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Inter-industry Wage Dispersion in Portugal ⋆

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Abstract. The emerging notion that corporatism/centralisation reduces inter-industry wage dispersion is the main leading force behind this paper. We use data from a long series of comparable datasets to analyse the evolution of the size of inter-industry wage dispersion in Portugal. We compare the results with the ones obtained in other countries to find that the country has a high inter-industry wage inequality when compared with the European standard. Nevertheless, the dispersion decreased during the second half of the 1980s along with the establishment of a neo-corporatist setting, supporting the expected reduction.

Key words: Corporatism, cross-country comparison, inter-industry wage dispersion, Portugal.

JEL code: J31.

I. Introduction

Numerous studies have shown that industry affiliation is important for wage determination. Typically, the findings point to significant differences in wages across industries for apparently similar workers. Moreover, the results suggest that cross-country differences in industry wage dispersion are associated with differences in the institutional wage setting.

Although the role of industry-wage differentials has been a topic of great interest in empirical labour economics, little is known about the issue for Portugal. This paper aims to partially fill this gap. Its goal is twofold. First, it analyses the size of inter-industry wage dispersion in Portugal over the 1980s and the early 1990s. The results are related to the labour market institutional setting and compared with the evidence available for other countries. Such an analysis contributes to a better understanding of the size of inter-industry wage dispersion. Second, it sheds further light on the functioning of the Portuguese labour market. Interest in this labour market has increased in recent years, because of the good labour

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market performance (i.e. low unemployment) after the mid-1980s compared to other western economies.

Authors of recent empirical studies have used aggregate data and pointed to the role of wages for such a performance. For instance, it has been asserted that the rigid dismissal legislation is backed in Portugal by high wage flexibility and that the country reveals an abnormally high responsiveness of real wages to unemployment (OECD, 1994). Such sensitivity is often associated with the existence of a non-generous and very strict unemployment benefit system (Blanchard and Jimeno, 1995).

The paper is organised as follows. Section II presents the main findings in the literature concerning the existence and the size of inter-industry wage dispersion. Section III describes the institutional setting. Section IV includes the empirical results regarding industry-wage premiums in Portugal. Finally, Section V concludes and summarises.

II. The Evidence

Following the seminal work of Krueger and Summers (1988), several studies have been carried out in a large number of countries and shown the existence of inter-industry wage differentials for apparently equally skilled workers. Although part of these differentials can be explained by unobserved heterogeneity, this does not explain all the variations (Krueger and Summers, 1988; Gibbons and Katz, 1992; Arai, 1994; Gera and Grenier, 1994). These findings pose a challenge to textbook competitive models of the labour market and alternative explanations based on efficiency wage mechanisms or rent sharing have been put forward (Krueger and Summers, 1988; Thaler, 1989; Lindbeck and Snower, 1990). Nevertheless, the existence of such differentials has not been clearly understood and remains an intricate and unresolved puzzle.

Another related and recent issue focuses on the relationship between inter-industry dispersion and the institutional wage setting. Empirical evidence has revealed that the magnitude of inter-industry dispersion is unequal across countries. Such a magnitude has been associated with the degree of corporatism or centralisation. The main conclusion from these studies is that the higher the level of corporatism or centralisation of the wage bargaining, the smaller is the size of inter-industry wage dispersion (Zanchi, 1992; Edin and Zetterberg, 1992; Zweimüller and Barth, 1994; Hartog et al., 1997; Teulings and Hartog, 1998). Indeed, this view is supported in Figure 1 where we plot the size of inter-industry wage dispersion against the Lehmbruch index of corporatism (see details in the next section). This evidence is based on cross-section information by country. In section IV we present the first time series evidence within a country.

