

Table of Contents

1	The companies.....	5
2	The proposed merger.....	7
3	Rationale for the transaction	8
4	The Salmon Industry - an introduction	10
5	Market Mechanics - Demand side	14
6	Supply side considerations	17
7	Cyclicality and Industry Performance.....	26
8	Market Analysis	29
9	Market shares and share of supply	34
10	Addressing the OFT's theories of harm	38
11	Benefits of the transaction.....	50
	Appendix 4.1 Products produced from salmon	51
	Appendix 8.1 Price correlation analysis	53
	CONFIDENTIAL ANNEX A PAN FISH CONFIDENTIAL INFORMATION	55
	CONFIDENTIAL ANNEX B MARINE HARVEST CONFIDENTIAL INFORMATION	56
	CONFIDENTIAL ANNEX C BOTH PARTIES' CONFIDENTIAL INFORMATION	57

Executive Summary

This is a proposed merger of producers of seafood and particularly farmed salmon. The merged company will be a minor player in the supply of seafood. It will however be a market leading company within the narrower segment of farmed salmon. As things stand the merged firm would *produce* considerably more salmon than the next largest competitor. It would also *sell* more salmon than the next largest competitor.

The proposed merger will not, however, lead to a substantial lessening of competition in any market in the UK.

The parties overlap in the production of farmed salmon. Demand for and supply of salmon have grown significantly in recent years¹ and salmon has become an increasingly popular protein source because of the perceived health benefits of seafood and other low-fat proteins. In the supply of farmed salmon the parties estimate their share at **[25-35%]** in the EEA and **[20-30%]** globally. In the narrower segment of farmed Atlantic salmon the merged firm would have a share of around **[25-35%]** in both global and EEA supply. This is a share considerably below that usually associated with notions of dominance.

Of course market share tells only part of the story. There are and will continue to be constraints on the merged firm's competitive behaviour:

- salmon is a part of the larger seafood industry. Trade buyers and customers will usually supply a range of seafood products that compete with salmon products. The focus and weight of their product development, marketing and sales activities will be influenced by the relative prices of different seafoods. The ability of such companies to switch between suppliers and species is particularly developed in the seafood sector due to the inherent biological risks in fisheries and farming;
- there is competition between frozen and fresh salmon and between different species of salmon (such as Atlantic salmon and salmon trout) and with wild salmon as well;
- even when we look more narrowly at farmed Atlantic salmon there will remain other significant producers and suppliers;
- these include not just other producers such as Cermaq and Aqua Chile but also the significant exporters who intermediate in the EEA market such as Leroy, Coast, Norway Royal Salmon, Seaborn and others; and
- smaller suppliers will remain effective competitors and offer customers effective choice: The parties will show that sales are generally made in small volume parcels; that buyers and sellers are well informed about prevailing market prices; and that suppliers of all sizes can and do compete successfully and are able to offer continuity of supply and processing: this is not an industry where size is essential.

Clearly the OFT received - and the parties anticipate the CC will receive - expressions of concern about the proposed merger. However, a detailed investigation will show that the concerns and OFT's theories of harm are not capable of substantiation and that the industry will continue to be competitive. In particular:

- trade purchasers can switch away from salmon to other fish species;

¹ Around 10 per cent per annum over the past decade.

- customers can, do and will continue to, switch their sourcing of salmon from the parties to rival suppliers (in fact, customers will often have at least three suppliers);
- other suppliers are able to meet the competition from the merging parties now and there is no good reason to believe that they will not be able to meet that competition in the future. While the merging parties believe that they can obtain various cost savings through the combination of their operations, this does not mean that smaller companies are unable to provide effective competition. Small nimble players with a simple operation and low cost base can and do compete effectively with larger more integrated players;
- the salmon market is essentially a commodity market, governed by a single set of prices. Although there are some small variations in pricing between different customers (e.g. some customers fix prices by contract at a more or less advantageous time than others, etc.), and there is a small premium for Scottish fish, essentially all these prices are driven by a single set of market dynamics of supply and demand;
- if the parties were to try to raise price by reducing their sales of salmon, this would incur significant opportunity costs, whether a short or long-term withdrawal strategy was employed;
- the profitability of such a strategy would be further undermined by the sensitivity of customers to prices: a large number of academic studies of the industry have suggested that there is significant elasticity of demand (that is, customers are very willing to switch away from salmon – perhaps to alternative fish or other protein sources – if the price increases);
- importantly, any such strategy would also be undermined by the response of rivals. Rivals are responsible for very large exports of salmon to countries outside the EEA (Japan, the US, Russia, etc.) which would be likely to be diverted back to the EEA market if there were a local (EEA) increase in price, and also have significant spare capacity so could in the longer term increase production;
- the OFT raised questions about the merger's effect on large customers. Large customers are not particularly at risk: large customers with significant buyer power tend to multi-source their requirements and use a range of large and small suppliers to meet their needs;
- if large customers did wish to be served by larger suppliers, there is nothing to stop Norwegian exporters from expanding very quickly: either through merger or simply by contracting with a larger number of independent salmon farmers.
- the OFT's suggestion that the Merged Firm will be a residual monopolist and be able to set a monopoly price is therefore not well founded; and
- the Merged Firm could not achieve a restriction in supply in the long term because – in addition to the potential for export diversion and customer response, there is also significant potential for expansion by competitors. These factors act together to make such a strategy futile.

So far as concerns customers who are unwilling to use any salmon other than Scottish salmon, the concern has been and no doubt will be raised that the Merged Firm could price discriminate against them. The parties believe that concern is not supported by a detailed consideration of the facts. First, given that Scottish and Norwegian salmon are now largely identical products, customers will be more willing to switch to salmon from Norway or other countries. Moreover,

customers that are not prepared to switch between Scottish and Norwegian salmon are likely to be difficult to target with higher prices in practice, because:

- they can be difficult to identify (particularly where customers are engaged in more than one use of salmon) and multi-source their requirements from the parties and other suppliers;
- they are capable of supply by a range of competitors;
- they can therefore defeat any attempt to discriminate against them by seeking alternative suppliers;
- competition for such custom would therefore drive down prices;
- consequently even any such customers that could be identified would be protected by the ability of rivals to focus on serving "captive" customers if the parties did try to implement a targeted price increase; and
- significant spare capacity and new, higher biomass consents for efficient farms mean that existing Scottish producers will be able rapidly and economically to increase production to meet demand for Scottish salmon.

The parties believe that the level of third party concern about the merger has been driven by increasing prices of salmon in recent months. These increases have **not** been the result of a destruction of fish or postponing harvesting to reduce supply levels (as would need to be the case if they had resulted from the merger). Rather they stem from low smolt release in 2003/4 (during a period of particularly low salmon prices and poor profitability) combined with strong demand. These decisions clearly predate the merger and cannot be said to be caused by it.

Leaving aside the absence of detriment arising from the merger, the CC should note that the proposed merger would have benefits. The Scottish salmon industry in particular is high cost compared to Chile and Norway. The proposed merger would allow efficiencies to be achieved which would be beneficial for the long term sustainability of the Scottish industry.

Introduction to the Submission

Sections 1-3 describe the parties, the proposed merger and the parties' rationale.

Sections 4-7 describe the industry, market mechanics from the demand side; supply side considerations and industry cyclicalities.

Sections 8-10 address the issues of market definition, market shares and the parties' response to the theories of harm put forward by the OFT.

Section 11 discusses the efficiencies the proposed merger could be expected to generate.

Section 1

1 The companies

1.1 Pan Fish

Pan Fish ASA is a company incorporated in Norway and is listed on the Oslo Stock Exchange. Pan Fish's operative companies are Pan Fish Scotland (salmon farming), Pan Fish Faroes (salmon farming), Pan Fish Canada (salmon farming), Pan Fish Norway (salmon farming), Pan Fish France (smokery), Kritsen (smokery) and Pan Fish Japan (sales office). Following its acquisition in 2006 Fjord Seafood is now a subsidiary of the Pan Fish group.

Below is a short description of the principal subsidiaries.

Pan Fish Norway is an integrated salmon farming company covering smolt production, seawater production, primary processing and sales. The company has its head office in Ålesund and its operation on the north-western coast of Norway.

Pan Fish Canada is an integrated salmon farming company covering smolt production, seawater production, primary processing and sales. The company has its head office in Campbell River and its operation on the west coast of Canada.

Pan Fish Scotland is an integrated salmon farming company covering smolt production, seawater production, primary processing and sales. The company has its head office in Paisley and its operation in the area from Loch Eriboll in the northwest to the operational heartland in Loch Fyne and Argyll.

Pan Fish Faroes is a relatively small farming unit owned 75% by Pan Fish ASA. As Pan Fish does not own processing facilities in the Faroes, this stage of production is provided under contract by a partner in the islands. Sales and marketing activities are closely coordinated with Pan Fish Norway.

Pan Fish France is a smokery based in northwest France. Pan Fish France offers an extensive range of smoked salmon products, along with smaller volumes of other seafood products.

Pan Fish Japan is a small Tokyo based sales company owned 60% by Pan Fish ASA. The core activity is selling salmon produced by Pan Fish's farming operations, mainly Pan Fish Norway. Pan Fish Japan is also involved in trading a few other species, but the volumes are small.

The Kritsen Group is located in northwest France and consists of the Kritsen Landivisiau, Kritsen Châteaulin and Kritsen Pontivy units. Kritsen has an extensive portfolio of smoked salmon. The company also produces smaller volumes of other seafood products.

Pan Fish holds a minority position in A/S Aalesundfisk, a Norwegian exporter of seafood with no production of its own and smaller stakes in a number of other companies.

Fjord Seafood, now part of Pan Fish following its acquisition earlier in 2006, has operations in the following locations:

- United States: smoking, processing and sales. Fjord Seafood has a sales office in Miami, Florida and a smoke processing plant in Belfast, Maine. Fjord Seafood's products include fresh and frozen salmon products, smoked salmon and other

smoked seafood. Fjord Seafood also trades Chilean sea bass and mussels but does not produce these products;

- Chile: farming, processing and sales. Fjord Seafood produces fillets, portions, steaks and whole salmon, fresh and frozen. Sales are primarily to the US; the company also sells in Latin America and Asia;
- Iceland: processing and trading wild caught fish although these fish are not caught by Fjord Seafood;
- United Kingdom: farming and processing. Fjord Seafood's operations are located on the west coast of Scotland and Western Isles. The company is engaged in salmon farming in addition to some processing and smoking. The bulk of Fjord Seafood's production is delivered to Fjord Seafood's processing plants in Europe for further processing;
- France: processing and sales;
- Spain: sales;
- Norway: farming and sales. Fjord Seafood has several farming facilities producing mainly fresh and frozen salmon;
- The Netherlands: processing and sales; and
- Belgium: processing, distribution and sales.

1.2 Marine Harvest

Marine Harvest is owned by Stolt Nielsen and Nutreco Holding. The Marine Harvest headquarters are in Amersfoort, the Netherlands. This is the base for the Executive Board and for corporate activities such as finance and internal auditing, legal, information and communication technology and corporate communications and is also the Headquarters of Marine Harvest's European businesses.

Marine Harvest has production operations in eight countries on five continents:

- Marine Harvest Europe covering the production and processing operations in Norway, Scotland, Ireland, the secondary processing operations in France, Belgium and Poland and sales organised from sales offices in Norway, Scotland, France, Belgium and Spain.
- Marine Harvest Asia/Pacific covering sales in Japan and the rest of Asia and Australia, plus the production of yellowtail in Japan and barramundi in Australia.
- Marine Harvest North America covering the sales and marketing operations in the USA and Canada, and the production and processing operations in West Canada.
- Marine Harvest Chile covering the production and processing operations in Chile and sales in South America.

Marine Harvest holds a number of minority stakes in various fish farming companies.

In summary, Marine Harvest has fish farming activities in Australia, Canada, Chile, Ireland, Japan, Norway and Scotland.

Section 2

2 The proposed merger

The transaction involves the acquisition by Pan Fish of 100% of the shares in the Dutch company Marine Harvest (which has not yet been completed).

The structure of the transaction is summarised below:

- on 6 March 2006, Geveran Trading (“Geveran”) entered into a share purchase agreement (the “SPA”) with the owners of Marine Harvest (Nutreco Holding NV and Stolt Sea Farming Investments B.V.) for the purchase of 100% of the shares in Marine Harvest. Under the terms of the agreement, Geveran reserved the right to assign its rights and obligations under the agreement to Pan Fish.
- Geveran agreed to assign its rights under the SPA to Pan Fish on satisfaction of certain conditions by 24 March 2006 (approval by an extraordinary general meeting, adoption of a capital increase and the entering into of a guarantee and loan facility). Those conditions were satisfied on 24 March at which time the Pan Fish assignment agreement became final and binding. The acquisition by Pan Fish (as with the initial agreement entered into by Geveran) is conditional upon, amongst other things, all requisite clearances having been obtained by the competent competition authorities.

Copies of relevant transaction documents have been provided to the CC in the parties’ off-the-shelf material (see tab 4 of The 13 July response).

Section 3

3 Rationale for the transaction

3.1 Pan Fish

Pan Fish underwent a significant financial and operational restructuring which was finalised in 2005, following a period of financial turbulence. For Pan Fish therefore, acquiring Fjord Seafood and then joining forces with Marine Harvest will be significant milestones in establishing itself as a robust operator in the fish farming industry and enhancing its position as a low cost producer of quality salmon and an attractive company for investors. Pan Fish considers that the merged firm will be a driving force for the further development of the fish farming industry.

