Scottish Fleet Financial Performance
2008 Mid-Year Review

Summary

- Increasing fuel prices have dampened expectations for the future in all fleet segments.
- Fishing income in 2008 is expected to be between 10% - 20% higher than 2007 for most segments in this report.
- Average forecast profits are decreasing significantly compared to previous years for all fleet segments.
- Price for leasing cod quota has risen to £1,500 per tonne from £700 in 2007 and £300 in 2006.
- Crew retention is a growing challenge for skippers.

1. 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.

1.1. Survey Methods and sample

Seafish staff conducted around 40 interviews in person and by telephone, principally with skippers and vessel owners (76%), 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 (63%), south east (3%) and west coast (23%) of Scotland and also in Orkney and Shetland (10%). Vessels represented in the sample include nephrops trawl (43%), over 24m whitefish trawl (24%), whitefish seine netters (single or pair) (19%) and under 24m whitefish trawl (14%).

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 2007.

Fish sales prices (UK average) from the first six months of 2008 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 segments is poor. 76% of the skippers interviewed considered that the mood in their segment was "poor" (52%) or "very poor" (24%). On the other side, no skipper selected the “very good” option for this question and only one skipper stated the general mood of his segment as “good”.

2.1. Optimism

Only 24% of the interviewees expressed a positive impression on the general situation of their segment (“OK” 19% and “Good” 5%). When detailing the reason of this optimism, the skippers pointed out some balanced thoughts: most expressed their concerns about the rising fuel price but were confident that good fish prices could compensate the increase in fuel costs.

2.2. Pessimism

Soaring fuel prices and lack of quota for cod were the two drivers of the pessimistic views. Most skippers stated that higher running costs, up due to the fuel price increase, the necessity to lease quota and to buy extra days at sea, were resulting in lower profits.

Concerns about the weather were also having a negative influence on the mood: some skippers considered that it might not be profitable to go fishing with bad weather, due to high prices of fuel.

2.3. Future in the industry

Skippers were asked if they still expected to be in the fishing industry in two and in five years time. Most still expected to be in the industry in two and five years time with a couple unsure. Some skippers are considering leaving the industry if they are able to sell their boats. Two skippers hoped to continue fishing for several years to be able to pass their boat on to their son upon retirement. Two other respondents hoped to retire within the next five years.

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 sales volume and several factors influence these. Skippers' experiences are reported along with forecasts from the Seafish model.

Volumes and overall prices are forecast to be stable compared to 2007 (see Table and Annex).

	Price per tonne (all species)				
	2004*	2005*	2006*	2007*	2008**
NS and WoS over 24m single-rig	1,124	834	1,489	1,494	1,528
NS and WoS under 24m, >300kW single-rig	1,352	1,572	2,208	2,042	2,179
NS and WoS pair trawl/seine (any length)	1,008	996	1,345	1,392	1,381
NS nephrops single-rig	1,504	1,766	2,237	2,302	2,174
NS nephrops twin-rig	1,554	1,806	2,245	2,288	2,190
WoS nephrops single-rig	1,696	2,065	2,309	2,622	2,244
WoS nephrops twin-rig	1,169	1,738	2,406	2,332	2,499

Table 1: Average price per tonne for all species, *2004, 2005, 2006 and 2007 includes all vessels with over 50 days at sea. **2008 forecast includes all vessels which meet our minimum rules[1]

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 2008.

Most skippers considered that recent management measures had no impact on fish prices. The registration of buyers and sellers was cited to have a positive impact on the market by removing black fish, increasing and stabilising the fish prices.

	Average UK price per tonne 2007	Average UK price per tonne Jan - June 07	Average UK price per tonne Jan - June 08	Change as % of Jan-June 07 price
Anglerfish	2,468	2,408	2,612	8%
Cod	1,549	1,445	1,709	18%
Haddock	1,218	1,314	1,202	-9%
Hake	1,604	1,461	1,447	-1%
Lemon sole	3,150	3,228	3,291	2%
Megrims	2,386	2,272	2,582	14%
Nephrops	2,890	2,899	2,817	-3%
Plaice	1,199	1,120	1,253	12%
Saithe	538	566	553	-2%
Skate/rays	1,152	1,166	1,245	7%
Whiting	894	996	987	-1%

Table 2: Summary of UK average prices in 2007 and prices for period January to June 2008. Source: MFA.

[1] 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.

Volume

Skippers estimated their quota uptake compared to last year.

Nephrops was stated to be as easy to catch as last year. Nevertheless three skippers from the East coast thought it was more difficult to find nephrops this year. In general, skippers believed their quota uptake of nephrops to be on the same trend as last year.

All whitefish skippers considered cod to be easier to find this year, especially bigger cod. They reported a quota uptake for cod between 75% and 100%, pointing out the problem of lack of quota and a discard issue. Two skippers stated that cod was found on grounds where never caught before. Some skippers reported the same trend in relation to whiting.

In contrary, haddock seemed to be harder to find compared to last year and was quoted to be smaller than last year. Most skippers indicated that their quota uptake was between 35% and 50%, behind last year uptake trend.

POs representatives interviewed by Seafish had the same analysis: cod is easier to find and bigger in size while haddock is harder to find and smaller in size, compared to last 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 £413,000 and average expected fishing income for whitefish vessels was £1,270,000 (based on four seiners, two under 24m and five over 24m vessels).

