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Comparing Investment and Employment Specialisation Patterns of EU Regions

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Non-technical summary

EMU is accompanied by increased market integration and factor mobility – especially of the production factor capital. Up to date, there is no clear indication concerning the specialisation tendencies to be expected due to these impacts. This paper thus investigates the driving forces and differences of sectoral investment and employment specialisation of EU regions.

The econometric analyses aim at identifying the regional determinants of high relative sectoral specialisation, i.e. the regional investment or employment specialisation in different sectors. The importance of a number of determinants from different theoretical approaches is tested controlling for heteroscedasticity and potential endogeneity.

Sectoral productivity differentials between regions generally (mostly) contribute to the explanation of relative investment (employment) shares in those nine manufacturing sectors analysed. Striking is the consistent significance of low (high) regional labour cost levels in explaining high employment shares in labour-intensive (human capital-intensive) sectors. This is less evident for the explanation of investment shares. But to sum up, one can see that in many sectors, productivity differentials and average regional labour cost differentials contribute to the explanation of specialisation patterns in accordance with traditional trade theory. Productivity differentials do so, especially with respect to the explanation of investment patterns, regional labour cost differentials with respect to the explanation of employment patterns.

For manufacturing sectors, the location close to large markets seems to matter according to the predictions of the New Economic Geography. We might also be confronted with further agglomeration potential in the manufacturing sectors, since the regional level of sector-specific economies of scale is consistently significant and positive for the manufacturing sectors. However, market integration, which is supposed to enforce the agglomerative forces of economies of scale does not play a particular role in specific sectors.

Additional country-specific effects differ with respect to each sector concerning investment specialisation, but clear country-specific effects are evident for employment patterns. Italy shows significantly lower employment shares in a number of manufacturing sectors and higher ones in the labour-intensive sectors agriculture and trade & lodging.

In earlier studies, we found evidence for the stronger relative regional specialisation of administrative centres as well as of peripheral regions than the other (centrally located) regions. The results of our econometric analysis demonstrate that administrative centres – in contrast to peripheral regions – are marked by a higher potential of economic performance. Peripheral regions compared to administrative centres, indeed, play a different role in the location of sectoral investments and employment. This is particularly striking for investments. The driving forces of sectoral specialisation are favourable for administrative centres with respect to growth-oriented market services like credit & insurance services. The services sectors with the highest regional specialisation of peripheral regions, instead, are linked to economic activity in tourism.

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Abstract

This study analyses relative sectoral specialisation of EU regions on the basis of investment and employment patterns. Controlling for heteroscedasticity and potential endogeneity in the econometric analysis, we find that relative specialisation in manufacturing sectors is higher in central regions. Relative specialisation in services sectors, instead, is stronger in administrative centres as well as peripheral regions. A higher local level of sectoral economies of scale and of productivity strongly increases relative investments in manufacturing sectors. Lower (higher) regional labour costs attract, in particular, higher relative employment shares in labour-intensive (human capital-intensive) sectors.

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I Motivation[1]

Integration changes the economic landscape. The economic and monetary Union of the European Union (EU) thus is a major challenge for regional adjustment processes. Though, the debate about the direction of regional changes is still open. On the one hand, neo-classical models underline the role of comparative advantages in regional development and predict balanced and converging regional growth patterns. On the other hand, Krugman (1991) opened the discussion within the New Economic Geography (NEG) about the role of historical conditions, i.e. path dependency, and random macroeconomic events which influence regional development. This can even make similar regions to develop differently while comparative advantages do not help anymore to predict regional specialisation patterns. In addition, a special concern about rising or increasing core-periphery patterns results from NEG models. However, up to date, we have no clear indication about the determinants of the level of regional specialisation in the EU and specifically not about the specialisation tendencies to be expected due to increased factor mobility and market integration.