Pan Fish anticipates the merger may result in benefits including:

- **[SENSITIVE]**

3.2 Vendors

3.2.1 Nutreco

Nutreco received full support from its shareholders in December 2005 to sell its stake in Marine Harvest either through an IPO or via a trade sale. In support of this proposal, Nutreco presented the following analysis to its shareholders:

“Nutreco intends to use the proceeds from the proposed divestment to finance growth in its core animal nutrition and fish feed businesses in line with its “Rebalancing for Growth” strategy which was announced on 3 November 2004, the objectives of which were to enable the further growth of Nutreco’s two main business lines of animal nutrition and fish feed on the one hand and selective positions of the value chains of meat and fish on the other hand.

Since the establishment of the joint venture, market conditions in the fish farming industry have developed favourably due to strong salmon prices which have fuelled a renewed interest from investors, notably in Norway. The recent initial public offering success of Cermaq ASA, a peer of Marine Harvest, on the Oslo Stock Exchange at the end of October 2005, confirms the current period as a good time to initiate an IPO. In addition, valuations for salmon companies are steadily increasing spurred by a period of recent consolidation and the entry of major new investors into the Norwegian market. The Marine Harvest management team is now complete and the Company has made good progress with the integration process since the merger. These considerations led the Selling Shareholders, having received professional advice from reputable financial institutions, to conclude that an IPO of Marine Harvest is feasible and well timed and would enable the Selling Shareholders to realise value for their investment. A potential IPO of Marine Harvest is fully in line with Nutreco's “Rebalancing for Growth” strategy as announced on 3 November 2004, focusing on stimulating the growth of Nutreco's animal nutrition and fish feed business.”

Subsequent to receipt of this support, a dual track of preparing for an IPO or trade sale was pursued. Ultimately, Nutreco received an offer for sale of its interest to Geveran. That offer was accepted.

Section 4

4 The Salmon Industry - an introduction

4.1 Overview

In broad terms the salmon industry involves the following four stages:

- (a) Breeding and growing juvenile salmon (smolts): salmon eggs are harvested, hatched in specialized hatcheries and the fish are grown in fresh water, either in tanks, or cages in freshwater lochs. These plants may be separate from salmon farming, operated by specialist companies, although vertical integration with on-growing companies has become more commonplace.
- (b) Farming salmon to market size: smolts are transferred to seawater cages where they are kept until fully grown (4-5 kgs).
- (c) Slaughtering, gutting, grading, and packing the salmon to produce whole or headless gutted salmon: this is usually carried out by the salmon growers.
- (d) Processing the gutted farmed salmon to produce products such as fillets, steaks, smoked salmon, pre-prepared recipe meals or other products. This stage is often conducted by different companies in the UK, although filleting and portioning may be integrated with the gutting and grading process. For example, this is the case in Chilean processing plants. The products will then usually be sold to the retail or wholesale sectors.

The parties are active in all of these activities, although in addition:

- each party produces smolts for use in their own operations and smolts are purchased from third party suppliers only as and when required; and
- each party is active to a lesser extent in smoking operations and in the production of fillets, portions, smoked salmon and other salmon products.

4.2 Salmon Farming - an introduction

Each Autumn, broodstock are selected, and eggs are stripped from the parent fish, fertilized, and laid down in freshwater hatcheries. They are grown in freshwater through the alevin, fry and parr stages, being fed specialised feeds. At about 12 months old, fish are transferred to seawater salmon farms. Salmon are grown in anchored, floating cages in seawater. Thus salmon farms are located in seawater lochs or estuaries or in sheltered coastal bays. Fish are grown for a period of one to two years, during which time they are fed, may be size graded, and are then harvested. Usually, any one farm will grow fish of only one age class.² The marine phase of the growing cycle is a maximum of 24 months. After all the fish from a farm have been harvested, many producers allow a period of fallowing, in order to allow any build-up of pollution to dissipate and to reduce the spread of disease. In some areas, e.g. Scotland, during this period, the farmer has a statutory obligation to fallow the site for at least six weeks.

Production is influenced by water temperatures, weather patterns, broodstock and fish maturation. Grading of size ensures that any cage contains roughly similar-sized fish and

² The age class refers to the year in which the fish were put to sea, so all the fish at one farm are likely to be of very similar ages in Scotland.

that smaller individuals are not denied feed by dominant fish, and also allows some fish to be harvested early. This is desirable if they have prematurely reached maturity (i.e. have become ready to breed, at which time they cease to add body weight and lose flesh quality and pigmentation³: fish that reach maturity in their first year at sea are called grilse). Selective harvesting allows farmers to keep the total biomass of fish within the farm down to the levels prescribed in the site licences (the biomass may be restricted by licence due to environmental considerations; the licensing regime is described in section 6). In this way farmers can increase the production of the farm while staying within the biomass licence weight. A few of the best-performing fish may be retained, transferred to another site and grown as broodstock until sexual maturity. Eggs will then be manually stripped from them to be sent to a hatchery.

Given this life cycle and the implications for business planning, production plans are shaped up to four years before fish are harvested, though are refined and implemented up to 2 years before.

4.3 Processing

4.3.1 Fish slaughtering and initial processing

Once the salmon have grown to the required size they are harvested, slaughtered and then processed.

There are two main methods of fish slaughtering:

(a) On-site

On-site slaughtering facilities can be located at all salmon farms and consist of a workboat mounted table and slaughter machine capable of slaughtering 40 to 60 fish per minute which can be put together for a cost of between £40 - £50K. Every salmon farming company in Scotland has the ability to slaughter fish on-site.

(b) On-shore

On-shore slaughtering requires transporting live fish with well-boats to mobile or fixed processing plants. Well-boats are vessels designed specifically for the transport of live fish in the hold of the boat.

Mobile on-shore facilities are operated from lorry trailers and are used to slaughter fish as they are discharged from well-boats before being transported to processing plants. Marine Harvest and Pan Fish are the only salmon farmers using this method of slaughter.

In mainland Scotland, there are two fixed shore-based slaughtering facilities - one is located at Mallaig Harbour and the other at South Shian. The South Shian facility was opened in 2001 and is owned and operated by Scottish Sea Farms- slaughtering Scottish Sea Farm's own fish and a contracted quantity of fish for Lakeland Marine. The parties understand that Lakeland only uses the facility sporadically and for the sake of convenience because Scottish Sea Farms is also contracted for the packaging element in processing Lakeland salmon.

³ A pink flesh colour is usually considered essential for the product to be attractive to consumers.

As indicated above, the Mallaig facility is owned and operated by Marine Harvest and is used to slaughter its own fish and more recently a contracted quantity of Pan Fish's west coast salmon.

All other mainland Scottish salmon farming companies slaughter fish on-site. Within the Shetland Islands, there are a number of smaller salmon farmers who contract their processing operations through one of the two fixed based on-shore facilities in operation.

Processing usually involves gutting the fish, washing, grading, and packing with ice into 20 to 25 kg boxes for distribution or bulk containers containing 300kg for distribution. The maximum shelf life for fresh gutted salmon when refrigerated is between 13-16 days.

Many salmon farmers operate their own primary processing from sites located near their fish farms. Pan Fish and Marine Harvest both carry out their own primary processing, as do most of the larger farmers. Even those farmers with their own primary processing activities will sometimes contract out primary processing of their fish to third parties, often other farmers. Some smaller farmers are members of co-operatives, which carry out the primary processing on their behalf. In addition there are some independent companies that carry out primary processing either as a service for farmers or on their own account having purchased the slaughtered fish.

The product resulting from the farming and primary processing stages is fresh gutted farmed salmon. Gutted farmed salmon can be sold as a product in its own right either to the export market, traders, retailers or caterers. A description of the various products made by the parties from gutted fresh salmon is attached at Appendix 4.1.

4.3.2 Secondary processing

Further processing is carried out by specialist processors (who are usually not vertically integrated into salmon production) as well as some salmon farming companies. This stage of production involves making and packaging salmon fillets and steaks, and other products such as smoked salmon (which has historically been the most important processing sector), goujons, gravalax, smoked salmon pâté and so on. Some processors will also be heavily involved in processing other fish species.

In recent times, demand has been stimulated through the processing sector marketing a greater proportion of filleted portions rather than whole fish, and developing novel products, for example pre-prepared meals. The UK processing sector is viewed as the most advanced in this respect but with considerable future potential for innovation.

The parties are active to a very limited extent in this part of the production process in the UK, although they do have larger smoking and processing operations in France, Poland and Benelux and produce a limited number of other value added products for sale in the EEA. However, of the parties, only Pan Fish, through Fjord Seafood, has any material value added product ("VAP") production in the UK and none of the parties achieve significant sales of VAP in the UK.

4.4 Technical progress

Technical progress in the salmon farming industry has taken various forms. As the salmon's life cycle is naturally seasonal, a problem for salmon farmers is how to ensure that salmon can be harvested all year round. The seasonality of fish production has been reduced, such that harvesting can be phased over a longer period and supplies assured throughout the year. Smolt production has been modified through photoperiod manipulation, i.e. through artificial lighting to trick smolts into believing seasons have been accelerated. This allows a longer window for phased smolt transfer into salt water to benefit logistics, improve growth rates and reduce grilising. Selective breeding also allows different rates of fish maturation.

Selective breeding has also been used to optimize the health and growth rate of stock. However, as salmon farming has only been practised for about 35 years and the breeding cycle of salmon is 4 years, it can be seen that this is at an early stage. The industry has resisted any genetic modification techniques, despite potentially large gains in growth rates.

Salmon feed has improved with benefits to salmon production. A consistent pellet product allows automated feeding systems to be used, where feed is taken from land based silos or storage barges and automatically spread into the sea cage. Systems have also been developed to determine when the salmon have stopped feeding; either automatic sensors or television cameras detect feed falling through the bottom of the cage and end the feeding process. The quality of the feed, developed feed management systems and reduced wastage mean that feed conversion efficiency can at some stages now exceed 1:1 (i.e. the salmon add more body weight than the weight of feed they are given, because the feed is dry and the flesh contains water). The parties' normal feed conversion efficiency ratio is between **[SENSITIVE]** per kilogram of fish. This compares with a typical industry figure of around 1.20 in the Norwegian industry in 2004 according to a recent survey by the Norwegian Directorate of Fisheries. Therefore it can be seen that the parties' feed conversion rates are broadly in line with those found in the wider industry.

The equipment used in salmon farming has also developed. For example, the first farms used wooden cages. These were replaced by more robust metal cages, which are usually placed in groups, as the moorings required are substantial. Recently, circular plastic cages have been introduced which are cheaper, and can stand slightly more exposed sites. Potential future developments (offshore farms and cages enclosed in bags to limit environmental concerns) are also being considered.

There have also been significant improvements in healthcare to combat disease issues, although disease and the ensuing mortality of fish still have a significant impact on production levels. Greater efficacy in feeding, vaccination and medicine application has reduced pollution, while there has also been progress in effluent management from freshwater hatcheries.

In the longer term, there is potential for the development of large-scale farming of new species, for example halibut and cod. This may open up new market and production opportunities, but may result in some salmon farming sites being transferred to alternative products.

Section 5

5 Market Mechanics - Demand side

5.1 How sales are made

5.1.1 Spot / Contracts

(i) Spot Market

Pan Fish believe that most salmon trading occurs via “spot”⁴ trades with negotiations conducted on the phone between large numbers of interested customers and suppliers. The customer may choose its preferred supplier almost daily weighing up each supplier’s offer against others. If a supplier decides not to follow the market price, and attempts to achieve a higher price for its products, it will generally lose sales and may in fact not be able to make any sales until its prices are more in line with current market conditions. Prices are generally set by reference to extensive knowledge among buyers and sellers about prevailing market prices. The FHL (Fiskeri og Havbruksnæringens Landsforening (Norway Seafood Federation), <http://www.fhl.no>) price provides a record of export spot prices from Norway. There are a number of regular reports on price trends (see the off the shelf material). Increasingly there are also financial derivatives markets linked to salmon pricing as well. Such derivative products are provided by Direct Hedge and Fish Pool.

(ii) Contracts

Customer contracts are negotiated between producers and customers. Customers negotiate with a number of suppliers for differing volumes in order to achieve the most favourable price. There is not typically a formal competitive tendering procedure except in relation to some customer segments, for example, for supply to large retail customers.

Major customers tend to contract a proportion of their required volume and purchase any remaining requirements on the spot market. Indeed, many contracts fix volume levels and agree prices for these volumes by reference to FHL prices. The percentages of sales under contract vary depending upon key customer requirements, supply capability and market conditions (usually somewhere between 20-60% of a customer’s requirements). Most customers have contracts with a number of suppliers at any one time.

Contracts are usually agreed for a fixed period of 3, 6 or 12 months. Contracts tend to have a fixed volume and a fixed price, but there can be an element of flexibility added in to contracts to ensure that the contract mutually benefits both parties (e.g. a price increase or decrease of a certain percentage may be agreed in advance if prices increase or fall dramatically on the spot market).

Negotiations between producers and the customers are usually carried out on a partnership basis. This means that producers and customers agree contractual terms with an element of flexibility to ensure a good working relationship. For

⁴ (In its report into the Nutreco/Hydro merger the CC preferred the term uncontracted sales. In industry parlance the phrase spot market is used - and will be by the parties.)

example, customers may be allowed to cancel or reduce deliveries if market sales are slow or producers may be allowed extra time for delivery in case of extenuating circumstances such as severe weather.

(iii) UK / EEA

A description of the parties' sales via contract and on the spot market is set out at Confidential Annexes A and B as listed below.

[SENSITIVE]

[SENSITIVE]

5.1.2 Description of the different types of EEA buyer

Buyers of salmon in the EEA can be classified into a number of categories, including wholesalers, retailers, smokers, food processors and other miscellaneous buyers who purchase whole salmon and carry out further processing (e.g. filleting, portioning etc). Major purchasers are larger processors and smokers or food service groups such as **[SENSITIVE]**

(i) How they buy

Exporters

In the EEA market, and Norway in particular, there are a number of large exporters who compete directly with Pan Fish, Marine Harvest and their competitors. These large exporting organisations tend to source their supply from a number of different producers, in effect offering an intermedial role aggregating supply from farmers of various sizes. **[SENSITIVE]** They are therefore already able to meet all or a significant part of the needs of all buyers. If customers ever had a need for larger suppliers, these exporters could simply contract more salmon from a larger number of producers.

