# COMPARATIVE ANALYSIS OF DISTRIBUTIVE TRADE IN EU15, POLAND, HUNGARY, CZECH REPUBLIC AND SLOVAKIA

VÁZQUEZ ROZAS, Emilia\* EXPÓSITO DÍAZ, Pilar

## Abstract

This paper presents a comparative analysis of distributive trade in EU countries. We analyse the main indicators for the distributive sector between EU countries and the new candidates countries and we make further analysis within this sector in EU countries. We also include an analysis of distributive trade in Spain from a regional point of view in comparison with EU15 and Central Europe countries.

#### Resumen

En este trabajo se presenta un análisis comparativo del comercio minorista en los países de la UE. Analizamos los principales indicadores para el sector de la distribución entre los países de la UE y los nuevos candidatos, profundizando en el análisis dentro del sector en los países de la UE. También incluimos un análisis del comercio en España desde una perspectiva regional en comparación con la UE y los países centroeuropeos.

JEL Classification: C5, O52, L8

Keywords: Distributive Trade, Spanish Regions, EU15, Central Europe

## 1. Introduction

The aim of this article is to highlight the importance of the services sector in developed countries, and particularly the great importance of one of its components: distributive trade.

<sup>\*</sup> E. Vázquez is lecturer at the University of Santiago de Compostela, e-mail: (emiliavr@usc.es); P. Expósito is lecturer at the University of Santiago de Compostela, e-mail: (piliexpo@lugo.usc.es).

Our paper analyses the importance of distributive trade in economies of EU countries and Central Europe. To do this, in section 2 we present the number of people employed and the value added of this sector, and also the differences in employee compensation. In section 3 we analyse these three activities at division level (two digits) and group level (three digit) of NACE (motor trade, wholesale trade and retail trade) for EU countries with the aim of showing the retailing structure and the main differences. In section 4 we make reference to the situation in Spanish regions in comparison to European countries. Finally, we present the main conclusions of our study.

# 2. The importance of distribution trade in the EU and Central Europe

In this section we make a comparative analysis of employment and value added in distribution trade in EU15 and Central Europe countries. We also analyse employee compensation and labour productivity.

## Employment

A 15.43 % of EU15 workers belong to distributive trade. Most prominent are United Kingdom (17.08%) and Netherlands (16.61%) with higher numbers, while Finland (12.30%) and Sweden (12.77%) are at the other extreme. The average of Central European countries is 13.71%, where Poland occupies first place (14.26%).

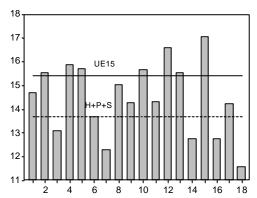
Table 1. Employment and value added in sector 23 and total economy. Thousands of people and millions of €

·	L 23	LT	VA 23	VAT
Austria	591	4018	24930	192932
Germany	6021	38706	97016	888380
Belgium	513	3918	27184	229731
Denmark	440	2770	17891	143667
Spain	2386	15161	60946	530120
France	3231	23573	133017	1302070
Finland	281	2285	11635	117020
Greece	586	3898	16015	110520
Ireland	242	1693	9578	92503
Italy	3684	23505	149244	1134825
Luxembourg	38	262	2046	19542
Netherlands	1326	7983	44397	343424
Portugal	755	4853	14485	92918
Sweden	520	4072	24821	241094
United Kingdom	5002	29279	159353	1261260
UE15	25616	165976	892558	7700006
Czech Republic	-	4754	7198	51821
Hungary	472	3698	4458	40776
Poland	2141	15017	28934	138578
Slovak Republic	254	2194	2464	17800
Central Europe	2867	20909	43054	248975

Note: Year 1996: Sweden / Year 1998: Eslovak Republic / Year 2001:Italy, Denmark. Year 1999: Spain, Netherlands, Portugal, Czech Republic, Hungary and Poland. Year 2000: Austria, Luxembourg, France, United Kingdom, Belgium, Greece, Austria, Finland e Ireland.

Source: National Accounts. OECD.

