and				
	WoS over	under 24m	WoS pair	NS	NS	WoS	WoS
	24m single-	>300kW	trawl/	nephrops	nephrops	nephrops	nephrops
	rig	single-rig	seine	single-rig	twin-rig	single-rig	twin-rig
	(£)	(£)	(£)	(£)	(£)	(£)	(£)
Anglerfish	2,547	2,398	2,442	2,174	2,350	2,462	2,394
Cod	2,085	1,947	1,960	1,772	1,493	2,689	1,723
Haddock	1,527	1,398	1,577	1,214	1,202	1,213	1,271
Hake	884	635	875	740	662	1,402	1,296
Lemon sole	2,792	2,112	2,768	2,031	2,124	1,745	1,770
Megrim	1,988	2,157	2,245	1,693	1,578	2,080	2,232
Nephrops	4,279	3,854	3,098	2,858	3,207	2,638	2,593
Plaice	932	829	1,126	746	719	810	554
Saithe	594	471	575	418	421	535	400
Skates and rays	917	752	1,087	690	614	1,172	1,343
Whiting	1,183	1,032	1,172	745	814	810	906

Table 4. Forecast 2007 prices per tonne for main species for all segments

#### 3.2 Costs / Expenses

Several costs are driven by number of days at sea, and as shown in Table 5 below, the average number of days at sea per vessel is expected to rise in comparison to 2006 for all segments and for most segments in comparison to 2005.

The days at sea forecast is based on available quota and an assumption that each vessel's 2006 catch rate per day will prevail in 2007. We are also assuming that vessels will be able to buy enough days at sea to achieve these expected levels.

	Average days at sea			
	2004	2005	2006	2007*
NS and WoS over 24m single-rig	281	243	247	259
NS and WoS under 24m, >300kW single-rig	214	190	183	204
NS and WoS Pair trawl/seine (any length)	204	189	180	202
NS nephrops single-rig	208	175	152	174
NS nephrops twin-rig	222	208	187	205
WoS nephrops single-rig	170	161	158	170
WoS nephrops twin-rig	191	192	185	190

Table 5. Comparison of average days at sea for vessels fishing over 50 days in 2004, 2005 and 2006 with the average forecast days at sea for 2007.

#### **Fuel**

Although fuel prices have fallen slightly over the last year, mostly fluctuating between 25p per litre and 30p per litre (duty free price) they still remain high on average. Assuming the average fuel price this year (see Table 6) is 27p per litre, the model estimate is that average fuel cost for NS and WoS over 24m single rig vessels will be around £294,000, representing 19% of total earnings. For the top performers, fuel may only be around 16% of total earnings.

	2004	2005	2006	2007*
Average fuel price for two Scottish ports (pence per litre)	19.2	26.7	30.2	27.4

Table 6. Average duty-free fuel price (pence per litre) from two Scottish ports. \*2007 is the average price from January to June.

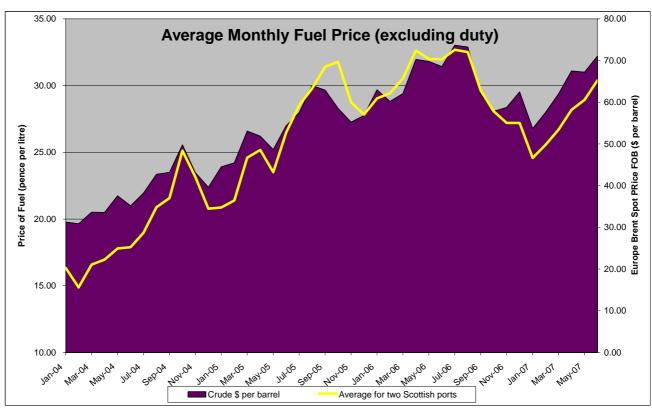


Figure I. Crude price per barrel (US\$) and average duty-free fuel price (pence per litre) from two Scottish ports.

When asked if they had changed their fishing practices in some way in order to improve their fuel cost to gross earnings ratio, 35% of whitefish skippers and 22% of nephrops skippers said that they had. Although this figure seems low, it may be the case that skippers had previously altered their fishing practices to mitigate the effects of higher fuel prices. Of those saying they had made changes recently, four skippers were in nephrops segments and seven were in whitefish segments. There were several mentions of switching to

twin rigging and to pair seining / trawling. Many vessels are steaming at reduced speeds and a few had bought new, less drag-resistant gear.<sup>3</sup>

#### Quota leasing and purchase costs

Total spend for quota leasing for 20 skippers who answered the question, varied between £12,000 and £130,000, with an average figure of around £56,000.

