



# E U M O F A

European Market Observatory for  
fisheries and aquaculture products

Case study

## Price structure in the supply chain for fresh hake in Spain

## Contents

<b>SUMMARY</b> .....	<b>1</b>
<b>0 TASK REMINDER – SCOPE AND CONTENT</b> .....	<b>2</b>
0.1 SCOPE OF THE CASE STUDY.....	2
0.2 STATE AND CONTENT OF THE DOCUMENT.....	2
<b>1 DESCRIPTION OF THE PRODUCT</b> .....	<b>3</b>
1.1 NAME, PRESENTATION, PLACE IN THE NOMENCLATURE.....	3
1.2 WORLDWIDE PRODUCTION AND AVAILABILITY OF HAKE.....	5
1.3 EU SUPPLY OF HAKE.....	6
1.4 PRODUCTION AND AVAILABILITY OF EUROPEAN HAKE.....	8
<b>2 THE EU MARKETS FOR FRESH HAKE</b> .....	<b>9</b>
2.1 STRUCTURE OF THE EU MARKETS.....	9
2.1.1 <i>Apparent market by EU Member State</i> .....	9
2.1.2 <i>Supply of the main EU markets for fresh hake</i> .....	10
2.1.3 <i>Main exporting countries within the EU</i> .....	11
2.2 THE SPANISH MARKET.....	12
2.2.1 <i>Historical overview of the Spanish supply of hake</i> .....	12
2.2.2 <i>The main fish species consumed in Spain</i> .....	13
2.2.3 <i>Structure of the supply chain</i> .....	14
2.2.4 <i>Segmentation of the market</i> .....	16
2.2.5 <i>Key drivers of the fresh hake market</i> .....	17
2.3 OVERVIEW OF THE FRENCH MARKET.....	18
<b>3 PRICES ALONG THE SUPPLY CHAIN</b> .....	<b>19</b>
3.1 PRICES AT FIRST STAGE.....	19
3.2 WHOLESALE MARKET PRICES.....	21
3.3 RETAIL PRICES.....	21
<b>4 PRICE STRUCTURE IN THE SUPPLY CHAIN</b> .....	<b>22</b>
4.1 PRICE TIME SERIES ANALYSIS.....	22
4.2 COSTS AND MARGINS IN THE FRESH HAKE SUPPLY CHAIN.....	23
4.3 PRICE STRUCTURE ANALYSIS.....	25

## Summary

- The overall worldwide supply of hake decreased by approximately 3% between 2003 and 2013.
- On the contrary, the supply of European Hake (*Merluccius Merluccius*) increased by over 60% over the same period, mainly after the EU recovery plan.
- The increase of TACs for European hake after the recovery plan mainly benefitted to France, which sends about 2/3 of its catches to Spain.
- Imports of fresh hake from third countries dropped for both fresh and frozen hake (-37%).
- In 2013, European hake (*Merluccius Merluccius*) represents about 80% of the total fresh hake supply in the EU, but only about half in Spain, the main importing Member State.
- The Spanish market accounts for 2/3 of the EU market for fresh hake in 2013.
- Although consumption contracted in the last 5 years, faster than the decrease of overall fish consumption in Spain, hake remains by far the first species on the Spanish market with a consumption per capita three times higher than for cod or salmon.
- There are significant regional differences in the Spanish market, but the main market segmentation is related to the size of the fish: hakes between 0,5 and 1,5 kg (*pescadilla*) are sold at a lower price than hakes over 1,5 kg (*merluza*), even though the price premium for *merluza* tends to decrease over time.
- Imports of fresh hake from third countries into Spain do not have a significant impact on prices as transport costs are high and imports mostly compensate for the lack of EU supply.
- In the long run variations of prices at first sale are passed on to consumers. However in the short run, retail prices tend to fluctuate significantly less than first sale prices.
- The cost structure and price transmission along the value chain has remained fairly stable since 2010. In 2013, the net margin of first wholesalers (*mayoristas de origen*) for fresh *merluza* is estimated at 0,19 EUR/kg (or 3,7% of wholesaler price – *mayorista de origen*) and the net margin of retailers is estimated at 2,43 EUR/kg i.e. 26% of retail price excl. vat).

## 0 TASK REMINDER – Scope and content

### 0.1 Scope of the case study

The study focuses on the most important European market for hake: Spain. The analyses are developed in details for this country. An overview of the other main EU market (France) is provided.

Products	Origin	Characteristics	Market and price drivers
Fresh hake (whole)	Fisheries (EU + extra-EU)	Fresh product, example of stock recovery Affected by market issues Competition with austral species (frozen and fresh)	Supply/demand balance (stability of the market) Price of imported hakes Quality and differentiation of EU production / imported products

The analysis concentrates on:

- The European production
- The influence of third country imports on the Spanish market (volumes and prices)
- Segmentation of the hake market in Spain
- Price structure

Species -Products	Main Member State (focus)	Other Member State (overview)
Fresh hake	Spain	France

### 0.2 State and content of the document

The methodology proposed and agreed for developing case studies on price transmission in EU supply chains involves two main complementary tasks:

- First, gathering available data and statistics and developing specific investigations ;
- Secondly, conducting targeted interviews with experts and stakeholders (importers, retailers, suppliers), to get qualitative analysis on structured data produced in task 1, and complementary information on standard costs and margins.

## 1 DESCRIPTION OF THE PRODUCT

### 1.1 Name, presentation, place in the nomenclature

- Main product

**Name:** European hake (*Merluccius merluccius*)

FAO 3-alpha code: HKE

European hake is fished mostly in the Northeast Atlantic, and to a less extent in the Mediterranean Sea, in the Black Sea and in the Eastern Central Atlantic.



Source: © Scandinavian Fishing Yearbook – <http://www.scandfish.com/>

**Presentation:** the most common presentation is whole fish, gutted, head-on, fresh or frozen. Size: from 0,5 to 7-8 kg.

Fresh hake can also be sold pre-packed in loins, slices or fillets. In this case, it is usually prepared at the final point of sale.

Frozen hake is commercialised under a variety of presentations (fillets with or without skin, slices, etc..) and is used in prepared fish dishes.

- Substitutes

Main substitutes are other hake species, particularly:

- Argentine hake (*Merluccius hubbsi* – FAO 3-alpha code: HKP), from Argentina;
- Southern hake (*Merluccius australis* – FAO 3-alpha code: HKN), from Chile and New Zealand;
- Cape hake, shallow-water hake (*Merluccius capensis* – ERS code: HKK) and deep-water Cape hake (*Merluccius paradoxus* – FAO 3-alpha code: HKO), from Southern Atlantic, mainly South Africa
- Senegalese hake (*Merluccius senegalensis* – FAO 3-alpha code: HKM), from Western North Africa
- Silver hake (*Merluccius bilinearis* – FAO 3-alpha code: HKS) from the East Coast of North America

- North Pacific hake (*Merluccius productus* –FAO 3-alpha code: NHA), found in North Pacific (West Coast of North America)
- South Pacific hake (*Merluccius gayi*– FAO 3-alpha code: PHA), found in South Pacific (East coasts of Peru and Chile)
- Benguela hake (*Merluccius polli* – FAO 3-alpha code: HKB), found off the coast of tropical West Africa, from Mauritania to Angola.

Other species, not belonging to the genus *Merluccius* are also marketed as hake. These vary among countries, but the most common ones in the EU are species of the *Urophycis* family (red hake – FAO 3-alpha code: HKR; and white hake – ERS code: HKW).

According to research works (Guillén, 2006), the Patagonian grenadier, *Macraronus magellanicus* – FAO 3-alpha code: GRM, sold as “merluza de cola patagónica” in Spain can also be a substitute for European hake.

Finally, hake (fresh and frozen) is also in competition with other white fish species, such as cod and haddock and to some extent, new farmed species like pangasius.

**Related codes** in the combined nomenclature.

Trade data originated from COMEXT the statistical database on trade of goods managed by Eurostat, the Statistical Office of the European Commission.

COMEXT identifies the main hake species belonging to the genus *Merluccius*:

- Cape hake "shallow-water hake" "*Merluccius capensis*" and deepwater hake "deepwater Cape hake" "*Merluccius paradoxus*" – COMEXT: 03025411 for fresh or chilled; 03036611 for frozen; 03047411 for frozen fillets
- Southern hake "*merluccius australis*" – COMEXT: 03025415 for fresh or chilled; 03036613 for frozen
- Genus “*Merluccius*” (other) – COMEXT : 03025419 for fresh or chilled; 03036619 for frozen; 03047419 for frozen fillets
- Argentine hake "*merluccius hubbsi*" – COMEXT: 03036612 (frozen); 03047415 (frozen fillets)
- Frozen meat of hake of the genus *Merluccius* (COMEXT : 03049550)

COMEXT also identifies as hakes species of the "*urophycis*" family:

- 03025490 fresh or chilled hake of the genus “*Urophycis*”
- 03036690 frozen hake “*Urophycis*”
- 03037490 frozen fillets of hake “*Urophycis*”.

- [Spanish names for European hake](#)

In Spain, depending on the size, hake is commonly known as:

- *Pescadilla* : 0,5 to 1,5 kg (usually above 1 kg)
- *Merluza* : > 1,5 kg

The Spanish supply-chain analyses focus on *Pescadilla* (1,5 kg) and *Merluza* (2,5 to 5 kg). However prices and costs analyses will focus on *Merluza* only.