This study now aims to add to the discussion in providing further insights in, first, regional specialisation patterns, and, second, the comparison between investment and employment specialisation patterns. The regional focus is most important since a profound analysis of regional, not only national, specialisation is still missing in recent research. The focus on employment as well as investment specialisation is essential as well. While the initial study by Krugman (1991) focussed on employment specialisation in the US states as well as some EU countries, the high mobility of employees across US states contrasts sharply with the low mobility of labour across the EU. Employment specialisation patterns might thus be rather different in the US and the EU. In addition, capital mobility has been largely increasing in the EU over the last decade in the framework of EMU. Specialisation patterns might thus be changing with respect to the initial capital allocation. In this study, we therefore focus on the determinants of sectoral specialisation patterns of EU regions with respect to gross fixed capital formation in addition to employment. It thus gives insights into the determinants that cause a region to have especially strong investments or employment in a particular sector.

The few econometric studies testing the predictions of the NEG mostly focus on the geographic concentration of industries across countries or regions neglecting the explanation of regional specialisation. The level of spatial concentration of sectoral production across EU countries is investigated by Amiti (1999) and Haaland et al. (1999), the one across Spanish regions by Paluzie, Pons and Tirado (2001). These studies have identified a higher level of demand concentration, human capital, stronger scale intensity and intermediate-input intensity of a sector to increase its level of concentration while a high labour intensity seems to de-

[1] This paper bases on some earlier analyses published in Stirboeck (2004a), however, extends the analysis and compares investment specialisation with employment specialisation patterns.

crease the sector's uneven allocation across space.[2] Amiti (1999) additionally finds significant positive time effects and concludes that reductions in trade barriers have possible increasing impacts on sectoral concentration. Middlefart-Knarvik et al. (2001) focus on the determinants of the location of sectors analysing gross value added. Sectors which are intensive in unskilled labour are located in peripheral, low wage countries while those industries highly dependent on intermediate inputs and subject to increasing returns to scale are significantly stronger attracted by central regions. In addition, all industries prefer to locate in big regions, i.e. close to large markets.

There are very few econometric studies explaining regional specialisation. Kalemli-Ozcan, Sorensen and Yosha (2003) find higher population density, lower per capita gross regional product, lower number of population of a region as well as a higher degree of risk sharing (supposed to represent financial market integration or development) to have a significant increasing impact on regional output specialisation. In an investigation of the level of relative regional investment specialisation of EU regions, Stirboeck (2002a, 2002b) detect that the location of a region in either the economic centre or in the periphery increases the uneven relative allocation of investments across sectors within the region. The level of regional investment specialisation is also augmented by a region's small size, weak market potential, high regional population density or unemployment rate and by increasing economic openness or capital account liberalisation. The fact that economically central regions as well as peripheral regions are stronger specialised than other regions is of particular interest when analysing the regional specialisation patterns in specific sectors.

In the following, we present our econometric analyses on the determinants of strong or weak relative sectoral investments and employment patterns, i.e. what sort of EU regions are particularly specialised in specific sectors. This is intended to give insight into regional characteristics that influence the allocation of economic activity across sectors within a region and thus regional specialisation patterns.

Section II explains the construction of the sectoral indices of relative regional specialisation and summarises the differing theoretical explanations of sectoral specialisation. Section III presents the econometric analyses of the determinants of relative investment specialisation of EU regions. A comparison of the specialisation patterns of investments in contrast to employment is finally given in Section IV. Conclusions are summarised in Section V.

[2] The finding of Haaland et al. (1999) of a significant negative impact of economies of scale on sectoral concentration for 1992, one of the two years analysed, however, is a controversial outcome.

