

STRUCTURE AND ECONOMIC PERFORMANCE OF THE EUROPEAN UNION FISHING FLEET

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ABSTRACT

The 2012 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of EU Member States fishing fleets. Results suggest that the total amount of income generated by the EU fishing fleet in 2010 (excluding Greece) was €7 billion. The EU fleet moved from a loss making position to a profitable position in 2010. The total amount of Gross Value Added (GVA), Operating cash flow (OCF) and economic profit/loss generated by the EU fishing fleet in 2010 was €3.4 billion (5.7% increase from 2009), €1.2 billion (39.5% increase from 2009) and €288 million (an increase of over €300 million from 2009) respectively. Profitability indicators - GVA, gross profit and net profit as a proportion of total income - all show improvement from 2009 results. GVA as a proportion of total income has increased steadily from 42% in 2008 to 47% in 2009 to 49% in 2010. Gross profit as a proportion of total income increased from 13% in 2009 to 18% in 2010. Net profit as a proportion of total income increased from negative 0.4% in 2009 to 4% in 2010. Analysis of economic performance by Member State reveals a mixed picture in 2010. 11 out of 21 Member States generated a net profit in 2010, compared to 12 out of 21 in 2009. The data suggest that only 4 Member States produced a negative gross profit in 2010.

INTRODUCTION

2012 Annual Economic Report (AER) provides a comprehensive overview of the structure and economic performance of the EU fishing fleet in 2010. We present the findings of some key trends between 2008 and 2010, based on data obtained from the latest DCF fleet economic data call and data held by Eurostat and the EU fishing fleet register.

EU FLEET STRUCTURE

According to data held by Eurostat and the EU fleet vessel register, the total number of vessels in the EU fishing fleet in 2010 was 83,796, with a combined gross tonnage (GT) of 1.75 million tonnes and total engine power of 6.47 million kilowatts (kW). The overall capacity of the EU fleet decreased between 2005 and 2010 (vessels: -5.3%, GT: -13.0% and kW: -10.5%), despite a slight increase in 2007 due to the inclusion of data for new EU Member States, upper left).

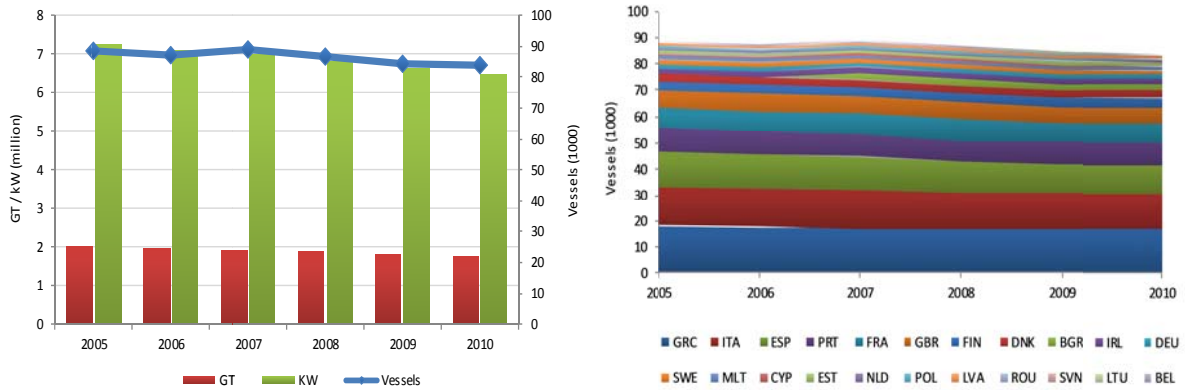
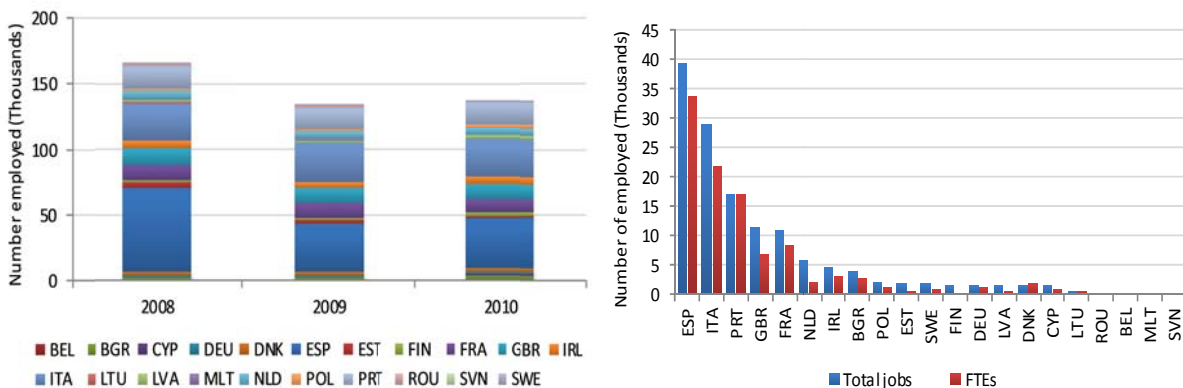


Figure 1. EU fishing fleet capacity trends: 2005-2010
(Source: Eurostat / EU Fleet Register)

Greece was the Member State with the highest number of vessels in 2010 (20.5% of the total), followed by Italy (16.1%) and then Spain (12.9%) (Fig. 1). Spain’s fishing fleet was the largest in terms of tonnage (23.6% of the total), followed by the United Kingdom (11.8%) and then Italy (10.6%) (Fig. 1). Italy’s fishing fleet was the largest in terms of engine power (17.2% of the total) followed by France (15.4%) and then Spain (14.4%) (Fig. 1). According to DCF data, the Slovenian fleet was the oldest on average at around 35 years, while the Bulgarian fleet was the youngest, with an average vessel age of 20 years (data was not available for Spain, Cyprus or Greece).