Model forecasts of income

The average 2008 fishing income is forecast to be higher than the average 2007 declared fishing income for all segments except the twin-rig nephrops trawlers operating in the North Sea (see Table 2).

The fishing income is forecast to be higher by 10% to 20% for the whitefish segments when comparing to the average 2007 declared fishing income (based on official MFA data, average income for vessels which met the same minimum rules that are applied in the forecast model).The forecast is more variable when considering the nephrops segments.

	Average 2004 declared fishing income (£)	Average 2005 declared fishing income (£)	Average 2006 declared fishing income (£)	Average 2007 declared fishing income (£)	Average 2008 forecast fishing income (£)	Percent change from 2007 to 2008
NS and WoS over 24m single-rig	1,205,000	1,062,000	1,218,000	1,000,000	1,302,000	23%
NS and WoS under 24m, >300kW single-rig	358,000	596,000	578,000	600,000	733,000	18%
NS and WoS pair trawl/seine (any length)	509,000	579,000	621,000	592,000	666,000	11%
NS nephrops single-rig	366,000	346,000	284,000	304,000	360,000	16%
NS nephrops twin-rig	383,000	475,000	480,000	476,000	477,000	0%
WoS nephrops single-rig	198,000	292,000	140,000	151,000	162,000	7%
WoS nephrops twin-rig	324,000	292,000	235,000	297,000	305,000	3%

Table 3: Comparison of average declared fishing income for vessels fishing over 50 days in 2004, 2005, 2006 and 2007 with the average forecast fishing income for 2008.

The forecasts of income are based on volumes caught by each vessel in 2007 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 2008 (Table 4). There is also a contribution from non-fishing income, mainly from oil work, representing between 1% and 3% of the vessel earnings depending on the segment.

	NS and WoS over 24m single-rig (£)	NS and WoS under 24m >300kW single-rig (£)	NS and WoS pair trawl / seine (£)	NS nephrops single-rig (£)	NS nephrops twin-rig (£)	WoS nephrops single-rig (£)	WoS nephrops twin-rig (£)
Anglerfish	2,731	2,960	2,700	2,691	2,716	2,382	2,422
Cod	2,208	2,237	2,303	1,647	1,807	2,021	2,030
Haddock	1,282	999	1,162	635	734	611	831
Hake	1,509	1,371	2,007	588	931	761	714
Lemon Sole	3,251	2,203	3,009	2,368	2,444	1,505	2,351
Megrim	2,793	3,206	2,654	2,572	2,084	2,689	1,561
Nephrops	5,525	3,502	2,558	2,840	3,010	2,405	2,796
Plaice	1,178	1,035	1,035	1,554	759	1,118	912
Saithe	512	506	568	461	468	447	468
Skates and Rays	781	987	527	899	1,229	993	615
Whiting	1,146	869	1,091	624	645	593	659

Table 4: Forecast 2008 prices per tonne for main species for all segments

In some cases, prices show high variations for the same species of fish caught in different areas and/or by different gears (Table 4). Previous Seafish reports showed the same disparities[2]. Further research would be needed to explain these variations which could be related to the quality or the size of the fish, or to the type of sale (by contract or under auction).

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 for the whitefish segments and to be stable for the nephrops segments in comparison to 2007.

The days at sea forecast is based on available quota and an assumption that each vessel's 2007 catch rate per day will prevail in 2008. We are also assuming that vessels will be able to buy enough days at sea to achieve these expected levels.

[2] See for example Curtis, H C, Anton, S. 'Fleet Financial Performance 2007 Mid-Year Review.' 2007. or Anton, S, Curtis, H C. 'UK Fleet Financial Forecast'. 2008. Available from Seafish.

	Average days at sea				
	2004	2005	2006	2007	2008*
NS and WoS over 24m single-rig	281	243	247	237	249
NS and WoS under 24m, >300kW single-rig	214	190	183	193	200
NS and WoS pair trawl/seine (any length)	204	189	180	175	181
NS nephrops single-rig	208	175	152	160	167
NS nephrops twin-rig	222	208	187	189	187
WoS nephrops single-rig	170	161	158	165	162
WoS nephrops twin-rig	191	192	185	181	179

Table 5: Comparison of average days at sea for vessels fishing over 50 days in 2004, 2005, 2006 and 2007 with the average forecast days at sea for 2008.

Fuel

The monthly fuel price paid by fishermen continuously rose from 24.6 pence per litre in January 2007 to 56.3 pence per litre in June 2008. From January to June 2008, the fuel price was on average 46.7 pence per litre. If the fuel price remains stable until the end of 2008, the average annual fuel price will be approximately 50 pence per litre. If during the same period, the fuel price increases at the same pace than between the first half of the year, the average annual fuel price will be around 60 pence per litre. Forecasts were therefore estimated for two levels of fuel price: 50 and 60 pence per litre.

	2004	2005	2006	2007	2008*
Average fuel price for UK (pence per litre)	19.1	26.7	30.2	30.4	46.7

Table 6: Average duty-free fuel price (pence per litre). *2008 is the average price from January to June.