Total spend on purchases of quota among our sample varied between £8,000 and £200,000 per vessel, with an average of £86,000. Vessel owners may then sell on or lease out some of this newly purchased quota if it includes species which are not required by their own vessels. Although purchases of quota units are usually treated as an asset rather than a running cost, the purchase still requires cash. If skippers borrow to finance quota purchase then interest on the loan will affect net profit before tax.

#### Days at sea purchase costs

Around half of the whitefish skippers in our sample stated that they had bought extra days at sea, however, only around ten percent of nephrops skippers bought extra days. Comments from skippers on the issue of days at sea included that having to buy days was simply reducing their profits per trip. They also commented that more attention is now being paid to when they sail and land fish so as to not waste days. Skippers who had not yet bought more days said that they expected they would by the year end.

Costs of buying days ranged from £3,000 to around £25,000 in our sample, with an average around £8,000.

#### Crew share

Half of the whitefish skippers and nearly two thirds of the nephrops skippers said that they expected their crew share to be around the same as last year. Only two respondents expected crew share to be lower this year than last.

The highest level of crew share is expected to be in the over 24m demersal trawl single-rig segment, at around £406,000 average per vessel. The lowest level is for WoS nephrops single-rig, at around £50,000 average per vessel.

#### 3.3 Profit

#### Seafish estimates

The Seafish financial models have been updated to provide more robust forecasts of the cost and earnings figures for seven segments of the UK fleet. The changes that were made are the following:

- We forecast the average price received by each fleet segment (based on Jan-June 2007 prices compared
  to Jan-June 2006 prices and average prices for the whole of 2006) to get the percentage change in prices
  for the segment since 2006. The price change was then applied to the price received for each species by
  each individual vessel in 2006 to give a forecast value of landings in 2007.
- Baseline vessel activity and landings data used is for full year 2006.
- Quota used is based on the quota available to the fleet as at 27 July 2007, including swaps.

Tables 7 to 13 below show a short time series of income, key costs and profit. Key drivers of income and costs are discussed in sections 3.1 and 3.2.

<sup>&</sup>lt;sup>3</sup> For more information see Curtis, H C, Graham, K and Rossiter, T. 'Options for Improving Fuel Efficiency in the UK Fishing Fleet.' 2006. Available from Seafish.

North Sea and West of Scotland demersal trawl >24m single-rig				
	2004	2005	2007*	
	Average £	Average £	Average £	
Total earnings (fishing and non-fishing)	904,000	1,019,500	1,522,000	
Fishing expenses				
Fuel and oil	158,600	212,200	266,000	
Crew share	222,600	230,300	406,000	
Total fishing expenses	559,600	650,600	1,026,000	
Total vessel owner expenses	190,300	197,300	268,000	
Profit	154,000	167,500	228,000	
(before deducting depreciation and interest)	134,000	107,300	220,000	
Profit as percent of total earnings	17%	16%	15%	

Table 7. Financial performance for NS and WoS demersal trawl >24m single-rig vessels for 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

North Sea and West of Scotland demersal trawl <24m > 300kW single-rig					
	2004 2005 2007				
	Average £	Average £	Average £		
Total earnings (fishing and non-fishing)	371,200	460,600	682,000		
Fishing expenses					
Fuel and oil	50,200	74,700	89,000		
Crew share	104,200	126,900	195,000		
Total fishing expenses	130,300	297,500	444,000		
Total vessel owner expenses	84,400	98,100	131,000		
Profit	E4 400	62.400	108,000		
(before deducting depreciation and interest)	56,600	62,400	100,000		
Profit as percent of total earnings	15%	14%	16%		

Table 8. Financial performance for NS and WoS demersal trawl <24m >300kw single-rig vessels for 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

North Sea and West of Scotland pair trawl/seine (any length)					
	2004 2005 2007*				
	Average £	Average £	Average £		
Total earnings (fishing and non-fishing)	511,200	542,500	882,000		
Fishing expenses					
Fuel and oil	62,300	69,800	84,000		
Crew share	138,000	144,800	253,000		
Total fishing expenses	339,300	353,900	573,000		
Total vessel owner expenses	113,500	105,300	136,000		
Profit	80,100	83,200	173,000		
(before deducting depreciation and interest)	60,100	63,200	173,000		
Profit as percent of total earnings	16%	15%	20%		