SOCIO-ECONOMIC STRUCTURE OF THE EU FLEET

According to Member States DCF data submissions, the total number of fishers employed in the EU fishing fleet (excluding Greece) in 2010 was 138,500, an increase of around 2.4% when compared to 2009 figures, however total employed in 2010 was 17.2% lower when compared to 2008 figures (Fig 2, upper left). The total number of FTEs in the EU fishing fleet (excluding Greece) in 2010 was 105,700. Spain had the highest level of employment both in terms of total employed and FTEs of all EU Member States (excluding Greece) fleets (28% and 32%, respectively), followed by Italy (21% and 21%, respectively) and then Portugal (13% and 16%, respectively) (Fig.2, upper right).



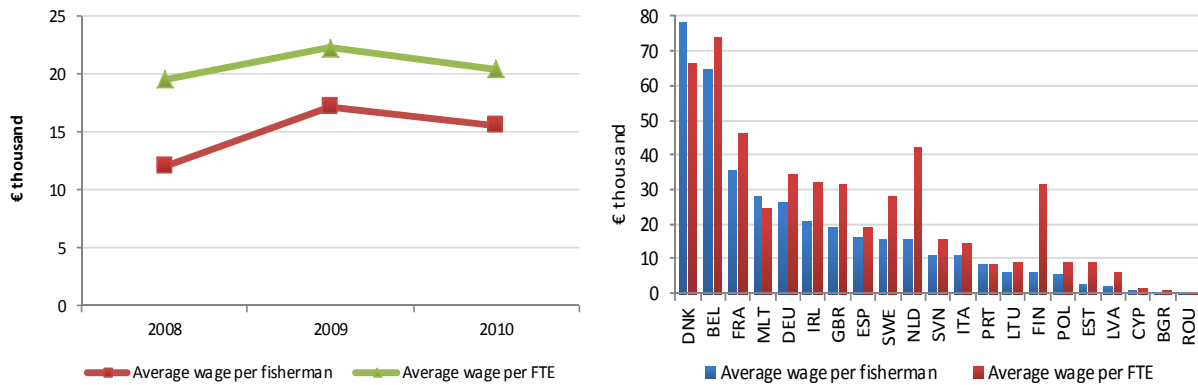


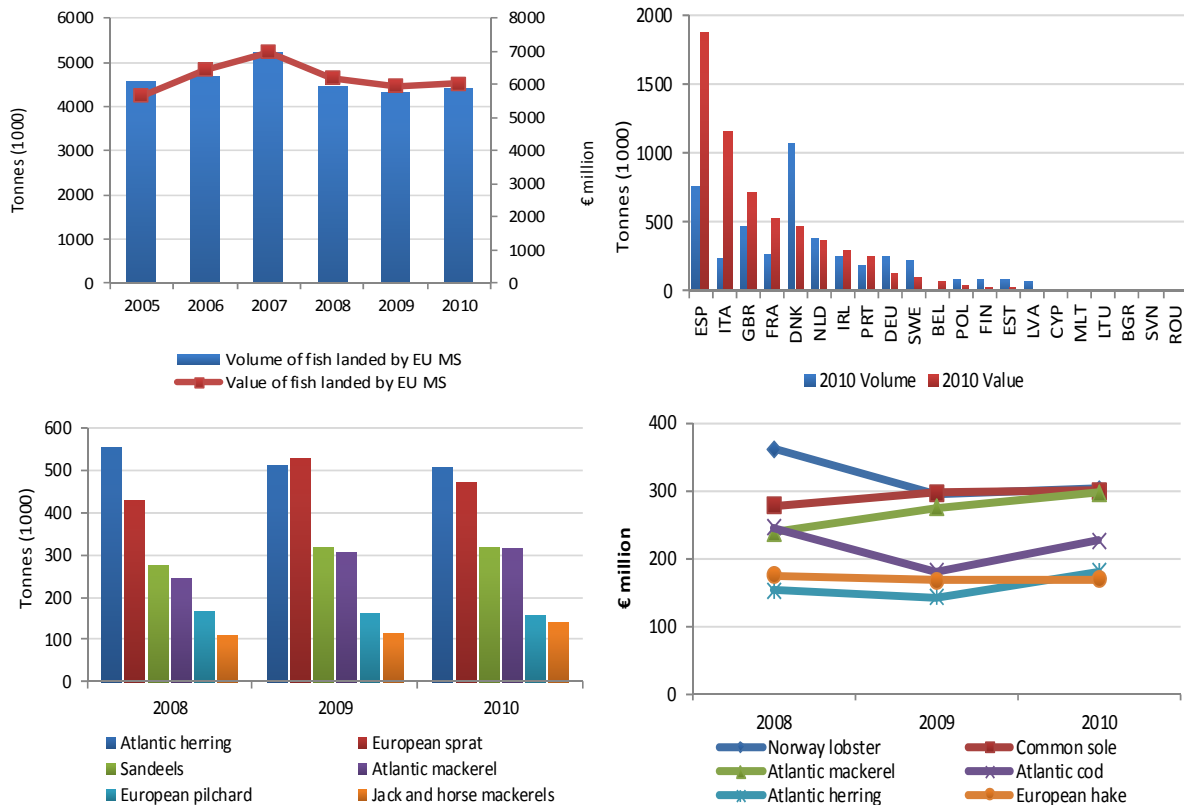
Figure 2. EU fleet employment and average wage indicators
 (Source: EU Member States DCF data submissions)

