

Economic Performance of the EU Fishing Fleet and the potential gains of achieving MSY

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Abstract

Results from the latest available scientific data on the EU fishing fleet suggest that the overall economic performance of the fleet has improved over the last 7 years, with record high profits in 2013 and 2014. Projections for 2015 and forecasts for 2016 also point towards positive outcomes. Yet, these positive trends did not apply to all fleet segments and regions. This research investigates the main drivers affecting the economic performance of the fleet and the differences in profitability between main fishing regions and different segments of the fleet. We also estimate the potential profits of fishing at biomass levels that can sustain MSY for the EU fleet operating in the Northeast Atlantic waters (area FAO 27) using a surplus production model (SPM). Additionally, the potential effects of achieving FMSY over different timescales are analysed. Results indicate that if the MSYs from Northeast Atlantic fish stocks were taken by the EU fishing fleet, the fleet could potentially obtain an additional €4.64 billion per annum in profits than it would if current exploitation rates are maintained.

Introduction

The European Commission monitors the EU fleet profitability through the STECF's Annual Economic Report on the EU fishing fleet (AER).

The AER is a detailed annual exercise with the participation of national experts to estimate the EU fleet economic performance. The 2016 AER report covers an eight year time period and contains information on the EU fleet's fishing capacity, effort and landings, employment, income and costs for the years 2008 to 2014 (including some preliminary data for 2015) and projected values for 2015 and forecast estimates for 2016, where possible. Data for the period from 2008 to 2014, or 2015 depending on the variable, have been officially submitted by Member States through the Data Collection Framework (DCF).

The AER provides analyses at the EU, regional, MS and fleet segment level to help monitor the evolution of the EU fleet's economic performance and the driving factors behind. AER data have many different uses (e.g. support several EWG and help management decisions).

Main results of the 2016 AER

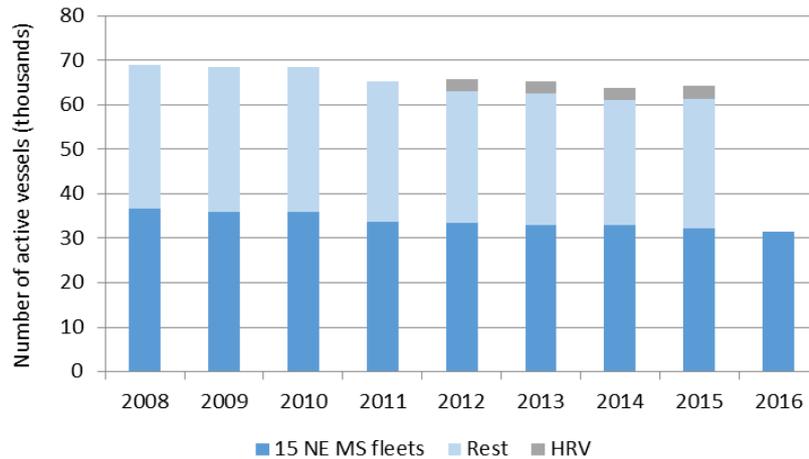
Capacity

In 2014, the EU fishing fleet numbered 81 500 vessels with a combined gross tonnage (GT) of 1.6 million tonnes and engine power of 6.4 million kilowatts (kW) (or 66 748 vessels, 1.5 million GT and 6.0 million kW when excluding Greece).

EU fleet capacity has continued to decrease steadily at an average rate of 2% p.a. in terms of vessel numbers and kW and 3% in GT.

Based on DCF data, there were 63 642 active vessels (50 042 when excluding Greece) and 17 860 inactive vessels (16 706 when excluding Greece) in 2014.

Figure 1: Evolution of the active vessels in number for the total EU fleet, disaggregated by Northeast Atlantic, rest and Croatian fleets



Of the active vessels, 74% were small-scale, 26% were large-scale and less than 1% distant-water vessels.

Employment

Direct employment generated by the fleet amounted to just over 150 thousand fishers, corresponding to 111 thousand FTEs (126 478 employed and 90 361 FTEs when excluding Greece).