Table 9. Financial performance for NS and WoS pair trawl/seine vessels from 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

North Sea nephrops single-rig			
	2004	2005	2007*
	Average £	Average £	Average £
Total earnings (fishing and non-fishing)	205,900	246,400	381,000
Fishing expenses			
Fuel and oil	28,600	39,300	47,000
Crew share	53,800	67,500	111,000
Total fishing expenses	127,200	158,400	246,000
Total vessel owner expenses	45,400	50,500	79,000
Profit	38,700	42,700	57,000
(before deducting depreciation and interest)	36,700	42,700	37,000
Profit as percent of total earnings	19%	17%	15%

Table 10. Financial performance for NS nephrops single-rig vessels for 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

North Sea nephrops twin-rig				
	2004	2005	2007*	
	Average £	Average £	Average £	
Total earnings (fishing and non-fishing)	334,500	404,400	576,000	
Fishing expenses				
Fuel and oil	50,400	65,300	70,000	
Crew share	83,200	101,900	171,000	
Total fishing expenses	202,700	246,200	367,000	
Total vessel owner expenses	75,300	70,800	90,000	
Profit	56,500	87,500	120,000	
(before deducting depreciation and interest)	30,300	07,300	120,000	
Profit as percent of total earnings	17%	22%	21%	

Table 11. Financial performance for NS nephrops twin-rig vessels for 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

West of Scotland nephrops single-rig			
	2004	2005	2007*
	Average £	Average £	Average £
Total earnings (fishing and non-fishing)	92,200	105,000	165,000
Fishing expenses			
Fuel and oil	10,300	16,300	19,000
Crew share	26,500	32,900	50,000
Total fishing expenses	50,500	66,200	104,000
Total vessel owner expenses	19,700	26,700	46,000
Profit	18,100	23,100	16,000
(before deducting depreciation and interest)	10,100	23,100	10,000
Profit as percent of total earnings	20%	22%	10%

Table 12. Financial performance for WoS nephrops single-rig vessels for 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

West of Scotland nephrops twin-rig			
	2004	2005	2007*
	Average £	Average £	Average £
Total earnings (fishing and non-fishing)	150,100	213,500	288,000
Fishing expenses			
Fuel and oil	19,200	31,200	29,000
Crew share	43,000	53,900	93,000
Total fishing expenses	85,200	117,400	174,000
Total vessel owner expenses	33,600	48,800	71,000
Profit	31,200	43,400	42,000
(before deducting depreciation and interest)	31,200	73,400	72,000
Profit as percent of total earnings	21%	20%	14%

Table 13. Financial performance for WoS nephrops twin-rig vessels for 2004 and 2005 (based on Seafish survey) and \*mid year forecast for 2007.

Table 14 below shows the range of profit, for the whitefish segments, highlighting that the top 25% of the over 24m whitefish vessels will generate profits around £503,000 on average, with the bottom 25% of the segment grossing approximately £33,000 on average. For the West of Scotland nephrops single-rig segment, the top 25% of the segment are expected to achieve average profits of £32,000, with the bottom 25% of vessels in this segment achieving only around £4,000 profit on average. Table 11 below gives forecast profit figures for the top and bottom quartiles of all segments.

Top and Bottom quartiles average profit, 2007 forecasts			
	Top 25% Average	Bottom 25% Average	
NS and WoS over 24m single-rig	503,000	33,000	
NS and WoS under 24m, >300kW single-rig	223,000	42,000	
NS and WoS Pair trawl/seine (any length)	278,000	68,000	
NS nephrops single-rig	129,000	12,000	
NS nephrops twin-rig	201,000	61,000	
WoS nephrops single-rig	32,000	4,000	
WoS nephrops twin-rig	73,000	16,000	

Table 14. Forecast average earnings of top and bottom quartiles

#### Comparison with forecast model in January 2007

These forecasts, made in August 2007, are different from the forecasts made in January 2007. This is in part due to changes in the baseline year, which is no longer November 2005 to October 2006 but is now the complete 2006 data. Quota available to the fleet has also changed, due to swaps that have taken place between January and June. We altered the assumed average price of fuel to reflect the average fuel price from January to June 2007. Fish prices used in the January forecast were average prices for November 2005 to October 2006, whereas these forecasts we have used forecast average prices for 2007, based on average prices January to June 2007. Average prices for the year vary per vessel and, therefore, per segment.