Data on crew costs and employment levels submitted by Member States suggest that average wages in the EU fish catching sector fluctuated between 2008 and 2010. The average wage per total employed and per FTE in 2010 was €5,600 and €20,400 respectively. Both wage rates in 2010 decreased compared to 2009 levels, by 9% and 10%, respectively (Fig.2, lower left). Average wage rates appear to fluctuate in line with fuel costs in recent years. In 2010 the Belgian fishing fleet paid the highest wages per FTE on average (€74,000), followed by the Danish fleet (€66,000), and then the French fleet (€46,000) (Fig.2, bottom right).

EU FLEET PRODUCTION

According to Eurostat statistics, the total weight and corresponding value of all fish landed by the EU fishing fleet (excluding Greece) in 2010 was 4.4 million tonnes and €6 billion respectively. Following a peak in weight and value terms in 2007 and then subsequent decreases in 2008 and 2009, there was a slight increase in both the volume and value landed between 2009 and 2010 of 2% and 1.2% respectively (Fig 3, upper left).

The Danish fleet landed the most in terms of weight in 2010 with 24% of the total landed in the EU (excluding Greece), followed by the Spanish fleet (17%) and then the UK fleet (11%). In terms of the value of landings, in 2010 the Spanish generated the highest value for their catch (31% of the total), followed by Italy (19%) and then the UK (12%) (Fig. 3.4, upper right).



DCF data submitted on weight and value of landings by species (Greece and Spain are excluded due to non submission of landings data) reveal that herring achieved the highest volume of landings by the remaining EU fleet in 2010, having narrowly overtaken sprat. The total weight of herring landed in 2010 was 505 thousand tonnes, a decrease of 0.8% compared to 2009, while the total weight of sprat landed was 471 thousand tonnes in 2010, a decrease of around 11% from 2009 (Fig 3, lower left). The data also reveals that Norway Lobster achieved the highest value of landings by the remaining EU fleet, having overtaken common sole. The total value of landings of Norway lobster in 2010 was €302 million, an increase of 2.7% from 2009, while the total value of common sole landed was €300 million in 2010, an increase of around 1.1% from 2009 (Fig. 3, lower right).

EU FLEET ECONOMIC PERFORMANCE

According to Member States DCF data submissions, the total amount of income generated by the EU fishing fleet in 2010 (excluding Greece) was €7 billion. This amount consisted of €6.6 billion in fish sales, €34 million in fishing rights rental income, €193 million in non-fishing income, and €126 million in direct income subsidies (Fig. 4, left). The total income of the EU fleet (excluding Greece) increased 2.6% between 2009 and 2010.

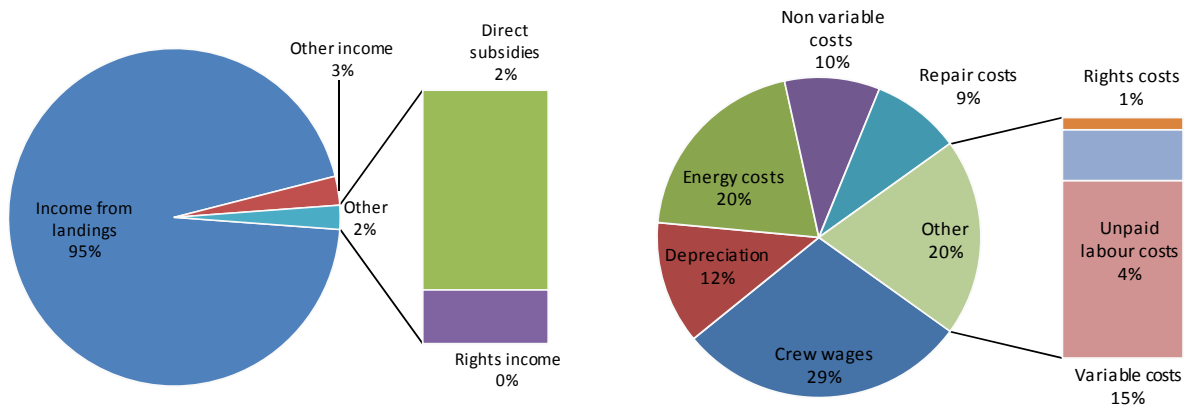


Figure 4. Income and cost type breakdown for the EU fleet in 2010

(Source: EU Member States DCF data submissions)

The total costs of the EU fishing fleet in 2010 (excluding Greece) were €6.5 billion. This amount consisted of just under €1.9 billion in crew wages, €1.3 billion in fuel costs, €576 million in repair costs, €43 million in other variable costs, €14 million in fixed costs, €64 million in fishing rights leasing costs, €278 million in unpaid labour, €793 million in depreciation costs and €141 million in calculated opportunity costs (interest) (Fig. 4, right).