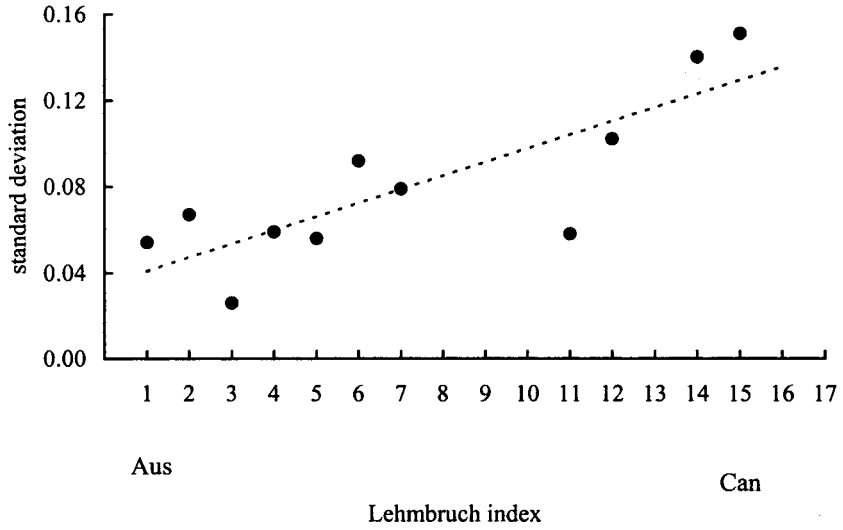

Figure 1. Inter-industry wage dispersion and corporatism. Source: see Table I.

III. The Institutional Setting

The Portuguese institutional wage setting has been characterised by multi-unionism, a fragmented trade union structure and trade union rivalry. The employer side is also very fragmented and the bargaining unit seems largely determined by the organisation of the employer associations. As a consequence, collective bargaining has been very fragmented.

Collective bargaining takes place mostly at the industry level. However, because of adjustments pursued at the firm level by the employer, wages drift significantly over those bargained for the industry (Aperta et al., 1994).

Traditionally, collective bargaining has been rather decentralised in Portugal. Moreover, co-ordination among the many (small) bargaining units has been limited. Nevertheless, important changes occurred after the mid-1980s and collective bargaining became more centralised and co-ordinated.

Several authors have developed rankings of national labour markets with respect to the degree of corporatism or centralisation (Blyth, 1979; Lehmbruch, 1984; Bruno and Sachs, 1985; Tarantelli, 1986; Calmfors and Driffill, 1988). According to those rankings, the wage bargaining systems show substantial differences among countries. Three of these rankings are summarised in Table I. Although differences between the rankings exist, there is also broad agreement. U.S. and Canada represent one extreme with non-corporatist/decentralised wage setting enacted at the firm level. The Nordic countries and Austria have traditionally represented the other extreme with highly corporatist/centralised bargaining structures. Other countries such as Germany, Belgium, the Netherlands, Italy and France fall between those polar cases.

Table I. Inter-industry wage dispersion and corporatism/centralisation

Countries	Inter-industry wage dispersion			Rankings of corporatism/centralisation		
	WASD(β)	Year	# Industries	Calmfors and Driffill	Bruno and Sachs	Lehmbruch
Austria	0.054	1983	21	1	1	1
Germany	0.092	1984	40	6	2	6
Netherlands	0.067	1985	42	7	3	2
Norway	0.059	1983	24	2	4	4
Sweden	0.026	1981	24	3	5	3
Switzerland	–	–	–	14	6	9
Denmark	0.056	1984	18	4	7	5
Finland	0.079	1985	37	5	8	7
Belgium	–	–	–	8	9	–
Japan	–	–	–	13	10	10
United Kingdom	0.102	1989	10	11	11	12
France	0.058	1992	36	10	12	11
Italy	–	–	–	12	13	13
Australia	–	–	–	9	14	16
Canada	0.151	1986	47	16	15	15
United States	0.140	1984	42	15	16	14
Ireland	–	–	–	–	–	8
New Zealand	–	–	–	–	–	17

Note: 1 = most corporatist/centralised. The data on inter-industry wage dispersion were collected from the following sources: Krueger and Summers (1988) for the USA, Gera and Grenier (1994) for Canada, Bellmann and Möller (1994), for Germany, Hartog et al. (1997) for The Netherlands, Teulings and Hartog (1998) for France and for the United Kingdom, Arai (1994) for Sweden, Zweimüller and Barth (1994) for Austria and Norway, Lausten (1995) for Denmark and Vainiomäki and Laaksonen (1995) for Finland.