#### 4. Investment

We asked skippers about capital investments they have made in their business this year to date.

#### 4. I New equipment

Just over half of whitefish vessels and Nephrops vessels said they had invested in new equipment this year. Investments included new vessels, nets, engines, winches (£10,000 to £30,000) and radar (around £4,000). A few vessels had also switched fishing method through the year.

#### 4.2 Borrowing

For the nephrops vessels in our sample, debt ranged from zero (for one vessel) to £200,000, with an average debt of £65,000. For the seine net and under 24m whitefish trawl, the range was from £70,000 to £400,000 with an average of £240,000. For the over 24m whitefish trawl vessels in our sample, debt levels ranged from £50,000 to around £2million, with an average of around £690,000.

#### 4.3 Cost of borrowing

Interest payments for nephrops vessels in our sample ranged from £0 to £50,000 per year. For the whitefish vessels (combined), the range was from £10,000 to £80,000 per year.

#### 5. Business Issues

#### 5.1 Fisheries Management

#### Registration of buyers and sellers

We asked interviewees about the impact that buyers and sellers legislation had on their business in 2007 compared to 2006. Just over a third of respondents said that they had experienced no new impact this year. However, there was a general consensus that it was having a good impact on the industry, eliminating blackfish landings, and that prices had been increasing as a result of the legislation.

#### Quotas

Comments on quotas included:

- There was a lot of discontentment surrounding the cod quota. It was seen as being too low and had resulted in large quantities of cod being discarded.
- Fishermen are moving to other fishing grounds to avoid catching cod which they do not have quota for.
- There is an imbalance between north sea and the west coast of Scotland quota for monkfish.
- The methods and data used by scientists to predict fish stocks, and determine quota, were claimed to be out of date and not reflective of what the fishermen were finding in the sea.

Other comments on fisheries management issues included:

- Like to see a level playing field, eg days at sea rules are inconsistent for different types of gear and vessels.
- Would help if the days at sea were allocated in half days.
- Urging the government to work towards much better incorporation of fishermen's experiences into scientific data collection and stock assessment.
- There were a few comments that the fisheries management policy is too focused on cod recovery.

#### 5.2 Crew retention

The largest number of skippers answering this question (17 of 37) reported that the situation with crew retention is 'good' this year. Twelve of 37 said the situation was 'OK' and eight rated crew retention as 'poor'. Of those eight, six were skippers of nephrops vessels.

Common remarks on crew issues were that it has been impossible or very difficult to replace crew absent on holiday or sick leave, and that there are now many foreign crew working in the industry, usually well-regarded, and mostly from eastern Europe and the Philippines. Of 39 skippers answering a question about foreign crew on their own vessel, one third said that they did have foreign crew members (five nephrops and eight whitefish).

#### 5.3 Other issues

Skippers were invited to raise any other points they thought the government should be aware of. These included many of the points already raised relating to cost of leasing quota, cost of fuel, days at sea, quota levels, discards, etc, along with the following additional points:

- Concern about the number of vessels which have switched to fishing for nephrops.
- Suggestions that more needs to be done to promote fishing as a career for young, local people.
- Rules relating to quota and days at sea are unworkable.
- There should be more grants available to modernise engines.
- Concerns over the security of data required on catches, days at sea etc at local levels where everyone knows everyone else.
- Keep British vessel numbers up to take advantage if there are any new fisheries opening up.
- Suggestion that fisheries managers should spend time on the vessels to fully understand what the regulations mean in practice.
- There are a number of new vessels being built which reflects the growing optimism in some sectors.
- The only reason the fishing industry is in a good position at the moment is because of high prices, if the prices fall, it will have a large impact on the industry.