The data suggest that as fuel prices eased in 2009, expenditure on crew wages and repairs consequently increased (15% and 12% respectively), while the total fuel cost of the EU fleet fell significantly (-23%), both in absolute terms and in relation to total income. Data for 2010 suggests a reverse in this trend, there was a 7% reduction in the amount spent on crew wages compared to 2009 and there was an 11% increase in the amount of expenditure on fuel compared to 2009, largely due to the steady increase in fuel prices during 2010.

The EU fleet moved from a loss making position to a profitable position in 2010. The total amount of Gross Value Added (GVA), Gross profit and net profit (all excluding subsidies) generated by the EU fishing fleet (excluding Greece) in 2010 was €3.4 billion (a 5.7% increase from 2009), €1.2 billion (a 39.5% increase from 2009) and €288 million (an increase of over €300 million from 2009), respectively (Fig. 5, left).

Figure 5 (right) shows GVA, gross profit and net profit as a proportion of total income. Each of these profitability indicators all show improvement from 2009 results. GVA as a proportion of total income has increased steadily from 42% in 2008 to 47% in 2009 to 49% in 2010. Gross profit as a proportion of total income increased from 12% in 2008 to 13% in 2009 to 18% in 2010. Net profit as a proportion of total income increased from negative 0.4% in 2009 to 4% in 2010.

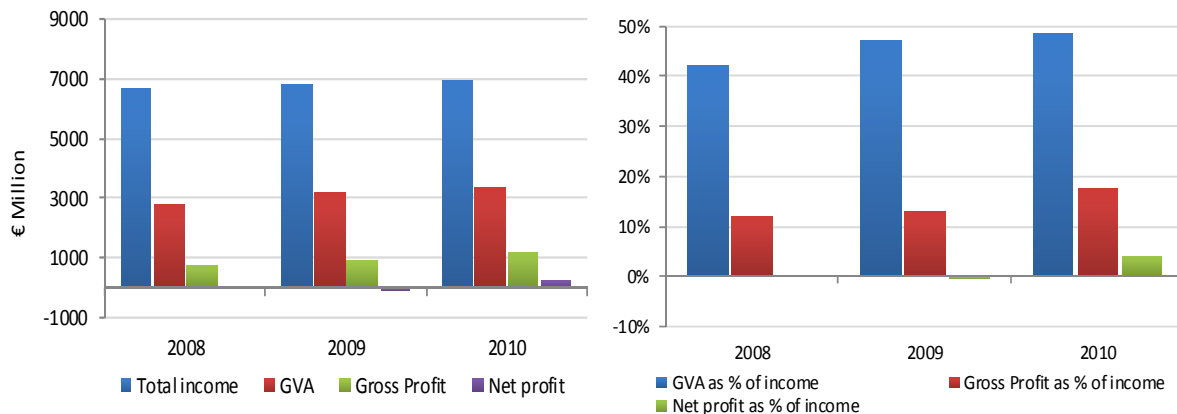


Figure 5. EU fleet economic performance indicators 2008-2010

(Source: EU Member States DCF data submissions)

Analysis of economic performance by Member State reveals a mixed picture (Table I for main indicator totals for all Member States in 2010). Eleven out of 21 Member States generated a net profit in 2010, compared to 12 out of 21 in 2009. The data suggest that only 4 Member States produced a negative gross profit in 2010, compared to 5 in 2009.

The Spanish fleet generated the highest GVA in absolute terms in 2010 (22% of the EU total), followed by the Italian fleet (19% of the EU total) and the French fleet (15% of the EU total). In relative terms, The Danish fleet generated the highest level of GVA in relation to total income (66%), followed by the Portuguese fleet (60%) and the Irish fleet (58%) (Fig. 6, lower).

The Italian fleet generated the highest gross profit in absolute terms in 2010 (27% of the EU total), followed by the UK fleet (16% of the EU total) and the Danish fleet (12% of the EU total). In relative terms, The Latvian fleet generated the highest level of gross profit in relation to total income (38%), followed by the Danish fleet (36%) and the Italian fleet (30%) (Fig. 6, lower).

The UK fleet generated the highest net profit in absolute terms in 2010 (42% of the EU total), followed by the Italian fleet (39% of the EU total) and the Danish fleet (20% of the EU total). In relative terms, the Danish fleet generated the highest level of net profit in relation to total income (15%), followed by the German fleet (13%) and the Polish fleet (10%) (Fig. 6, lower).

Results for Bulgaria, Cyprus and Malta have been excluded from Figure 6 due to questionable data quality. According to their data submissions, the Bulgarian, Cypriot and Maltese fleets generated net losses as a proportion of total income of 116%, 160% and 228% respectively. In addition, gross profits were negative for each Member State, while Bulgaria and Cyprus generated negative value added. Further work is required to evaluate the accuracy of these results, expertise from these countries was lacking during EWG 12-05.