Local names can also be found in the various Spanish regions:

- Merluza o Merluza Europea para toda España,
- Merluza, pescadilla or pescada in Andalusia,
- Pescadilla, carioca or pijota in Asturias,
- Pescadilla o carioca and Cantabria,
- Lluç, llucet in Balears islands,
- Lluç in Catalonia and Valencia,
- Pescada in Galicia,
- Legatza or lebatza in the Basque Country,

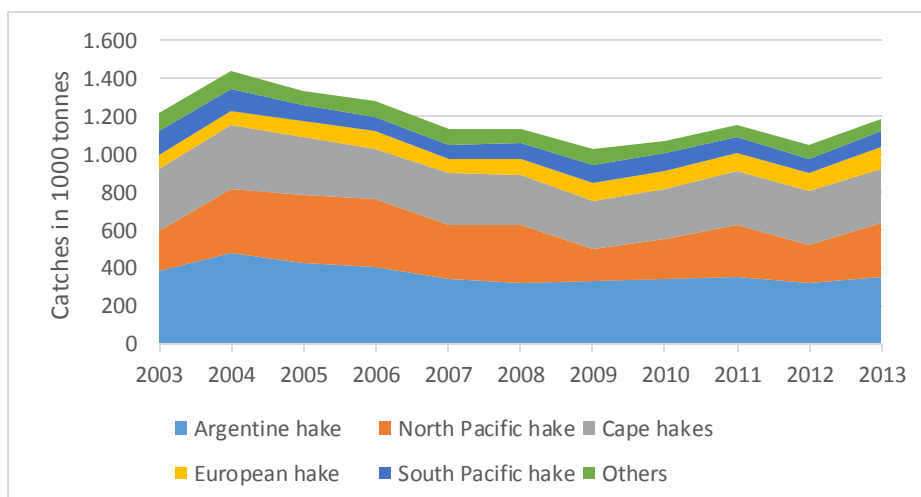
## 1.2 Worldwide production and availability of hake

Although European hake is the dominant hake species in the EU, it only represents 9% of hake world catches.

Catches of hake decreased by approximately 3% between 2003 and 2013. But they declined steadily between 2004 and 2009 (-29% in total) as catches of North Pacific, Argentine and Cape hakes respectively fell by 50%, 31% and 25%.

Since 2009, hake production has been fluctuating, showing a 12% increase between 2009 and 2011, then a 9% decrease in 2012 and a 13% increase in 2013, mainly following the fluctuations of catches of North Pacific hake and to a less extent of Argentine hake.

**Chart 1 - World catches of hake by species (1000 tonnes)**



**Table 1 – World catches of hake by species (1000 tonnes)**

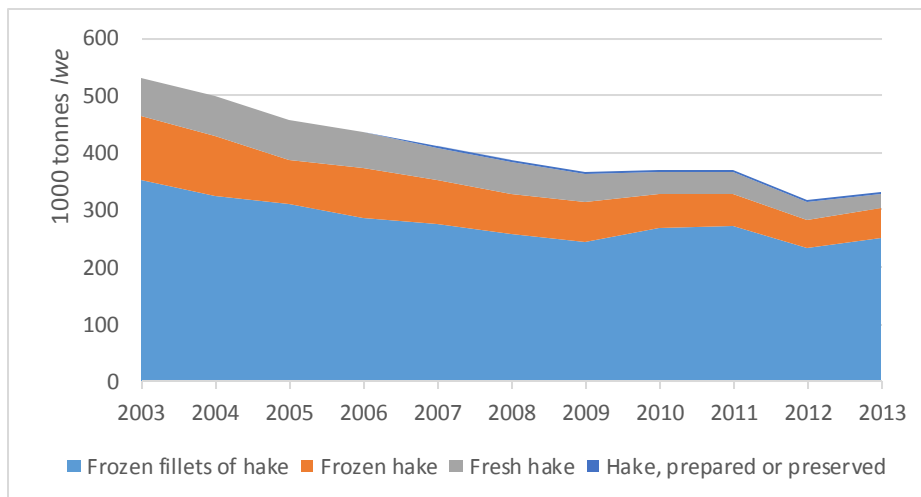
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Argentine hake	380	481	423	407	347	316	331	346	352	318	349
North Pacific hake	210	341	364	357	281	316	172	210	273	207	292
Cape hakes	337	331	303	271	270	262	249	267	285	283	286
European hake	73	81	89	86	75	81	94	94	96	99	108
South Pacific hake	123	112	78	77	78	83	94	90	83	73	92
Others	100	100	82	81	85	74	89	67	66	68	59
<b>Total</b>	<b>1.224</b>	<b>1.446</b>	<b>1.339</b>	<b>1.279</b>	<b>1.136</b>	<b>1.132</b>	<b>1.030</b>	<b>1.074</b>	<b>1.155</b>	<b>1.048</b>	<b>1.186</b>

Source: FAO

### 1.3 EU supply of hake

Imports of hake into the EU have dropped since 2003 (-37%), for almost all types of presentation (fresh and frozen; whole or in fillets). Since 2009, imports of frozen fillets have remained fairly stable, with a slight increase in 2013, while imports of whole hake continued to drop (-21% for frozen hake and -56% for fresh hake). Imports of hake, prepared or preserved have more than doubled over the period but remain marginal (1.4% of total imports).

**Chart 2 – EU imports of hake from third countries by presentation (1000 tonnes /we)**



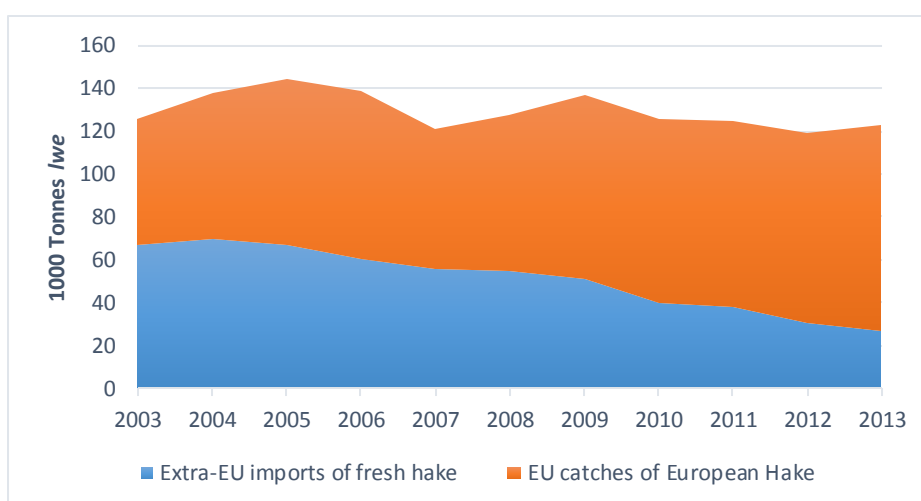


**Table 2 – EU total imports of hake from third countries by presentation (tonnes /we)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Frozen fillets of hake	351.663	324.132	309.873	286.572	276.785	257.251	244.753	267.141	271.337	232.532	249.825	254.298
Frozen hake	110.788	104.217	78.233	87.215	76.180	70.371	68.065	59.699	56.900	51.021	51.773	52.997
<b>Fresh hake</b>	<b>67.259</b>	<b>69.547</b>	<b>67.176</b>	<b>60.761</b>	<b>55.624</b>	<b>54.726</b>	<b>51.534</b>	<b>39.566</b>	<b>37.689</b>	<b>30.723</b>	<b>26.611</b>	<b>22.089</b>
Hake, prepared or preserved	1.153	1.143	2.199	2.299	2.885	3.044	3.230	3.685	3.835	3.938	4.056	3.767
<b>Total</b>	<b>530.862</b>	<b>499.039</b>	<b>457.481</b>	<b>436.847</b>	<b>411.474</b>	<b>385.392</b>	<b>367.581</b>	<b>370.091</b>	<b>369.761</b>	<b>318.215</b>	<b>332.265</b>	<b>333.151</b>

Source: COMEXT

**Chart 3 – Total EU supply of fresh hake (1000 tonnes /we)**



**Table 3 - Total EU supply of fresh hake (tonnes lwe)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Extra-EU Imports of fresh hake, incl.</b>	<b>67.259</b>	<b>69.547</b>	<b>67.176</b>	<b>60.761</b>	<b>55.624</b>	<b>54.726</b>	<b>51.534</b>	<b>39.566</b>	<b>37.689</b>	<b>30.723</b>	<b>26.611</b>
Namibia	7.340	8.477	8.969	6.943	6.047	7.716	8.360	5.103	6.042	5.695	6.925
South Africa	16.161	16.975	17.299	16.584	16.509	14.297	14.420	12.086	9.357	6.706	6.623
Chile	27.094	23.712	24.214	23.950	20.494	19.985	18.492	14.789	13.964	10.184	6.618
Canada	7.936	11.267	8.749	8.009	8.363	8.860	7.137	4.412	5.827	6.030	4.582
Norway	474	531	697	1.003	1.001	1.264	1.217	1.184	878	1.163	1.294
Others	8.253	8.585	7.249	4.273	3.210	2.605	1.907	1.993	1.622	946	569
<b>EU catches of European Hake</b>	<b>58.626</b>	<b>67.767</b>	<b>77.156</b>	<b>77.479</b>	<b>65.575</b>	<b>73.075</b>	<b>85.174</b>	<b>85.868</b>	<b>87.296</b>	<b>87.928</b>	<b>95.980</b>
<b>Total supply</b>	<b>125.885</b>	<b>137.314</b>	<b>144.332</b>	<b>138.240</b>	<b>121.199</b>	<b>127.801</b>	<b>136.708</b>	<b>125.434</b>	<b>124.985</b>	<b>118.651</b>	<b>122.591</b>