II Relative Sectoral Specialisation of EU Regions

II.I Data and Indicators

We use the Eurostat Regio data base NUTS 2-level data for the analysis of EU regions in this article. Sufficiently sectorally disaggregated data is available for the period from 1985 to 1994. One aspect of criticism to the use of NUTS 2-data is the fact that the definition of NUTS-regions is based on political or administrative criteria, and not on economic criteria. The analysis of NUTS-regions might therefore not give us the actual degree of specialisation of economic entities. However, data on economic or functional regions is not available in official databases. Defining economic regions is arbitrary and depends on the variable or sector regarded, i.e. a general specification of regional disaggregation is inappropriate. The analysis of administrative entities, instead, allows us to focus on the degree of specialisation of a territorial community which is authorised to implement regional policies or is in the focus of regional structural programmes.[3]

Table 1: Sectors disaggregated according to NACE Rev. 1

Sector	Abbr.
Agricultural, forestry and fishery products	AGRO
Manufactured products	
Fuel and power products	FUEL
Ferrous and non-ferrous ores and metals, other than radioactive	META
Non-metallic minerals and mineral products	MINE
Chemical products	CHEM
Metal products, machinery, equipment, electrical goods	METP
Transport equipment	TREQ
Food, beverages, tobacco	FOOD
Textiles and clothing, leather and footwear	TEXT
Paper and printing products	PAPE
Products of various industries	VARI
Building and construction	BUIL
Services	
Recovery, repair, trade, lodging and catering services	TRLO
Transport and communication services	TRCO
Services of credit and insurance institutions	CRED
Other market services	OTHS
Non-market services	NMSE

The maximum number of regions included is 56. These regions belong to Belgium (11), France (22) and Italy (20). In addition, the three mono-regional countries Luxembourg, Denmark and Ireland (being also defined as NUTS 2-regions) are included. For all other countries and years, the availability of regional data for different sectors is not sufficient for our kind of analysis. We include the 17 differentiated sectors (see Table 1) which are available in the REGIO database. The sectoral disaggregation is consistent to Eurostat's industrial classifica-

[3] Since the 1961 Brussels Conference on Regional Economies, regional policies are generally applicated in NUTS 2-regions (Eurostat, 1999).

tion NACE 1970 (Nomenclature des activités économiques dans les Communautés Européennes).

In our analysis of the regional specialisation patterns in these 17 sectors, we focus on the regional investment and employment shares in relation to an economy of reference. Thus, relative specialisation of gross fixed capital formation in relation to EU patterns (SPCFEU) as well as relative specialisation of employment in relation to EU patterns (SPEMEU) is measured. This relative perspective is important as the absolute allocation of production across sectors does not give any information about a region's particularly high level of sectoral engagement, while this is what we focus on: relative allocation and hence, relative specialisation in the different sectors. It is the unequal size of sectors that causes this difference between the absolute and the relative sectoral specialisation of a region.[4]

Relative investment indices have therefore been constructed measuring the sectoral investment (I) share of the respective region s_{ij}^{I} in relation to the average sectoral share of EU value added $\boldsymbol{r_i}$ [5]:

$$SPCFEU_{ij} = \frac{s_{ij}^{I}}{r_i} = (I_{ij} / \sum_i I_{ij}) / (\sum_j x_{ij} / \sum_i \sum_j x_{ij})$$

with i (j) as the sectoral (regional) index. As a result, this adapted „Balassa-index"[6] reflects the relative sectoral investment "performance" of a region. If the region's investment in one sector is relatively strong (low) compared to the average sectoral share of value added in EU, the index is higher (smaller) than 1.[7]

Relative employment shares have been constructed in a similar way measuring the sectoral employment (L) share of the respective region s_{ij}^{L} in relation to the average sectoral share of EU value added $\boldsymbol{r_i}$:

$$SPEMEU_{ij} = \frac{s_{ij}^{L}}{r_i} = (L_{ij} / \sum_i L_{ij}) / (\sum_j x_{ij} / \sum_i \sum_j x_{ij}) \quad .$$

[4] While measures of absolute allocation are influenced by the sectoral classification, measures of relative allocation are influenced by the sectoral patterns of either the economy of reference or the average pattern of the group of countries included. In case of a very special pattern of the reference economy, the relative specialisation pattern of the economic entities analysed can be biased. See e.g. Stirboeck (2001) or Krieger-Boden (1999).