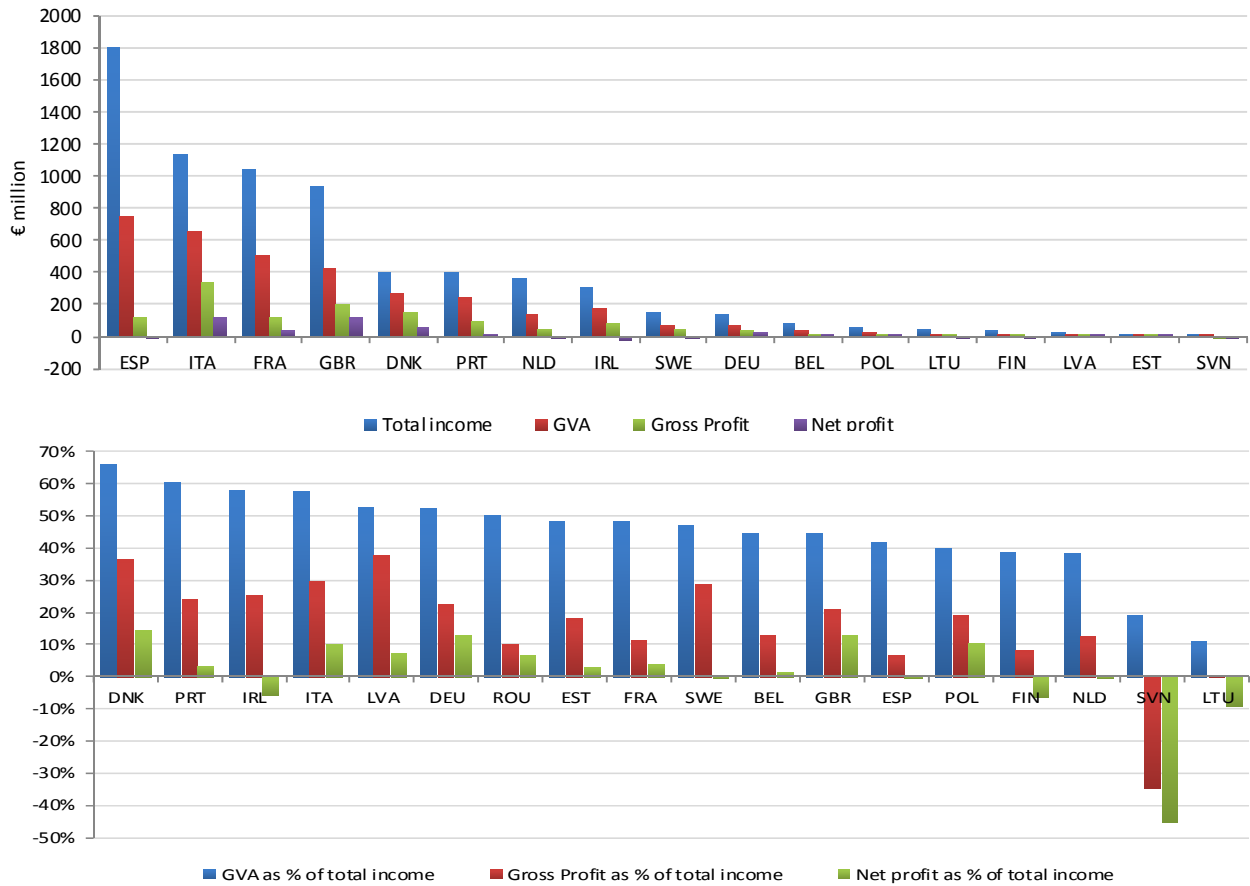


Figure 6. EU Member States economic performance indicators in 2010

(Source: EU Member States DCF data submissions)

The profitability estimates shown in figures 5 and 6 do not include direct income subsidies in the calculation of profit. When we include direct income subsidies in the profit equation, the net profit position increases, from €288 million to €414 million. Meanwhile the EU fleet moved from an overall loss making position to a profitable position in 2009, from €23 million to €151 million (Fig. 7). Figure 7 breaks the calculations down by Member State.