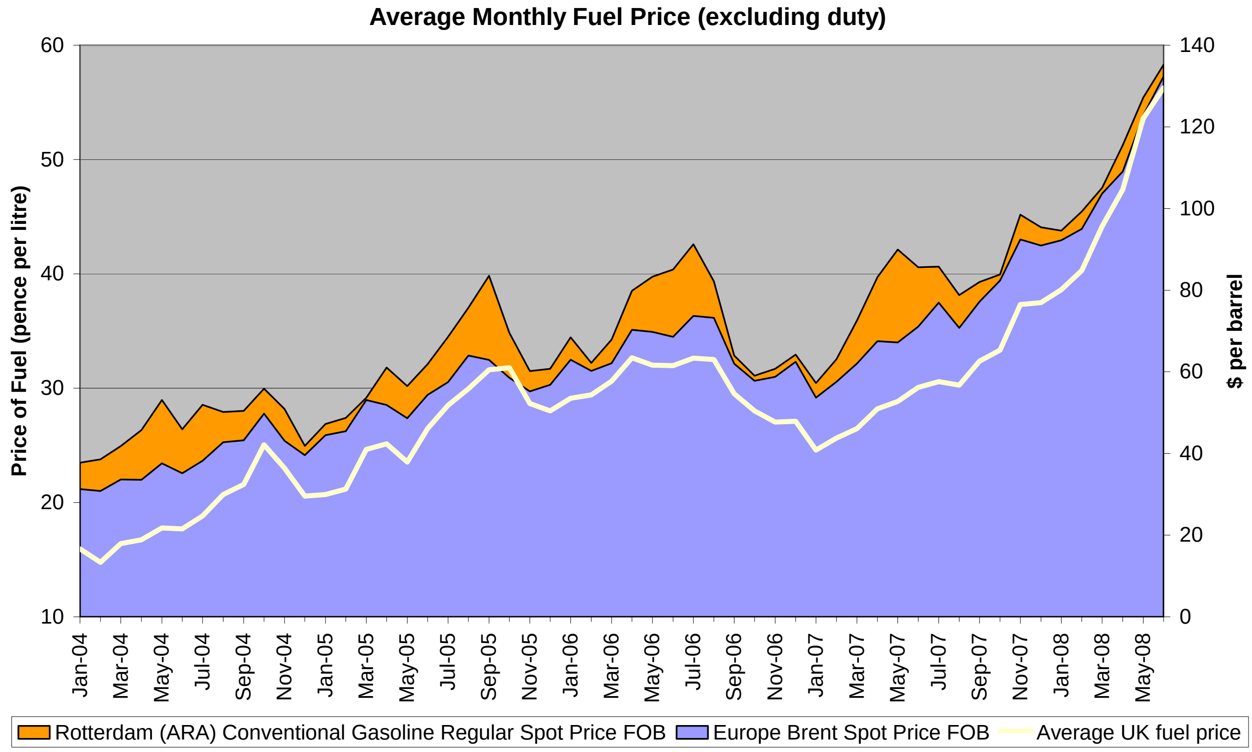

Figure 1: Average duty-free fuel price from 3 British ports (pence per litre), crude price per barrel and conventional gasoline price per barrel (US$)

The vast majority of interviewed skippers altered their practices to cope with the rise of their fuel costs[3]:

- Skippers reduced the steaming speed and now take the tide into account when steaming and fishing. Some of them mentioned working closer to the shore to save on steaming time.
- Some skippers switched from twin trawl to single trawl, arguing that it would reduce the drag of the gear and therefore the fuel consumption of their boat.
- Several skippers take into account the weather forecasts in their short term planning: in case of bad weather, they prefer to stay in port rather than just break-even by going to sea.

Quota leasing and purchase costs

Total spent on quota leasing varied between £4,000 and £120,000. Due to a shortage in quota, the price for leasing a tonne of cod reached £1,500, compared to £700 in 2007 and £300 in 2006.

In our sample, only two skippers purchased quota this year. 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

Only 25% of the interviewees stated they had bought extra days at sea. As last year, some skippers commented that buying days at sea was reducing their trip profits. Three skippers thought they might have to buy further days before the end of the year.

A few skippers felt not concerned by the limitation of days at sea, arguing that the free days allocated were sufficient to catch their quotas.

Crew share

The overall majority of the skippers expected their crew share to fall compared to last year, mainly due to the increase in fuel costs. Most of them have not altered their wages allocation system from the historical 50/50 split between vessel and crew for small vessels and 55/45 split for large vessels). Seafish estimates that the segment averages for crew share would range from £39,000 (WoS nephrops single-rig) to £283,000 (NS and WoS demersal trawl >24m) in 2008[4]. A few skippers estimated that the fall in crew share would be between 30% and 50%.

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 2008 prices compared to Jan-June 2007 prices and average prices for the whole of 2007) to get the percentage change in prices for the segment since 2007. The price change was then applied to the price received for each species by each individual vessel in 2007 to give a forecast value of landings in 2008.
- The cost structure implemented in the model is based on the 2006 Economic Survey of the UK Fishing Fleet (the previous models were using the cost structure of the 2005 Economic survey).

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[3] 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.

[4] These calculations are based on the assumption that the annual fuel price is 50 pence per litre. For a fuel price of 60 pence per litre, the segment averages for crew share would range from £36,000 (WoS nephrops single-rig) to £247,000 (NS and WoS demersal trawl >24m).