Despite the similarities among the rankings, Teulings and Hartog (1998) argue that it may be useful to maintain a distinction between corporatism and centralisation. Centralisation defines the aggregation level of bargaining and corporatism adds the interaction and co-ordination with and through the government. Centralisation is best measured by the scale of Calmfors and Driffill while corporatism is best captured by the scale of Lehmbruch. In Teulings and Hartog's view, tripartite concerted decision making is the essence of corporatism. Moreover, corporatism is a broader concept, covering the institutional setting of the labour market more adequately than centralisation does (see Teulings and Hartog, 1998).

Portugal was not included in the corporatism/centralisation rankings referred to above but was included in an OECD (1997) study, which ranks countries according to their levels of centralisation and co-ordination of collective bargaining. In the OECD's definition, *centralisation* describes the locus of the formal structure of

Table II. Rankings of centralisation and co-ordination of collective bargaining

Country	Centralisation		Co-ordination	
	1980	1990	1980	1990
Austria	3	1	1	1
Norway	8	1	4	4
Sweden	1	1	4	5
Denmark	3	8	4	5
Finland	2	1	7	5
Germany	8	8	1	1
Netherlands	8	8	10	10
Belgium	3	1	10	10
Australia	3	1	7	5
France	8	8	13	10
U.K.	8	14	15	16
Italy	15	14	15	15
Japan	17	17	1	1
U.S.	17	17	18	17
Canada	17	17	18	17
Spain	3	8	10	10
Portugal	15	1	13	10

Source: OECD (1997).
Note: 1= most centralised/co-ordinated.

wage bargaining. Three strata are distinguished for this purpose: the national or central bargaining between peak organisations, which may cover the whole economy (centralised bargaining); negotiations between trade unions and employers organisations for particular industries or occupations (intermediate bargaining); and firm level bargaining between trade unions and management (decentralised bargaining). This is close to the notion of Calmfors and Driffill (1988). On the other hand, *co-ordination* focuses on the degree of consensus among the collective bargaining partners. This relies on the notion of Soskice (1990). These rankings are reported in Table II.

Although there are exceptions, the rankings for centralisation and co-ordination in Table II agree largely with those proposed by Calmfors and Driffill (1988), Bruno and Sachs (1985), and Lehmbruch (1984), and reported in Table I. With respect to Portugal, a remarkable change occurred. According to the index of centralisation, the country shifted from low to high centralisation over the 1980s. The shift in the co-ordination ranking is more modest: from low to middle. These changes in ranking are the result of the implementation of mechanisms of social concertation during the 1980s.

The establishment of a new setting after 1983–1984 leading to tripartite negotiations among the government and the employers' and workers' confederations is the essence of Portuguese corporatism. This change led to the signing of several social contracts involving income and wage policies. These were signed in 1986, 1988, 1990 and 1992. As a goal, the new framework aimed at setting wage increases in accordance with the national goals, namely those concerning inflation and employment, and contributing to maintain social peace and solidarity among workers and employers. The social pacts implicitly foresaw an equality-strategy concerning wages.

IV. Empirical Results

Inter-industry wage differentials in Portugal are estimated and analysed using cross-sectional human capital wage relations. The data were drawn from Quadros de Pessoal for the years of 1982 to 1992 (except 1990). All firms with wage earners must complete a standardised questionnaire every year and send it to the Department of Labour. The data refer to March of each year and include information on individual workers such as age, tenure with the current firm, the highest completed level of education, and gender. Information is also available on firm size, industry, region, bargaining regime, firm ownership structure, job complexity and hours worked. It also includes information on workers' monthly wages. Years of education were calculated by imputing the nominal number of completed years in order to complete the level reported in the data. Potential labour market experience was computed as age minus years of education minus six. Civil servants and people serving in the armed forces are not included in the data source. Records with missing values were deleted from the original samples, as were part-timers, the self-employed, unpaid family workers and apprentices. Observations in which tenure was greater than labour market experience were also deleted. As reported in the bottom of Table III, each final sample includes more than thirty thousand observations.