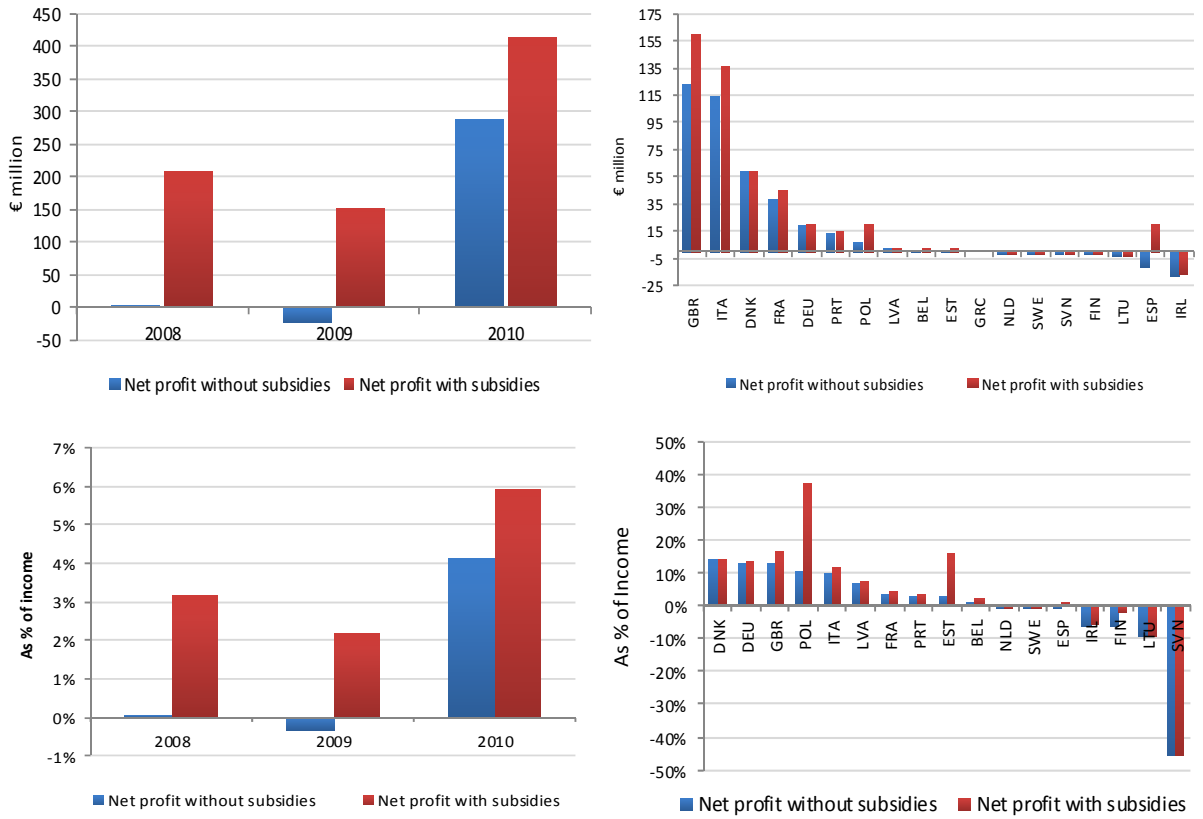


Figure 7. EU fleet net profit with and without direct income subsidies 2008-2010
 (Source: EU Member States DCF data submissions)

Table I: Main indicator totals for EU Member States fishing fleets in 2010

Member State	Number of vessels	Gross Tonnage (1000 GT)	Energy		Total jobs	FTEs	Energy Consumption (million litres)	Days at Sea (million)	Weight of landings (1000 tonnes)	Landed value (€ million)	Direct subsidies (€ million)	Total income (€ million)	GVA (€ million)	Gross Profit (€ million)	Net profit (€ million)	Fixed Asset value (€ million)	Value of Fishing rights (€ million)
			Kilowatts (1000 kW)	Total jobs													
Belgium	89	16.0	51.6	400	352	46.4	17.9	19.8	76.2	1.5	81.4	36.3	10.3	0.9	66.1	-	
Bulgaria	1,383	7.5	48.4	3,933	2,889	1.6	16.0	9.2	2.2	0.8	4.6	-1.7	-4.2	-5.4	16.5	-	
Cyprus	1,132	4.7	45.5	1,421	911	3.2	75.6	1.4	10.2	2.0	12.2	-5.6	-7.1	-19.5	438.0	-	
Germany	1,766	68.2	161.5	1,639	1,276	46.5	115.3	92.2	141.1	1.3	145.7	76.2	32.7	18.9	113.4	-	
Denmark	2,682	68.0	247.4	1,531	1,807	94.6	113.9	782.4	378.3	0.1	404.7	267.0	147.4	58.8	441.9	739.8	
Spain	10,847	414.5	934.1	39,281	33,678	719.2	-	755.5	1,869.4	32.6	1,806.4	752.6	120.7	-11.8	0.0	-	
Estonia	947	17.3	44.4	1,948	521	4.3	-	81.3	13.1	2.0	15.1	7.3	2.7	0.4	18.2	2.8	
Finland	3,270	16.4	171.1	1,703	313	9.1	148.9	122.1	26.6	1.5	31.6	12.2	2.5	-2.0	66.9	-	
France	6,100	163.9	885.1	10,872	8,410	357.6	507.1	447.4	924.3	5.9	1,043.3	502.7	116.5	38.9	1,189.8	-	
United Kingdom	6,409	217.3	843.2	11,494	6,918	285.3	418.5	601.3	832.0	37.7	943.8	418.7	200.2	122.1	437.1	771.3	
Ireland	2,109	68.7	193.9	4,805	3,119	79.7	53.2	314.2	202.1	1.0	308.5	179.1	78.5	-18.0	645.5	-	
Italy	14,969	191.2	1,118.6	28,982	22,002	402.7	1,667.8	223.0	1,102.8	22.2	1,137.0	652.9	335.5	113.6	974.2	-	
Lithuania	193	49.8	57.7	720	520	63.3	10.6	107.5	59.9	0.1	42.6	4.7	0.2	-4.0	47.6	-	
Latvia	771	9.8	26.7	1,619	521	6.5	43.6	74.0	21.0	0.0	21.9	11.5	8.2	1.6	45.6	-	
Malta	1,112	12.3	85.5	361	256	5.3	65.4	1.8	8.8	0.6	9.8	1.3	-8.8	-22.3	59.3	1.7	
Netherlands	725	137.2	293.8	6,039	2,205	146.1	50.8	381.6	354.6	0.0	358.5	136.6	43.7	-0.8	343.2	234.7	
Poland	823	38.4	91.7	2,124	1,268	12.4	62.1	170.8	40.0	14.8	55.0	21.8	10.4	5.7	99.0	-	
Portugal	8,606	103.3	377.6	17,323	17,080	127.8	383.7	189.3	347.3	2.0	400.7	240.9	96.1	13.2	384.6	-	
Romania	430	1.0	5.4	444	403	0.2	6.5	0.2	0.5	0.0	0.5	0.2	0.0	0.0	0.0	-	
Slovenia	185	1.0	11.0	116	82	0.6	7.7	0.8	2.0	0.0	2.4	0.5	-0.8	-1.1	3.5	-	
Sweden	1,417	38.6	196.6	1,765	990	34.0	84.8	204.5	103.3	0.0	154.8	72.7	44.7	-0.9	226.4	-	