#### For further details, advice or to discuss other scenarios please contact the authors:

Hazel Curtis: tel 0131 524 8664 email h\_curtis@seafish.co.uk Susan Anton: tel 0131 524 8659 email s\_anton@seafish.co.uk at Seafish Economics www.seafish.org

September 2007

Appendix I: NS and WoS over 24m single-rig demersal costs and earnings table

### NS and WoS over 24m single-rig demersal forecast

	Average (£)	As % of total earnings	
Fishing income	1,432,000	94.1%	
Non-fishing income	90,000	5.9%	
Total earnings	1,522,000	100.0%	
Expenses			
Fishing expenses			
Commission	75,000	4.9%	
Harbour dues	62,000	4.1%	
Subscriptions and levies	17,000	1.1%	
Shore labour	18,000	1.2%	
Fuel and oil	266,000	17.5%	
Boxes	15,000	1.0%	
Ice	18,000	1.2%	
Crew travel	6,000	0.4%	
Food and stores	33,000	2.2%	
Quota leasing	48,000	3.2%	
Days purchasing	20,000	1.3%	
Other expenses	53,000	3.5%	
Crew share	406,000	26.7%	
Total fishing expenses	1,026,000	67.4%	
Vessel owner expenses			
Insurance	47,000	3.1%	
Repairs	129,000	8.5%	
Gear	63,000	4.1%	
Hire and maintenance	12,000	0.8%	
Other vessel owner expenses	17,000	1.1%	
Total vessel owner expenses	268,000	17.6%	
Total expenses	1,294,000	85.0%	
Profit	228,000	15.0%	
(before deducting depreciation and interest)	-,	3,0,0	

Table A1. North Sea and West of Scotland over 24m single-rig demersal forecast for 2007

Note: Figures are rounded to the nearest £1,000. Totals may not add up exactly because of rounding.

Appendix 2: NS and WoS under 24m >300kW single-rig demersal costs and earnings table

# NS and WoS under 24m >300kw single-rig forecast

	Average (£)	As % of total earnings
Fishing income	651,000	95.5%
Non-fishing income	31,000	4.5%
Total earnings	682,000	100.0%
Expenses		
Fishing expenses		
Commission	33,000	4.8%
Harbour dues	27,000	4.0%
Subscriptions and levies	8,000	1.2%
Shore labour	5,000	0.7%
Fuel and oil	89,000	13.0%
Boxes	8,000	1.2%
Ice	9,000	1.3%
Crew travel	3,000	0.4%
Food and stores	24,000	3.5%
Quota leasing	14,000	2.1%
Days purchasing	6,000	0.9%
Other expenses	29,000	4.3%
Crew share	195,000	28.6%
Total fishing expenses	444,000	65.1%
Vessel owner expenses		
Insurance	31,000	4.5%
Repairs	44,000	6.5%
Gear	22,000	3.2%
Hire and maintenance	11,000	1.6%
Other vessel owner expenses	24,000	3.5%
Total vessel owner expenses	131,000	19.2%
Total expenses	575,000	84.3%
Profit (hofers deducting degree sisting and interest)	108,000	15.8%
(before deducting depreciation and interest)		

Table A2. North Sea and West of Scotland under 24m >300kW single-rig demersal forecast for 2007

## NS and WoS pair trawl/seine forecast

	Average (£)	As % of total earnings	
Fishing income	844,000	95.7%	
Non-fishing income	37,000	4.2%	
Total earnings	882,000	100.0%	
Expenses			
Fishing expenses			
Commission	45,000	5.1%	
Harbour dues	37,000	4.2%	
Subscriptions and levies	10,000	1.1%	
Shore labour	5,000	0.6%	
Fuel and oil	84,000	9.5%	
Boxes	11,000	1.2%	
Ice	11,000	1.2%	
Crew travel	3,000	0.3%	
Food and stores	27,000	3.1%	
Quota leasing	40,000	4.5%	
Days purchasing	8,000	0.9%	
Other expenses	50,000	5.7%	
Crew share	253,000	28.7%	
Total fishing expenses	573,000	65.0%	
Vessel owner expenses			
Insurance	32,000	3.6%	
Repairs	64,000	7.3%	
Gear	18,000	2.0%	
Hire and maintenance	15,000	1.7%	
Other vessel owner expenses	8,000	0.9%	
Total vessel owner expenses	136,000	15.4%	
Total expenses	709,000	80.4%	
Profit	173,000	19.6%	
(before deducting depreciation and interest)			

Table A3. North Sea and West of Scotland pair trawl/seine (any size) forecast for 2007