- Baseline vessel activity and landings data used is for full year 2007.
- Quota used is based on the quota available to the fleet as at 27 July 2008, 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. Forecasts are estimated for two average fuel prices for 2008: 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2)

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**904,000**	**1,019,500**	**1,317,200**	**1,321,000**	**1,321,000**
Fishing expenses					
Fuel and oil	158,600	212,200	330,600	439,000	527,000
Crew share	222,600	230,300	367,100	283,000	247,000
Total fishing expenses	**559,600**	**650,600**	**965,800**	**985,000**	**1,037,000**
Total vessel owner expenses	**190,300**	**197,300**	**188,200**	**187,000**	**187,000**
Profit (before deducting depreciation and interest)	**154,000**	**167,500**	**163,300**	**150,000**	**98,000**
Profit as percent of total earnings	**17%**	**16%**	**12%**	**11%**	**7%**

Table 7: Financial performance for NS and WoS demersal trawl >24m single-rig vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**371,300**	**460,600**	**541,800**	**760,000**	**760,000**
Fishing expenses					
Fuel and oil	50,200	74,700	80,300	163,000	195,000
Crew share	104,200	126,900	131,800	222,000	208,000
Total fishing expenses	**234,400**	**297,500**	**289,900**	**488,000**	**506,000**
Total vessel owner expenses	**84,400**	**98,100**	**136,200**	**178,000**	**178,000**
Profit (before deducting depreciation and interest)	**56,600**	**62,400**	**115,700**	**94,000**	**76,000**
Profit as percent of total earnings	**15%**	**14%**	**21%**	**12%**	**10%**

Table 8: Financial performance for NS and WoS demersal trawl <24m >300kw single-rig vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**511,200**	**542,500**	**627,000**	**687,000**	**687,000**
Fishing expenses					
Fuel and oil	62,300	69,800	83,500	145,000	174,000
Crew share	138,000	144,800	147,900	196,000	183,000
Total fishing expenses	**339,300**	**353,900**	**346,800**	**447,000**	**463,000**
Total vessel owner expenses	**113,500**	**105,300**	**123,700**	**152,000**	**152,000**
Profit (before deducting depreciation and interest)	**80,100**	**83,200**	**147,500**	**87,000**	**71,000**
Profit as percent of total earnings	**16%**	**15%**	**24%**	**13%**	**10%**

Table 9: Financial performance for NS and WoS pair trawl/seine vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**205,900**	**246,400**	**279,500**	**369,000**	**369,000**
Fishing expenses					
Fuel and oil	28,600	39,300	39,500	86,000	103,000
Crew share	53,800	67,500	66,500	94,000	86,000
Total fishing expenses	**127,200**	**158,400**	**164,500**	**255,000**	**264,000**
Total vessel owner expenses	**45,400**	**50,500**	**62,200**	**92,000**	**92,000**
Profit (before deducting depreciation and interest)	**38,700**	**42,700**	**52,900**	**23,000**	**14,000**
Profit as percent of total earnings	**19%**	**17%**	**19%**	**6%**	**4%**

Table 10: Financial performance for NS nephrops single-rig vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**334,500**	**404,400**	**447,700,**	**484,000**	**484,000**
Fishing expenses					
Fuel and oil	50,400	65,300	69,200	117,000	141,000
Crew share	83,200	101,900	106,500	130,000	120,000
Total fishing expenses	**202,700**	**246,200**	**250,300**	**324,000**	**337,000**
Total vessel owner expenses	**75,300**	**70,800**	**80,900**	**95,000**	**95,000**
Profit (before deducting depreciation and interest)	**56,500**	**87,500**	**116,500**	**65,000**	**52,000**
Profit as percent of total earnings	**17%**	**22%**	**26%**	**13%**	**11%**

Table 11: Financial performance for NS nephrops twin-rig vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**92,200**	**105,000**	**131,100**	**163,000**	**163,000**
Fishing expenses					
Fuel and oil	10,300	16,300	17,100	35,000	41,000
Crew share	26,500	32,900	30,200	39,000	36,000
Total fishing expenses	**50,500**	**66,200**	**80,900**	**115,000**	**119,000**
Total vessel owner expenses	**19,700**	**26,700**	**46,200**	**59,000**	**59,000**
Profit (before deducting depreciation and interest)	**18,100**	**23,100**	**4,000**	**-11,000**	**-14,000**
Profit as percent of total earnings	**20%**	**22%**	**3%**	**-7%**	**-9%**

Table 12: Financial performance for WoS nephrops single-rig vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

	2004 Average £	2005 Average £	2006 Average £	2008* F1 Average £	2008* F2 Average £
Total earnings (fishing and non-fishing)	**150,100**	**213,500**	**269,100**	**305,000**	**305,000**
Fishing expenses					
Fuel and oil	19,200	31,200	37,200	51,000	61,000
Crew share	43,000	53,900	61,000	93,000	89,000
Total fishing expenses	**85,200**	**117,400**	**138,600**	**191,000**	**197,000**
Total vessel owner expenses	**33,600**	**48,800**	**59,600**	**70,000**	**70,000**
Profit (before deducting depreciation and interest)	**31,200**	**43,400**	**70,900**	**44,000**	**38,000**
Profit as percent of total earnings	**21%**	**20%**	**26%**	**14%**	**13%**

Table 13: Financial performance for WoS nephrops twin-rig vessels for 2004, 2005 and 2006 (based on Seafish survey) and *mid year forecast for 2008, assuming an annual fuel price of 50 pence per litre (Scenario F1) and 60 pence per litre (Scenario F2).