The estimated wage equation is written as:

$$\ln W_i = \alpha' X_i + \beta' Z_i + \epsilon_i, \quad i = 1, \ldots N, \tag{1}$$

where W denotes monthly gross wages, X stands for a vector variables such as years of education, experience, experience squared, experience cubed, tenure, tenure squared, firm size, firm age, and hours worked. It also includes a set of binary variables aimed at controlling gender, bargaining regime, region, firm ownership structure, and entrants (tenure <1 year). Z includes a set of dummy variables that control for industry affiliation. The parameter vector β is the main concern of this study. The subscript i denotes the individual. Equation (1) was estimated by OLS.

In order to evaluate the importance of industry affiliation in shaping the wage structure, conventional F-tests were performed. The null hypothesis that industry

wage differentials jointly equal zero (i.e. $\beta' = 0$) is rejected at the 1% significance level.

Estimated industry premiums appear in Table III. These are shown in deviations from the employment weighted mean (see Krueger and Summers, 1988). The figures are easy to read: a negative (positive) sign means that the industry pays below (above) the mean.

The results indicate that Portugal follows the international patterns in terms of ranking. For instance, textiles and clothes, leather, footwear, wood and furniture, personal and domestic services and restaurants and cafés are sectors with low pay in other studies, and in other countries, and in Portugal as well. On the other hand, insurance, banking, electricity, chemical products and petroleum are examples of high paying industries in many studies, and also in Portugal.

A widely used summary statistic for the magnitude of inter-industry wage differentials, conditional on worker and other job characteristics, is the weighted and adjusted standard deviation of the industry premiums presented by Krueger and Summers (1988). The adjusted standard deviation of the wage premiums is given by:

$$\mathrm{ASD}(\beta) = \left[\mathrm{var}(\hat{\beta}) - \sum_{d=1}^{K} \frac{\hat{\sigma}_d^2}{K} + \sum_{d=1}^{K} \sum_{j=1}^{K} \frac{\hat{\sigma}_{dj}}{K^2} \right]^{1/2}, \quad d, j = 1, \ldots K, \qquad (2)$$

where $\mathrm{var}(\hat{\beta})$ is the variance of the estimated industry coefficients, $\hat{\sigma}_d$, is the standard error of $\hat{\sigma}_d$, $\hat{\sigma}_{dj}$ is the covariance term between $\hat{\beta}_d$ and $\hat{\beta}_j$ $(d \neq j)$ and K is the number of industries. Ignoring covariance terms and weighting, the weighted and adjusted standard deviation of the inter-industry wage differentials is commonly calculated as:

$$\mathrm{WASD}(\beta) = \left[w\,\mathrm{var}(\hat{\beta}) - \sum_{d=1}^{K} \alpha_d \hat{\sigma}_d^2 \right]^{1/2}, \qquad (3)$$

where α_d is the share of workers in industry d and $w\,\mathrm{var}(\hat{\beta})$ is the employment-weighted variance of the estimated industry differentials.

Calculated values of the employment-weighted and adjusted standard deviation of inter-industry wage differentials for Portugal are at the bottom of Table III. For the sake of comparison, we also include the unweighted and unadjusted standard deviation, $\mathrm{SD}(\beta)$. As we can see, weighting and adjusting reduces the size of the dispersion, but not its evolution over time.

A comparison of the results with those for other countries included in Table I seems interesting. Of course comparisons of this type must be viewed with caution. The results are not strictly comparable because of differences in the industry classification, differences in the number and nature of explanatory variables in the regression, or differences in the level of aggregation of industry variables which

Table III. Industry wage dispersion (deviations from the employment-weighted mean)