Appendix 4: NS nephrops single-rig costs and earnings table

# NS nephrops single-rig forecast

	Average (£)	As % of total earnings
Fishing income	364,000	95.5%
Non-fishing income	17,000	4.5%
Total earnings	381,000	100.0%
Expenses		
Fishing expenses		
Commission	19,000	5.0%
Harbour dues	14,000	3.7%
Subscriptions and levies	6,000	1.6%
Shore labour	8,000	2.1%
Fuel and oil	47,000	12.3%
Boxes	2,000	0.5%
Ice	4,000	1.0%
Crew travel	2,000	0.5%
Food and stores	10,000	2.6%
Quota leasing	11,000	2.9%
Days purchasing	5,000	1.3%
Other expenses	20,000	5.2%
Crew share	111,000	29.1%
Total fishing expenses	246,000	64.6%
Vessel owner expenses		
Insurance	16,000	4.2%
Repairs	23,000	6.0%
Gear	9,000	2.4%
Hire and maintenance	7,000	1.8%
Other vessel owner expenses	23,000	6.0%
Total vessel owner expenses	79,000	20.7%
Total expenses	324,000	85.0%
Profit	57,000	15.0%
(before deducting depreciation and interest)		

Table A4. North Sea nephrops single-rig forecast for 2007

Appendix 5: NS nephrops twin-rig costs and earnings table

# NS nephrops twin-rig forecast

	Average (£)	
Fishing income	552,000	95.8%
Non-fishing income	24,000	4.2%
Total earnings	576,000	100.0%
Expenses		
Fishing expenses		
Commission	30,000	5.2%
Harbour dues	23,000	4.0%
Subscriptions and levies	7,000	1.2%
Shore labour	3,000	0.5%
Fuel and oil	70,000	12.2%
Boxes	4,000	0.7%
Ice	6,000	1.0%
Crew travel	3,000	0.5%
Food and stores	18,000	3.1%
Quota leasing	8,000	1.4%
Days purchasing	5,000	0.9%
Other expenses	28,000	4.9%
Crew share	171,000	29.7%
Total fishing expenses	367,000	63.7%
Vessel owner expenses		
Insurance	23,000	4.0%
Repairs	38,000	6.6%
Gear	14,000	2.4%
Hire and maintenance	8,000	1.4%
Other vessel owner expenses	6,000	1.0%
Total vessel owner expenses	90,000	15.6%
Total expenses	457,000	79.3%
Profit	120,000	20.8%
(before deducting depreciation and interest)		

Table A5. North Sea nephrops twin-rig forecast for 2007

Appendix 6: WoS nephrops single-rig costs and earnings table

# WoS nephrops single-rig forecast

	Average (£)	As % of total earnings	
Fishing income	162,000	98.2%	
Non-fishing income	3,000	1.8%	
Total earnings	165,000	100.0%	
Expenses			
Fishing expenses			
Commission	8,000	4.8%	
Harbour dues	4,000	2.4%	
Subscriptions and levies	4,000	2.4%	
Shore labour	1,000	0.6%	
Fuel and oil	19,000	11.5%	
Boxes	2,000	1.2%	
Ice	3,000	1.8%	
Crew travel	1,000	0.6%	
Food and stores	7,000	4.2%	
Quota leasing	400	0.2%	
Days purchasing	0	0.0%	
Other expenses	4,000	2.4%	
Crew share	50,000	30.3%	
Total fishing expenses	104,000	63.0%	
Vessel owner expenses			
Insurance	10,000	6.1%	
Repairs	19,000	11.5%	
Gear	7,000	4.2%	
Hire and maintenance	4,000	2.4%	
Other vessel owner expenses	4,000	2.4%	
Total vessel owner expenses	46,000	27.9%	
Total expenses	149,000	90.3%	
Profit (before deducting depreciation and interest)	16,000	9.7%	

Table A6. West of Scotland nephrops single-rig forecast for 2007

Appendix 7: WoS nephrops twin-rig costs and earnings table

# WoS nephrops twin-rig forecast

	Average (£)	As % of total earnings
Fishing income	266,000	92.4%
Non-fishing income	22,000	7.6%
Total earnings	288,000	100.0%
Expenses		
Fishing expenses		
Commission	11,000	3.8%
Harbour dues	6,000	2.1%
Subscriptions and levies	4,000	1.4%
Shore labour	1,000	0.3%
Fuel and oil	29,000	10.1%
Boxes	3,000	1.0%
Ice	3,000	1.0%
Crew travel	1,000	0.3%
Food and stores	9,000	3.1%
Quota leasing	3,000	1.0%
Days purchasing	0	0.0%
Other expenses	13,000	4.5%
Crew share	93,000	32.3%
Total fishing expenses	174,000	60.4%
Vessel owner expenses		
Insurance	6,000	2.1%
Repairs	27,000	9.4%
Gear	17,000	5.9%
Hire and maintenance	7,000	2.4%
Other vessel owner expenses	14,000	4.9%
Total vessel owner expenses	71,000	24.7%
Total expenses	246,000	85.4%
Profit (before deducting depreciation and interest)	42,000	14.6%