The graph below shows countries over the EU15 average: United Kingdom, Netherlands, Denmark, Spain, Italy, Germany and Portugal; and the countries below Central Europe average: Finland, Sweden and Belgium.



Graph 1. Employment in sector 23 / total employment.

(1)Austria - (2) Germany - (3) Belgium - (4)Denmark - (5)Spain - (6)France- (7)Finland - (8)Greece - (9)Ireland - (10)Italy - (11)Luxembourg - (12)Netherlands - (13)Portugal - (14)Sweden - (15)United Kingdom - (16) Hungary - (17) Poland - (18) Eslovak R.

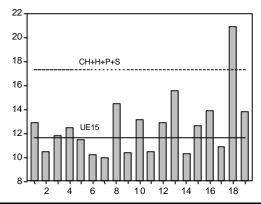
#### Value added

Table 2 presents the figures for value added in distributive trade (sector 23) and total, and the percentage of sector 23 over total.

In table 1 we can see data for value added in distribution trade and total economy. Value added in distributive trade in UE15 represents 11.59% of the total and here the highest ratio is for Portugal (15.59%) and the smallest for Finland (9.94%). In Central Europe, we can see a significant share of value added in distributive trade, where the mean is situated at about 17.29%.

The following graph shows the ratio of distributive trade value added over total value added.

Graph 2. Value added sector 23 over total value added.



(1) Austria - (2) Germany - (3) Belgium - (4) Denmark - (5) Spain - (6) France- (7) Finland - (8) Greece - (9) Ireland - (10) Italy - (11) Luxembourg - (12) Netherlands - (13) Portugal - (14) Sweden - (15) United Kingdom - (16) Hungary - (17) Poland - (18) Eslovak R.

The share of retail sector over total, related to value added, in countries such as Poland, Portugal and Greece stand out here.

## Employee compensation in retailing

The compensation per worker in distributive trade goes from 3564 euros for inhabitants of Poland to 33704 euros for inhabitants of Sweden, a considerable difference. The EU15 average is around 19357 € but there is still much variation in EU15, with Sweden at the head, and Greece at the other extreme (with only 4628 €). We can see clearly that candidate countries are still inferior in terms of distributive income. Graph 3 shows these differences.

30000 - 20000 - UE15 - H+P+S - UE15 - H + P+S - UE 18 - UE 18

Graph 3. Compensation per worker in sector 23

(1)Austria - (2) Germany - (3) Belgium - (4)Denmark - (5)Spain - (6)France - (7)Finland - (8)Greece - (9)Ireland - (10)Italy - (11)Luxembourg - (12)Netherlands - (13)Portugal - (14)Sweden - (15)United Kingdom - (16) Hungary - (17) Poland - (18) Slovak R.

Note: Year 1996: Sweden / Year 1998: Slovak R. / Year 2001: Italy, Denmark. Year 1999: Spain, Netherlands, Portugal, Czech R., Hungary and Poland. Year 2000: Austria, Luxembourg, France, United Kingdom, Belgium, Greece, Austria, Finland e Ireland.

Source: National Accounts, OECD.

Above EU15 average are Sweden, Belgium, Denmark, France, Luxembourg, Austria, Finland, Germany, Ireland and Netherlands. The smaller values correspond to Greece (4628 €), Portugal (9273 €) and Spain (11011 €).

# Labour Productivity

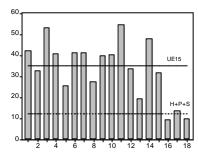
Labour Productivity in distributive trade fluctuates between 19.19 thousands of  $\in$  for Portugal and 54.42 thousands of  $\in$  for Luxembourg, which is very high, and the mean value for EU15 is 34.84 thousands of  $\in$  Countries with labour productivity much greater than the mean value are Luxembourg (54.42), Belgium (53.01) and Sweden (47.73), and those with values lower than the mean include Portugal (19.19), Spain (25.54) and Greece (27.31). The figures for

Vázquez, E. and Exposito, P

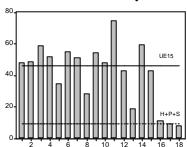
Central European countries are still very small so that the mean is situated above 12.5 thousand euros.