Scale of Purchaser

Most buyers of salmon procure less than **[SENSITIVE]** tonnes of salmon a year in total (from all suppliers).

Multi-sourcing

Customers tend to multi-source or to be able to multi-source from a range of suppliers. Even the larger ones often buy small amounts from each (e.g. **[SENSITIVE]** tonnes WFE annually), and there are very few customers who take more than **[SENSITIVE]** tonnes from a single supplier annually, so smaller producers are and will remain viable competitors to the merged entity.

Further details are set out in Section 10 below.

(ii) Key buyer characteristics

Customers in the market for salmon typically exhibit the following characteristics:

- Switching is common in response to small difference in prices, quality or terms (although this can be difficult to identify because of the tendency to multi-source).

- Customers often threaten to switch supplier.
- Customers are very willing to change mix of suppliers, volumes purchased from different suppliers, mix of spot and contract purchases, etc.

As indicated above, the nature of salmon trading makes it difficult to provide many specific examples. **[SENSITIVE]**

Section 6

6 Supply side considerations

The European salmon industry is characterised by a very large number of producers, who sell either directly to final customers, or via exporters. These producers will make supply decisions based on a variety of factors, and are constrained in their maximum production only by legal restrictions on the amount of salmon that can be produced from a given site (UK) or by a given producer (Norway). Sales to final customers are then made on either a spot or contract basis.

In the rest of this section we describe the producers present in the industry; we then look at the capacity available to these producers (and the systems determining that capacity in the UK and Norway: Europe's two largest salmon producing countries).

6.1 Producers

6.1.1 Scottish producers

Numerous Scottish salmon-producing companies compete in the market for the provision of farmed salmon, including Scottish Sea Farms (which is 50% owned by Lerøy Seafood), Hjaltland Seafarms, Lakeland Marine, Loch Duart, Orkney Seafarms, Salmac, Mainstream, Aquascot, and West Minch/Hebrides Harvest, amongst others. The 2005 estimated production levels of farmed salmon (including salmon trout) of the largest Scottish producers is summarised in the table below.

Table 6.1 – 2005 estimated production levels of farmed salmon

Company	Scotland Estimated 2005 harvest
Marine Harvest	35,600
Scottish Seafarms	23,000
Pan Fish	14,463
Hjaltland Seafarms Ltd.	12,000
Mainstream	6,900
Lakeland Marine (Marine Farms)	8,500
Fjord Seafood	5,149
Salmac Sales	5,000
Orkney Seafarms	4,000
Loch Duart	3,500
West Minch / Hebrides Harvest	2,500
Others	888
Total	121,500

Source: Kontali

6.1.2 Norwegian producers and exporters

Significant Norwegian producers include Lerøy, Mainstream, SalMar, Sjøtroll, Veststar, Seafarm Invest [SENSITIVE] Nord Laks, Sinkaberg Hansen, Firda Management, Grieg Seafood, Hydrotech Gruppen (with a 39% shareholding by Lerøy), Alsaker Fjord Holding, and Fjordlaks as well as a large number of smaller

players. The table below shows the largest producers of farmed salmon (including salmon trout) in Norway in 2005.

Table 6.2 – 2005 largest producers of farmed salmon in Norway

Company	Norwegian producers Estimated 2005 harvest
Marine Harvest Norway AS	99,627
Lerøy Midnor /Aurora AS	43,000
Pan Fish ASA	39,100
Fjord Seafood ASA	38,856
Salmar AS	27,000
Seafarm Invest AS*	26,000
Austevoll (Veststar AS)	21,000
Sjøtroll Havbruk AS	20,000
Cermaq ASA (Mainstream)	19,000
Nordlaks AS	16,000
Alsaker Fjordbruk m. døtre	14,000
Hydrotech Gruppen AS*	13,000
Grieg Seafood AS	12,000
Fjordlaks Aqua AS	11,000
Firda Management AS	8,000
Senja Sjøfarm AS	7,500
Fossen AS	7,000
Sinkaberg Hansen AS	7,000
Volden Group AS	7,000
Bolaks AS	7,000
Others	186,917
Total	630,000

Source: Kontali

Many of these producers make use of exporters to carry out their marketing and distribution activities: important exporters include Lerøy (which exports its own production as well as that of other farms), Coast, Norway Royal Salmon, Seastar, Seaborn, Sekkingstad and Norwell, amongst others. The table below shows the largest Norwegian exporters of farmed salmon (including salmon trout) in 2005.

Table 6.3 – 2005 largest Norwegian exporters of farmed salmon

Company	Norwegian exporters Estimated 2005 sales
<i>Lerøy Seafood Group</i>	[SENSITIVE]
<i>Marine Harvest</i>	[SENSITIVE]
<i>Fjord Seafood</i>	[SENSITIVE]
Coast Group	[SENSITIVE]
<i>Pan Fish</i>	[SENSITIVE]
Norway Royal Salmon	[SENSITIVE]
Seaborn	[SENSITIVE]
Austevoll (Seastar International)	[SENSITIVE]
Sekkingstad	[SENSITIVE]
Norwell	[SENSITIVE]
Mainstream / Follalaks	[SENSITIVE]
Gaia Seafood	[SENSITIVE]
Fjordlaks	[SENSITIVE]
Norsk Sjømat	[SENSITIVE]

Company	Norwegian exporters Estimated 2005 sales
Polar Quality	[SENSITIVE]
Silver Premium Seafood (West Fish Norwegian Salmon)	[SENSITIVE]
Nils Williksen / Prilam	[SENSITIVE]
Orion Seafood	[SENSITIVE]
Troika Seafood	[SENSITIVE]
Nye Terra Seafood	[SENSITIVE]
Other	[SENSITIVE]
Total	[SENSITIVE]

Source: Kontali

6.2 Production capacity and capacity utilisation

It is not straightforward to estimate either the total production capacity of the industry nor capacity utilisation (or even capacity of the parties due to the fact that capacity limitations are not directly linked to production quantities). It is also clear that since the salmon farming industry is relatively young, capacity has increased as the industry has developed. To illustrate, we know that ten years ago the total annual production of farmed salmon in Europe was about 300,000 tonnes and experts estimated that this was close to the maximum capacity utilisation possible. Today, annual production in Europe is more than 700,000 tonnes and is still increasing.

6.2.1 Drivers of capacity utilisation

Capacity utilisation for salmon production at a given site depends on a number of factors. Utilisation of available consent is dependent fundamentally on market prices relative to the costs of operating each site (with these costs in turn assessed on the basis of the technical characteristics of each site, location relative to processing facilities and markets, etc.). Therefore a site may historically have been poorly used due to factors such as:

- Poor location of a site in relation to the company's other sites (e.g. [SENSITIVE] This site is not currently used for logistical reasons as it is not located in proximity to other Pan Fish Scotland operations). At its simplest, there are significant economies in the use of well-boat and feeding mechanisms where the assets can be deployed over a "cluster" of neighbouring fish farms;
- Poor environmental performance of a site; or
- Size of a site (e.g. some smaller sites – particularly if distant from other sites owned by the same firm – may have high operating costs, due to a lack of scale economies).

However, all sites are in principle usable: the only question is whether prices prevailing in the market make their usage commercially viable.

In the shorter term, whether utilisation is maximised at a given site depends on the production characteristics of the site. In particular, escapes, storm damage and disease can severely damage utilisation at a given site (for example, if fish are lost to diseases such as the IPN virus in their first year).⁵ In addition, site management

⁵ Note that there is now a vaccine available for the IPN virus which is expected to improve survival rates.

factors such as feed conversion efficiency and stock management will impact on the stock being graded and harvested in order to produce as high a tonnage from the numbers of stocked fish as possible. Maximising the utilisation of each site will also require harvesting fish of a particular size.

When looking at the capacity figures reported below, therefore, it is possible that a utilisation figure of less than 100% may be found, despite the site at that time being fully utilised in the sense that it is unable to harvest more fish in the short term. For instance, if due to disease part of the smolt population of a harvest is lost, the total harvested weight of fish will be less than the consented biomass for that site, and hence the utilisation of that site will be less than 100% despite it not being possible to utilise the extra capacity at that time. However, in the long-run 100% capacity utilisation is possible.

6.2.2 Capacity and Utilisation in Norway

(i) Current licensing system

In Norway, production capacity is driven by the award of licenses. In January 2005, the Norwegian licensing system changed from one based on feed quotas to one based on Maximum Standing Biomass. Under the old licensing system, “capacity utilisation” (i.e. feed used as a share of feed quotas awarded) was 100%. Norwegian law limits one corporate group to holding no more than 25% of all licences. Although a licensee can then buy more fish from other licensees, this means that 75% of Norwegian capacity will be owned by parties other than the merged firm.

The new licence system has greatly increased available capacity in Norway. This additional capacity has not yet been utilised, but clearly will be used (requiring only modest investments in production equipment) if prices are at a level that makes such use commercially attractive. To some extent the current underutilisation reflects simply the recent increase in effective capacity, with the resulting increase in smolt release not yet reflected in harvest numbers. Moreover, there is further potential to increase the number of licences granted to Norwegian producers.

Under the new licensing system a total of 900 licences are issued, and each licence can carry a maximum biomass⁶ of 780 tonnes live weight or about 700 tonnes whole fish equivalent (“WFE”) weight. Norwegian biomass consents are not directly linked to one specific site and can be applied for up to six different sites. Typically, Norwegian biomass consents are registered on three or four sites. As explained below, this difference means that biomass consent limit utilisation levels are much higher in Norway than they are in Scotland on an annual basis.

In Norway, salmon farmers use a variety of sites to ensure a constant source of salmon ready for harvest. Therefore, salmon across the spectrum of development may be reared in various sites under applicable biomass consent licences to ensure that the total biomass of fish across the relevant sites is continuously near the consented biomass limit. This results in annual production tonnage related to a single licence that will normally exceed the actual biomass limit that may be held on the licence at any one time (e.g. the consented biomass limit) potentially by a ratio of around 1.7 to 1 (a ratio that is achievable on average across the business).

⁶ Biomass is the weight of fish on site, which varies through the on-growing phase.

This ratio is known as the production to maximum consented biomass ratio (“PMB”) and is the result of the way in which in Norway biomass consents are not directly linked to specific salmon farming sites. In effect, the maximum biomass per licence in Norway of 780 tonnes (700 tonnes WFE) is equivalent to an annual production capacity of between 1,000 to 1,300 tonnes. The total currently licensed production capacity in Norway based on the existing 900 licences is therefore in the range of 900,000 tonnes to 1,170,000 tonnes.

(ii) Current capacity utilisation

By contrast to the available capacity of 900,000 to 1,170,000 tonnes, in 2005, the total production of farmed salmon in Norway was 630,000 tonnes. This gives a capacity utilisation in the range of 54% to 70%. It is important to note that this calculation is only based on existing licences. It is expected that the Norwegian Government will issue new licences in the years to come, assuming the market for salmon continues to develop positively. Of the current licences:

- Pan Fish in Norway has [SENSITIVE] fully owned licences and based on the assumptions above, its production capacity is in the range of [SENSITIVE] tonnes per annum. Production in 2005 was [SENSITIVE] (including production from Acquafarms sites acquired during 2005).⁷ Pan Fish Norway’s capacity utilisation therefore was in the range of [SENSITIVE]
- Marine Harvest in Norway has [SENSITIVE] fully owned licences and based on the assumptions above, its production capacity is in the range of [SENSITIVE] tonnes. Production in 2005 was [SENSITIVE] tonnes. Marine Harvest Norway’s capacity utilisation was therefore in the range of [SENSITIVE.]
- Fjord Seafood in Norway has [SENSITIVE] licences, with capacity in the range [SENSITIVE] Production in 2005 was [SENSITIVE], giving a capacity utilisation of between [SENSITIVE]

The following table summarises capacity utilisation in Norway:

Table 6.4 – Capacity utilisation in Norway

[SENSITIVE:

⁷ In the submission to the OFT the production figure given here was an annual production of [SENSITIVE] rather than [SENSITIVE] so the OFT submission somewhat overstated Pan Fish’s spare capacity and understated that of third parties. The harvest figures of Marine Harvest and Fjord Seafood have also been updated to take account of the latest available information, but the changes are relatively small.

	Licences	Harvest 2005 tonnes	Capacity low	Capacity high	Utilisation low cap	Utilisation high cap
Marine Harvest						
Pan Fish						
Fjord Seafood						
Total Parties						
Norwegian Industry						

This results in an overall Norwegian capacity utilisation for the parties of around **[SENSITIVE]**, leaving third parties with spare capacity out of proportion to their current production share. **This implies spare Norwegian capacity of between [SENSITIVE] tonnes currently in the hands of rivals to the merged firm.**

(iii) Future capacity utilisation developments

In Norway, the current level of capacity utilisation is a result of the less favourable state of the market in recent years with lower smolt release in 2003/2004 impacting on current production levels and the introduction of a new licensing system which has greatly increased the available level of capacity. The parties expect that over time it is possible to achieve full utilisation; i.e. of 100% capacity. In order to achieve this, however, there would need to be a relatively modest increased investment in smolt supply and processing which will only occur in line with the expansion of production.

(iv) Future capacity developments

There is significant scope for further expansion of capacity limits in Norway. The move from a very restrictive feed-quota based capacity restriction to a significantly less restrictive licence for production quantities indicates a move away from highly regulated industry structure. However, the parties do not believe that the current capacity limits are in fact based on any physical restriction based on Norway's geography and environment, and therefore there is no reason why capacities embodied in the production quotas would not be increased if production were to approach the current limits.