	1982	1983	1984	1985	1986
Mining (metals)	0.0092	−0.0069	0.0324	0.0672	−0.0107
Mining (non-metal)	0.0366	0.0015	−0.0516	0.0138	0.0135
Food	−0.0835	−0.1153	−0.0985	−0.0910	−0.1116
Beverages	−0.0004	0.0583	0.0858	0.0356	0.0832
Tobacco	0.1704	0.0689	−0.0398	0.2046	0.0017
Textiles	−0.2263	−0.2144	−0.1874	−0.1734	−0.1625
Clothing	−0.1711	−0.2094	−0.1373	−0.1446	−0.1217
Leather	−0.0788	−0.1330	−0.1004	−0.0594	−0.0113
Footwear	−0.1634	−0.2661	−0.1424	−0.1309	−0.1097
Wood and cork	−0.1789	−0.2237	−0.1591	−0.1578	−0.1652
Furniture	−0.2338	−0.3218	−0.2315	−0.2477	−0.2298
Paper	−0.0064	0.0805	0.0568	0.0378	0.0621
Printing and publishing	0.0504	−0.0203	0.0088	−0.0218	0.0150
Chemical products	0.1166	0.0163	0.0312	0.0764	0.1699
Other chemical products	0.0579	0.0387	0.1402	0.1629	0.2022
Petroleum	0.0571	0.1639	0.1892	0.3681	0.2931
Rubber	0.0324	−0.1208	0.0971	0.2365	0.0789
Plastics	0.0375	−0.1123	0.0834	0.1015	0.1015
Porcelain and allied products	−0.0489	−0.1052	−0.0510	−0.0250	−0.0606
Glass	0.1119	0.0244	0.1873	0.2384	0.2308
Other prod. made of non-metal minerals	0.0080	−0.0684	−0.0502	−0.0316	−0.0408
Primary metals (iron and steel)	−0.0238	−0.1026	0.0434	−0.0176	−0.0448
Other primary metals	−0.0240	0.0134	−0.0459	0.0304	0.0009
Fabricated metals	−0.0639	−0.1018	−0.0597	−0.0445	−0.0819
Machinery	−0.0507	−0.1258	−0.0591	−0.0484	−0.1048
Electronics	0.0492	−0.0138	0.0867	0.1136	0.1421
Transport equipment	0.0913	−0.0185	0.0151	0.0394	0.0017
Scientific and optical instruments	−0.0763	−0.0432	0.0264	−0.0090	−0.0158
Other manufacturing industries	−0.0952	−0.0527	−0.0935	−0.0646	−0.0665
Electricity and gas	0.3708	0.2264	0.3489	0.3457	0.2775
Construction and public works	0.0513	0.0259	−0.0130	−0.0174	−0.0503
Wholesale trade	0.0550	0.0133	0.0703	0.0589	0.0680
Retail trade	−0.0447	−0.1060	−0.0460	−0.0469	−0.0479
Restaurants and cafés	−0.1232	−0.1921	−0.1382	−0.1652	−0.1561
Hotels and pensions	0.0150	−0.1278	−0.0422	0.0092	−0.0289
Ground transport	−0.0108	−0.0534	−0.0121	−0.0034	0.0174
Sea transport and inland shipping	0.4696	0.4415	0.4494	0.3565	0.8077
Air transport	0.4129	0.4145	0.5218	0.7156	0.6365
Services related with transport	0.4806	0.4433	0.4322	0.4014	0.4118
Communications	0.1704	0.0123	0.0595	0.0849	0.0749
Banking	0.2628	0.1162	0.2895	0.3143	0.3233
Insurance	0.5812	0.4933	0.6612	0.6976	0.6801
Services supplied to firms	0.1204	0.0794	0.1061	0.0856	0.0807
Cleaning services	−0.1560	−0.2464	−0.1826	−0.1736	−0.1851
Education	0.1510	0.0962	0.2233	0.2089	0.1365

Table III. Continued

	1982	1983	1984	1985	1986
Scientific research institutions	0.0845	0.0459	0.0469	0.0054	−0.0060
Social and humanitarian services	0.0759	0.1518	−0.1737	0.3243	−0.1088
Employers and employees associations	0.1827	0.1298	0.1622	0.1317	0.1604
Cinema, theatre, radio and television	−0.1165	0.0130	−0.0317	0.0163	0.0043
Sports and recreational services	0.0190	−0.2707	−0.1321	−0.1630	−0.1133
Repair	−0.0251	−0.1280	−0.0745	−0.0852	−0.1173
Other personal and domestic services	−0.1463	−0.1209	−0.1102	−0.0807	−0.0569
WASD(β)	0.1492	0.1458	0.1499	0.1538	0.1583
SD(β)	0.1761	0.1789	0.1868	0.2024	0.2130
No. of observations in the sample	32835	35299	34379	31657	33886