The mean Total Labour Productivity in EU15 is greater than the retailing mean which is 46.39 thousands of € This characteristic is common to all EU15 countries, except Greece. In Central European countries, figures for Total Labour Productivity are less than for retailing, except for Hungary, where both figures are small. The following graphs show the comparison between countries.

Graph 4. Labour Productivity, distributive trades



Graph 5. Labour Productivity, total economy



(1)Austria - (2) Germany - (3) Belgium - (4)Demark - (5)Spain - (6)France - (7)Finland - (8)Greece - (9)Ireland - (10)Italy - (11)Luxembourg - (12)Netherlands - (13)Portugal - (14)Sweden - (15)United Kingdom - (16) Hungary - (17) Poland - (18) Eslovak R.

Note: Year 1996: Sweden / Year 1998: Slovak R. / Year 2001:Italy, Denmark. Year 1999: Spain, Netherlands, Portugal, Czech R., Hungary and Poland. Year 2000: Austria, Luxembourg, France, United Kingdom, Belgium, Greece, Austria, Finland e Ireland.

Source: National Accounts. OECD.

A comparative analysis of candidate countries can be found in Frías et al.(2003).

## 3. Sectoral Analysis of distributive trade in EU countries

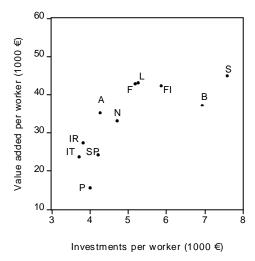
In this section we present a comparative analysis of retailing in EU countries. The three divisions of NACE Rev.1 Section G are considered in our study:

- Motor Trade: sale, maintenance and repair of motor vehicles and motorcycles; car fuel sales.
- Wholesale Trade and commission trade, except of motor vehicles and motor cycles.
- Retail trade, excluding motor vehicles and motor cycles; repair of personal and household goods.

Distributive trade in the EU is dominated by small firms. Enterprises with less than 20 workers account for 95% of all businesses in distributive trade. There are differences between north and south countries in Europe. The concentration is bigger in northern countries where there are larger sized businesses and associations are more common. There are still many small family run businesses in southern countries, therefore, the tendency will be to incorporate family businesses into some kind of association as well as to specialize and modernize those enterprises in order for them to survive.

Generally, investment is lower in distributive trade than in the industrial sector. The positive relation between labour productivity and investment per person employed in distributive trades is represented in the following graph. Sweden occupies a high position with investment at 7500 € per worker and a labour productivity of 44700 € Mediterranean countries and Ireland have the lowest numbers because its trade structure has the most number of enterprises and persons employed.

Graph 6. Labour productivity and investment per worker in EU distributive trade.



Austria (A), Belgium (B), Spain (SP), France (F), Finland(FI), Ireland (IR), Italy (IT), Luxembourg (L), Netherlands (N), Portugal (P), Sweden (S). Source: Eurostat (2001) and INE (2002).

As we can see in table 2, the smallest share of distributive trade corresponds to motor trade in terms of number of companies, employees and value added (approximately 15% of total) and in turnover.

Table 2. Sectoral Structure in Distributive Trades in EU. 1999

	Motor Trade	Wholesale	Retail Trade
	(%)	Trade (%)	(%)
Enterprises	12.5	27.1	60.4
Employment	13.1	32.1	52.6
Value Added	14.6	47.0	38.4
Turnover	15.9	54.4	29.7

<sup>\*</sup>Greece is not include. Employment rate without United Kindong. Value added rate withouth Germany.

Source: Eurostat (2001).

Wholesale businesses make up 32% of total trade and their turnover accounts for 54%. Labour costs in wholesale are the highest in distributive trade because people employed in this division need a higher level of skill to be able to perform tasks involved in this activity. Austria occupies a high position with 31000 € and Portugal shows the lowest value for unit labour costs with 10000 €

Retail trade enterprises employed nearly 11.4 million people in 1999 (7.4 million in wholesale and 3.3 million in motor trade), representing around half of total firms and workers in distributive trade. Because labour input is higher than capital input, productivity is lower than other trade types; therefore, retailing turnover represents only around 30% of total trade. Retailing is the division that has the highest share of self employed people and it consists of a great number of small firms, with family workers, principally in southern European countries. Retail labour represents 60% of total distributive trade labour in Germany and Ireland, where proportion of wholesade is lower than 30%.