6.2.3 Capacity and Utilisation in Scotland

(i) Current licensing system

In Scotland the licensing system is very different from Norway. Individual site biomass is governed by environmental concerns: namely the assimilative capacity of the local marine environment (sediments and water column in the vicinity of the site). As a consequence individual site biomass is not uniform, but varies between less than 100 tonnes to greater than 2,000 tonnes depending on individual site characteristics. These figures are given as Maximum Standing Biomass (Maximum

weight of stock held on site at any one point in time, “MSB”) and to convert this into estimated production capacity a common multiplier of 1.7 per two year cycle is used (reflecting the expected performance of a typical site). The multiplier is dependent upon smolt input strategy, survival, growth, harvest strategy and cycle length but in practice 1.7 is achievable as an average.

The length of the production cycle at any individual site varies between 20 and 22 months not including fallowing time for cleaning after a final harvest in the last 12 months of this cycle. Therefore, in order to maintain annual production levels, salmon farmers require a minimum of two sites each that can be stocked in alternate years and will each produce fish every second year on a rotating basis. So for example, a supplier with two sites, each of maximum standing biomass of 1,000 tonnes, stocked in alternate years, will result in an estimated production capacity in the region of 1,700 tonnes of fish every second year (given a common multiplier of 1.7 per two year cycle).

Given that the total consented MSB in Scotland is 348,000 tonnes, this gives a theoretical annual production of 296,000 tonnes (348,000 tonnes * 1.7 / 2 years).

(ii) Current capacity utilisation

In 2005 the total production of farmed salmon in Scotland was 121,500 tonnes (based on figures from Kontali Analyse). This gives a capacity utilisation of 41% of the maximum capacity of 296,000 tonnes. Of this overall capacity:

- Pan Fish in Scotland produced in 2005 [SENSITIVE] tonnes from its [SENSITIVE] tonnes of Biomass Consent. Total estimated production capacity therefore is [SENSITIVE] tonnes, giving a capacity utilisation of [SENSITIVE]
- Marine Harvest in Scotland produced in 2005 [SENSITIVE] tonnes. The estimated production capacity using all available consent by the company is [SENSITIVE] tons, from its [SENSITIVE] tonnes of MSB giving a capacity utilisation of [SENSITIVE]
- Fjord Seafood in Scotland produced [SENSITIVE] tonnes in 2005, representing a capacity utilisation of around [SENSITIVE] of its overall capacity of [SENSITIVE]

The table below summarises the position in Scotland.

Table 6.5 – Capacity utilisation in Scotland

[SENSITIVE]

	Max biomass	Harvest 2005 tonnes ⁸	Capacity	Utilisation
Marine Harvest				
Pan Fish				
Fjord Seafood				
Total Parties				
Scottish Industry				

]

This results in a capacity utilisation for the parties of around **[SENSITIVE]** using the same methodology. **This implies spare Scottish capacity of around [SENSITIVE] tonnes currently in the hands of rivals to the merged firm.**

(iii) Recent capacity utilisation in Scotland

In the past, poor capacity utilisation has been attributable to lower volumes of smolts put to sea due to financial constraints which occurred when salmon prices were lower than their current levels.

In Scotland, Pan Fish currently operates single generation site stocking⁹, with **[SENSITIVE]** of capacity unused for practical reasons such as unfavourable site location and/or scale, and a PMB of **[SENSITIVE]** at many sites. Currently therefore a capacity utilisation rate of **[SENSITIVE]** is sustainable. This equates to a utilisation rate of **[SENSITIVE]** of useable capacity. Pan Fish is currently working towards achieving an equivalent utilisation rate for both total and useable capacity, and hence intends to have a total utilisation rate of **[SENSITIVE]** in the future. This will be achieved via improvements in smolt quality, husbandry and site management. With such improvements Pan Fish expects that a PMB of **[SENSITIVE]** and above, and a corresponding utilisation rate of over **[SENSITIVE]** is achievable. It is expected that this will be achieved within 18 months to 2 years, but the rate of development may differ between sites.

The parties do not have information on competitors' plans for capacity utilisation in the future, but expect that they will achieve similar rates to those indicated above.

(iv) Future capacity developments in Scotland

There is also scope for capacity increases beyond current consents at certain Scottish farms. A wide variety of firms (including the parties but also independent players) have obtained or are in the process of obtaining new site licences in Scotland and Norway in recent years. 5,000 tonnes of extra consent was granted in the period from March 2005 to April 2006.

Expansion has also been encouraged by a change in the SEPA (Scottish Environment Protection Agency) model used to calculate the MSB for sites. SEPA revised the model used to assess the maximum biomass that a particular site can sustainably hold in 2005. This model calculates the maximum sustainable biomass

⁸ Fjord's figure in the OFT submission mistakenly excluded harvested fish used internally for smoking. Pan Fish's figure has also been updated, but the difference is small.

⁹ I.e. only one generation of fish is held at a particular site at any one time.

of a site on the basis of a variety of factors: current speeds, depth and the size and layout of the salmon cages. Therefore, when the model is revised, there may be scope to increase the maximum biomass permitted (and so its production) by switching the cage grid dimensions and layout to one more favourable to the requirements of the updated model. Any such changes would be subject to a full application to SEPA for a revised biomass consent. It would also all have to be carried out within the confines of the existing total consented cage area and seabed lease area, or else a revised planning consent would be required. However, this change in SEPA's model has if anything increased the scope for production increases at existing sites.

This has resulted in significant applications for capacity increases, both from the parties and – the parties believe – from other Scottish producers. Moreover, there is no maximum limit to the number of consent licences granted each year. Salmon farmers as well as third parties are able to find stretches of water and apply to the Crown Estate for a lease and to SEPA for a maximum biomass consent licence. New technologies in cages and feed systems make exposed areas more practicable for salmon farming and this will also increase future capacity developments in Scotland.

6.3 Barriers to Entry

Both the Scottish and Norwegian fish farming sectors are characterised by large numbers of independent fish farmers. In the presence of so many players and significant spare capacity, expansion in this industry is unlikely to come from *de novo* entry but rather from the expansion and consolidation of existing fish farms. While in the past there are few examples of new entry, this has been driven by the poor profitability of the industry and lack of incentive to consolidate (particularly during earlier periods of heavy regulation in Norway).

If prices were to increase (leading to an improvement in industry profitability) then there is no reason to expect that barriers to entry would prevent a supply response from competitors. There are other salmon production companies with the logistical and financial means to expand production, and increases in licensed capacity are occurring in both Norway and Scotland. Even without any further increase in capacity, spare capacity in third party hands currently amounts to around 365,000 to 570,000 tonnes.

So far as the parties are aware the availability of inputs, feed and processing capacity will not operate as a material barrier to expansion anywhere in the EEA.

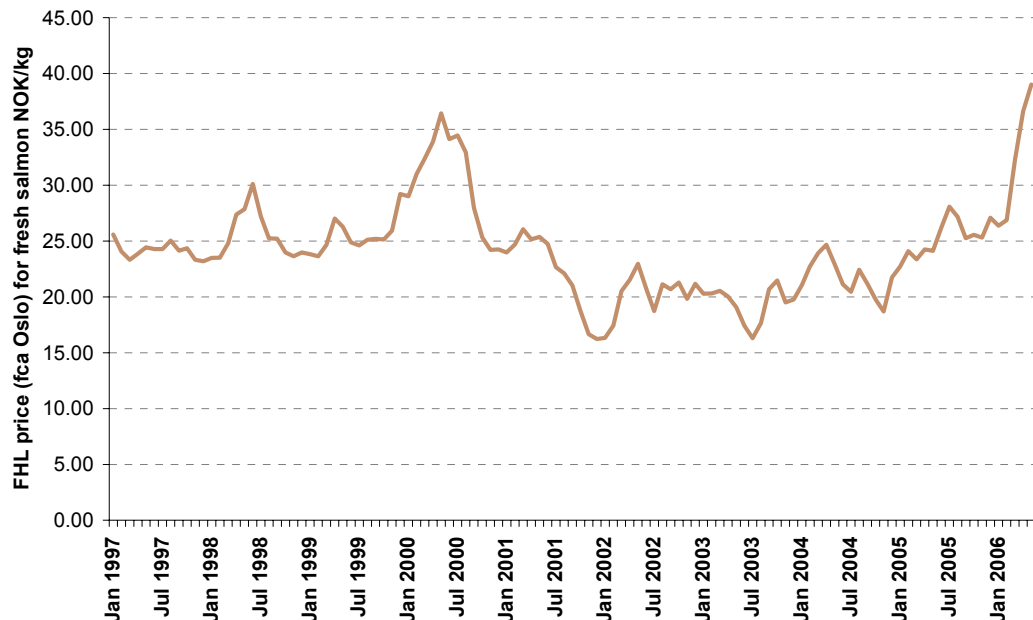
Section 7

7 Cyclicity and Industry Performance

7.1 History of cyclicity in the salmon industry

It can be seen from reading many of the materials relating to the salmon industry (and the parties' off the shelf materials) that the cyclicity of prices and production is a crucial commercial issue. Farmed salmon production is a cyclical industry with protracted periods of tight margins and low profits, but with intermittent short periods of very high prices and large profits. These occasional "spikes" in prices (particularly in 2000 and 2006) can be seen in the chart below, which follows monthly FHL prices from 2000 to the present day. By contrast, it can be seen that the period 2002-2003 was characterised by sustained low prices.

Figure 7.2 – Developments in fresh salmon pricing 1997 - 2006



Source: Norwegian Seafood Commission (FHL) Provided by Pan Fish

Previous price cycles were seen in earlier periods: with high prices in 1993 and 1988, and low prices in the intervening periods. The high prices observed today – as with these previous price spikes - are not a result of deliberate reduction of output, but are caused by the cyclical nature typical of many agricultural product industries. These industries (as salmon farming) tend to be characterised by a significant lag between the decision to produce and the final harvest, and this lag between production decisions being made and demand conditions being observed can lead to swings between over- and under-production over time. This phenomenon has been widely explored in the economic literature on "cobweb", "corn" and "hog" cycles. The impact of these cycles has been reinforced, particularly in relation to the Norwegian industry, by the availability of finance (in particular debt finance) in good periods and its withdrawal or restriction at the bottom of a cycle. Decreases in the financial gearing of industry participants and the sourcing of finance from global capital markets rather than local debt markets (e.g. the listing and

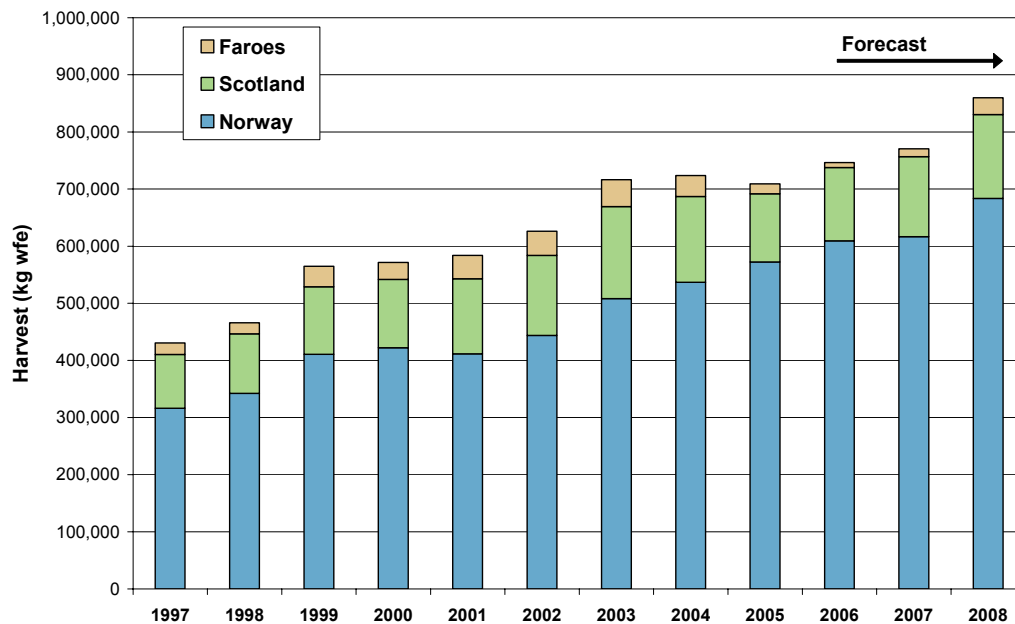
partial privatisation of Cermaq and the re-financing of Pan Fish may to some extent improve the situation going forward but is unlikely to address the underlying level of cyclicity.

As described above, in the salmon industry this lag period is approximately 3 years from egg purchase, and around 18 months from smolt release. Salmon producers (as with most industrial participants) are vulnerable to such periods of low prices and generally result in a lack of confidence in the industry. In 2003, this was highlighted by the difficulty salmon farmers had in obtaining finance for investments in eggs, smolt and feed. As a result, farmers in Norway and Scotland reduced the numbers of smolt put to sea in 2003 and farmers in Scotland reduced smolt release further in 2004.¹⁰ The reduced numbers of smolts put to sea in 2003 resulted in a 20% drop in the Scottish salmon harvest in 2005 and a slowing of growth in Norwegian harvests. This period of reduced salmon production coincided with growth in consumer demand for salmon products in the EEA. This growth can be attributed to several factors, including general promotion of fish and shellfish as part of a healthy lifestyle, new product offerings (such as wide ranges of chilled products) and consumer concerns about BSE and avian influenza. At the EEA level, Kontali reports shows that production of farmed salmon was relatively static in 2003 and 2004, with only a small reduction in production of around 2% in 2005 compared to 2004.