	1987	1988	1989	1991	1992
Mining (metals)	−0.0036	0.1492	0.0778	0.1464	0.0381
Mining (non-metal)	0.0113	−0.0234	0.0379	0.0581	0.1080
Food	−0.1109	−0.0988	−0.0981	−0.0841	−0.0720
Beverages	0.0454	−0.0072	−0.0229	−0.0495	−0.0188
Tobacco	0.0189	0.2162	0.2573	0.1366	0.2926
Textiles	−0.1581	−0.1686	−0.1819	−0.1675	−0.1716
Clothing	−0.1061	−0.1008	−0.1059	−0.1003	−0.1051
Leather	−0.0006	−0.0234	0.0029	−0.0480	0.0453
Footwear	−0.0977	−0.0867	−0.1075	−0.1510	−0.1103
Wood and cork	−0.1703	−0.1838	−0.1462	−0.1288	−0.1202
Furniture	−0.2510	−0.2539	−0.2206	−0.2748	−0.2502
Paper	0.0899	0.0771	0.1069	0.1917	0.0779
Printing and publishing	0.0231	0.0441	0.0759	0.1028	0.1017
Chemical products	0.1890	0.1818	0.1078	0.1746	0.2027
Other chemical products	0.1300	0.1861	0.1664	0.1727	0.1693
Petroleum	0.3028	0.1994	0.3703	0.4364	0.3770
Rubber	0.0530	0.2203	0.1395	0.0073	−0.0076
Plastics	0.0212	0.0821	0.0531	0.0283	0.0694
Porcelain and allied products	−0.0465	−0.0627	−0.0338	−0.0061	0.0675
Glass	0.2166	0.2180	0.2213	0.1644	0.1390
Other prod. made of non-metal minerals	−0.0219	−0.0218	0.0080	0.0463	0.0925
Primary metals (iron and steel)	−0.0985	−0.0663	−0.0655	−0.0816	0.0505
Other primary metals	−0.0257	−0.0901	−0.0139	−0.0173	−0.0496
Fabricated metals	−0.0870	−0.0674	−0.0664	−0.0318	−0.0287
Machinery	−0.1065	−0.0474	−0.0466	−0.0089	0.0068
Electronics	0.1155	0.1428	0.0922	0.0651	0.1005
Transport equipment	0.0225	0.0210	−0.0189	0.0667	0.0722
Scientific and optical instruments	−0.0474	−0.0486	0.0461	−0.1198	0.0365
Other manufacturing industries	−0.1158	−0.0997	−0.0974	−0.0512	−0.0497
Electricity and gas	0.2785	0.0905	0.0914	0.2658	0.1797
Construction and public works	−0.0754	−0.0680	−0.0524	−0.0436	−0.0450

Table III. Continued

	1987	1988	1989	1991	1992
Wholesale trade	0.0629	0.0840	0.0791	0.0882	0.1029
Retail trade	−0.0549	−0.0299	−0.0287	−0.0318	−0.0353
Restaurants and cafés	−0.1574	−0.1652	−0.1572	−0.1671	−0.1740
Hotels and pensions	0.0089	−0.0297	0.0093	−0.0214	−0.0179
Ground transport	0.0272	0.0030	−0.0024	0.0206	−0.0171
Sea transport and inland shipping	0.7406	0.6298	0.6343	0.4822	0.6092
Air transport	0.6906	0.5228	0.5690	0.6514	0.4629
Services related with transport	0.4575	0.4450	0.4719	0.4311	0.4458
Communications	0.1001	0.0528	−0.0181	0.0249	−0.0635
Banking	0.3556	0.4203	0.3930	0.2451	0.2362
Insurance	0.5788	0.5555	0.6330	0.4488	0.5282
Services supplied to firms	0.1278	0.1318	0.1245	0.0790	0.0974
Cleaning services	−0.2381	−0.2377	−0.3124	−0.3085	−0.2622
Education	0.1042	0.1256	0.0848	0.0633	0.0812
Scientific research institutions	−0.0818	0.0030	−0.0157	−0.1056	−0.0295
Social and humanitarian services	−0.0989	−0.0382	−0.0947	−0.1174	−0.1426
Employers and employees associations	0.1794	0.3153	0.2147	0.1554	0.1743
Cinema, theatre, radio and television	0.0745	0.0604	0.2326	0.0984	0.1416
Sports and recreational services	−0.1789	−0.0500	−0.0674	0.0150	0.0367
Repair	−0.1308	−0.0472	−0.0546	−0.0689	−0.0455
Other personal and domestic services	−0.1161	−0.1589	−0.0774	−0.1446	−0.0720
WASD(β)	0.1638	0.1552	0.1592	0.1399	0.1358
SD(β)	0.2135	0.1964	0.2030	0.1905	0.1819
No. of observations in the sample	34275	34580	36651	37586	38169