In Europe, female employment is nearly 60% in retailing, 32% in wholesale and 18% in motor trade. On the other hand, retail trade represents higher weight in part-time employment (30%) than the others (10%). Some in indicators for distributive trade are presented in the following tables which reflect the different structures in Europe. Productivity is greater in wholesale trade because retail trade is more employment intensive. The position of motor trade is similar to that of wholesale.

#### Motor Trade

According to available data, density of motor trade is higher in Italy and Portugal, with 27 enterprises per 10 thousand inhabitants, althought Spain, Sweden and Finland also have a high density. These countries have a great number of small enterprises especially Italy with less than 3 employees per enterprise, less than 3 for turnover per

worker and less enterprises than the european average. Germany and Austria have the biggest enterprises in terms of number of workers and turnover per enterprise

Table 3. Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of car fuel.1999. (thousands of €)

	Firms 10000	Workers	Turnover	Turnover	Value
	inhabitants	per firm	per	per	added per
			inhabitant	worker	worker
Austria	10.2	9.5	2.5	254.2	35.6
Germany	4.5	11.7	1.6	293.5	-
Belgium	-	ı	4.6	533.3	36.6
Denmark	23.8	5	2.1	180.6	43.4
Spain	18.2	4.7	1.9	222.9	27.2
France	13.5	5.1	1.9	302.9	34
Finland	18.3	3.6	2.5	367.2	43
Ireland	13.3	5.9	2.2	278.5	28.8
Italy	27.3	2.7	2.2	274.1	20
Luxembourg	19.0	7	5.4	403.1	45.7
Netherlands	13.6	6.4	3.2	369.6	35.5
Portugal	27.0	5	3.0	266.2	16.2
Sweden	21.0	3.9	3.2	442.1	38.2
U. Kingdom	12.3	-	3.3	-	-
UE	14.7	4.8	2.2	378.7	30.3

Source: Eurostat (2001) and INE(2002).

### Wholesale Trade

In Europe there are nearly 32 wholesale enterprises per 10000 inhabitants, although the numbers vary among countries. Italy and Luxemburg have the highest number followed by Portugal, Spain and Greece which are the countries with the lowest number of people employed per enterprise and the lowest turnover per worker (except Sweden)

Table 4. Wholesale Trade and commission trade, excluding motor vehicles and motor cycles. 1999. (thousand €)

	Firms 10000	Workers	Turnover	Turnover	Value
	inhabitants	per firm	per	per	added per
			inhabitant	worker	worker
Austria	24.0	10.3	9.2	367.4	49.9
Germany	8.7	17.0	6.9	470.1	-
Belgium	-	-	13.2	621	53.7
Denmark	42.4	7.8	14.3	426.6	53.7
Spain	46.5	5.1	6.9	223.0	27.2
France	26.6	5.9	7.4	498.2	48.4
Finland	33.5	4.8	8.1	502.1	57.2
Ireland	12.9	10.2	4.9	373.5	50.2
Italy	66.5	2.5	5.6	304.4	40
Luxembourg	67.3	4.2	16.0	561.5	59.5
Netherlands	34.3	7.9	13.8	505.52	53.7
Portugal	49.3	5.4	8.5	304.5	24
Sweden	47.8	5	10.1	471.9	49
U. Kingdom	20.5	-	8.9	-	-
UE	31.9	5.3	7.6	423.6	35.3

Source: Eurostat(2001) and INE(2002).

Germany is the country that records the largest enterprises, with 17 people employed per enterprise and a turnover per enterprise of nearly 8 million €(the european average is 2.4 million €).