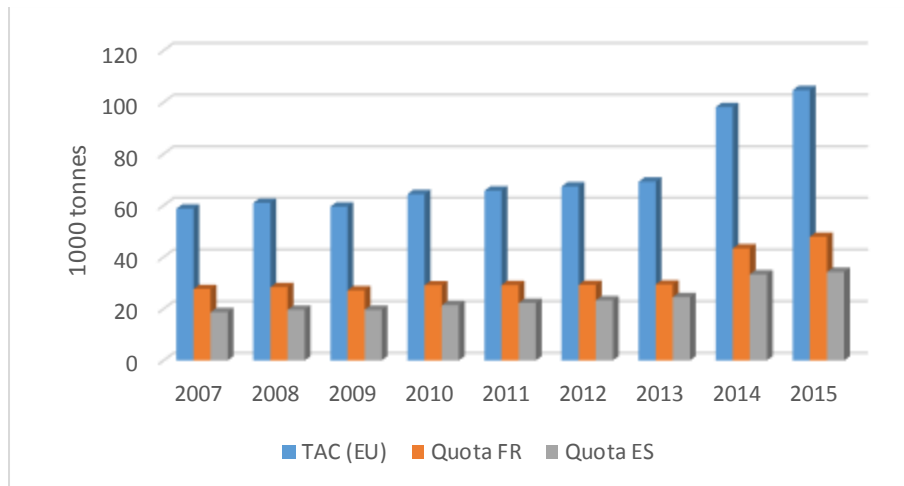
Source: COMEXT for imports, FAO for catches

The supply of fresh hake has remained fairly stable thanks to the increase of EU catches of European hake: +64%.

The fall in catches of austral and pacific hake species resulted in a drop of exports to the EU, from its main traditional providers (Namibia, South Africa, Chile and Canada for fresh hake). But this has been compensated by the increase in EU catches after 2007. Imports of frozen hake have also dropped over the period, with only a slight increase observed in frozen fillets of hake in 2013.

In 2013, European hake accounts for about 80% of the EU fresh hake supply.

**Chart 4 – EU Total Allowable Catches and quotas for European Hake since 2007**



**Source:** DG MARE for TACs and quotas

The recovery plan for hake in the Bay of Biscay (Council Regulation (EC) No 811/2004 of 21 April 2004) led to a decrease of TAC between 2005 and 2007. Fishing opportunities for European hake started to increase again in 2010.

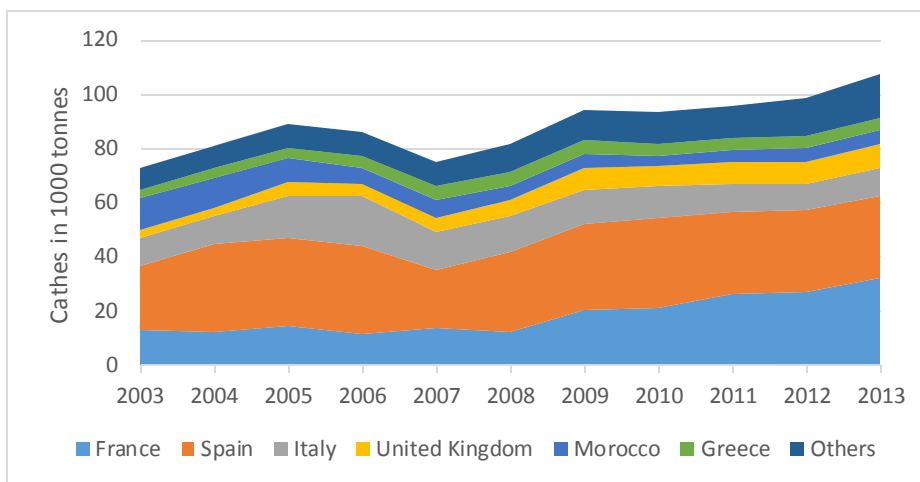
## 1.4 Production and availability of European hake

The EU is by far the first producer for European hake. World production of European hake concentrates in France, Spain, Italy and the United Kingdom that represent 76% of all catches in 2013.

Catches dropped by 15% between 2005 and 2007, following the implementation of the recovery plan in the Bay of Biscay. Since then, catches have increased continuously and reach 107.535 tonnes in 2013 (43% more than in 2007 and 21% more than in 2005).

However the recovery has been unequal amongst countries. Spain, which used to be by far the first producer of European hake with 37% of total catches in 2005, remain 8% below its 2005 production. On the contrary, France, which did not use its full quota before the recovery plan, has more than doubled its volume of catches since 2005 and became the first European hake producer worldwide in 2013, with 30% of the total production (vs 28% for Spain).

**Chart 5 - World catches of European hake *Merluccius merluccius* (tonnes)**



**Table 4 - World catches of European hake *Merluccius merluccius* (tonnes)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>France</b>	13.298	12.057	14.208	11.630	13.748	12.393	20.278	21.152	26.129	26.942	32.348
<b>Spain</b>	23.129	32.974	32.817	32.522	21.034	29.505	31.832	33.060	30.386	30.238	30.332
<b>Italy</b>	10.759	10.303	15.396	18.580	14.660	13.055	12.522	12.015	10.499	9.425	9.767
<b>United Kingdom</b>	2.658	2.974	4.937	3.875	4.576	6.061	7.922	6.927	8.023	8.321	8.936
<b>Morocco</b>	11.909	10.566	9.205	5.923	6.597	4.854	5.585	4.092	4.511	5.573	5.305
<b>Greece</b>	3.171	3.748	3.872	4.794	5.192	5.514	5.230	4.602	4.113	4.378	4.694
<b>Others</b>	7.985	8.546	8.551	9.028	9.491	10.095	11.062	11.876	12.204	13.839	16.153
<b>Total</b>	<b>72.909</b>	<b>81.168</b>	<b>88.986</b>	<b>86.352</b>	<b>75.298</b>	<b>81.477</b>	<b>94.431</b>	<b>93.724</b>	<b>95.865</b>	<b>98.716</b>	<b>107.535</b>

Source: FAO for catches.

## 2 THE EU MARKETS FOR FRESH HAKE

### 2.1 Structure of the EU markets

#### 2.1.1 Apparent market by EU Member State

The EU market for fresh hake is estimated at about 120 000 tonnes in 2013 and concentrates in Southern European countries. Spain is by far the largest market in the EU with an apparent consumption of 81.453 tonnes. France comes next with 15.940 tonnes. Together, Spain, France, Italy and Greece represent around 80% of the total EU market. Based on catches and trade data, it can be estimated that European hake represents about 90% of the fresh hake market in the EU.

Extra-EU imports are marginal for fresh hake (less than 1% of the total EU market).

**Table 5 - The EU market for fresh hake (*Merluccius spp.*) in 2013 (volume in tonnes /twe)- main countries and EU**

	Catches <sup>(1)</sup>	Imports	Exports	Apparent consumption
Spain	30.332	58.404	7.283	81.453
France	32.348	5.259	21.667	15.940
Italy	9.767	1.801	258	11.310
United Kingdom	8.936	235	1.353	7.817
Greece	4.694	406	34	5.066
Portugal	3.020	2.832	852	5.000
Ireland	1.772	218	705	1.285
Denmark	3.140	1.784	3.742	1.182
Total EU <sup>(2)</sup>	95.980	26.611	549	122.042

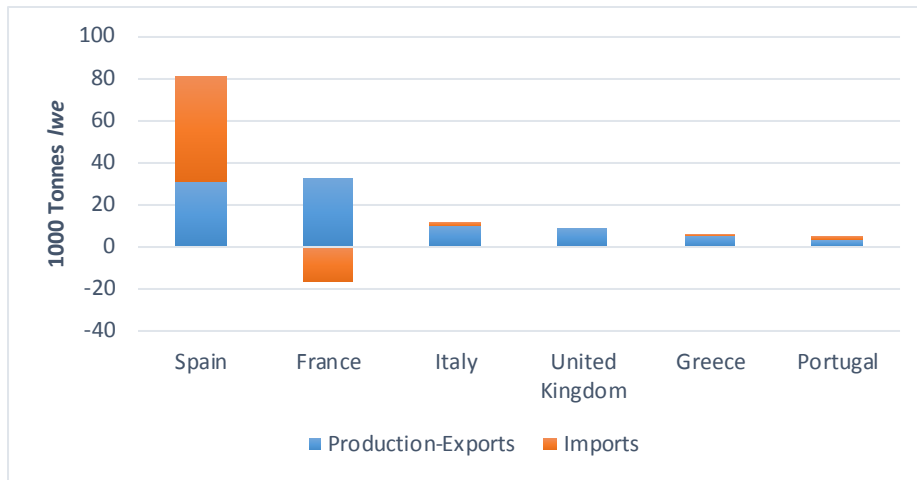
- (1) Only catches of European hake are taken into account here as this is the only hake species landed fresh in EU ports (mostly gutted).
- (2) The imports and exports of the EU only include extra-EU trade, whereas at country level they also include intra-EU trade.