is reflected in the number of industry dummies. Also the data are not reported for the same years. Any interpretation must therefore be cautious, although we hope it is possible to develop an understanding of the relative position of each country, particularly of Portugal.

As we can see, the results suggest that the Portuguese inter-industry wage dispersion is high when compared with other European countries. Indeed, it seems similar to that of countries rated as having decentralised wage setting. It is noteworthy however that the evolution of the dispersion shows an inverted U-shaped pattern, with a decrease occurring after 1987 (see Figure 2).

It is interesting to observe that this occurred along with the implementation of the corporatist structures and the signing of social contracts, supporting the notion that centralisation reduces inter-industry wage differentials.

However, the dispersion found in 1992 is still quite high by European standards. This may be accounted for, if we make a distinction between changes in the institutions and the level of the institutions. Indeed, the figures included in Table

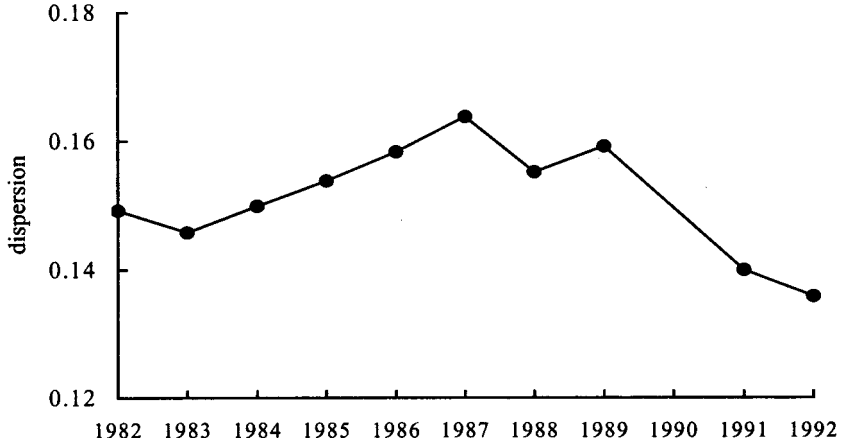

Figure 2. Inter-industry wage dispersion in Portugal.

II suggest that despite the institutional change towards a centralised setting, the Portuguese labour market still remained rather uncoordinated when compared with other countries, such as Austria and Scandinavian countries.

V. Conclusions and Remarks

This paper reported evidence on inter-industry wage dispersion in Portugal. Furthermore, the findings were compared with those for other countries. With this analysis we hope to have shed further light on the debate regarding industry-wage differentials. Moreover, we hope to have contributed to a better understanding of the functioning of the Portuguese labour market.

The main findings can be summarised as follows. First, an international comparison revealed a common finding that the size of inter-industry wage dispersion decreases as the country's level of centralisation of the wage setting increases. Second, the size of the inter-industry wage dispersion in Portugal is high and seems similar to that of countries rated as having a decentralised wage setting (U.S. and Canada). These large wage differences between industries for apparently equally-skilled workers may indicate a great flexibility to exploit industry (or firm) specific conditions, and this may be related to particular circumstances regarding industrial relations. Portuguese industrial relations have traditionally been marked by multi-unionism and trade union rivalry. The employer side is also very fragmented, with many associations organised at the industry level. The bargaining unit seems largely determined by the organisation of the employer associations and, as a result, collective bargaining has been very fragmented. Finally, industry wage differentials shrank over the period examined (mainly after the mid-1980s). This occurred along with the establishment of a corporatist setting, which corresponds with the notion that corporatism reduces inter-industry wage differentials.

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