#### Retail Trade

Retail trade enterprises in Spain, Portugal and Italy are generally very small (less than 3 workers per firm) and generate slow productivity. These countries have a large number of businesses per inhabitant. Spain has 140 enterprises per 10 thousand inhabitants, Portugal 136 and Italy 124, these numbers are far greater than the UE average (67).

Table 5. Retail trade, excluding motor vehicles and motor cycles; repair of personal and household goods.1998. (Thousand €)

	Firms 10000	Workers	Turnover	Turnover	Value
	inhabitants	per firm	per	per	added per
			inhabitant	worker	worker
Austria	45	7.4	4.3	126.8	26
Germany	34.2	9.0	3.8	123.4	1
Belgium	-	ı	4.7	172.6	25
Denmark	60.2	6.1	5.1	137.7	25.5
Spain	139.6	2.8	3.6	93.7	18.0
France	64.1	3.9	4.6	231	31.2
Finland	49.4	4.3	4.2	193.4	32.3
Ireland	56.4	6.4	3.5	101.1	18.3
Italy	123.9	2.2	3.5	120.3	20
Luxembourg	66.6	6	6.4	162.3	30.1
Netherlands	58	7.3	4.3	97.8	19.8
Portugal	136.2	3.1	4.4	94.3	11.4
Sweden	66.3	4	4.4	218	27.1
U. Kingdom	36.5	-	6.0	-	-
EU-15	66.9	3.8	4.2	136.9	23.4

Source: Eurostat. Distributive trades in Europe.

Germany and Austria have the largest enterprises of the EU, in terms of people employed and turnover per enterprise (in Germany is 1100 thousand  $\clubsuit$ ).

In the graph below we present a typology for retail trade in the EU.

1200 1200 •G 1000 1000 Enterprise size Enterprise size 800 800 s. 600 600 400 400 •sP 200 200 100 150 200 10 20 30 Turnover per person employed Value added per person employed

Graph 7. Enterprise size and productivity in retail trade

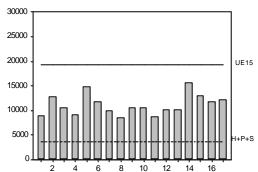
In general, we can see a direct relation between the size of enterprises and productivity. Several groups of countries can be formed according to retailing features:

- Portugal, Spain and Italy have small enterprises and low productivity.
- Ireland and Netherlands have large enterprises and relatively low productivity.
- Austria, Denmark, Luxemburg and Finland have large businesses and high productivity.
- France and Sweden achieve high productivity with medium-sized markets.

We analysed motor trade and wholesale trade in the same way. The result was similar to retail trade but Netherlands achieves greater productivity in motor trade than retailing. On the other hand, only two groups can be formed in wholesale trade: one with Mediterranean countries and the other with the remaining countries.

# 4. Comparison between Spanish Regions, EU15 and Central Europe

In this section we make a comparison of Spanish Regions with EU15 and some Central European countries with regards compensation per worker and labour productivity in retail trade.



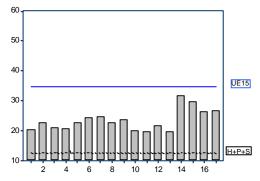
Graph 8. Employee compensation per worker in retail trade

1-Andalucía 2-Aragón 3-Asturias 4-Baleares 5-Cantabria 6-Castilla-León 7-Castilla-La Mancha - 8-Canarias 9-Cataluña 10-C. Valenciana 11-Extremadura 12-Galicia 13-Murcia 14-Madrid 15-Navarra 16-País Vasco 17-Rioja

The above graph shows that compensation per worker in spanish regions is still far from the EU15 average (19357 ⊕, but greater than in Central European countries (3722 €). The figures vary from 8445 €for The Canary Islands to 15552 €in Madrid.

As for abour productivity, the situation is similar; it is far below EU15 (34.84 thousands ⊕, but greater than the mean for candidate countries (12.5 thousand ⊕). The figures fluctuate between 19.61 thousands of €in Murcia to 31.64 in Madrid. A more detailed study of retailing trade in Spanish regions can be found in Vázquez et al (2003).