Kontali figures on salmon harvests from Norway, Scotland and the Faroes also illustrate this pattern of events. They show very clearly the significant increase in harvest in 2003 that generated the negative profitability suffered by the industry at that point. They also show that production over the last 3 years has been essentially flat. It is this flat supply, combined with growth in demand, that has led to the price increases seen today. The inclusion of Kontali forecasts of future harvest levels indicates that over the next few years output is expected to increase (reflecting smolt release decisions being made today). Unless demand grows to keep up with these supply increases, prices will fall once more.

¹⁰ Kontali

Figure7.2 – Norwegian, Scottish and Faroes annual harvest 1997 – 2008 (2006-2008 forecast)



Source: Kontali, provided by Pan Fish

Therefore, while several factors seem to have contributed to the large drop in salmon prices in the summer of 2003, at a basic level, the drop can be attributed to an increase in production that did not correspond with a comparable increase in demand at that time.

7.2 Implications of cyclicity for consumer and general economic welfare

The presence of cyclicity in this market is fundamentally inefficient, and benefits neither consumers nor producers. The results include:

- Consumers paying high prices at the peak of the cycle (shutting out consumers who value the fish well above the cost of production), and very low prices at the trough (meaning salmon is sold to customers who value it less than the cost of production);
- At the trough of the pricing cycle firms are driven into bankruptcy, and even firms that are efficient will be loss-making;
- The possibility that even efficient firms may be forced out of the market makes it a riskier industry for investors, and raises the cost of capital for the industry (which in turn will delay product development, investment, and R&D);
- There are also wider social and economic implications in the regions in which fish farming is carried out, where fish farming is often the largest local employer (particularly once secondary job creation – e.g. jobs at suppliers – is taken into account).

Therefore the price peaks and troughs associated with the instability of this market are economically inefficient, leading to a waste of resources and lower welfare for consumers and producers alike. This explains the keen interest of industry observers in the timing and scale of future cycles.

Section 8

8 Market Analysis

8.1 Product market definition

8.1.1 Other seafood and other proteins

Although salmon is a distinct product, the parties consider the supply of salmon to compete with other species of fish, and within a wider market for protein which includes, amongst other things, chicken and red meat. Such products will, to varying degrees but a greater degree as regards other species of fish, be considered by consumers as viable substitutes for salmon should the price of salmon increase. Professional buyers and customers can, at least to some extent substitute between different seafood species. They tend to supply an extensive range of seafood products that compete with salmon products and their product development, marketing and sales activities will be influenced by relative prices of different species.

8.1.2 Salmon

Salmon is a commodity, with the market for salmon functioning in a similar manner to many other commodity markets. Salmon is farmed but also caught as wild salmon. Wild salmon (primarily Pacific salmon) is bought and sold in the same markets as farmed salmon and competes directly with it. Farmed salmon includes several different species such as Atlantic Salmon, salmon trout and Pacific salmon (such as Coho salmon and Chinook salmon). The various species of salmon are substitutable.

So far as concerns Atlantic salmon, that product is technically generic regardless of origin, having the same genetic make-up, and exhibiting largely the same characteristics whether it be produced in Norway, Scotland, Canada or Chile. It should be noted that historically Scottish salmon exhibited distinctive traits. In particular, Scottish salmon when compared with for example Norwegian salmon, tended to be leaner, with flesh of a deeper coloured red, largely due to differences in feed specification (e.g. lower fat content and higher pigment content). Current differences, if any, between Norwegian and Scottish salmon are perceived and not real. This is evident from the production process, where ova are generally shipped from Norway to Scotland for smolt production, hence producing Atlantic salmon that are genetically identical to those farmed in Norway. In addition, salmon feed used in Norway and Scotland is now very similar. These factors all contribute to the production of what is now a 'global' salmon, proven also by consumers' inability to distinguish salmon of Norwegian and Scottish origin in blind taste tests.

8.1.3 Previous market definition decisions

In the European Commission (the "Commission") decision concerning Nutreco's and Stolt's establishment of Marine Harvest (Case No COMP/M.3722, dated 12 April 2005) and in Commission Regulation 206/2005 the Commission considered market definitions relevant to the salmon farming industry. Market definition was

also considered by the Competition Commission (the “CC”) in 2000, when it considered the merger between Nutreco Holding N.V. and Hydro Seafood GSP Ltd.

In the 2005 *Marine Harvest JV* case the European Commission found that the appropriate market was farmed salmon within the EEA with no further subdivision according to species or origin. In Commission Regulation 206/2005 the Commission concluded (recital 12) that the product concerned should be all farmed salmon. Farmed Atlantic salmon was concluded to be too narrow given the demand side substitutability of all types of farmed salmon. The Competition Commission in *Nutreco/Hydro Seafood* concluded that the market included Norwegian, Scottish, Irish and Faroese farmed salmon (paragraph 2.61) and that the geographic scope of the market was EEA-wide (paragraph 2.64). The Competition Commission came to this conclusion on the basis of a range of evidence. It found that most retailers sourced their salmon requirements from both Scotland and Norway, and several retailers did not label the origin of the salmon (even when the salmon came from Scotland, which is traditionally thought to be preferred, paragraph 2.54). The catering sector had no preference for Scottish salmon and was found to be price sensitive (paragraph 2.56). Prices of Scottish and Norwegian salmon were found to be strongly correlated over time, even using techniques that controlled for common costs (paragraph 2.57-60).

These conclusions remain valid on the basis of evidence available today:

- A study of Scottish and Norwegian salmon prices since the Competition Commission investigation confirms the Competition Commission’s conclusions. The study indicates that prices of Scottish and Norwegian farmed salmon move together very closely in the UK confirming that Scottish and Norwegian salmon are in the same market. This is outlined further in Appendix 8.1.
- The recent imposition of anti-dumping measures against Norwegian salmon producers by the European Commission implies that the Commission believes that Norwegian salmon competes directly with Scottish salmon.
- At the time of the CC’s investigation of *Nutreco/Hydro* imports of Norwegian salmon made up 16.5 percent of UK consumption. By 2005 this had increased to 27.3 percent of UK consumption. Recent information indicates that for January to May 2006 imports have increased to 42 percent of UK consumption (17,680 out of 42,400)¹¹.

While the Competition Commission investigation provides strong support for a single product market for farmed salmon without further subdivision by origin, the CC also noted that the existence of a modest premium on Scottish salmon and suggested that this was due to “*product differentiation within one market, rather than the existence of separate markets.*” This conclusion is supported by the evidence presented above.

The CC investigation in *Nutreco/Hydro*, the Commission in *Nutreco/Stolt/Marine Harvest JV* and more recent evidence all indicate that there is a single product market for farmed salmon without further subdivision by origin or species. In

¹¹ Kontali

particular the parties believe that the evidence does not support a separate market for Scottish salmon and that there are good arguments that the relevant product market is all salmon. The OFT in its decision in the present case concluded that the relevant product market was farmed Atlantic salmon. That was too narrow and inconsistent with the other decisions.

The Commission has in the past found that there is a separate market for organic salmon. However, this is not relevant to the present case as the parties do not overlap in the production of organic salmon (only Marine Harvest is active), nor do they have any significant market shares in this segment.

8.2 Geographic market analysis

Both the European Commission in its decision in *Nutreco/Stolt/Marine Harvest JV* in 2004 and the CC in *Nutreco/Hydro* prior to that concluded that the relevant geographic market was the EEA. The parties believe the relevant market is wider than that and that competition has global aspects.

In particular:

- (e) There is an academic literature that suggests that all salmon species (both farmed and wild) compete on a global basis. The wider geographic market definition is linked to a wider product market definition to include both fresh and frozen salmon. The most relevant study is by Asche, Bremnes and Wessells¹². They examine the relationship between the export prices of four frozen species of wild Alaskan salmon and fresh farmed Atlantic Salmon. They find that over the long term prices of wild, farmed, fresh and frozen products move together suggesting that all products compete within a global market. In Commission regulation 206/2005 the Commission concluded on the evidence that fresh and frozen salmon compete in the same market which would point to a global market.

A further study by Asche¹³ compares import prices for fresh salmon for the US, the EU and Japan. Again prices follow one another closely. Also the introduction of an anti-dumping duty on Norwegian salmon in 1991 that closed the US market to Norwegian salmon had no clear effect on US prices relative to European and Japanese prices. This suggests that fresh salmon from different origins competes in a global market.¹⁴

- (f) There are also indications that since the free trade agreement signed between Europe and Chile in 2004 (which exempted Chilean salmon from import duties into Europe), Chilean imports of salmon to the UK respond to changes in the relative levels of European and US salmon. 95% of Chilean salmon sold in the EEA is frozen, and imported by ship. Costs of transport are relatively low: less than 5% of the price of the fish. While frozen salmon is not acceptable for some applications,

¹² Asche, Frank, Bremnes, Helge and Wessells, Cathy R. "Product aggregation, market integration, and relationships between prices: an application to world salmon markets", *American Journal Agricultural Economics*, 81 (August 1999) 568-581

¹³ Asche, Frank "Testing the effect of an anti-dumping duty: The US salmon market". *Empirical Economics* (2001) 26.343-355

¹⁴ While the Asche, Bremnes and Wessells and Asche studies are the most relevant a further methodologically similar paper by Asche, Frank, Guttomsen, Alte G., Sebulonsen, Trom, Sissener, Elin H. "Competition between farmed and wild salmon; the Japanese salmon market", *Agricultural Economics*, 33 (November 2005) 333-40 looks at the demand for farmed, wild, fresh and frozen salmon in Japan. Again prices move together in the long run and the evidence broadly supports a single market.

there is a direct retail market for frozen portions and there are other applications where once frozen salmon is interchangeable with the fresh product.

- (g) The Commission notes in *Marine Harvest JV* (para 26) that a not insignificant quantity of salmon is imported into the EEA (about 17% of total EEA salmon consumption) and exported outside the EEA (20% of production).
- (h) The parties estimate¹⁵ that in 2005 12.5% of EEA consumption of farmed Atlantic salmon was imported from outside the EEA (and Faroes) and over 21% of EEA (and Faroes) production was exported to non-EEA countries.
- (i) Trade flows of salmon within the EEA indicate that a very high proportion of fresh salmon is sourced from the same sources within the EEA (and the Faroes). The CC found that transport costs do not add significantly to the wholesale price of fish. The CC also found that the price of salmon in different EEA national markets moved together closely. The CC concluded that this suggested competitive interaction and that the most plausible explanation for these similarities arose from the trade in farmed salmon in the EEA.

Analysis of recent price data for France and the UK confirms that prices for both Norwegian and Scottish salmon are closely related in France and the UK. This is outlined further in Appendix 8.1

In conclusion the parties believe that the market for fresh and frozen salmon is fundamentally global. Alternatively if the market is viewed as EEA wide, substantial imports and exports result in the European market being strongly influenced by global trends.

8.3 Smolts

The market for smolts has been found by the CC to be UK-wide. Smolts are juvenile salmon, which are raised in fresh water and transferred to salt water at the age of approximately 12 months.

Pan Fish and Marine Harvest did not supply smolts in the UK to any third parties in 2004 or 2005. Accordingly the parties did not have purchasers for their smolts in 2004 or 2005. Fjord Seafood sold a small quantity of smolts in the UK in 2005 ([SENSITIVE] units of total UK production of smolts of approximately 42 million i.e. [SENSITIVE] of total UK production).

The parties submit that there will be no competitive impact of the merger on the market for smolts (or otherwise). As was recognised in the Competition Commission's report on the *Nutreco / Hydro Seafood*¹⁶ merger, the smolt market is not as commercially attractive as are the markets for salmon and feed. Pan Fish and Marine Harvest are active in the production, distribution and supply of mature salmon and only produce smolt for the purpose of engaging in activities in the downstream market for mature salmon. There is therefore no incentive for the merged entity to enter the commercial smolt trade because the intermediary smolt market is less commercially profitable than the merged entity's core business of salmon production.

The OFT in its decision accepted this argument and concluded that the merger does not give rise to competition concerns at the horizontal level in relation to smolts. On a vertical

¹⁵ Calculations based on information in Kontali, *Farmed atlantic salmon, production, supply and market development*, February 2006.

¹⁶ *Nutreco Holding NV and Hydro Seafood GSP Ltd*. Report dated 22 December 2000, para 2.143

level, the OFT concluded¹⁷ that the parties would have limited incentives to reduce rivalry in the market for smolts as a result of the merger. This is because the market for smolts is not as commercially attractive as that for farmed salmon and the parties and their UK-based competitors in any case have in-house smolt production facilities.

8.4 Aqua feed

Neither Pan Fish nor Marine Harvest engages in production of aqua feed for salmon. Consequently, such market does not raise any overlap issues. Indeed, the proposed merger separates Nutreco and Marine Harvest, thus providing a more open market opportunity once current contracts expire.

The merger will therefore have no detrimental impact on the feed market. Fundamentally, little will change due to the merger, with existing contracts continuing in place, although the ownership link between Marine Harvest and Skretting will be broken. The allegation that the merger incorporates a long term feed contract with Skretting which was raised with the OFT by a complainant is incorrect.

It is hard to believe that any upstream feed supplier could be driven out of the market by the parties following the merger. Indeed, it would be against the parties' interest to do so given they are customers and not suppliers in this market.

8.5 Fish slaughtering

The OFT accepted that fish slaughtering is a part of the integrated process of producing salmon and does not constitute a separate market. This was accepted by the OFT in their decision (at para. 27).

Given that the merging parties do not undertake fish slaughtering for third parties nor contract out their own slaughtering to independent providers,¹⁸ the merger will not impact on the current choices available to salmon farmers in slaughtering their fish (remaining salmon farmers will continue as now to have the ability to slaughter their fish in a cost-effective manner either on-site or at their on-shore slaughtering facilities).