(Source: EU Member States DCF data submissions, Greece excluded)

EU FLEET ECONOMIC PERFORMANCE BY GEAR TYPE

When comparing the economic performance of the mobile and passive gear segments, the data suggest that between 2008 and 2010 the passive gear segments were generally more profitable than the mobile gear segments. Figure 8 (upper) shows that GVA, gross profit and net profit as a proportion of total income were consistently higher for the passive gears over the time period. GVA as a proportion of income varied between 52-57% for the passive gears, compared to 39-46% for the mobile gears. Gross profit fluctuated between 17-22% for passive gears, while mobile gears fluctuated between 11-19%. The passive gears made net profit between 2008-2010, while the mobile gears made net losses in 2008 and 2009. Note that these calculations at segment level do not include all EU fleet segments due to missing or incomplete data sets. The segments included in these analyses accounted for 93% of the total EU fleet income in 2010.

The data also suggest that 36% of mobile gear fleet segments made losses in 2010 i.e. vessels in these segments on average made insufficient returns on capital invested. The corresponding figure for 2008 was 47%. In addition, 14% of mobile gear fleet segments generated negative gross profits on average in 2010 i.e. vessels in these segments on average did not generate enough income to cover operational costs. The corresponding figure for 2008 was 17% (Fig. 8, lower left). In comparison, 39% of passive gear fleet segments made losses on average in 2010, compared to 41% in 2008, while 26% of static gear fleet segments generated negative gross profits in 2010, compared to 24% in 2008 (Fig. 8, lower right).

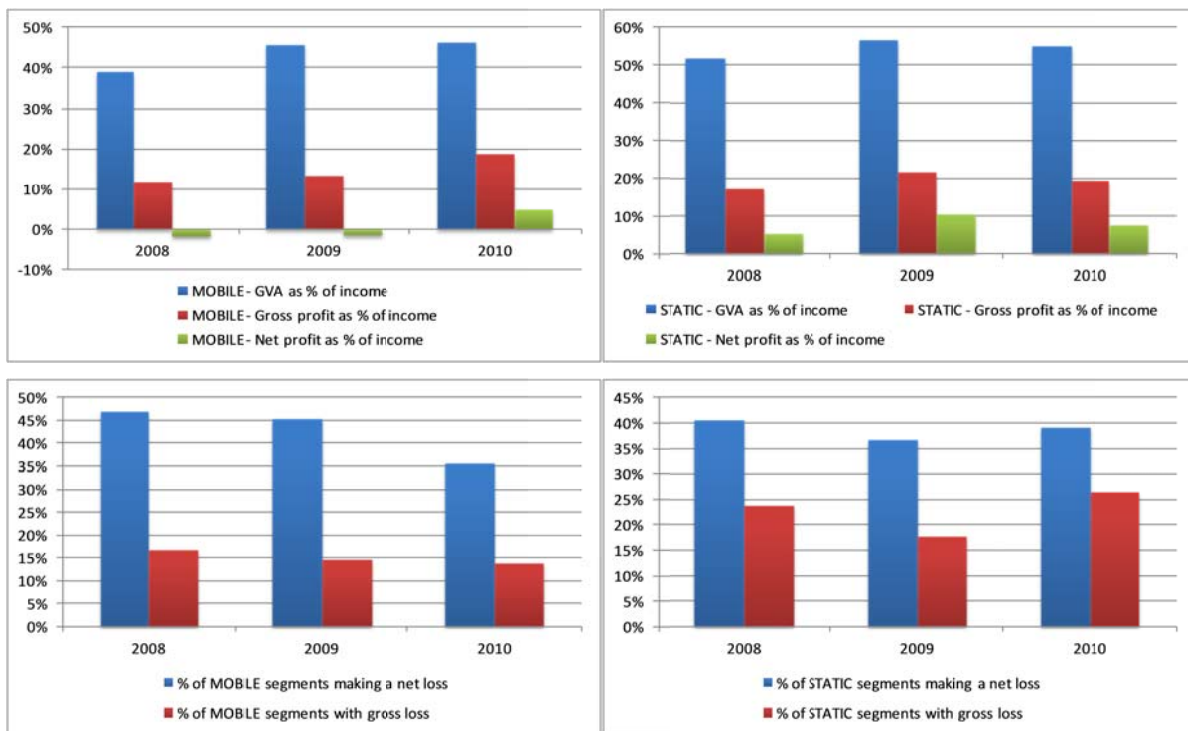


Figure 8. EU fleet economic performance – mobile and passive gears

(Source: EU Member States DCF data submissions)