[5] As sectoral GFCF and employment data are not in all cases as complete as we wish it to be, we had to use adequate, but different, data representing the economic extent or importance of the different sectors to calculate sectoral specialisation indices with respect to GFCF. Therefore we refer to data of gross value added at factor costs as the denominator when calculating the specialisation indices in relation to EU average patterns. By this, we apply the same denominator for both specialisation patterns and increase their comparability.

[6] This kind of specialisation index has first been introduced by Balassa for the analysis of the relative export "performance" of a country by use of export data and is known as the "revealed comparative advantage" index in international trade theory [see e.g. Balassa (1989:19)].

[7] In some few (four) cases, negative investments were replaced by zero investments in order to avoid problems in the interpretation and calculation of further indicators. Such negative investments are mostly due to realignments and depreciation and are always close to zero investments.

II.II Theoretical Background

Traditional trade theory as well as regional economic theories (above all polarisation theories) and the NEG give us a number of important determinants explaining regional specialisation patterns.

In *traditional trade theory*, productivity and factor cost differentials between regions are important for the explanation of comparative advantages (COMP). Sectoral value added in relation to sectoral employment captures the level of regional productivity in the different sectors. We thus use the (annual) deviation of the regional productivity in a sector from the mean of all regions (DPROD) in the estimates. The regional level of sectoral wages and salaries per employee reflects average regional labour costs in the sector. Again, we measure particularly high or low regional levels of labour costs by the (annual) deviation from the mean (DLABCOST). A positive deviation of regional labour costs in a sector from the mean should lead to decreasing investments or employment in this sector according to the theory if labour costs are important. A negative sign of DLABCOST thus shows specialisation which is in line with comparative advantages. In addition, a significant negative sign of DLABCOST provides evidence for the importance of labour costs as a factor of dispersion in a particular sector and a potentially inverse U-shaped curve of sectoral concentration.

According to polarisation theory as well as the NEG, the location of a region is especially important. Polarisation theory bases on cumulative agglomeration tendencies in the centre and predicts backwash effects for peripheral regions. We thus use an indicator variable reflecting the location of a region in the economic centre (CENTR) – proxied by the administrative centre of each country[8] – and the regional population density (PODEN) in addition to the distance to the economic centre (DIST) of the respective country as an indicator of the peripherality of the region. A positive sign of CENTR and PODEN as well as a negative sign of DIST in the estimates for the important growth-oriented sectors would support the hypothesis of the *polarisation theory* of potential cumulative agglomeration in the centre.

The *New Economic Geography* points to the importance of the market size in the explanation of the location of sectors, i.e. it predicts that scale-intensive sectors concentrate production close to large markets. As long as sectoral location and regional specialisation go along, these determinants might be important in the explanation of regional specialisation as well. We thus measure the size of the regional market (MAR) by gross regional product (GRP). The regional level of economies of scale (ES) in a sector is approximated by dividing sectoral value added at factor costs by the number of firms in the given sector.[9] The significance of the regional level of ES indicates the further agglomeration potential of the respective sector.

[8] In some countries like Germany, the administrative centre would not adequately represent the economic centre. However, in the countries analysed, the administrative centre is a good proxy.

[9] Data availability limits us to this simple measure of economies of scale. A more complex proxy of ES is the average value of shipments per firm, considering the 50% largest firms, assuming that the larger firms are likely the efficient size to exploit economies of scale (Saunders, 1982; Caves, 1974). The average value added per firm, we use, is a common proxy in empirical studies as well and according to Lall/Siddharthan (1982)'s correlation analysis a sufficient proxy.

We expect an increasing impact of market integration on the level of regional specialisation according to both, the traditional trade theory and the NEG. However, we do not know if and which sectors profit from market integration. In order to measure the impact of market integration (INT), we use an indicator of economic openness by Quinn (1997): QUINN_OPENN.[10] Adding this variable in the analysis of sectoral specialisation indices might thus tell us if and which sectors do profit particularly from increasing economic openness.