¹⁷ At paragraph 85 of the OFT's decision

¹⁸ As indicated below a small quantity of fish is currently slaughtered under contract by Marine Harvest for Pan Fish.

Section 9

9 Market shares and share of supply

9.1 Share of supply of farmed salmon

As noted above, the parties believe that the relevant product market extends at least as wide as all farmed salmon. The key highlights of the parties' and rivals' market shares on this basis are set out in Table 9.1 below:

Table 9.1 – Market shares of the merged firm and rivals (tonnes sold, 2005)¹⁹

Group	Global		EEA		UK ²⁰	
	Quantity	Share	Quantity	Share	Quantity	Share
Pan Fish ²¹	[SENSITIVE]					
Fjord Seafood						
Marine Harvest						
Merged firm						
Lerøy (excl. SSF)						
Mainstream						
Aquachile (Incl. Aguas Claras)						
Coast Group						
Pesquera Camanchaca						
Pesquera Los Fiordos						
Salmones Multiexport						
Norway Royal Salmon						
Cultivos Marinos Chiloe						
Seaborn						
Scottish Seafarm						
Invertec						
Others						
Total					1	

¹⁹ Source; Kontali estimates of rival sales and market size, parties' own sales figures, including sales to re-exporters

²⁰ Note that previous market share tables for the UK have been based on preliminary Kontali estimates for the year 2005. Kontali has now finalised its estimates, and the final figures are used in this table. Kontali estimates for the parties' sales have been replaced with the parties' own figures, as for the other geographies.

²¹ Note that Pan Fish sales have been calculated excluding [SENSITIVE] [SENSITIVE]

The fact that more than [SENSITIVE] of EEA production is controlled by others post-merger is reflected in a relatively modest HHI (a global HHI of around 820 post-merger, and an EEA HHI of 1,032 post-merger²² – even on an EEA basis this concentration level is only slightly above the 1,000 level considered “concentrated” by the Competition Commission, and nowhere near the 1,800 levels considered “highly concentrated”).²³ Concentration levels in the European farmed salmon market are therefore not of the level that would “obviously” generate competition concerns.

9.2 Share of supply of farmed Atlantic salmon

Even if the market were found to include only farmed Atlantic salmon, the market shares and HHIs are not very much higher. The key highlights of the parties’ and rivals’ market shares on this basis are set out in Table 9.2 below:

Table 9.2 – Market shares of the merged firm and rivals (tonnes sold, 2005)²⁴

Group	Global		EEA		UK ²⁵	
	Quantity	Share	Quantity	Share	Quantity	Share
Pan Fish ²⁶	[SENSITIVE]					
Fjord Seafood						
Marine Harvest						
Merged firm						
Lerøy (excl. SSF)						
Mainstream						
Aquachile (Incl. Aguas Claras)						
Pesquera Camanchaca						
Coast Group						
Norway Royal Salmon						
Salmones Multiexport						
Shetland Products (Hjaltland)						
Scottish Seafarms						
Sekkingstad AS						
Seaborn						

²² Based on Kontali shares for the Top 15 global suppliers of farmed salmon. Calculated on the assumption that 42 “others” have 1% each of the market.

²³ HHIs in the UK would clearly be higher; but as the UK is, for the reasons stated above, not a relevant geographic market, these are not relevant to the competitive assessment.

²⁴ Source; Kontali estimates of rival sales and market size, parties’ own sales figures, including sales to re-exporters

²⁵ Note that previous market share tables for the UK have been based on preliminary Kontali estimates for the year 2005. Kontali has now finalised its estimates, and the final figures are used in this table. Kontali estimates for the parties’ sales have been replaced with the parties’ own figures, as for the other geographies.

²⁶ Note that Pan Fish sales have been calculated excluding [SENSITIVE]. However, [SENSITIVE].

Group	Global		EEA		UK ²⁵	
	Quantity	Share	Quantity	Share	Quantity	Share
Pesquera los Fiordos Cultivos Marinos Chile Norwell AS						
Invertec Gaia Seafood Sea Star International AS Others Total					1	

On this basis, close to **[SENSITIVE]** of EEA production is still controlled by others post-merger, and this is again reflected in a relatively modest HHI (a global HHI of 1,130 and an a EEA HHI of 1,203 post-merger – on either basis only somewhat above the 1,000 level considered “concentrated” by the Competition Commission, and nowhere near the 1,800 levels considered “highly concentrated”).²⁷ Market shares in the European Atlantic salmon market are therefore not of the level that would “obviously” generate competition concerns.²⁸

The OFT focussed on shares in farmed Atlantic salmon. The parties’ estimates of shares of supply on that basis are at Table 9.2. The OFT suggested that the above shares of supply may not provide a true picture of the parties’ position in the market going forward, given Pan Fish’s reduction in output in recent years. However, this increase in production needs to be seen in light of several other factors, which mean that it is not reasonable to assume this increase in production will result in an increase in share:

- First, those figures include growth in Canada: which will have no impact on sales in the EEA. Pan Fish production in Canada has been very significantly scaled back (to only **[SENSITIVE]** tonnes in 2005) due to the IHN virus (Infectious Haematopoietic Necrosis) on the West Coast (where Pan Fish operates). By 2008 Pan Fish expects to increase Canadian production very significantly (to nearly **[SENSITIVE]** tonnes) – which contributes significantly to the figures indicated by the Office above, but are not of relevance for forecast European sales. On a global approach, it should be noted that the IHN problem is not unique to Pan Fish, but has also affected other Canadian producers (e.g. Cermaq/Mainstream).
- Second, all Faroese producers have been hit by the ISA virus (Infectious Salmon Anaemia). This almost wiped out Faroese production (**[SENSITIVE]**), but production is starting to recover. Therefore not only Pan Fish but also other companies with Faroese production will see an increase between now and 2008.
- Third, a further part of the increase comes from consolidation and resulting expansion of production at existing Pan Fish sites (driven, for example, by the move

²⁷ HHIs in the UK would clearly be higher; but as the UK is, for the reasons stated above, not a relevant geographic market, these are not relevant to the competitive assessment.

²⁸ Based on Kontali shares for the Top 40 global suppliers of farmed Atlantic salmon – assuming that all suppliers outside the Top 40 have a share of 1%.

to biomass consents in Norway, and by the changed SEPA consents in Scotland). This should be seen in the context of the wider cyclical market: high prices have in the past generated higher production levels, and it is not surprising that the same thing is being seen today, and of the general moves to site consolidation and efficiency.²⁹

Therefore there is no reason to expect that Pan Fish's share of the market would necessarily increase absent the merger, even though its global production of salmon would be expected to increase.

²⁹ The parties believe that their rivals will also be increasing their own output – as reflected in the Mainstream/Cermaq group's public statements (where it predicts that its 2007 sales will increase from 120,000 tonnes to 139,000 tonnes (an increase of over 15%) and by the recent increase in smolt release seen in all Atlantic salmon producing countries).

Section 10

10 Addressing the OFT's theories of harm

We note that the OFT identified a number of possible theories of harm in relation to the transaction. Broadly speaking these constituted a broad concern about unilateral effects in relation to the EEA market for Atlantic salmon, and more specific concerns relating to competition to serve large customers, and the ability to price discriminate against certain customers of Scottish salmon.

The parties' shares in the supply of salmon do not justify these types of concerns over market power. In this section we address in turn each of the key theories of harm outlined in the OFT's reference decision, and explain why these concerns should not arise in practice at around 30% market share, particularly given the other characteristics of the salmon industry. In particular we draw attention to several key characteristics of the industry that make anti-competitive effects of the merger very unlikely to materialise. Namely:

- if the parties were to try to raise price by reducing their sales of salmon, this would incur significant opportunity costs, whether a short or long-term withdrawal strategy was employed;
- the profitability of such a strategy would be further undermined by the sensitivity of customers to prices: academic studies of the industry have suggested that there is significant elasticity of demand (that is, customers are very willing to switch away from salmon – perhaps to alternative fish or other protein sources – if the price increases);
- importantly – any such strategy would also be undermined by the response of rivals. Rivals are responsible for very large exports of salmon to countries outside the EEA (Japan, the US, Russia, etc.) which would be likely to be diverted back to the EEA market if there were a local (EEA) increase in price. Moreover, there is ample spare capacity in rival hands;
- large customers are not particularly at risk: large customers with significant buyer power tend to multi-source their requirements and use a large range of large and small suppliers to meet their needs;
- if large customers did wish to be served by larger suppliers, there is nothing to stop Norwegian exporters from expanding very quickly: either through merger or simply by contracting with a larger number of independent salmon farmers; and
- in relation to the possibility of price-discrimination against customers with a particularly strong preference for Scottish salmon, it is clear that any such strategy could only be successful if these customers represent a large proportion of overall demand. The available evidence suggests that this is not the case.

The relevant empirical evidence to each of these concerns is described in more detail in the rest of this section.

10.1 The merged entity will not be a residual monopolist

The OFT put forward the theory that – due to the inability of rivals to increase their production levels in the short term - the merged entity will become a “residual monopolist” in European salmon supply. This argument was then developed into two more specific theories of harm: a short-term and long-term restriction of output, in order to enjoy a resulting increase in price which – according to the OFT’s concerns – would outweigh the costs of the strategy.

The term “residual monopolist” implies that the parties would enjoy a large degree of market power in an EEA market for Atlantic salmon, with a market share of around 30%. In order to sustain the assertion that this share could still put the parties in the position of a “residual monopolist”, the OFT relies on the fact that in the short term rival suppliers in Scotland and Norway would be incapable of expanding their harvest quantities in response to a price increase. However, the parties do not believe that this conclusion is in fact valid in this industry, for the reasons laid out below.

10.2 There is no scope for a short-term withholding strategy

In considering the possibility of unilateral output restriction, the practical difficulties in restricting output at short notice must be borne in mind. The quantity of fish available at any time is broadly determined by the number of smolts put into the water at the beginning of the life cycle. Destroying adult fish is a very expensive way to restrict output: all the costs involved over the 2-3 year life cycle of the fish would then be wasted, and no revenues recouped. Alternatively, it might be postulated that a fish farmer could export more fish outside the EEA, sell it for alternative uses, change the harvesting date of the fish, or freeze the fish rather than selling it fresh. However, for the reasons given below, none of these would form part of an attractive withholding strategy.

It is then also important to consider how much output would have to be withdrawn in order to generate a given price increase. The level of output restriction necessary to generate a certain increase in price depends on the extent to which both consumers and rival producers will change their behaviour to adjust to the supply restriction. In this market, it is likely that both would respond to a significant extent. Demand for salmon has been shown to be elastic, and rivals engage in large volumes of exports outside the EEA which could be diverted to the EEA market – both of which undermine the profitability of any withholding strategy.

10.2.1 Impact of reducing sales of mature fish on the merged firm’s profits

By “withholding” the sale of some volume of fish, the parties would forego the revenue that would be earned from the sale of that fish. This revenue foregone creates an important “opportunity cost” of the withholding strategy. On the other hand, it must be also taken into account that if the fish is actually withheld from the market, certain costs of production could be avoided (e.g. the costs of processing the fish). However, avoidable processing costs are only a small proportion of the overall costs of producing a fish, and these would be the only avoidable costs stemming from decreasing sales. Moreover, if the fish simply have to be destroyed, then there are likely to be additional costs involved in the disposal of the fish.

The OFT also suggested that alternative uses for the salmon could be found that would allow the parties to recover some of the opportunity cost of the abandoned EEA sale, without depressing the EEA price. However, the parties do not believe

that any realistic strategy of this type exists. Therefore, the parties' would be faced with a palette of commercially unattractive options, discussed in more detail below.

(i) **Diverting volumes to non-EEA export markets**

In theory, the parties could export volumes to markets outside the EEA. However, in practice this strategy is unlikely to be successful. Supplying export markets has higher costs compared to supplying EEA markets. Any increased sales to other geographic markets would start to depress prices there – which would hurt the sales of the merged firm's production operations in Chile (which primarily sells to North America and Japan), and Canada (which sells primarily to North America). Moreover, this price pressure would likely result in rivals diverting *their* existing exports to these markets back into the EEA. As noted in Table 10.1 below, these rival exports constitute very large volumes of salmon, available to replace any diverted by the parties. This strategy is therefore unlikely to be successful in raising EEA prices.

(ii) **Selling salmon for alternative uses**

The only alternative use for which salmon could realistically be sold without depressing prices in the main salmon market is fishmeal/fish oil. Fish cannot be converted to fish meal/fish oil at a 1:1 ratio: 5 kilos of live salmon will translate into around 1 kilo of fish meal and 0.8 kilos of fish oil. These products are relatively speaking very low value. Recent prices for fish meal have been at historic highs of around \$900/tonne, and for fish oil around \$750/tonne (where salmon as an input would be competing with fish-waste/by-products of the wider fishing industry). Therefore the opportunity cost avoided by making such sales would be minimal.

(iii) **Postponing harvest dates**

Postponing the harvesting date is not an economically attractive way of restricting supply. Although it would give rise to a temporary reduction in the fish available on the market, in the meantime the fish would have to continue to be fed, and would continue to grow. Once a fish grows above 6kg it becomes too large for most secondary processing and/or would be unsuitable for certain final applications. As a result, such a strategy simply postpones production and increases aggregate supply, and would quickly generate a glut of poor quality fish. Moreover, large salmon buyers (who are very knowledgeable about the industry and the production position of the various players) would know that harvesting would have to take place without too long a delay. Therefore, it is doubtful whether they would even agree to an increase in prices in the short term.