Graph 9.Labour Productivity in retail trade. Thousands of  $\in$ 



1-Andalucía 2-Aragón 3-Asturias 4-Baleares 5-Cantabria 6-Castilla-León 7-Castilla-La Mancha - 8-Canarias 9-Cataluña 10-C. Valenciana 11-Extremadura 12-Galicia 13-Murcia 14-Madrid 15-Navarra 16-País Vasco 17-Rioja

### 5. Conclusions

We have presented a comparison of distribution trade among european countries, and in this section we emphasize our main conclusions.

Distributive Trade in the EU represents 15.4% of total employment and 11.6% of value added. Compensation per employee and labour productivity in Central European countries are less than European average (19.3 and 34.8 thousand €).

Retail trade represents about half of total firms and workers (11.4 million) in distributive trade in Europe, although the weight of turnover is greater in wholesale (54%). Motor trade represents about 15%.

The structure of commerce varies according to the country. Mediterranean countries have the lowest enterprise size and productivy in Europe. Germany and Austria have the largest businesses, turnover and number of employees.

Labour productivity and employee compensation in spanish regions are lower than EU average, but higher than Central European countries. Only Catalunya and Madrid have a greater turnover per inhabitant in motor, wholesale and retail trade than European average. Turnover per worker in Spanish regions is less than EU average. Only motor trade in Catalunya and Madrid reaches that number.

## **Bibliography**

DÍEZ DE CASTRO; E.C. (dir)(1997). "Distribución comercial". McGraw Hill.

EUROSTAT(2001). "Distributive trades in Europe".

EXPÓSITO, P; IGLESIAS, A.; RODRÍGUEZ, X. A. y VÁZQUEZ, E.(2003). "Econometría sectorial: modelos aplicados a los sectores agrario, pizarra, madera y comercio". Estudios Económicos. Asociación Hispalink-Galicia.

FRÍAS et al.(2003). "Consecuencias económicas de la incorporación a la UE. Nuevos países y lecciones del pasado". XXIX Reunión de Estudios Regionales. Santander.

GUISÁN, M. C. (1995). "Producción industrial y creación de empleo. Comparación internacional en el período 1964-94". IX Reunión Asepelt-España. Santiago de Compostela.

GUISÁN, M. C. y AGUAYO, E.(1997). "Inversión industrial y desarrollo regional en las regiones españolas". XXIII Reunión de Estudios Regionales, Valencia.

INE. "Contabilidad Regional Base 1995. Serie 1995-01". www.ine.es

INE.(2002). "Encuesta Anual de Comercio 2000". www.ine.es

INE. "Base de datos TEMPUS". www.ine.es

Martínez, S. y Rubiera, F.(1999). "Patrones de convergencia regional en los servicios de la economía española". Documento de Trabajo, nº 1/99. Servilab.

RUBALCABA, L. y GAGO, D.(1999). "Competitividad y Comercio de servicios en la economía española". Documento de Trabajo nº 5/99. Servilab.

VÁZQUEZ, E.(1998). "La distribución comercial en España. Un estudio econométrico regional de la productividad". Tesis doctoral. Universidad de Santiago de Compostela.

VÁZQUEZ, E.; RODRÍGUEZ, X. A. y LÓPEZ, C.(1998): "O sector comercial en España: análise da súa productividade por Comunidades Autónomas", Revista Galega de Economía, vol. 7, nº 1, pp. 257-278.

VÁZQUEZ, E; EXPÓSITO, P. e IGLESIAS, A.(2001). "El empleo en el sector servicios venta en España y Galicia: Análisis comparativo del comercio y la hostelería". Congreso Idega. Santiago de Compostela.

VÁZQUEZ, E; EXPÓSITO, P. e IGLESIAS, A.(2001). "El empleo en el sector servicios venta en España y Portugal: Análisis comparativo del comercio y la hostelería". Congreso APDR Vila Real. Portugal.

VÁZQUEZ, E; EXPÓSITO, P y AGUAYO, E.(2003). "Evolución del comercio en las regiones españolas, 1990-2000". XVII Congreso Asepelt-España. Almería.

Journal published by the Euro-American Association of Economic Development. http://www.usc.es/economet/eaa.htm