**Sources:** Own calculations from FAO and COMEXT (03025419 - FRESH OR CHILLED HAKE "MERLUCCIOUS SPP." (EXCL. CAPE HAKE, DEEPWATER HAKE AND SOUTHERN HAKE; 03025411 - FRESH OR CHILLED CAPE HAKE "SHALLOW-WATER HAKE" "MERLUCCIOUS CAPENSIS" AND DEEPWATER HAKE "DEEPWATER CAPE HAKE" "MERLUCCIOUS PARADOXUS"; 03025415 - FRESH OR CHILLED SOUTHERN HAKE "MERLUCCIOUS AUSTRALIS")

### 2.1.2 Supply of the main EU markets for fresh hake

The structure of supply varies depending on the Member State. In Spain, where TACs remain far below their historical levels, national catches only represent 37% of the apparent consumption. On the contrary, they reach 203% of the apparent consumption in France, the only Member State where exports significantly exceed imports among the six main markets. Except in Spain, fresh hake remains primarily a domestic product in all markets.

**Chart 6 - Supply of the main European markets in 2013 (volume in tonnes)**

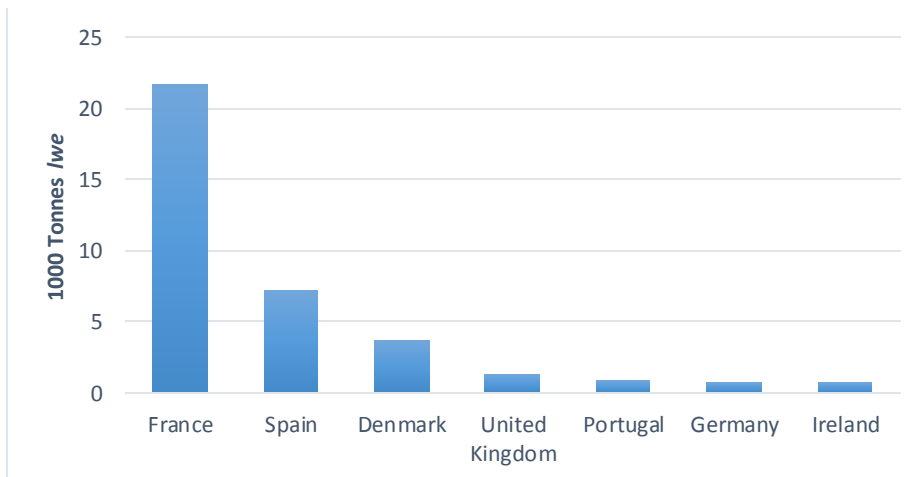


**Sources:** Own calculations from FAO and COMEXT (03025419 - FRESH OR CHILLED HAKE "MERLUCCIUS SPP." (EXCL. CAPE HAKE, DEEPWATER HAKE AND SOUTHERN HAKE; 03025411 - FRESH OR CHILLED CAPE HAKE "SHALLOW-WATER HAKE" "MERLUCCIUS CAPENSIS" AND DEEPWATER HAKE "DEEPWATER CAPE HAKE" "MERLUCCIUS PARADOXUS"; 03025415 - FRESH OR CHILLED SOUTHERN HAKE "MERLUCCIUS AUSTRALIS").

### 2.1.3 Main exporting countries within the EU

Exports of fresh hake (mainly European) from EU Member States remain fairly limited except for France. The two main exporters, France and Spain, are also the main producers, importers and consumers. Denmark mainly re-exports Norwegian hake to Spain and France.

**Chart 7 - The main European exporters for fresh hake in 2013 (volume)**



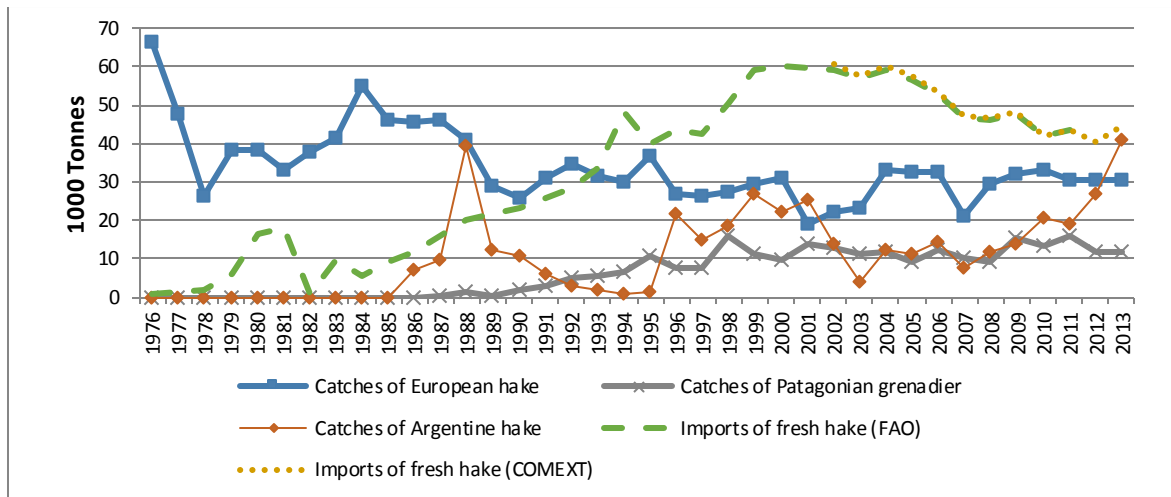
**Source:** Elaboration from COMEXT (03025419 - FRESH OR CHILLED HAKE "MERLUCCIUS SPP." (EXCL. CAPE HAKE, DEEPWATER HAKE AND SOUTHERN HAKE)

## 2.2 The Spanish market

### 2.2.1 Historical overview of the Spanish supply of hake

Long term trends in Spain show substitution trends among different sources of hake.

Chart 8 – Spanish catches (excl. cape hake) and imports of hake (1976-2013)

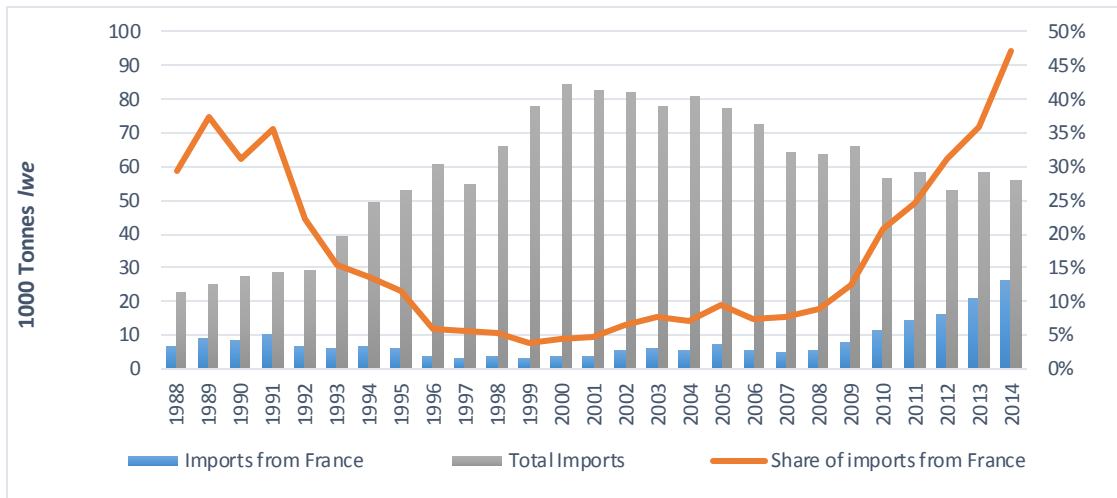


Source: Elaboration from FAO (Catches and imports between 1976 and 2010) and COMEXT (imports)

In the long-run, three sources of supply compensated the decrease in Spanish European hake catches: mainly imports of fresh hakes until 2005, to a lesser extent, increased catches of Patagonian grenadier (sold under *Merluza de cola patagónica*) and, especially in recent years, increased catches of Argentine hake, although Patagonian grenadier and Argentine hake are only partially landed in Spain and they are landed frozen.

According to Guillen’s report, joining the EU had a strong impact on hake supply in Spain in the late 80’s as Spain reduced its fleet as a part of the negotiations. Some of the Spanish catches of European hake in the Bay of Biscay was caught by the French fleet and re-exported to Spain.

**Chart 9 – Share of Spanish imports of fresh hake from France since 1988**



**Source:** Elaboration from FAO (Catches and imports between 1976 and 2010) and COMEXT (imports)

As a matter of fact, imports from France represented between 30% and 40% of total fresh hake (*Merluccius spp.*) imports into the Spanish market between 1988 and 1992. However, they dropped after 1992 and only represented 5% of Spanish imports of fresh hake in 1997. French imports increased again after 2008 and reached 47% of all Spanish imports of fresh hake in 2014 (in Tonnes of *lwe*).

### 2.2.2 The main fish species consumed in Spain

While hake only ranks 7<sup>th</sup> for the consumption of fish per capita in the EU (source: EUMOFA- The EU fish market, Edition 2014)<sup>1</sup>, it is by far the main species consumed in terms of both quantity and value in Spain, accounting for 13% of Spanish fish consumption at home in 2014, and 24% of finfish species.