(iv) **Bringing forward harvesting dates**

Bringing forward harvesting dates is similarly not an attractive or profitable business strategy, and indeed actually increases output in the short term. Although feed costs might be saved, costs per kilo of salmon would be significantly higher because the fixed costs of production (e.g. labour and the associated costs of rearing the smolt and gutting and processing the final fish) are spread over fewer kilos of salmon finally sold. Moreover, the fish would be harvested at a sub-optimal shape and size for market requirements, reducing revenues per kilo.

(v) **Freezing**

Harvesting the fish and then freezing it, rather than supplying it immediately to the market, would arguably result in a temporary reduction in output. However, such a reduction could not be sustained for a period longer than 6-12 months, as fish cannot be kept in a frozen state indefinitely. As a result, freezing the fish does not reduce output but simply postpones its reaching the market. Moreover, freezing fish entails additional costs (i.e. the costs of freezing and storage, as well as of tying up working capital) which make it commercially unattractive – particularly when (as in this case) the frozen fish would eventually only have value if it could be sold back into the primary (fresh) fish market (or export markets: although here it would be forced to compete with low-cost frozen Chilean salmon). Any significant increase in freezing above the level required to balance short term mismatches in supply and demand would require large freezing stores to be built at significant capital cost. Again, it should be noted that buyers are very knowledgeable about what is happening in the industry, and would use high levels of frozen fish stocks as a reason to negotiate lower fresh salmon contract prices. Postponing the arrival of fish on the market by freezing significant volumes is therefore not a profitable strategy.

(vi) **Starving fish**

Neither can fish production be lowered by simply reducing the rate at which fish are fed. Not only is this likely to face difficulties from an animal welfare perspective, but commercially it is unlikely to be attractive, as starvation leads to a “long thin” fish – unsuitable for cutting into steaks and fillets that would be acceptable to major customers. Therefore any reduction in output would likely be more than outweighed by the reduction in the merged firm’s ability to obtain the market price for the fish.

10.2.2 Customer response

As we have described above, the other important driver of the costs and benefits of a withholding scenario is the elasticity of salmon demand. If demand for salmon is very price elastic (i.e. very responsive to changes in price), then large quantities would have to be withheld in order to generate any significant price increase.

A number of studies have been carried out to estimate the elasticity of demand for salmon over the last 2 decades. These have used different methodological approaches, included different varieties of salmon (including fresh and frozen, Atlantic and Pacific, and Norwegian salmon alone) and related seafood products, and covered different time periods and geographies. This makes it difficult to compare results precisely, but common themes do emerge. The clearest is that demand for fresh salmon is generally found to be elastic, with most studies finding an elasticity of demand between -1 and -2. Some studies provide results that are better aligned to the unilateral effects question posed in this case than others. In particular, DeVoretz and Salvanes (1993) investigate the demand for Norwegian farmed salmon in the US and Europe, and generates price elasticities for Europe of -1.92 or -2.24 (depending on the estimation method applied).³⁰ Herrmann and Lin (1998) carry out a similar study, which calculates an own price elasticity in the EU

³⁰ DeVoretz & Salvanes “Market Structure for Farmed Salmon” *American Journal of Agricultural Economics* 75 (February 1993) pp 227-233.

of -1.83 .³¹ More recent studies have tended to estimate demand systems for various high value fish (e.g. salmon, smoked salmon, crustaceans). Despite conditioning on a fixed overall expenditure on these high-value fish products (which therefore is likely to underestimate the own price elasticity once other fish and broader protein sources are taken into account), these studies have still tended to find elastic demand for salmon. For example, Asche (1996) found an elasticity in the EEA of -1.73 ,³² Asche Salvanes & Steen (1997) found an elasticity of -3.73 ,³³ and Asche, Bjørndal & Salvanes (1998) found an elasticity of -1.33 .³⁴

Therefore relatively large output restrictions would be needed to generate a significant price increase. Moreover, the parties would only earn this price increase on their post-withholding market share **[SENSITIVE]**

10.2.3 Rival response

Moreover, even in the short term it is not necessary for rivals to increase harvest quantities in order to increase supplies to the EEA market, due to the large quantities of exports currently made by EEA producers to markets outside the EEA. In 2005 over 190,000 tonnes of Norwegian production and over 10,000 tonnes of Scottish production were exported outside the EEA – of which in total nearly **[SENSITIVE]** tonnes were exported by rivals to the merging parties. These exports compare with total EEA farmed salmon sales of 720,000 tonnes: that is, an additional **[SENSITIVE]** of total 2005 EEA sales volumes (**[SENSITIVE]** of Norwegian and Scottish production) could in principle be diverted to the EEA market by rival suppliers. They therefore represent a large quantity of additional volumes under third party control that could be diverted back to the EEA market if prices relative to key export markets (e.g. Japan, the US, Russia) were to increase (even before the possibility of increased imports from Chile, or export diversion from the Faroes is taken into account).

Although the CC has not in the past defined the market as broader than the EEA, it is therefore absolutely clear that today exports to non-EEA countries represent a strong competitive constraint on the ability of a subset of EEA producers to raise prices. Neither would we expect a significant lag in rivals' ability to divert these sales back to the EEA, as sales outside the EEA do not tend to be tied into long-term contracts.

Table 10.1 – 2005 Production, EEA sales and extra-EEA exports from the Scottish and Norwegian salmon industry, tonnes.³⁵

[SENSITIVE]

³¹ Herrman & Lin, "The Demand and Supply of Norwegian Atlantic Salmon in the United States and the European Union" Canadian Journal of Agricultural Economics v28 (1998) pp 459-471.

³² Asche, "A System Approach to the Demand for Salmon in the European Union" Applied Economics v28 (1996) pp 97-101.

³³ Asche, Salvanes & Steen, "Market Delineation and Demand Structure" American Journal of Agricultural Economics 79 (February 1997) pp 139-150.

³⁴ Asche, Bjørndal & Salvanes "The Demand for Salmon in the European Union: The Importance of Product Form and Origin" Canadian Journal of Agricultural Economics 46 (March 1998), pp69-81.

³⁵ This table includes all internal sales for the parties, including captive sales to downstream smoking plants.

It is clear, therefore, that short-term restrictions in the supply of salmon are unlikely to be profitable. They are associated with significant opportunity costs that could not be outweighed by any hypothetical price increases, due to the responsiveness of both customers and rivals' export volumes.

10.3 There is no scope for a long-term withholding strategy

It is possible in principle for a longer-term strategy (restricting egg purchases or smolt output) to be either more or less attractive than the short term strategy. The opportunity cost of the strategy (foregone margins on salmon not sold) is less, because the parties would also save on feed costs and other costs associated with producing salmon from the egg or smolt stage. However, on the other hand this long-term strategy brings with it the possibility of a rival *production* response pushing prices further back towards competitive levels – and undermining the profitability of the strategy (as the merged firm finds itself back to pre-merger price levels, but with a lower market share).

10.3.1 Costs of output restriction: loss of Norwegian sites

We would expect that the costs associated with giving up sales would be lower if this restriction were carried out at the smolt release stage (18 months prior to harvest) or egg hatching stage (3 years prior to harvest). However, clearly there would still be costs associated with the strategy. Most obviously, the profit margin that would otherwise have been earned on the harvested salmon will be given up. It is also likely that there will be some costs that cannot be avoided (e.g. smolt production if a smolt-killing strategy were used, fixed costs associated with maintaining sites, processing facilities, etc.). This lost profit margin would be suffered indefinitely; as any attempt to return production to previous levels would push prices back to the original level (or possibly below, if rivals had already responded by increasing their own egg purchases and/or smolt release). Therefore this cost of the strategy is not merely a “one off”: many years of lost profits need to be taken into account.

It is also not clear whether the parties would be able to hold on to unused licences / sites, at least in Norway – and they might therefore risk losing these sites to rivals. In Norway any firm failing to use a licensed facility would be forced to release that facility to a third party. While this has not taken place to a great extent in the past this is hardly surprising, as in the past output reductions have only taken place at times of industry crisis, where the unused sites were unprofitable to use (and therefore would not have been attractive to any rival). By contrast, under the OFT's theory of harm the merged firm's output restriction would place a high value on the unused assets, and it is likely that there would be significant pressure for unused sites to be released in order to meet demand.

10.3.2 Customer response

As in the short-term case, if customers respond to an increase in salmon prices by reducing their consumption, then the parties would have to withhold more output (incurring greater lost profits), in order to achieve any given price increase. We have already demonstrated above that the entire academic literature in this area points to the demand for salmon being elastic, particularly at the upstream (“ex-vessel”/trade) level. Under these circumstances, where customer switching in response to any price increase is great, the amount of volume that would need to

be withdrawn from the market (at a cost – as described above) in order to raise price will be large – increasing the costs of the strategy for any given benefit.

10.3.3 Rival response

As in the short term response, rivals would have the ability and incentive to divert their current exports to non-EEA countries back into the EEA. We have demonstrated above that these exports (even excluding the parties' exports) constitute a very significant share of the EEA market, and are likely to be sufficient by themselves to undermine any attempt by the parties to reduce EEA sales.

Moreover, unlike the short-term case, rivals do have an opportunity to respond to the long-term strategy by increasing their own smolt release (supply elasticity). Any such increase in rival smolt release would reduce the price increase enjoyed by the parties. Competitors, particularly in Scotland, have significant ability to expand their production at existing sites. Output from Scottish salmon farms has actually decreased in recent times (following the financial constraints faced by firms in 2003, when today's salmon started their life-cycle). Therefore, there must at least be an ability to re-achieve output levels of two or three years ago (Kontali suggests that 2005 harvest of Atlantic farmed salmon in Scotland, at 119,600 is over 40,000 tonnes below levels achieved in 2003, when the harvest was recorded at 160,800).

Most obviously, the scale of rivals' response will be limited by their spare capacity. If rivals had to build new capacity to increase fish production, then it is less likely that increased egg purchases/smolt release would be a profitable response to the parties' withholding strategy.

Several Scottish salmon producing companies have spare capacity and are able to expand. For example, only 172 of 276 registered freshwater sites for growing smolts were in use in 2004 - leaving 104 unused sites. Many of the unused sites are under the control of third parties.

As regards saltwater sites, a very full picture of the large amounts of spare capacity currently in third hands is laid out in Section 6. There it is shown that currently spare capacity in rivals hands in Scotland is as much as 136,000 tonnes. Even greater expansion of rival production is possible in Norway even within current licensing limits. As discussed in Section 6 above, it is likely that there is spare Norwegian capacity of between 230,000 and 435,000 tonnes currently in the hands of rivals to the merged firm. This leaves in total 365,000 to 570,000 tonnes of spare capacity in third party hands post-merger, even before new capacity licences applied for in Scotland are taken into account. Moreover, there is no reason to believe that the currently set maximum biomass levels are actually the physical maximum in either country (particularly Norway): if production were to get close to full capacity on the basis of current licensing limits, there is no reason to expect that these limits could not be increased further.

The OFT has suggested that rivals would only be able to respond with a 2-3 year time lag (i.e. they would only respond once they saw the price increase generated by the strategy – 18 months after the strategy for a smolt release, and 3 years after for a reduction in egg purchases). Even if the lag were 2-3 years, the rival response would still at that point drive market prices back down, and should therefore still be taken into account.

However, in practice it is very unlikely that a lag of this magnitude would exist. In fact the rival response would actually take place as soon as the withholding became transparent to rivals. While individual firms' strategies cannot be monitored, industry intelligence is available on vaccine and egg purchases, and Kontali also provide monthly details of historic smolt release, as well as monthly forecasts of smolt release and salmon production for the following 2-3 years. Therefore it is unlikely that there would be more than a few months' lag in rival responses.

10.4 There will continue to be competition to serve large buyers from remaining competitors

The OFT suggested that switching away from the merged entity would not be possible as smaller suppliers would be unable to cope with the demand. For large customers, switching away from Pan Fish may necessarily involve switching to a portfolio of smaller suppliers (but this may also involve additional costs). If the smaller farms do not have the capacity to supply this residual demand, they will either have to refuse to supply the large customers or supply them instead of their current customer base.

These concerns are misplaced and result from present market conditions (where as a result of historic conditions there is a supply/demand imbalance) rather than as a result of the merger.

Buyers of salmon in the UK are typically large sophisticated companies (e.g. supermarkets, food processors, smokers) which multi-source, using a range of different suppliers (including a mix of spot and contract sales, a mix of small and large suppliers, and typically also a mix of Scottish and Norwegian salmon). Despite their large size, there are few customers who buy more than [SENSITIVE] tonnes in a year from any single supplier. For example, the parties between them had only [SENSITIVE] UK customers that took over [SENSITIVE] tonnes in 2005. Further details are set out in Confidential Annex C.

The parties have identified a range of other suppliers of these large UK customers (both Norwegian and Scottish) – and believe that all but the very smallest rivals would be capable of supplying customers of this scale on a contract or spot basis. For example, the parties understand that at least Lerøy/Scottish Sea Farms, Lakeland Marine (owned by Marine Farms) and Hjaltland already serve large volume contracts for UK customers, and the Mainstream/Cermaq group are capable of doing so. All these rivals process and pack salmon at the frequencies required by customers, and so are more than capable of providing the daily supplies that might be required by a large processor or supermarket. Therefore, it is not the case that in order to switch away from one of the parties these customers would need to use more than one rival supplier.

Moreover, even large customers will typically multi-source, and will consider a wide range of potential suppliers (including smaller suppliers). They will typically do this through a combination of contracted and spot market purchases of varying sizes. Some examples from the parties' major UK customers are set out in Confidential Annex C.

UK salmon customers have proved themselves willing and able to switch in response to small differences in prices, quality or terms in the past. There are many examples of switching in the industry – although specific examples of switching are difficult to identify because of the multi-sourcing behaviour of customers. However, the parties are well aware that if they sought to increase their prices to customers out of line with those offered

by alternative suppliers, they would lose volumes to those rivals. Even where customers have not in the end switched, there are frequent examples of credible threats to switch supplier being used to obtain better prices.