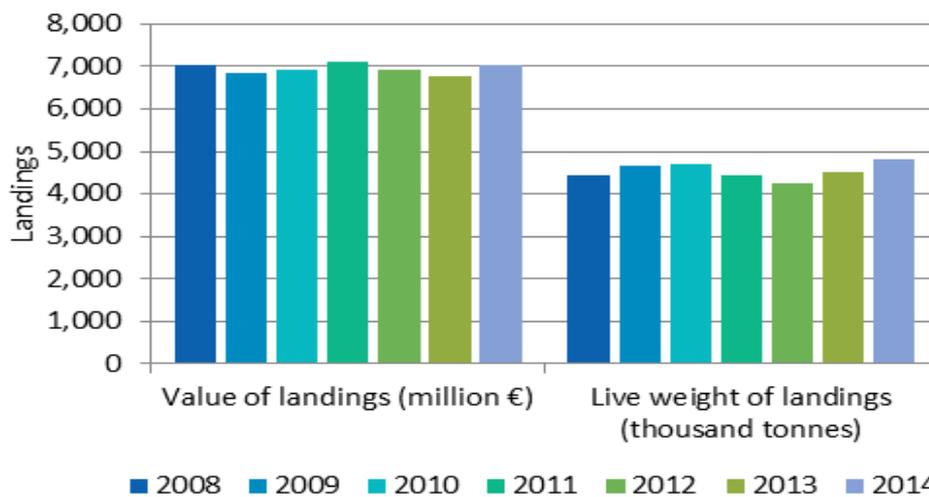
Average annual wage per FTE (excl. Greece) was estimated at €23.8 thousand, ranging from €99.5 thousand for Belgian fishers to €1.3 thousand for Cypriot fishers.

Landings

According to the DCF data, the EU fleet (excl. Greece and the German pelagic fleet) landed 4.9 million tonnes of seafood in 2014 with a reported landed value of €7.1 billion.

Value of landings has increased overtime in nominal terms, but remains relatively constant in real terms. Increases in the weight of landings are related to the recovery of some stocks, i.e. increased quotas (e.g. mackerel). DCF data covers over 93% of total EU landings.

Figure 2: Evolution of value of landings (in million €) and live weight of landings (thousand tonnes) for the EU fishing fleet during the period 2008-14

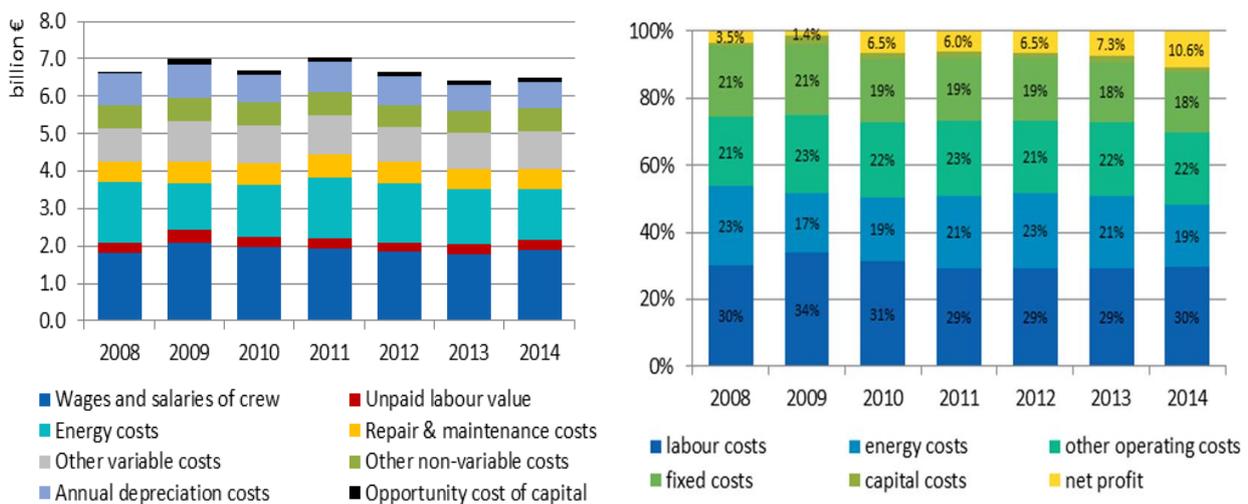


Costs

Costs incurred by the EU fishing fleet in 2014 amounted to 6.4 billion, 13% of which consisted of capital costs (€703 million in annual depreciation and €101 million in opportunity costs of capital) and 87% of operating costs, with the exclusion of Greece,. The latter mainly consisted of labour costs (38% of total operating costs: €1.9 billion in crew wages and €260 million in unpaid labour) and fuel costs (€1.3 billion, 24% of total operating costs). Other costs linked to production amounted to €987 million; while other non-variable (or fixed) costs and repair costs amounted to €600 million and €577 million, respectively. Total costs represented 89.4% of the revenue generated by the fleet in 2014.