Although a segment might be profitable on average, profits can be highly widespread like in the over 24m segment. The top 25% of the over 24m whitefish vessels will generate profits around £250,000 on average, with the bottom 25% of the segment losing approximately £6,000 on average. For the North Sea nephrops single-rig segment, the top 25% of the segment are expected to achieve average profits of £71,000, with the bottom 25% of vessels in this segment losing around £4,000 on average. Table 14 gives forecast profit figures for the top and bottom quartiles of all segments.

	Scenario F1: fuel price is 50 pence per litre		Scenario F2: fuel price is 60 pence per litre	
	Top 25% Average	Bottom 25% Average	Top 25% Average	Bottom 25% Average
NS and WoS over 24m single-rig	250,000	-6,000	179,000	-65,000
NS and WoS under 24m, >300kW single-rig	217,000	18,000	192,000	6,000
NS and WoS pair trawl/seine (any length)	144,000	30,000	121,000	21,000
NS nephrops single-rig	71,000	-4,000	57,000	-10,000
NS nephrops twin-rig	113,000	22,000	96,000	13,000
WoS nephrops single-rig	-10,000	-10,000	-14,000	-13,000
WoS nephrops twin-rig	92,000	14,000	85,000	9,000

Table 14: Forecast average profits of top and bottom quartiles.

Comparison with forecast model in January 2008

These forecasts, made in August 2008, are different from the forecasts made in January 2008. This is in part due to changes in the baseline year, which is no longer December 2006 to November 2007 but is now the complete 2007 data. The modification of the cost structure also altered the forecast results. 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 2008. Fish prices used in the January forecast were average prices for December 2006 to November 2007, whereas these forecasts we have used forecast average prices for 2008, based on average prices January to June 2008. 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.

4.1. New equipment

Just over half of whitefish vessels and nephrops vessels said they had invested in new equipment this year. Investments included nets, engines, winches (£10,000 to £30,000), electronic plotter (around £4,000) and oil filter (around £2,000). A few vessels had also switched fishing method through the year from twin-rig to single-rig.

4.2. Borrowing

For the nephrops vessels in our sample, debt ranged from zero (for three vessels) to £1,000,000, with an average debt of £160,000. For the seine net and under 24m whitefish trawl, the range was from zero (one vessel) to £600,000 with an average of £290,000. For the over 24m whitefish trawl vessels in our sample, debt levels ranged from zero (one vessel) to £700,000 with an average of £315,000.

4.3. Cost of borrowing

Interest payments for nephrops vessels in our sample ranged from £0 to £75,000 per year. For the whitefish vessels (combined), the range was from zero to £100,000 per year. These payments represent up to 12% of earnings for nephrops vessel and 10% for whitefish vessels.

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 2008 compared to 2007. 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:

- As last year, there was a lot of discontentment surrounding the cod quota. It was seen as being too low and had resulted in large quantities of large cod being discarded. The leasing price for a tonne of cod quota reached £1,500.
- 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.
- Managing fisheries with quota leads to more discards.

Other comments on fisheries management issues included:

- Urging the government to work towards much better incorporation of fishermen's experiences into scientific data collection and stock assessment.
- Regulation should be decided on a multi-annual basis, avoiding constant changes.

5.2. Crew retention

61% of the interviewees stated that the situation with crew retention was 'poor' this year. Only one whitefish skipper rated crew retention as 'good'. Skippers mentioned the diminishing crew share and the competition of the oil sector as the main reason for this low retention rate.

Common remarks on crew issues were that it has been impossible or very difficult to hire British crew, and that there are now many foreign crew working in the industry, usually well-regarded, and mostly from Eastern Europe and the Philippines. 57% of the interviewed skippers answering a question about foreign crew said that they did have foreign crew members on their own vessel.

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 mentioned relating to cost of leasing quota, cost of fuel, days at sea, quota levels and discards, along with the following additional points:

- Concern about the number of vessels which have switched to fishing for nephrops.
- Concern about the future of the industry if the recruitment of young fishermen stays at a low level.
- Suggestion that the government should lower its involvement in fisheries management, as the industry is more interested in sustainability and can handle the problems by itself.
- It is impossible to manage fisheries by measuring quotas and days at sea. Fisheries management should be based on one of them and not both.
- Concern about the further rising of fuel price which might lead the entire fishing industry to bankruptcy.