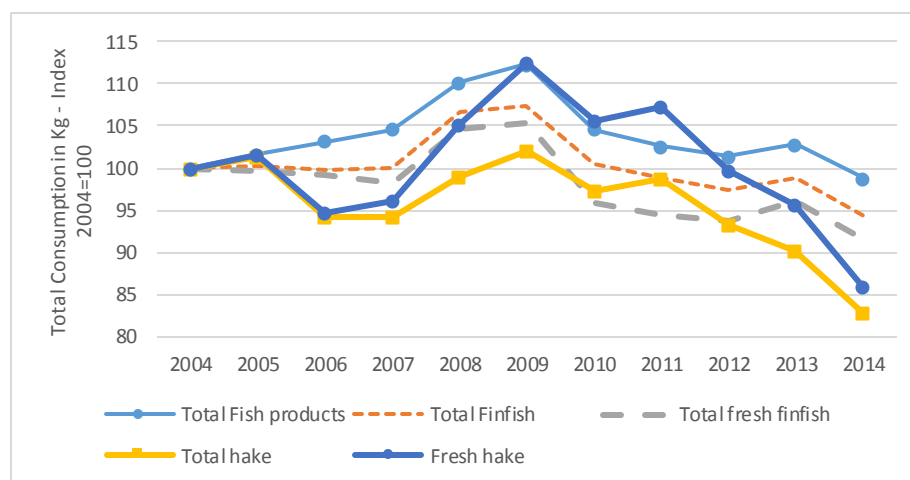
On the opposite, cod and salmon are much less popular in Spain compared with France, UK or Portugal. Hake is consumed 3 times more than cod and salmon.

<sup>1</sup> <http://www.eumofa.eu/documents/10157/7a04438d-9c52-4191-99ca-cfad38985718>.

**Table 6 – Consumption of fish in Spain (fresh and frozen) by species in kg/capita –**

Species	2010	2011	2012	2013	2014	Evol. 2010/2014
Hake	4,02	4,09	3,84	3,78	3,5	↓ -13%
Shrimp	2,28	2,3	2,21	2,09	1,93	↓ -15%
Squid/octopus	1,7	1,47	1,48	1,81	1,61	↔ -5%
Mussel	1,25	1,23	1,24	1,1	1,21	↔ -3%
Cod	0,82	0,85	0,88	1,08	1,1	↑ 34%
Salmon	0,73	0,86	1,09	0,97	1,15	↑ 58%
Anchovy	1	1,03	0,84	1	0,97	↔ -3%
Sole	1,07	0,88	0,78	0,91	0,83	↓ -22%
Seabream	0,68	0,59	0,72	0,64	0,61	↓ -10%
Tuna/bonito	0,6	0,58	0,66	0,61	0,61	↔ 2%

**Chart 10 – Evolution of the consumption of hake in Spain 2004-2014**



**Source:** MAGRAMA (Ministerio de Agricultura, Alimentación y Medioambiente): consumption data

The consumption of hake went down in 2006 with the implementation of the recovery plan and up again in 2008 and 2009. Since 2009, it has decreased by almost 20% in volumes and 15% in value while the overall fish consumption has decreased by 12% in volumes and almost 5% in value. The decrease has been particularly significant for hake consumption after 2011 (-16% in volumes and -11% in value in three years).

According to interviewed stakeholders, although hake remains the main fish species consumed in Spain and is still perceived as the main ‘local’ fish, it can easily be substituted by other white fish or any other fish product if supply is lacking or if the price is too high.

### 2.2.3 Structure of the supply chain

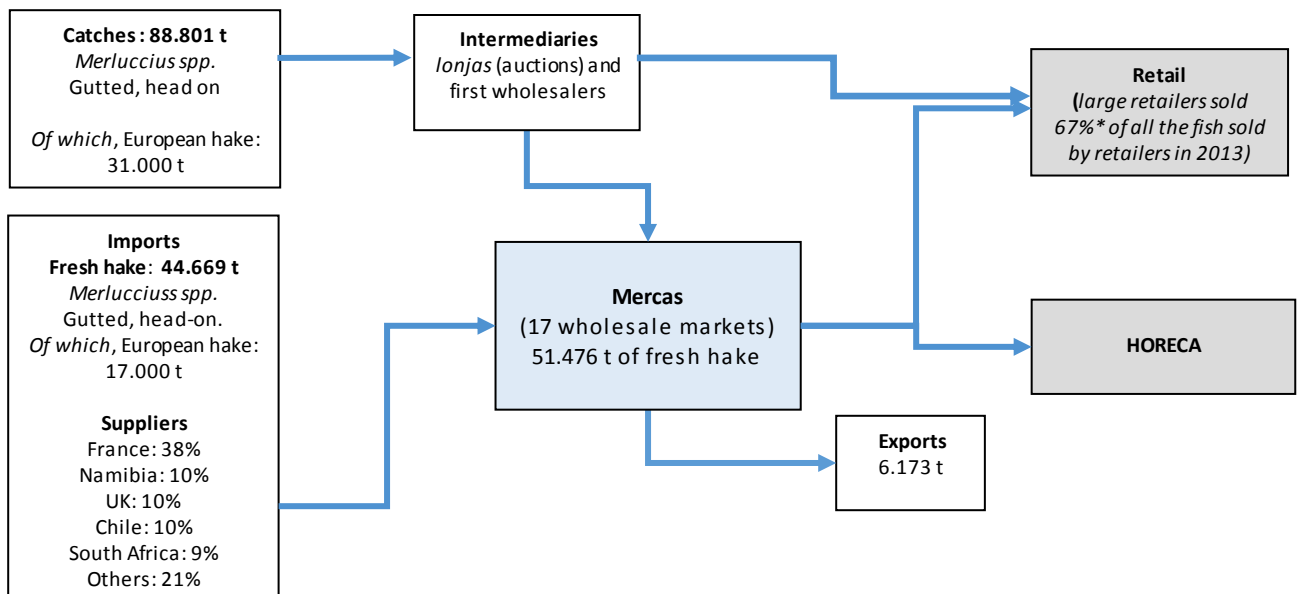
The supply chain for fresh hake, as for other fresh fish products, is very short. Fish landed in the morning can be on the retailers’ shelves on the same day. The vast majority of fish landed in Spain is sold through *Lonjas* (auctions).



The 17 *Mercas* (wholesale markets) running fish markets, bring together 422 fish wholesalers throughout the country and sold 257.171 t of fresh fish in 2014, 20% of which were hake (34.231 t of *Merluza* and 17.245 t of *Pescadilla*).

The following figure presents a simplified picture of the overall supply chain but the reality is a lot more diverse. The supply chain varies depending on the outlet (HORECA, fishmongers, large retailers, etc.) but also depending on the regions as retailers are more likely to buy directly to auction markets in coastal areas.

**Chart 11: Spanish supply chain for fresh hake – 2013**



**Sources:**

AND-International estimates based on data from MAGRAMA, MERCASA, COMEXT and FAO.

Spanish imports and exports: COMEXT.

Spanish catches: FAO

Mercas and consumption data: MAGRAMA and MERCASA (Annual report 2014, Alimentación en España 2014)

\*Large retailers include 'supermercados and hipermercados'

## 2.2.4 Segmentation of the market

The main segmentation of the hake market in Spain is based on fish sizes (*merluza vs pescadilla*). Consumer preferences in that regard vary by region and tradition. For instance, sales of hake in Mercasevilla are almost exclusively made of *pescadilla*, sold about 60% cheaper than *merluza*.

The *merluza* is sold about 1,3 times the price of *pescadilla* at first sale<sup>2</sup> (4,70 EUR/kg vs. 3,65 EUR/kg), and about 1,6 times the price of *pescadilla* at the retail stage (15,08 EUR/kg vs. 9,44 EUR/kg), based on 2014 average prices from the Spanish price observatory.

Prices also change significantly depending on the region, as shown by the prices from the main wholesale markets in the second week of September 2015, which vary from 5.24€/kg in Madrid to 8.50€/kg in Valencia for *Merluza*.

**Table 7 – Example of price differences for hake depending on the location**

	Mercamadrid		Mercabarna		Mercabilbao		Mercavalencia	
	11-sept	15-sept	11-sept	15-sept	11-sept	15-sept	11-sept	15-sept
<i>Merluza</i>	5.87	5.24	6.50	6.00	7.00	7.00	8.50	8.50
<i>Pescadilla</i>	5.51	5.60	3.90	5.00	5.90	5.80	4.00	4.00

Fishing techniques also influence the quality and upstream prices<sup>3</sup>. In Mercabarna, Barcelona wholesale market, detailed annual statistics are available and fresh hake is segmented into 5 categories with prices going from 3,59 EUR/kg to 6,16 EUR/kg for 2014.

**Table 8 - Exemple of market segmentation in Mercabarna (2014)**

	t	%	avg price (EUR/kg)
<i>Pescadilla</i> 500 g	1.129	13%	3,62
<i>Pescadilla</i> 500 g-1 kg	678	8%	4,00
<i>Merluza</i> (>1 kg) - trawler	1.737	20%	3,59
<i>Merluza</i> - longline imported	549	6%	6,16
<i>Merluza</i> - longline national	4.717	54%	5,73
Total hake	8.810	100%	4,93

In the end, there are a variety of factors that influence what is perceived as a good price/quality relationship, including size, cultural tradition and fishing techniques but also freshness and origin (local species vs non-local). Ecolabels are developing as well, with the MSC certification of Galician longline hake in 2014 for instance. However according to interviewed stakeholders, Spanish consumers remain

<sup>2</sup> This corresponds to 'Precios origen' in MAGRAMA's price observatory, meaning the first wholesaler's price ('mayorista en origen').