The costs structure has remained quite stable overtime. Variations in the cost structure are mainly due to fuel price changes and decreasing depreciation costs due to capacity reductions.

Figure 3: Cost evolution of for the EU fishing fleet during the period 2008-14, in total value and as percentages



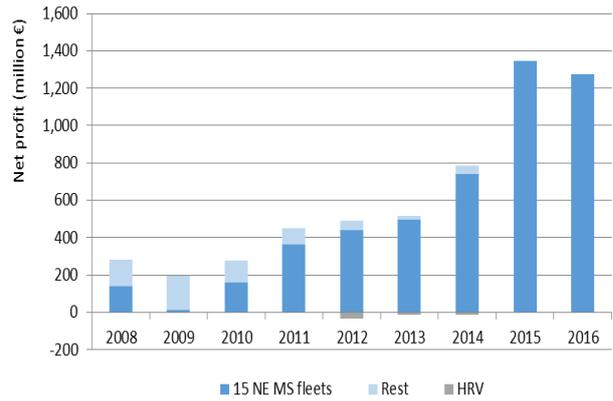
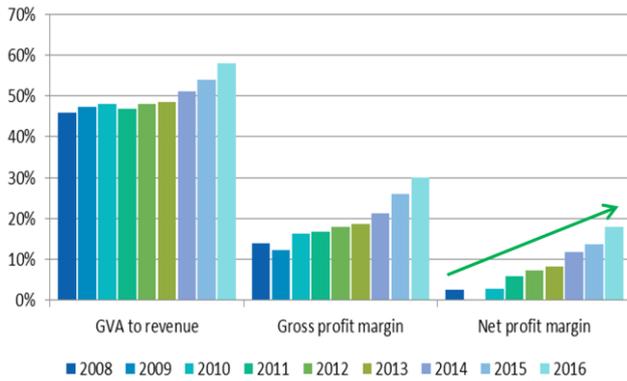
Spain, France, the UK and Italy, accounted for over 71% of the total revenue generated by the EU fleet in 2014 and 71% of both labour and energy costs.

Profitability

The results indicate that the profitability of the EU fishing fleet again increased in 2014 compared to 2013 and is expected to have continued in 2015 and into 2016 mainly as a result of increased landings and low fuel prices.

The amount of Gross Value Added (GVA) and gross profit (all excl. subsidies) generated by the EU fishing fleet (excl. Greece) in 2014 was €3.7 billion and €1.6 billion, respectively. GVA as a proportion of revenue was estimated at 51.5%, up from 49% in 2013 and gross profit margin at 22%, up from 20% in 2013. With a total net profit of around €770 million, 10.6% (up from 7.8% in 2013) of the revenue generated by the EU fleet in 2014 was retained as net profit. While overall the EU fleet was profitable, nine out of the 22 MS fleets (excl. Greece) generated net losses in 2014.