Table A7. West of Scotland nephrops twin-rig forecast for 2007

Appendix 8: 2007 vessel performance forecasts for the average of the top 25% and bottom 25% for each segment – assuming 100% uptake of UK quota

NS and WoS over 24m – top and bottom 25% vessel performance			
	Top 25%	Segment	Bottom 25%
	Average £	Average £	Average £
Total earnings (fishing and non-fishing)	2,765,000	1,522,000	654,000
Fishing expenses			
Fuel and oil	400,000	266,000	211,000
Crew share	780,000	406,000	133,000
Total fishing expenses	1,812,000	1,026,000	492,000
Total vessel owner expenses	450,000	268,000	130,000
Profit	503,000	228,000	33,000
(before deducting depreciation and interest)	303,000	220,000	33,000
Profit as percent of total earnings	18%	15%	5%

Table A8.1. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for NS and WoS over 24m single-rig vessels

NS and WoS under 24m >300kW – top and bottom 25% vessel performance			
	Top 25%	Segment	Bottom 25%
	Average £	Average £	Average £
Total earnings (fishing and non-fishing)	1,210,000	682,000	349,000
Fishing expenses			
Fuel and oil	119,000	89,000	75,000
Crew share	361,000	195,000	89,000
Total fishing expenses	769,000	444,000	240,000
Total vessel owner expenses	219,000	131,000	68,000
Profit	223,000	108,000	42,000
(before deducting depreciation and interest)	223,000	100,000	42,000
Profit as percent of total earnings	18%	16%	12%

Table A8.2. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for NS and WoS under 24m >300kw single-rig vessels

NS and WoS pair trawl/seine (any length) – top and bottom 25% vessel performance			
	Top 25%	Segment	Bottom 25%
	Average £	Average £	Average £
Total earnings (fishing and non-fishing)	1,385,000	882,000	374,000
Fishing expenses			
Fuel and oil	115,000	84,000	50,000
Crew share	401,000	253,000	104,000
Total fishing expenses	895,000	573,000	246,000
Total vessel owner expenses	211,000	136,000	60,000
Profit	279 000	172 000	49 000
(before deducting depreciation and interest)	278,000	173,000	68,000
Profit as percent of total earnings	20%	20%	18%

Table A8.3. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for NS and WoS pair trawl/seine vessels

NS nephrops single-rig – top and bottom 25% vessel performance				
	Top 25%	Segment	Bottom 25%	
	Average £	Average £	Average £	
Total earnings (fishing and non-fishing)	790,000	381,000	119,000	
Fishing expenses				
Fuel and oil	73,000	47,000	27,000	
Crew share	238,000	111,000	30,000	
Total fishing expenses	499,000	246,000	82,000	
Total vessel owner expenses	162,000	79,000	24,000	
Profit	129,000	57,000	12,000	
(before deducting depreciation and interest)	127,000	57,000	12,000	
Profit as percent of total earnings	16%	15%	10%	

Table A8.4. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for NS nephrops single-rig vessels

NS nephrops twin-rig – top and bottom 25% vessel performance				
	Top 25%	Segment	Bottom 25%	
	Average £	Average £	Average £	
Total earnings (fishing and non-fishing)	933,000	576,000	322,000	
Fishing expenses				
Fuel and oil	97,000	70,000	49,000	
Crew share	282,000	171,000	92,000	
Total fishing expenses	589,000	367,000	210,000	
Total vessel owner expenses	143,000	90,000	51,000	
Profit	201,000	120,000	61,000	
(before deducting depreciation and interest)	201,000	1 20,000	01,000	
Profit as percent of total earnings	22%	21%	19%	

Table A8.5. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for NS nephrops twin-rig vessels

WoS nephrops single-rig – top and bottom 25% vessel performance				
	Top 25%	Segment	Bottom 25%	
	Average £	Average £	Average £	
Total earnings (fishing and non-fishing)	282,000	165,000	75,000	
Fishing expenses				
Fuel and oil	24,000	19,000	14,000	
Crew share	90,000	50,000	20,000	
Total fishing expenses	172,000	104,000	50,000	
Total vessel owner expenses	78,000	46,000	21,000	
Profit	32,000	16,000	4,000	
(before deducting depreciation and interest)	32,000	10,000	4,000	
Profit as percent of total earnings	11%	10%	6%	