<sup>3</sup> According to existing literature, the fishing technique is less relevant for the final consumer.

more sensitive to the proximity of the origin than to ecolabels when it comes to responsible purchasing and the development of ecolabels is driven by exports more than by the Spanish market.

**Sources:** Mercasa, Mercaberna, Interviews

### 2.2.5 Key drivers of the fresh hake market

The main drivers of the market are:

- **Fish size:** the main segmentation for fresh hake is the size. It has been shown in Spain that not only prices vary depending on the size but also price flexibility (Guillen, 2006). *Merluza* tends to behave more like a premium product when *pescadilla* behaves more as a standard product. Guillen's work also provides evidence that they are the main substitute product for each other.
- **Fishing techniques:** two main fishing gears are used for hake, long-line and trawl. The main source of supply in volume in the EU is the trawler hake, but longline hake is more common and more traditional in Spain<sup>4</sup>. Long-line hake is of better quality and can be sold at a higher price than trawler hake at first sale. Furthermore some differences can be observed in Spain between the two products in terms of price flexibility, scale flexibility (price changes as a consequence of consumer total expense changes) and cross price flexibility (between longline and trawler hake prices) (Guillen, 2006). These price analyses show that longline hake tends to behave more as a premium product, when trawler hake behaves as a standard product. In other words, additional expenses on hake tend to benefit longline hake more than trawler hake and the availability of longline hake has more influence on trawler hake prices than the opposite. Guillen's thesis was carried out before the recovery plan and the economic crisis, so consumer behavior has probably evolved to some extent and the exact figures for price flexibility would most likely be different today. However, the segmentation between the two fishing techniques remains and the impact on buyers' behavior should not be fundamentally different. It is likely that this segmentation disappears in more advanced stages of the supply chain as the fishing technique is not a factor of differentiation for the final consumer, although this may also evolve with the new labelling requirements.
- **Evolution of domestic supply:** the drop in Spanish catches of European hake in 2006 and 2007 during the recovery plan resulted in a greater variability of prices and higher prices on average (see next section on prices). Consumption of hake also decreased during this period in favour of other fish products.
- **Evolution of imports:** there is no evidence of the impact of imports on fresh hake prices. This could be for various reasons:
  - Spanish landings are not sufficient to meet the domestic demand, so imports complement the domestic production and they actually tend to decrease when catches increase.

---

<sup>4</sup> Source: MAGRAMA 2014 report on hake (the report does not provide figures).

- A significant part of imports come from companies under Spanish owners, who perfectly know the Spanish market and also represent a large part of the Spanish landings ;
- The lack of domestic supply is partially compensated by other fish products so imports are not the only substitute products;
- Transport costs are significant for imported fresh hake as they come by plane;

## 2.3 Overview of the French market

France is the second largest market for European hake in the EU (with an apparent consumption of 15.940 t of fresh hake in 2013) and represents approximately 13% of the apparent consumption in the EU.

European hake is the only species in French catches of hake. The Mediterranean Sea and the Bay of Biscay are the two fishing areas. The French production fluctuated between 2003 and 2008 around 13.000 tonnes, and rose sharply after the recovery plan in the Bay of Biscay to reach 32.348 tonnes in 2013.

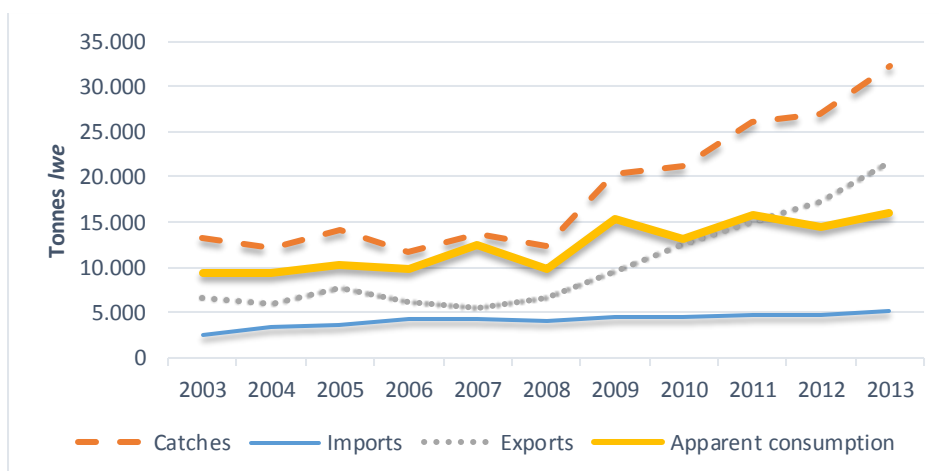
Traditionally hake is not very popular in France. Cod and haddock are much more popular in France than in Spain.

As a consequence, the increase of landings has not been entirely absorbed by the domestic market and exports multiplied by nearly 3,5 between 2008 and 2013. Imports also tended to increase moderately until 2012 and decrease in 2013.

Overall, the apparent consumption remained fairly stable between 2003 and 2008 around 10,000t and then rose to about 15.000t.

As shown in the EUMOFA monthly highlight of February 2015, there has been a slight price drop since 2012: the average first sales price fell from 2,56 EUR/kg in 2012 to 2,50 EUR/kg in 2013 and 2,47 EUR/kg in 2014, which could be related to the increased availability of fresh hake in the market.

**Chart 12: French production and trade of fresh European hake since 2003**



**Table 9: French catches of European Hake since 2003 in tonnes (*lwe*)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Catches	13.298	12.057	14.208	11.630	13.748	12.393	20.278	21.152	26.129	26.942	32.348
Imports	2.587	3.401	3.666	4.381	4.216	4.007	4.531	4.612	4.643	4.732	5.259
Exports	6.498	5.999	7.612	6.087	5.552	6.528	9.418	12.542	14.925	17.206	21.667
Catches - Exports	6.800	6.058	6.596	5.543	8.196	5.865	10.860	8.610	11.204	9.736	10.681
Apparent consumption	9.387	9.459	10.262	9.923	12.412	9.873	15.391	13.222	15.847	14.469	15.940

**Sources:**

FAO: Catches

COMEXT: Imports and Exports (Exports to Spain have been adjusted to take into account the Spanish declarations on imports of fresh hake from France)

### 3 PRICES ALONG THE SUPPLY CHAIN

This chapter analyses available price data and trends on price at different levels of the supply chain for fresh hake in Spain. Price transmission analysis is developed in the next chapter.

Analyses mainly rely on Ministerio de Agricultura, Alimentación y Medio Ambiente (MAGRAMA) price observatory for food products, which provides weekly average prices for European hake.

#### 3.1 Prices at first stage

The following graph illustrates the impact of the recovery plan on prices at first stage<sup>5</sup>. Between 2005 and 2007, prices and seasonal price variations increased significantly, especially for *merluza*, with peaks at almost 12 EUR/kg in winter months, twice the 2004 average.

Prices then decreased between 2008 and 2011 for both *merluza* and *pescadilla* and remained stable afterwards, with fairly small seasonal variations, between 3,4 and 5,5 EUR/kg for *merluza* and between 2,8 and 4,2 EUR/kg for *pescadilla*, for monthly averages.

Intra-EU import prices also increased slightly during the recovery plan and decreased afterwards, from 4,80 EUR/kg on average in 2007 to 2,80 EUR/kg in 2011. They have remained around 3 EUR/kg since then, below *merluza* prices but above *pescadilla* ones.

On the contrary, extra-EU import prices do not seem to have been affected by the EU recovery plan in 2006 and 2007. However, they tended to increase over the period from 3,00 EUR/kg in 2004 to 3,40 EUR/kg in 2014, as a consequence of the overall decrease of hake supply, and in particular the cut in Namibian's quota in recent years<sup>6</sup>.

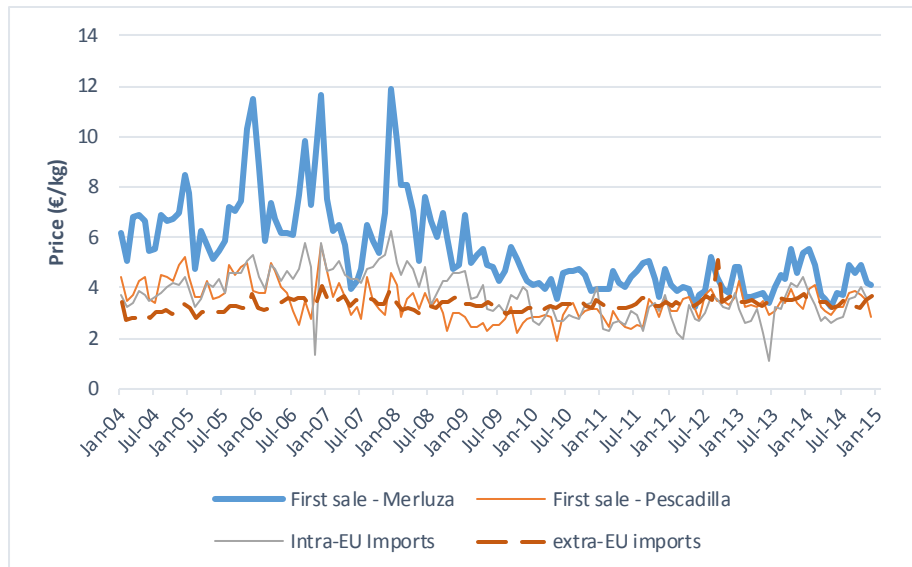
Overall, prices tend to converge over the period. In 2004, prices for Spanish *merluza* were significantly higher than other prices (both Spanish *pescadilla* and imports). It was selling at 3,50 EUR/kg more than

<sup>5</sup> Prices at first stage corresponds to import prices and prices at first sale (*'precios en origen'*) for domestic prices. Prices at first sale are prices of first wholesalers in landing sites.