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

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Appendix 1: NS and WoS over 24m single-rig demersal costs and earnings table

NS & WOS Over 24m Demersal Trawl

	Average (£)	As % of average sales
Fishing income	1,302,000	98.6%
Non-fishing income	19,000	1.4%
Total Earnings	**1,321,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	57,000	4.3%
Harbour Dues	45,000	3.4%
Subscriptions & Levies	10,000	0.7%
Shore labour	4,000	0.3%
Fuel & Oil	439,000	33.2%
Boxes	17,000	1.3%
Ice	14,000	1.1%
Crew Travel	9,000	0.7%
Food & Stores	26,000	2.0%
Quota Leasing	35,000	2.7%
Days Purchasing	31,000	2.3%
Other Expenses	15,000	1.1%
Crew Share	283,000	21.4%
Total Fishing Expenses	**985,000**	**74.5%**
Vessel Owner Expenses		
Insurance	45,000	3.4%
Repairs	79,000	6.0%
Gear	21,000	1.6%
Hire & Maintenance	9,000	0.7%
Other Vessel Owner Expenses	33,000	2.5%
Total Vessel Owner Expenses	**187,000**	**14.1%**
Total Expenses	**1,171,000**	**88.6%**
Profit (before deducting depreciation and interest)	**150,000**	**11.4%**

Table A1. North Sea and West of Scotland over 24m single-rig demersal forecast for 2008, assuming an annual fuel price of 50 pence per litre.

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

NS & WOS Under 24m Over 300kW Demersal Trawl

	Average (£)	As % of average sales
Fishing income	733,000	96.5%
Non-fishing income	27,000	3.5%
Total Earnings	**760,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	27,000	3.6%
Harbour Dues	20,000	2.6%
Subscriptions & Levies	3,000	0.4%
Shore labour	1,000	0.1%
Fuel & Oil	163,000	21.4%
Boxes	8,000	1.0%
Ice	8,000	1.1%
Crew Travel	0	0.0%
Food & Stores	16,000	2.2%
Quota Leasing	11,000	1.4%
Days Purchasing	9,000	1.2%
Other Expenses	1,000	0.1%
Crew Share	222,000	29.3%
Total Fishing Expenses	**488,000**	**64.2%**
Vessel Owner Expenses		
Insurance	39,000	5.2%
Repairs	77,000	10.1%
Gear	28,000	3.7%
Hire & Maintenance	14,000	1.8%
Other Vessel Owner Expenses	20,000	2.7%
Total Vessel Owner Expenses	**178,000**	**23.4%**
Total Expenses	**666,000**	**87.7%**
Profit (before deducting depreciation and interest)	**94,000**	**12.3%**

Table A2. North Sea and West of Scotland under 24m >300kW single-rig demersal forecast for 2008, assuming an annual fuel price of 50 pence per litre.

Appendix 3: NS and WoS pair trawl/seine (any size) costs and earnings table

NS & WOS Pair Trawl/Seine

	Average (£)	As % of average sales
Fishing income	666,000	96.9%
Non-fishing income	21,000	3.1%
Total Earnings	**687,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	26,000	3.8%
Harbour Dues	16,000	2.4%
Subscriptions & Levies	9,000	1.2%
Shore labour	0	0.0%
Fuel & Oil	145,000	21.1%
Boxes	12,000	1.7%
Ice	11,000	1.6%
Crew Travel	0	0.0%
Food & Stores	22,000	3.2%
Quota Leasing	8,000	1.2%
Days Purchasing	1,000	0.2%
Other Expenses	1,000	0.2%
Crew Share	196,000	28.6%
Total Fishing Expenses	**447,000**	**65.1%**
Vessel Owner Expenses		
Insurance	32,000	4.7%
Repairs	70,000	10.2%
Gear	23,000	3.4%
Hire & Maintenance	9,000	1.4%
Other Vessel Owner Expenses	17,000	2.5%
Total Vessel Owner Expenses	**152,000**	**22.2%**
Total Expenses	**599,000**	**87.3%**
Profit (before deducting depreciation and interest)	**87,000**	**12.7%**

Table A3. North Sea and West of Scotland pair trawl/seine (any size) forecast for 2008, assuming an annual fuel price of 50 pence per litre.

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

NS Nephrops Single-rig

	Average (£)	As % of average sales
Fishing income	360,000	97.5%
Non-fishing income	9,000	2.5%
Total Earnings	**369,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	23,000	6.4%
Harbour Dues	14,000	3.9%
Subscriptions & Levies	7,000	1.9%
Shore labour	0	0.0%
Fuel & Oil	86,000	23.2%
Boxes	6,000	1.6%
Ice	6,000	1.5%
Crew Travel	1,000	0.2%
Food & Stores	14,000	3.8%
Quota Leasing	1,000	0.4%
Days Purchasing	0	0.1%
Other Expenses	3,000	0.7%
Crew Share	94,000	25.4%
Total Fishing Expenses	**255,000**	**69.0%**
Vessel Owner Expenses		
Insurance	19,000	5.0%
Repairs	32,000	8.7%
Gear	16,000	4.3%
Hire & Maintenance	12,000	3.4%
Other Vessel Owner Expenses	12,000	3.3%
Total Vessel Owner Expenses	**92,000**	**24.8%**
Total Expenses	**346,000**	**93.8%**
Profit (before deducting depreciation and interest)	**23,000**	**6.2%**

Table A4. North Sea nephrops single-rig forecast for 2008, assuming an annual fuel price of 50 pence per litre.