Table A8.6. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for WoS nephrops single-rig vessels

WoS nephrops twin-rig – top and bottom 25% vessel performance				
	Top 25%	Segment	Bottom 25%	
	Average £	Average £	Average £	
Total earnings (fishing and non-fishing)	452,000	288,000	152,000	
Fishing expenses				
Fuel and oil	34,000	29,000	26,000	
Crew share	150,000	93,000	44,000	
Total fishing expenses	268,000	174,000	98,000	
Total vessel owner expenses	111,000	71,000	38,000	
Profit	73,000	42,000	16,000	
(before deducting depreciation and interest)	73,000	42,000	10,000	
Profit as percent of total earnings	16%	14%	11%	

Table A8.7. 2007 vessel performance forecast for the average of the top 25% and bottom 25% for WoS nephrops twin-rig vessels

#### Appendix 9: Total volume and value of all species for each segment.

	Total volume of all species (tonnes)			
	2004	2005	2006	2007*
NS and WoS over 24m single-rig	29,610	35,224	29,444	31,129
NS and WoS under 24m, >300kW single-rig	5,846	6,138	5,704	6,014
NS and WoS Pair trawl/seine (any length)	21,506	24,787	22,176	23,975
NS nephrops single-rig	16,395	17,239	16,133	17,057
NS nephrops twin-rig	10,873	11,737	11,109	12,105
WoS nephrops single-rig	6,645	6,466	7,294	7,643
WoS nephrops twin-rig	3,144	2,819	2,325	2,392

Table A9.1. Comparison of total volume of all species caught (tonnes) by vessels fishing over 50 days in each segment in 2004, 2005 and 2006 with the forecast total volume of all species caught (tonnes) by vessels included in our 2007 forecast.

	Total value of all species (£'000)			
	2004	2005	2006	2007*
NS and WoS over 24m single-rig	33,285	29,379	43,851	50,123
NS and WoS under 24m, >300kW single-rig	7,904	9,646	11,569	12,375
NS and WoS Pair trawl/seine (any length)	21,669	24,681	29,829	37,151
NS nephrops single-rig	24,663	30,452	36,089	39,679
NS nephrops twin-rig	16,902	21,199	24,936	28,154
WoS nephrops single-rig	11,270	13,355	16,845	18,430
WoS nephrops twin-rig	3,676	4,899	5,640	6,114

Table A9.2. Comparison of total value of all species caught by vessels fishing over 50 days in each segment in 2004, 2005 and 2006 with the forecast total value of all species caught by vessels included in our 2007 forecast.

Appendix 10: Number of vessels included in analysis

	Number of vessels included in analysis			
	2004	2005	2006	2007*
NS and WoS over 24m single-rig	39	37	36	35
NS and WoS under 24m, >300kW single-rig	23	22	20	19
NS and WoS Pair trawl/seine (any length)	46	48	48	44
NS nephrops single-rig	128	130	127	109
NS nephrops twin-rig	53	55	52	51
WoS nephrops single-rig	124	130	120	114
WoS nephrops twin-rig	25	25	24	23

Table A10. Number of vessels fishing over 50 days in each segment in 2004, 2005 and 2006 with the forecast total number of vessels included in our 2007\* forecast.

Appendix II: Minimum rules that vessels must meet to be included in the calculations of segment average performance.

	Min. days at sea	Min. earnings per year (£)	Min. earnings per day (£)
NS and WoS over 24m single-rig	100	200,000	2,000
NS and WoS under 24m, >300kW single-rig	80	96,000	1,200
NS and WoS Pair trawl/seine (any length)	80	112,000	1,400
NS nephrops single-rig	60	42,000	700
NS nephrops twin-rig	80	80,000	1,000
WoS nephrops single-rig	70	21,000	300
WoS nephrops twin-rig	80	56,000	700

Table A11. Minimum rules that vessels must meet to be included in the calculations of segment average performance.



September 2007

Sea Fish Industry Authority 18 Logie Mill, Logie Green Road Edinburgh EH7 4HS

Tel: 0131 558 331 Fax: 0131 558 1442

Email: economics@seafish.co.uk

Web: www.seafish.org