<sup>6</sup> <http://www.undercurrentnews.com/2013/06/12/hake-prices-recovering-on-demand-from-eu/>

extra-EU imports. In 2014, Spanish *pescadilla*, intra-EU import and extra-EU import prices are very close (around 3,30 and 3,40 EUR/kg) and Spanish *merluza* sells at only 1,00 EUR more per kg.

**Chart 13: Monthly first sale prices of Spanish hake (HKE) and EU import prices**



It appears that from 2008-2009 (i.e. after the world financial crisis) prices of *merluza* and *pescadilla* got closer to each other, with a slightly decreasing trend for *merluza* and a slightly increasing trend for *pescadilla*, probably as a result of greater availability of products and lower capacity of consumers to buy premium products.

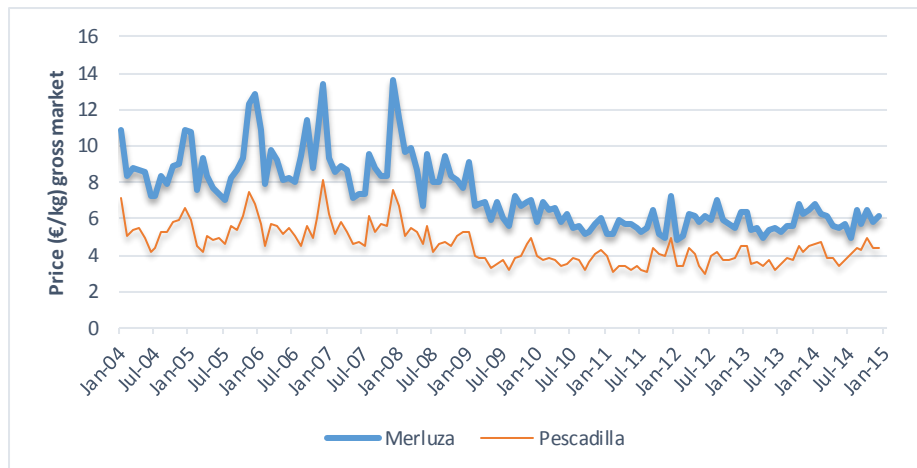
Intra-EU import prices, which were above extra-EU import prices and *pescadilla* first sale prices before 2009, are then below, probably as a result of increased export capacity of neighbours (France).

**Source:** Elaboration from weekly data provided by MAGRAMA (Price observatory of food for first sale prices of *merluza* and *pescadilla*) and COMEXT for import prices (3026966 - FRESH OR CHILLED CAPE HAKE "SHALLOW-WATER HAKE" "MERLUCCIUS CAPENSIS" AND DEEPWATER HAKE "DEEPWATER CAPE HAKE" "MERLUCCIUS PARADOXUS"; 3026967 - FRESH OR CHILLED SOUTHERN HAKE "MERLUCCIUS AUSTRALIS"; 03026968 – FRESH OR CHILLED HAKE OF THE GENUS "MERLUCCIUS" (EXCL. CAPE HAKE "SHALLOW-WATER HAKE", DEEPWATER HAKE "DEEPWATER CAPE HAKE" AND SOUTHERN HAKE)

### 3.2 Wholesale market prices

Wholesale market prices for *merluza* and *pescadilla* show similar evolution as first sale prices.

**Chart 14: Monthly prices for fresh hake at the wholesale market stage**



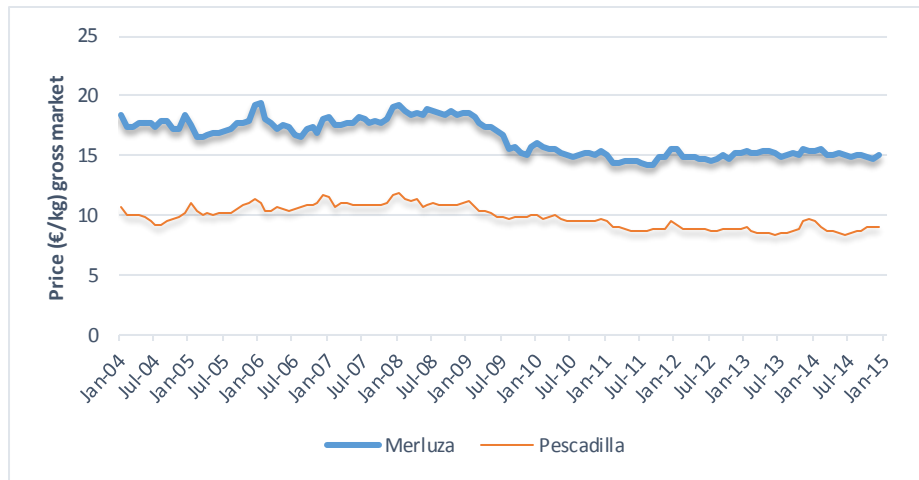
**Source:** Elaboration from weekly data provided by MAGRAMA (Price observatory of food for first sale prices of *merluza* and *pescadilla*)

### 3.3 Retail prices

Retail prices tend to fluctuate significantly less than first sale and wholesale prices as raw material costs represent a smaller share of the total cost. The impact of the recovery plan was barely perceptible during its implementation. *Pescadilla* prices increased by 12% between 2004 and 2007, and kept increasing in 2008, after the end of the recovery plan. *Merluza* prices mainly increased between 2006 and 2008, by only 5% in total. The increase could be related to the increase in import prices as much as to the recovery plan.

However, after 2008, retail prices decrease for both *merluza* and *pescadilla*, showing similar trends as those observed at first sale and wholesale stages.

**Chart 15: Monthly retail prices for fresh hake**



**Source :** Elaboration from weekly data provided by MAGRAMA (Price observatory of food for first sale prices of *merluza* and *pescadilla*)

## 4 PRICE STRUCTURE IN THE SUPPLY CHAIN

From the previous chapter, it can be observed that first sale prices and wholesale prices present similar trends, while the evolution of retail prices looks smoother.

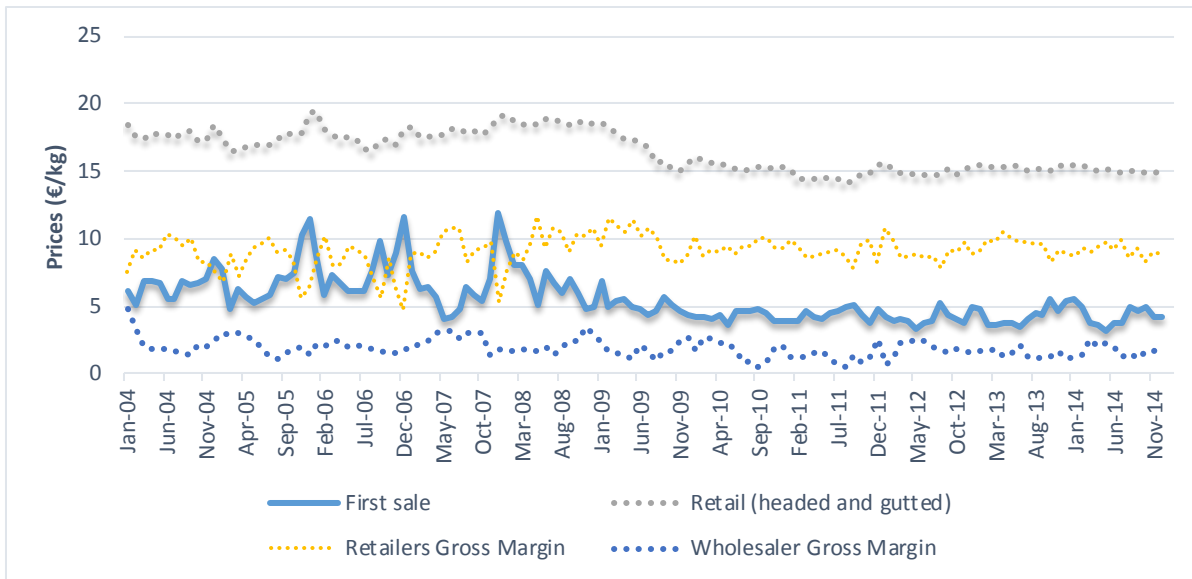
This can be due to the fact that consumers are less able to differentiate between the various hake species, so that the different hake species may become closer substitutes down in the market chain. Also, as it is usually observed for agricultural products, decreases in prices tend to be sharper at origin than at retail level, in relation with the role of price absorber played by retailers.

### 4.1 Price time series analysis

The following figure presents on a same graph prices provided in chapter 3 for first sale and retail prices, as well as the monthly evolution of gross margin for both wholesalers and retailers. It has to be taken into account that retail prices for *merluza* are for headed fish, whereas first sale and wholesale market prices are for whole gutted fish.