In addition, we include further regional characteristics and economic performance variables in the specification which can be assumed to be important in the explanation of investment or employment decisions. These regional control variables are the regional size (AREA), the unemployment rate (UEWP) as well as the number of regional patent applications in relation to GRP proxying the regional research intensity (RDINT). Since we do not dispose of any variable reflecting sectoral research and development activity in EU regions, we have to refer to the regional research intensity. We also include indicator variables for the different countries (DUM_FRA, DUM_LUX etc.) as further control variables capturing country-specific impacts.[11]

We thus test the following specification for each sector:

$$\begin{aligned} SPCF(EM)EU_{ij} = {} & \beta_0 + \beta_1 COMP_{ij} + \beta_2 CENTR_j + \beta_3 PODEN_j + \beta_4 DIST_j + \beta_5 MAR_j \\ & + \beta_6 INT_j + \beta_7 AREA_j + \beta_8 UEWP_j + \beta_9 RDINT_j + \beta_{10} ES_{ij} \\ & + \text{country dummies} + \varepsilon_{ij} \end{aligned}$$

with i (j) as the sectoral (regional) index. Since we apply a pooled regression, we omitted the time index in the above specification. Depending on the data availability, regressions are run for up to 45 (56) regions and up to ten years (1985 to 1994).

[10] Quinn (1997) has constructed such a yearly index of openness on the basis of those restrictions published by the IMF since the 1950s. This index is scaled from 0 (highest degree of restrictions) up to 14 (highest degree of liberalisation) and aggregates the different indicators of liberalisation progress in seven specified fields (capital in – and outflows, im– and exports of goods and of services as well as international conventions of liberalisation) with a respective degree of liberalisation between 0.5 and 2. Quinn weighs quantitative restrictions of imports for example the highest (i.e. he attributes the lowest partial liberalisation index of 0 in case of full and 0.5 in case of partly quantitative restrictions), existence of laws requiring the approval of international transactions are scored 1, taxes 1.5 and finally free trade 2. With regard to capital account liberalisation, Quinn attributes 0 in case of required approval for capital transactions which are rarely granted, 0.5 (1) in case of occasional (frequent) approval and finally 1.5 in case of taxing measurements (without the need of an official approval) and 2 in case of full liberalisation. Detailed restrictions for Luxembourg are not available. Since Luxembourg and Belgium are part of a common monetary union since the 1950s, the „Quinn-indicator" for Luxembourg is therefore naturally set equal to the one of Belgium.

[11] National account data included in the analysis is based on ESA79 and taken from the Eurostat REGIO database. This refers to PODEN (in 1000 inhabitants per km²), GRP (in billions of ECU), AREA (in km²) and UEWP (unemployment rate in percent of working population). The additional variables are constructed in the following way: CENTR is a dummy set for an administrative capital, DIST is an index of peripherality measured by the distance to this administrative centre in 1000km, and QUINN_OPENN (varying from 0 to 14 by 0.5 steps) is an index of economic openness constructed by Quinn (1997) on the basis of restrictions documented by the IMF.

III Explaining sectoral investment patterns

In the above presented specification, we cannot exclude potential interactions or reverse causation between the relative sectoral investments of a region, i.e. its sectoral specialisation, and the regional unemployment rate, GRP, research intensity as well as the sectoral level of economies of scale, labour costs, and productivity in the specific region. In order to control for these potential endogeneity problems, instrumental variable regressions are conducted additionally.

Neither the number of firms in the different sectors, the number of patent applications, nor the sectoral level of wages and salaries are available for all regions and years. Thus, our dataset is restricted when including these variables in the analysis. We have to refer to the regional research intensity (independent of the sector focussed on). However, when including the region-specific sectoral economies of scale, DLABCOST as well as DPROD, the analysis is unfortunately restricted to only nine manufacturing sectors with available sector-specific data. Separate estimates have therefore been displayed for each of these additional sector-specific explanatory variables. Thus, theoretically very important variables can only be included in additional estimates with less observations.