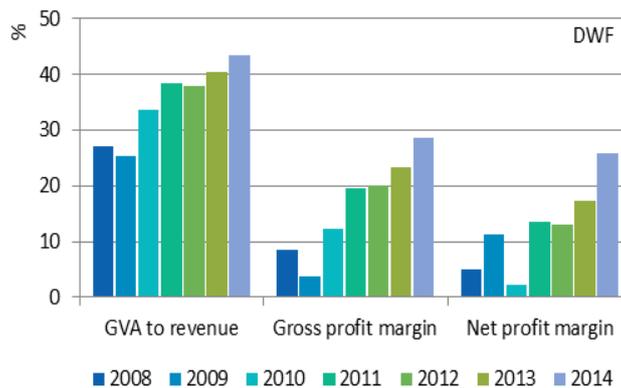
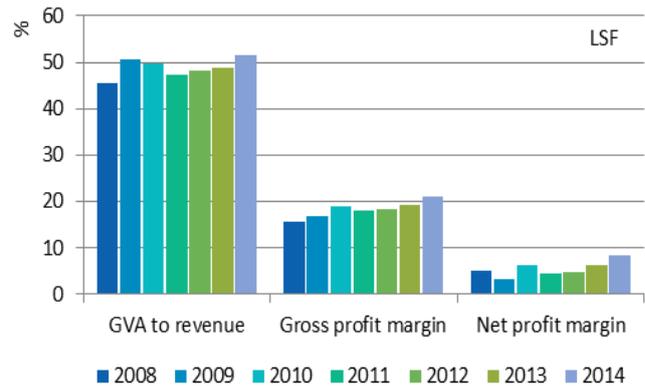
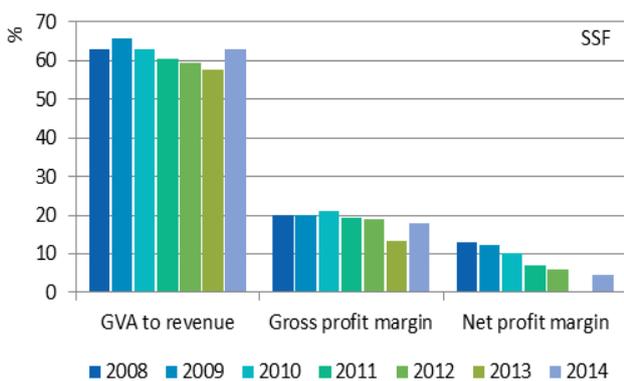
Figure 4: Profitability evolution of for the EU fishing fleet during the period 2008-14, and 2015-16 forecasts for the Northeast Atlantic fleet



Profitability by Scale of Fishing Activity

Economic performance of the LSF (large scale fisheries) and DWF (distant water fisheries) has steadily improved; while the economic performance of SSF (Small scale fisheries) has gradually declined between 2008 and 2013, but showed some improvement in 2014.

Figure 5: Profitability evolution of for the EU fishing fleet during the period 2008-14 by scale of fishing activity



Concluding remarks

AER results indicate that the profitability of the EU fishing fleet again increased in 2014 compared to 2013 and is expected to have continued in 2015 and into 2016 mainly as a result of increased landings and low fuel prices.

The main factors impacting the economic performance of the EU fishing fleet in 2014 and onwards have been:

- Positive factors:
 - Fuel price reductions in 2013 continued,

- Recovery of some stocks, increased TACs and landings from some stocks (e.g. Baltic herring and North Sea plaice),
 - Capacity reductions,
 - More fuel efficient fishing techniques and fishing behaviour.
- Negative factors:
 - Lower average first sale prices (e.g. cod in Baltic, plaice and common sole in the NE Atlantic). Mainly due to market saturation, persistence of the global economic crisis, Russian embargo on EU seafood exports,
 - Reduced TACs and quotas for key stocks (e.g. European sprat and Atlantic herring).

But there is still margin to improve. The CFP aims to ensure that populations of fish stocks are restored and maintained above levels capable of producing MSY. Despite general improvement in the status of many fish stocks that are exploited by the EU fishing fleets, still about half of the stocks are fish at $F > F_{MSY}$. Reducing F to F_{MSY} , generally means that in the medium- to long-term, catches from those stocks would be higher than at present, and so economic performance would increase. We recently estimated for the EU Northeast Atlantic fleet that important effort (and capacity) reductions are necessary to achieve MSY, which would lead to relevant improvements in profits MSY (€ 4.5) (Guillen et al., 2016).

For more information visit:

2016 Annual Economic Report on the EU fishing fleet

<http://stecf.jrc.ec.europa.eu/reports/economic>

Data dissemination tool:

<https://datacollection.jrc.ec.europa.eu/dd/indicators/economic/graphs>

Guillen, J., Calvo Santos, A., Carpenter, G., Carvalho, N., Casey, J., Lleonart, J., Maynou, F., Merino, G., & Paulrud, A. 2016. Sustainability now or later? Estimating the benefits of pathways to Maximum Sustainable Yield for EU Northeast Atlantic Fisheries. *Marine Policy*, 72:40-47. <http://www.sciencedirect.com/science/article/pii/S0308597X1630149X>