Chart 16 - Average monthly prices along the supply chain for *merluza*



**Sources:** Elaboration from weekly data provided by MAGRAMA (Price observatory of food for first sale prices of *merluza* and *pescadilla*)

Trends observed since 2004 corroborate Guillén’s findings. This graph shows evidence that in the long run variations of prices at first sale are passed on to consumers. However in the short run, retail prices tend to fluctuate significantly less than first sale prices.

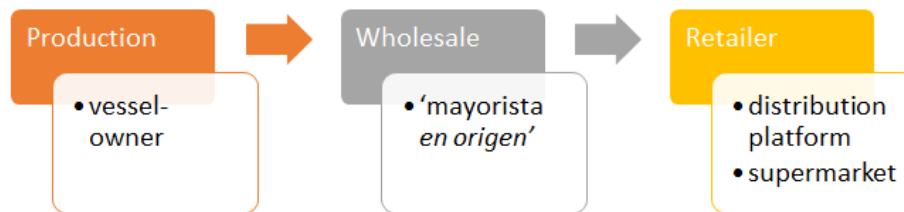
However, interpretations should be made cautiously as Guillén work shows that price transmission mechanisms vary depending on specific market segments, which does not show here. For instance, price transmission along the supply-chain seems to be more systematic for high-quality products such as Galician long-line hake or labelled products as they are more difficult to substitute. The analysis also does not take into account major factors such as the evolution of intermediary costs at the different stages or changes in the product mix at retail level (eg. substitution with other *Merluccius* species).

## 4.2 Costs and margins in the fresh hake supply chain

The analysis below is based on MAGRAMA’s 2012 study of the value chain and price transmission for the European hake (*merluza*)<sup>7</sup> and concerns *merluza* sold through large retailers. In that case, fish is usually bought directly to wholesalers located in the ports and it does not go through the large *Mercas* (wholesale markets) as illustrated below. The price purchased by retailers includes transport to the distribution platform.

<sup>7</sup> “Estudio de la cadena de valor y formación de precios de la Merluza Europea”. The complete study can be found at:

[http://www.magrama.gob.es/es/estadistica/temas/observatorio-de-precios-origen-destino-en-alimentacion/Estudio\\_Merluza\\_tcm7-182788.pdf](http://www.magrama.gob.es/es/estadistica/temas/observatorio-de-precios-origen-destino-en-alimentacion/Estudio_Merluza_tcm7-182788.pdf)



The Spanish price observatory for food, set up by the Ministry of Agriculture, Food and Environment provides cost and margin data for 2010.

The following costs and prices were originally based on interviews with a sample of economic operators and the collaboration of representative organisations of the sector.

According to interviewed stakeholders, the overall cost structure has remained stable since then.

The following assumptions were made:

- Increase of first sale price of 0,8% (based on Eurostat landing prices for European hake in Spain);
- Increase of first stage price ('mayorista de origen') of 0,3% (based on MAGRAMA's Price observatory data);
- Decrease of retail price of 0,7% (based on MAGRAMA's Price observatory data);
- Stable transport costs as prices mainly increased before 2010;
- Increase of labour costs by 5,6% (based on INE's labour survey);
- Increase of intermediary costs by 8% (based on INE's industrial price index);
- Stable shrink costs<sup>8</sup> calculated as a percentage of raw material costs.

---

<sup>8</sup> Shrink costs in this study include losses due to fish not sold (out-of-date, low quality...) and weight loss caused by the progressive drying of fish, especially after they are put on the fish counter.

**Table 100 - Costs and margins in the fresh hake supply chain in Spain (2013)**

	€/kg		% of	% of
	Interval	Average	wholesale price	retail price
<b>First sale price</b>	<b>3,56 - 5,07</b>	<b>4,26</b>	84%	46%
Transport vessel -> Platform	0,17 - 0,22	0,19	4%	2%
Other costs (Ice, depreciation, etc..)	0,18 - 0,38	0,28	5%	3%
Labour cost	0,11 - 0,18	0,15	3%	2%
Net margin	0,18 - 0,29	0,19	4%	2%
<b>Delivered at platform</b>	<b>4,15 - 6,08</b>	<b>5,07</b>	100%	55%
Platform operating costs	0,06 - 0,17	0,12		1%
Transport platform -> shop	0,08 - 0,38	0,23		2%
Shrink	0,27 - 0,8	0,54		6%
Labour cost	0,37 - 0,56	0,46		5%
Other costs (fish counter)	0,34 - 0,56	0,45		5%
Net margin	2,4 - 2,45	2,43		26%
<b>Average selling price, exclusive of VAT</b>	<b>7,67 - 11</b>	<b>9,29</b>		100%
VAT (10%)	0,77 - 1,1	0,93		
<b>Average selling price</b>	<b>8,44 - 12,1</b>	<b>10,22</b>		

**Source:**

- MAGRAMA: Estudio de la cadena de valor y formación de precios de la Merluza Europea, 2012
- MAGRAMA: Observatorio de Precios de los Alimentos
- Eurostat: Landing prices
- INE: Labour costs, industrial costs and transport costs

Shrink costs represent the highest cost for retailers (6% of the retail price). This is because hake is a large fish, which implies important losses at the preparation stage (heading, filleting, ...) and a faster deterioration of the animal.

Other costs at both wholesale and retail level include other supply costs, ice, taxes and depreciation.

### 4.3 Price structure analysis

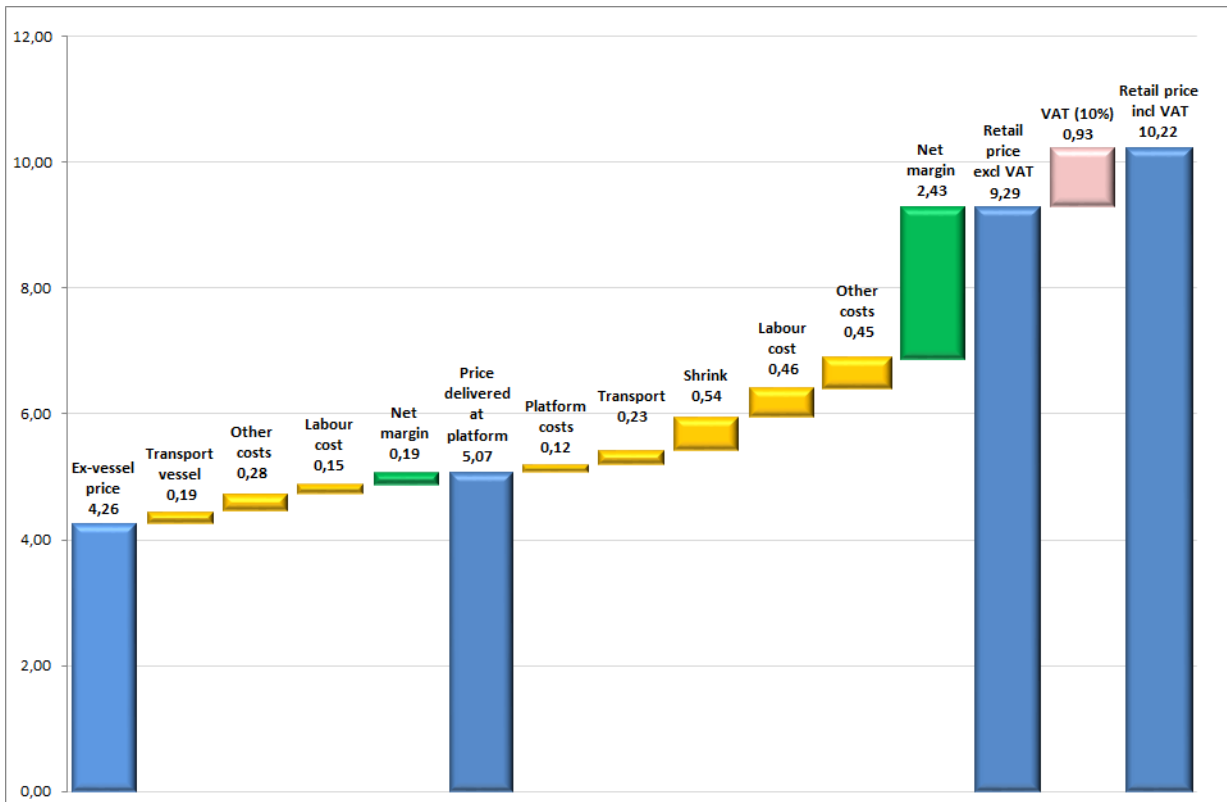
The following chart shows the main average costs and margins. As the above analysis, it represents the value chain for fresh European *merluza* sold through large retailers.

The net margin is estimated at 2,43 EUR/kg at the retail level, (i.e. 26% of retail price (excl. vat)).

The net margin for first wholesalers is estimated at 0,19 EUR/kg (or 3,7% of wholesaler price – *mayorista en origen*).

In 2010, the net margin for fresh *merluza* was estimated at 2,58 EUR/kg at the retail level (28% of the retail price excl. VAT) and at 0,23 EUR/kg at the first wholesaler stage (4,6% of wholesale price – *mayorista en origen*).

Chart 17 - Price structure for fresh European *merluza* along the supply chain (2013)



**Source:**

- MAGRAMA: Estudio de la cadena de valor y formación de precios de la Merluza Europea, 2012
- MAGRAMA: Observatorio de Precios de los Alimentos
- Eurostat: Landing prices
- INE: Labour costs, industrial costs and transport costs