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

NS Nephrops Twin-rig

	Average (£)	As % of average sales
Fishing income	477,000	98.6%
Non-fishing income	7,000	1.4%
Total Earnings	**484,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	23,000	4.8%
Harbour Dues	12,000	2.4%
Subscriptions & Levies	8,000	1.6%
Shore labour	1,000	0.3%
Fuel & Oil	117,000	24.3%
Boxes	7,000	1.4%
Ice	8,000	1.7%
Crew Travel	0	0.0%
Food & Stores	14,000	3.0%
Quota Leasing	2,000	0.4%
Days Purchasing	1,000	0.2%
Other Expenses	1,000	0.2%
Crew Share	130,000	26.9%
Total Fishing Expenses	**324,000**	**67.1%**
Vessel Owner Expenses		
Insurance	19,000	3.9%
Repairs	39,000	8.1%
Gear	15,000	3.1%
Hire & Maintenance	7,000	1.4%
Other Vessel Owner Expenses	15,000	3.1%
Total Vessel Owner Expenses	**95,000**	**19.6%**
Total Expenses	**419,000**	**86.7%**
Profit (before deducting depreciation and interest)	**65,000**	**13.3%**

Table A5. North Sea nephrops twin-rig forecast for 2008, assuming an annual fuel price of 50 pence per litre.

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

WoS Nephrops Single-rig

	Average (£)	As % of average sales
Fishing income	162,000	99.1%
Non-fishing income	1,000	0.9%
Total Earnings	**163,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	10,000	5.9%
Harbour Dues	6,000	4.0%
Subscriptions & Levies	4,000	2.3%
Shore labour	0	0.2%
Fuel & Oil	35,000	21.2%
Boxes	2,000	1.3%
Ice	2,000	1.5%
Crew Travel	1,000	0.6%
Food & Stores	11,000	6.5%
Quota Leasing	0	0.0%
Days Purchasing	0	0.0%
Other Expenses	5,000	3.2%
Crew Share	39,000	24.0%
Total Fishing Expenses	**115,000**	**70.6%**
Vessel Owner Expenses		
Insurance	8,000	4.9%
Repairs	20,000	12.0%
Gear	12,000	7.1%
Hire & Maintenance	9,000	5.5%
Other Vessel Owner Expenses	10,000	6.4%
Total Vessel Owner Expenses	**59,000**	**35.9%**
Total Expenses	**174,000**	**106.6%**
Profit (before deducting depreciation and interest)	**-11,000**	**-6.6%**

Table A7. West of Scotland nephrops single-rig forecast for 2008, assuming an annual fuel price of 50 pence per litre.

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

WoS Nephrops Twin-rig

	Average (£)	As % of average sales
Fishing income	305,000	99.9%
Non-fishing income	0	0.1%
Total Earnings	**305,000**	**100.0%**
Expenses		
Fishing Expenses		
Commission	10,000	3.2%
Harbour Dues	4,000	1.4%
Subscriptions & Levies	2,000	0.7%
Shore labour	0	0.0%
Fuel & Oil	51,000	16.6%
Boxes	2,000	0.5%
Ice	2,000	0.6%
Crew Travel	0	0.1%
Food & Stores	16,000	5.4%
Quota Leasing	1,000	0.2%
Days Purchasing	1,000	0.3%
Other Expenses	10,000	3.1%
Crew Share	93,000	30.6%
Total Fishing Expenses	**191,000**	**62.7%**
Vessel Owner Expenses		
Insurance	6,000	1.9%
Repairs	20,000	6.7%
Gear	12,000	3.8%
Hire & Maintenance	13,000	4.4%
Other Vessel Owner Expenses	19,000	6.2%
Total Vessel Owner Expenses	**70,000**	**22.9%**
Total Expenses	**261,000**	**85.6%**
Profit (before deducting depreciation and interest)	**44,000**	**14.4%**

Table A7. West of Scotland nephrops twin-rig forecast for 2008, assuming an annual fuel price of 50 pence per litre.

Appendix 8: 2008 vessel performance forecasts for the average of the top 25% and bottom 25% for each segment – assuming a fuel price at 50 pence per litre and quota uptake equivalent to 2007.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**2,039,000**	**1,321,000**	**794,000**
Fishing expenses			
Fuel and oil	654,000	439,000	411,000
Crew share	432,000	283,000	114,000
Total fishing expenses	**1,511,000**	**985,000**	**687,000**
Total vessel owner expenses	**278,000**	**187,000**	**113,000**
Profit (before deducting depreciation and interest)	**250,000**	**150,000**	**-6,000**
Profit as percent of total earnings	**12%**	**11%**	**-1%**

Table A8.1. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for NS and WoS over 24m single-rig vessels, assuming an annual fuel price of 50 pence per litre.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**1,368,000**	**760,000**	**334,000**
Fishing expenses			
Fuel and oil	226,000	163,000	107,000
Crew share	425,000	222,000	85,000
Total fishing expenses	**849,000**	**488,000**	**230,000**
Total vessel owner expenses	**302,000**	**178,000**	**86,000**
Profit (before deducting depreciation and interest)	**217,000**	**94,000**	**18,000**
Profit as percent of total earnings	**16%**	**12%**	**5%**

Table A8.2. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for NS and WoS under 24m >300kw single-rig vessels, assuming an annual fuel price of 50 pence per litre.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**1,092,000**	**687,000**	**308,000**
Fishing expenses			
Fuel and oil	204,000	145,000	82,000
Crew share	314,000	196,000	82,000
Total fishing expenses	**708,000**	**447,000**	**208,000**
Total vessel owner expenses	**240,000**	**152,000**	**70,000**
Profit (before deducting depreciation and interest)	**144,000**	**87,000**	**30,000**
Profit as percent of total earnings	**13%**	**13%**	**10%**