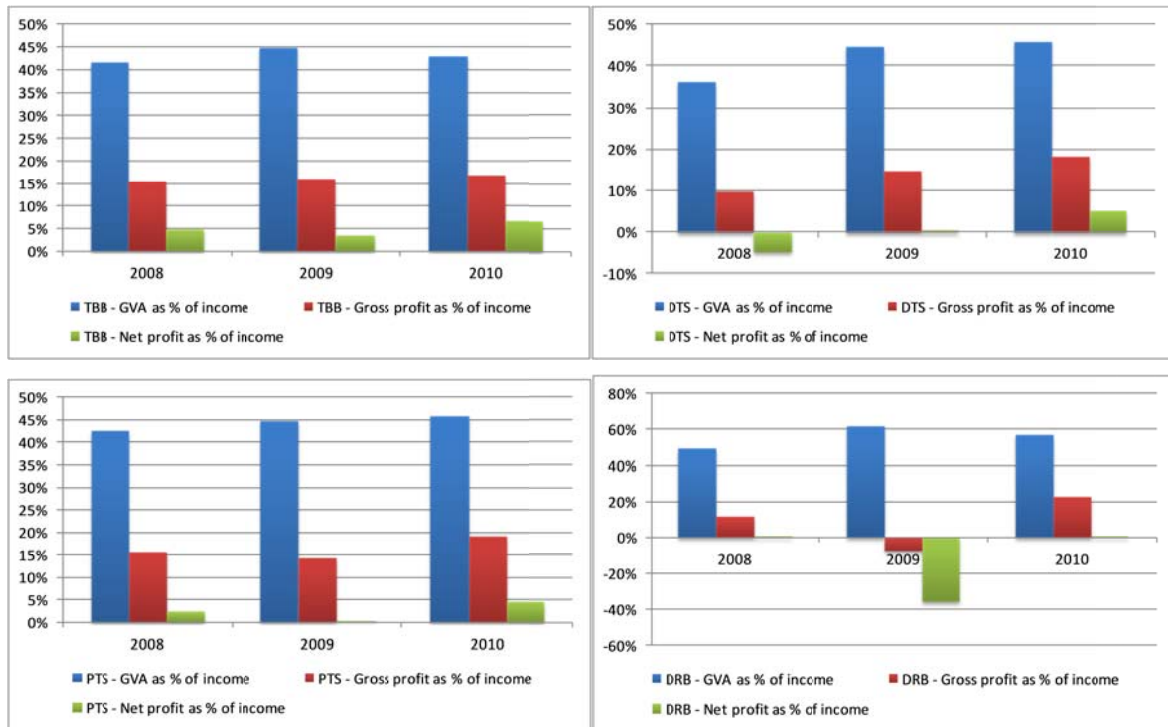


Figure 9. EU fleet economic performance by mobile gear type

(Source: EU Member States DCF data submissions)

Figure 9 contains analyses of economic performance of specific mobile gear types. Data for all mobile gear types show an improvement in economic performance from 2009 to 2010. Gross profit as a % of income from the beam trawlers is consistently around 15% over the period analysed, while net profit as a % of income increased from 4% in 2009 to 7% in 2010. This is a particularly interesting result given that the beam trawl fleet had the poorest economic performance of all the mobile gear types in the previous AER. The data suggest that the dredge (DRB) segments were the least profitable between 2008-2010, with net profit as a % of income of 1% in 2008 and 2010 and -36% in 2009. Gross profit was also negative for this gear type in 2009. This result is particularly interesting given that in last years AER, dredge vessels were the most profitable of the mobile gears. Gross and net profits as a % of income for the demersal trawl and seine vessels increased from 0% and 15% to 5% and 18% respectively between 2009 and 2010.

CONCLUSIONS

The latest data from EU Member States suggests that the EU fishing fleet moved from a loss making position to post a profit in 2010. Overall, the EU fleet showed improvements in all the main economic performance indicators analysed when compared to 2009: GVA was calculated at €3.4 billion, an increase of 5.7%; gross profit was €1.2 billion, a 39.5% increase and net profit was €288 million, an increase of over €300 million from 2009.

Additionally, GVA, gross profit and net profit as a proportion of total income increased in 2010 compared to 2009. GVA as a proportion of total income increased steadily from 42% in 2008 to 47% in 2009 to 49% in 2010. Gross profit as a proportion of total income increased from 12% in 2008 to 13% in 2009 to 18% in 2010. Net profit as a proportion of total income increased from negative 0.4% in 2009 to 4% in

2010. Despite the uncertain economic climate, economic performance projections for 2011 indicate that profitability improved for around three quarters of the national fleets analysed.

During the period under investigation the capacity of the EU fleet continued to decreasing. Despite the downward trend in employment the data suggest an increase in 2010. However the average wage of fishers decreased from the year before.

REFERENCES

Anderson, John, Natacha Carvalho, Franca Contini and Jarno Virtanen (eds.), 2012. The 2012 Annual Economic Report on EU Fishing Fleet. Scientific, Technical and Economic Committee for Fisheries (STECF). JRC Scientific and Policy Reports, Luxembourg: Publications Office of the European Union.