10.5 There is no scope for price discrimination against a sub-set of Scottish customers

The OFT raised a concern with the OFT that the parties might be able to identify a “sub-segment of customers who are unwilling (or unable) to substitute Norwegian salmon for Scottish salmon”, and charge them a higher price than that paid by other Scottish salmon customers (who would be prepared to switch).³⁶ These “captive” customers are those who would be prepared to pay more than the small “Scottish premium” that typically exists at present.³⁷ In fact, this concern is not a legitimate one under the facts of the current market.

10.5.1 It is not possible to price discriminate against “captive” customers

The concern that the merged firm could – by virtue of its larger share of sales of Scottish salmon – discriminate against a certain subset of “captive” customers relies on those customers making up a significant share of the total demand for Scottish salmon. In particular, it relies on these customers making up too large a share of overall demand for Scottish salmon to be served by rivals to the merged firm.

To see why this is the case, consider a hypothetical example. Assume that both the merged firm and rivals have a mix of customers, some of whom are captive and others flexible. Assume that after the merger the newly merged firm decides to try to price discriminate by increasing prices of Scottish salmon to its captive customers (only) by 10% above the generally prevailing level. Prices to flexible customers would be left unchanged at that prevailing level (reflecting the fact that they would switch their demand from the parties to Norwegian supplies if there were any increase in the Scottish premium – the evidence clearly supports the fact that Norwegian prices constrain Scottish prices at the market level).

The following chain of events would then take place:

- (a) The merged firm’s captive customers would immediately attempt to source product from other (cheaper) rival sources.
- (b) Those rivals would then find it profitable to switch away from supplying some of their existing customers in order to supply these captive customers previously served by the merged firm: it is worthwhile for these rival Scottish suppliers to switch to serving these captive customers if the price is even slightly above what they get from their existing customers.
- (c) Competition between the different rival Scottish suppliers will therefore drive down the price paid by these captive customers towards the generally prevailing Scottish price paid by flexible customers. This is because for as

³⁶ We here use the shorthand of referring to “Norwegian” salmon to mean “non-Scottish Atlantic salmon”.

³⁷ As in any market with bilateral negotiations, in practice not every customer will end up paying an identical price. There are many reasons for this. Some may choose to fix prices by contract at a rate that turns out to be very advantageous, whereas others may fix at a price that is in retrospect less attractive: meaning that any given time there are likely to be contract customers paying both above and below the spot price. Some customers may require smaller more frequent deliveries at higher cost. However, broadly all those factors will influence the discount or premium that customers pay on a broadly prevailing market price, and should certainly not be taken as indicators of existing price discrimination against any particular customer or customer group.

long as the merged firms' rivals still have flexible customers, the opportunity cost of supplying a captive customer is giving up a sale to a flexible customer (and therefore receiving the price that a flexible customer is prepared to pay). This must be the case: if prices settled even slightly above the generally prevailing price paid by flexible customers, then there would be an incentive for rivals to give up more flexible customers and switch to supplying captive customers. This process will only stop when the rivals run out of flexible customers to give up (i.e. there are not sufficient flexible customers – or, equivalently, there are too many captive customers), or when flexible customers and captive customers are paying the same price.

- (d) Assuming that there are sufficient flexible customers, this chain of events will result in the following situation:
 - The rival suppliers will give up some of their existing customers (equivalent to the volumes required by the merged firm's captive customers).
 - The merged firm will have surplus supplies that it will need to sell (equivalent to the sales previously made to the captive customers that it has now lost).
- (e) It can be seen that the quantity given up by rivals and the quantity of surplus supply in the hands of the merged firm are therefore precisely equal. The merged firm would end up supplying the customers given up by the rival firms. The customers who switched would be the rivals' flexible customers – who can still get a competitively priced offer from the merged firm (which has not raised its price to flexible customers, realising that any attempt to do so would just result in a switch to other salmon origins).

At the end of this process nothing has substantively changed. Captive customers are being supplied by rivals, while the merged firm will be supplying only flexible customers. However, the total amount of Scottish salmon sold and purchased has not changed. Nobody has been forced to switch to Norwegian salmon. And prices also have not changed (as competition between the rival suppliers will erode any extra margin that the merged firm originally tried to charge to its captive customers).

It should be noted that the description above does not fundamentally change depending on the market conditions. In tight market conditions, such as are seen today, the generally prevailing price will be high (i.e. potential customers will bid up the price until the level of custom that still exists at the market price is equal to the volume of fish that must be sold). By contrast in the presence of a glut (with supply outstripping demand), generally prevailing prices will fall until all the fish available can be sold. However, the mechanism described above would prevent the merged firm from obtaining a better price from captive customers under either of these scenarios.

The only factor that can stop the success of this mechanism, as noted above, is if the rival suppliers' total production capacity is insufficient to meet the needs of captive customers (effectively meaning that the rival suppliers "run out of" flexible customers to give up and/or spare capacity to expand into in order to serve the

needs of captive customers). For the reasons given below, the parties believe this is unlikely to be the case.

10.5.2 To the extent they exist, “captive” customers do not account for a large part of the market

We have seen above that successful price discrimination could only be a reality if there were significant customer volumes that are effectively “captive” to Scottish salmon. That is, customers who would not consider switching to other sources of farmed salmon unless the premium payable for Scottish salmon were to rise very significantly above its current level. That is because any attempt to charge a higher price to captive customers will be undermined by the ability of rival suppliers of Scottish salmon to focus their supplies on these customers.

In particular, many of the largest UK customers of Scottish salmon purchase salmon for a variety of uses, and typically they also multi-source.

If the merged firm attempted to increase prices to such a firm, the customer would procure its captive requirement from its existing other Scottish suppliers. This would then leave the parties serving the “flexible” (non-captive) part of these customers’ demand, in relation to which no price increase would be possible (any price increase would simply cause these non-captive customers to switch to an alternative origin salmon). Therefore, customers of this type cannot be characterised as “captive” customers – even if they have some demand that they would not willingly switch to Norwegian supplies.

To put this in context, the scale of third parties’ production operations relative to UK demand for Scottish salmon must be kept in mind. Total UK sales of Scottish salmon in 2005 were around 61,500 tonnes whole fish equivalent. Of this, a significant proportion will be flexible. For example, the parties estimate that [SENSITIVE] tonnes of these volumes were accounted for by [SENSITIVE] alone – which multi-sources sources both Scottish and Norwegian fish for a range of uses (including smoking and fresh fillets), the parties estimate that it also bought [SENSITIVE] tonnes of Norwegian salmon in 2005. Other large customers such as [SENSITIVE] are in a similar position – purchasing both Scottish and Norwegian salmon for a range of end products, and are therefore not truly captive customers, for the reasons described above.

Moreover, the parties believe that even most UK smokeries purchase a mix of Scottish and Norwegian salmon as well as frozen wild Alaskan, Sockeye and Coho salmon for smoking, and are therefore not entirely dependent on Scottish salmon.³⁸ Retailers marketing wild Alaskan fish include, in the UK: Booths (fresh), Lidl (frozen ingredient), M&S (fresh, smoked), Morrison (fresh), Sainsbury’s (ready to cook dish, smoked, fresh), Tesco (fresh, smoked), Waitrose (ready to cook, smoked, poached and Makro (frozen). Therefore it is likely that truly captive customers would account for rather a small proportion of this [SENSITIVE] tonne sales total. A similar picture emerges in other European markets. For example, in France, retailers including Auchan (fresh, smoked), Cora (fresh) and LeClerc (frozen) sell products using Alaskan salmon.

³⁸ For example, many smokeries state on their packaging “Scottish smoked salmon” or “Scottish style salmon” in relation to Norwegian salmon that is smoked in Scotland.

All customers will be very active on price. The parties' largest customers for Scottish salmon regularly use the threat of switching to an alternative origin (either Norwegian, Irish, Faroes or imported wild Alaskan or sockeye salmon) to ensure competitive pricing of Scottish fish. For example **[SENSITIVE]** The parties have also already supplied examples of contracts that do not specify the origin of the salmon for Pan Fish Norway and Marine Harvest as annexes to their submissions to the OFT in response to the OFT's questions of 7 June 2006 (confidential Annexes 1 and 2 respectively).

10.5.3 Conclusion: putting captive customers in context

Third party suppliers harvested around 68,000 tonnes of Scottish salmon in 2005, more than total UK sales of Scottish salmon, let alone any portion that might be considered "captive". Moreover, rival Scottish producers have ample opportunity to expand, even within current licensing constraints. As noted in Section 6 above, rivals to the merged firm control spare Scottish capacity of an estimated 136,000 tonnes.

Given that the volumes of truly captive UK Scottish salmon customers are likely to be very small in relation to these totals, a strategy of price discrimination against "captive customers" therefore seems very unlikely to succeed. It therefore makes no sense for the merged firm to attempt this strategy in the first place.

Section 11

11 Benefits of the transaction

The merger will have important benefits in all the producing countries where the parties overlap. However, here we focus on the UK.

The Scottish salmon industry is high cost compared to the competing industries in Norway and Chile. It has suffered from its relative cost disadvantage for many years. Indeed it could be argued that it is that cost disadvantage that has led the Scottish and Irish industries to lobby for a degree of trade protection from imports from Norway and Chile as reflected in Commission Regulation 206/2005. If the Scottish industry is to move into a position where it can compete on a level playing field with those overseas industries, it needs to achieve greater efficiencies. The proposed merger will contribute to such efficiencies. That may be why the Scottish Office has not opposed the proposed merger of Pan Fish and Marine Harvest.

[SENSITIVE]

Appendix 4.1

Products produced from salmon

The parties produce farmed salmon which is processed and used as the raw material for a number of fresh, frozen, smoked, value-added and canned products and by-products. Although the parties do not produce wild salmon, as indicated above, they do view wild salmon (e.g. imports of frozen wild Alaskan salmon) as a competitive constraint on their farmed product – as do several of their major customers.

Marine Harvest also has a relatively small division that farms organic salmon in Ireland. Organic salmon is used in the same way as non-organic salmon as the raw material for a number of products. Marine Harvest are pioneering the farming of species new to aquaculture such as cod, halibut, yellowtail, sturgeon, tilapia and barramundi (Australian sea bass).

A brief description of the parties' product offering is set out below.

(i) Fresh salmon

Fresh salmon is sold to a variety of customers, including food processors, distributors, smokers and retail clients. The majority of the parties' sales are of fresh gutted salmon. It is sold in the following formats:

- Whole gutted fish head on / off
- Salmon fillets prepared to different trim specifications (e.g. with or without collar bones, back bones, belly bones, pin bones, belly flaps, fins, tails and skin)
- Salmon singles / portions (available boneless or with bones-in and skinless or skin-on)
- Salmon steaks in a variety of sizes and de-boned or bone-in
- Certain customers (e.g. supermarkets that sell origin-labelled salmon and smokers) have a preference for Scottish salmon and are willing to pay a premium for Scottish salmon. However, pricing data has shown that the small premium paid for Scottish salmon has remained fairly constant over time - and the parties believe that a large majority of customers would be willing to switch if this premium increased.

(ii) Frozen salmon

Frozen salmon is sold to a variety of customers, including food processors, distributors/exporters and retail clients. Frozen salmon is available from Scottish, Norwegian or Chilean producers and is supplied in generic form. Smokers tend to prefer fresh salmon as a base product but some do use frozen salmon for smoking.

- Available in same forms as fresh salmon
- Also available in blocks for processors
- Standard shelf life of 18 months
- Very little frozen salmon sold in the UK retail market

(iii) Smoked salmon

- The parties only have limited activities in smoking salmon via Pan Fish and Fjord Seafood's smokeries.

- Produced from farmed or wild salmon
- Variety of curing methods (e.g. cold smoked, hot smoked, poached or marinated)
- Processed into fillets, single portion sizes or party packs.

(iv) **Value added products**

- Speciality fresh salmon products (loins, tails, escalopes, cubes, medallions and harsu for sushi and sashimi)
- Speciality smoked salmon products (carpaccio and marinated products).

Appendix 8.1 Price correlation analysis

Narrower approaches to market definition are not supported by the evidence

The parties strongly believe that it would not be legitimate to draw either a narrow product market for Scottish salmon sales separately to Norwegian salmon sales, nor a narrower geographic market than (at least) the EEA. That is, the market is at least as wide as was found by the CC in *Nutreco/Hydro Seafood*, in which it found that the market included Norwegian, Scottish, Irish and Faroese Atlantic salmon (paragraph 2.61), and that the geographic scope of the market was EEA-wide (paragraph 2.64).

The arguments accepted by the CC in *Nutreco/Hydro* are supported by more recent information on prices for Norwegian and Scottish salmon and in both the UK and France. **[SENSITIVE]**

Figure A.8.1.1. Marine Harvest UK prices of Scottish and Norwegian Salmon, 3 - 4 kg, 2003-2006

[SENSITIVE]

A review of relative price developments in France and the UK supports the position that the geographic market for all types of farmed salmon is not limited to the UK. **[SENSITIVE]**

Figure A.8.1.2. Marine Harvest Scottish Salmon Prices in the UK and France, Euro per kg.

[SENSITIVE]

Figure A.8.1.3. Marine Harvest Prices of Norwegian Salmon in the UK and France, Euro per kg

[SENSITIVE]

**[SENSITIVE: CONFIDENTIAL ANNEX A
PAN FISH CONFIDENTIAL INFORMATION]**

**[SENSITIVE: CONFIDENTIAL ANNEX B
MARINE HARVEST CONFIDENTIAL INFORMATION]**

**[SENSITIVE: CONFIDENTIAL ANNEX C
BOTH PARTIES' CONFIDENTIAL INFORMATION]**

Multi-sourcing [Please see section 10.4 above]