Table A8.3. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for NS and WoS pair trawl/seine vessels, assuming an annual fuel price of 50 pence per litre.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**750,000**	**369,000**	**115,000**
Fishing expenses			
Fuel and oil	130,000	86,000	48,000
Crew share	209,000	94,000	20,000
Total fishing expenses	**495,000**	**255,000**	**91,000**
Total vessel owner expenses	**184,000**	**92,000**	**29,000**
Profit (before deducting depreciation and interest)	**71,000**	**23,000**	**-4,000**
Profit as percent of total earnings	**9%**	**6%**	**-3%**

Table A8.4. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for NS nephrops single-rig vessels, assuming an annual fuel price of 50 pence per litre.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**763,000**	**484,000**	**250,000**
Fishing expenses			
Fuel and oil	161,000	117,000	83,000
Crew share	214,000	130,000	58,000
Total fishing expenses	**501,000**	**324,000**	**179,000**
Total vessel owner expenses	**148,000**	**95,000**	**49,000**
Profit (before deducting depreciation and interest)	**113,000**	**65,000**	**22,000**
Profit as percent of total earnings	**15%**	**13%**	**9%**

Table A8.5. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for NS nephrops twin-rig vessels, assuming an annual fuel price of 50 pence per litre.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**269,000**	**163,000**	**78,000**
Fishing expenses			
Fuel and oil	41,000	35,000	26,000
Crew share	72,000	39,000	14,000
Total fishing expenses	**182,000**	**115,000**	**60,000**
Total vessel owner expenses	**97,000**	**59,000**	**28,000**
Profit (before deducting depreciation and interest)	**-10,000**	**-11,000**	**-10,000**
Profit as percent of total earnings	**-4%**	**-7%**	**-13%**

Table A8.6. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for WoS nephrops single-rig vessels, assuming an annual fuel price of 50 pence per litre.

	Top 25% Average £	Segment Average £	Bottom 25% Average £
Total earnings (fishing and non-fishing)	**541,000**	**305,000**	**156,000**
Fishing expenses			
Fuel and oil	64,000	51,000	42,000
Crew share	176,000	93,000	41,000
Total fishing expenses	**326,000**	**191,000**	**106,000**
Total vessel owner expenses	**123,000**	**70,000**	**36,000**
Profit (before deducting depreciation and interest)	**92,000**	**44,000**	**14,000**
Profit as percent of total earnings	**17%**	**14%**	**9%**

Table A8.7. 2008 vessel performance forecast for the average of the top 25% and bottom 25% for WoS nephrops twin-rig vessels, assuming an annual fuel price of 50 pence per litre.

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

	Total volume of all species (tonnes)				
	2004	2005	2006	2007	2008*
NS and WoS over 24m single-rig	29,610	35,224	29,444	25,738	25,980
NS and WoS under 24m, >300kW single-rig	5,846	6,138	5,704	6,801	6,844
NS and WoS pair trawl/seine (any length)	21,506	24,787	22,176	19,792	19,864
NS nephrops single-rig	16,395	17,239	16,133	17,453	17,102
NS nephrops twin-rig	10,873	11,737	11,109	10,850	10,668
WoS nephrops single-rig	6,645	6,466	7,294	8,343	8,058
WoS nephrops twin-rig	3,144	2,819	2,325	2,719	2,628

Table A9.1. Comparison of total volume of all species caught (tonnes) by vessels fishing over 50 days in each segment in 2004, 2005, 2006 and 2007 with the forecast total volume of all species caught (tonnes) by vessels included in our 2008* forecast.

	Total value of all species (£'000)				
	2004	2005	2006	2007	2008*
NS and WoS over 24m single-rig	33,285	29,379	43,851	38,279	39,703
NS and WoS under 24m, >300kW single-rig	7,904	9,646	11,569	13,643	14,912
NS and WoS pair trawl/seine (any length)	21,669	24,681	29,829	27,859	27,433
NS nephrops single-rig	24,663	30,452	36,089	39,531	37,177
NS nephrops twin-rig	16,902	21,199	24,936	24,697	23,363
WoS nephrops single-rig	11,270	13,355	16,845	18,557	18,085
WoS nephrops twin-rig	3,676	4,899	5,640	6,640	6,568

Table A9.2. Comparison of total value of all species caught by vessels fishing over 50 days in each segment in 2004, 2005, 2006 and 2007 with the forecast total value of all species caught by vessels included in our 2008* forecast.

Appendix 10: Number of vessels included in analysis

	Number of vessels included in analysis				
	2004	2005	2006	2007	2008*
NS and WoS over 24m single-rig	39	37	36	34	30
NS and WoS under 24m, >300kW single-rig	23	22	20	23	20
NS and WoS pair trawl/seine (any length)	46	48	48	45	40
NS nephrops single-rig	128	130	127	130	99
NS nephrops twin-rig	53	55	52	53	48
WoS nephrops single-rig	124	130	120	120	112
WoS nephrops twin-rig	25	25	24	22	21

Table A10. Number of vessels fishing over 50 days in each segment in 2004, 2005, 2006 and 2007 with the forecast total number of vessels included in our 2008* forecast.

Appendix 11: 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.