In the estimates, we generally use generalised least squares (GLS)[12] instead of ordinary least squares estimates to control for potential heteroscedasticity. We use pooled data of up to 45 regions and up to 10 years. In addition, it would be preferable to control for time-space correlation. First, inference might be inefficient due to spatial autocorrelation impacts. Second, regional specialisation in a sector might be influenced by the specialisation of previous periods leading to serial correlation of the error terms. However, using lagged values of the dependent variable to control for serial correlation also captures the effects of the dynamics of specialisation. Therefore, both effects will show up in the coefficient estimate of the lagged term, but there is no way to disentagle both effects. In the present paper, both time and space correlations are disregarded and are left for future research.[13] This means that here we make the rather strong assumption of independence between the different specialisation indices of a region over time. This allows us to concentrate on the explanation of the level of regional specialisation in the different sectors abstracting from dynamic processes and to compare employment and investment specialisation tendencies.

Table 2 displays the qualitative results for the pooled estimates which include those region-specific characteristics available for all the years for which we have calculated specialisation indices. Results are displayed in case of significance only – which has to be at least 10%,

[12] We thus estimate variance-corrected standard errors to prevent that potential heteroscedasticity influences the coefficients‘ significance.

[13] The analysis of spatial autocorrelation effects in regional specialisation patterns can be found in Stirboeck (2004b). This study shows that the results of the classical econometric analysis are robust. In addition, it finds spatial error autocorrelation for most sectors and only identifies spatial interaction due to economic interdependencies for some of the labour-intensive sectors. Furthermore, the analysis does not point to spatial interdependencies of unfortunate specialisation in the periphery which would increase core-periphery structures.

though significance is achieved at the 1%-level in most cases. Detailed results are given in the appendix in Table B1. The number of observations is given in the last line. Regarding Denmark, data availability is very poor since, continuously, we only have specialisation indices for four sectors. In addition, information on Irish investments in TRLO and OTHS is not available. Controlling for potential endogeneity between the level of specialisation and regional GRP as well as UEWP, we conducted instrumental-variable (IV) estimates. Following a common approach in econometric analysis, lagged values of the unemployment rate as well as of GRP are included as instruments. Results are given in Table B2 which are very similar.

Table 2: Influence of regional characteristics on sectoral investment patterns

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
CENTR	-	+	-	-	-	-	-	-	-	-	-	+	+	+	+	+	
PODEN	-	-	-	-				-	-			-	+	+	+	+	-
DIST	-			-	-	-	-	-	-	-	-	+	+	+		+	+
GRP	+		+	+	+	+		+	+			+	-	-	-	-	
QUINN_OPENN		+					+	+				-		+	-	-	
AREA	-	+	-			+	-				+		+	+	+		-
UEWP	+	+			+	-		-	-	-	-	+	-	-	-	+	+
DUM_FRA	-	-	+	-				+	-	+		-	-	-	+	+	+
DUM_IRE	+	-	+		+	+		+	+			-	n.v.	-	+	n.v.	
DUM_LUX	-	-	+			+			+		+	-		-	+	-	+
DUM_DEN	-	-	n.v.	n.v.	n.v.	n.v.	n.v.	n.v.	n.v.	n.v.	n.v.		n.v.	n.v.	n.v.	n.v.	+
no. of obs.	377	377	353	361	360	361	353	361	360	361	361	377	358	363	363	358	377

Note: Results are displayed in case of statistical significance only. Detailed results are given in the appendix in Table B1.

The results show that investments in most manufacturing sectors are attracted by regions marked by high GRP, i.e. large markets. However, relative investment shares in credit & insurance services, other services, transport & communication as well as trade & lodging services are lower in larger markets. Investments in market services thus seem to be strengthened in smaller markets, in contrast to investments in manufacturing industries. Relative investments in e.g. agriculture as well as the food industry, paper & printing products, the textiles industries, and the metal industries, in chemical products, various industries, transport equipment as well as mineral products are significantly lower in the administrative centre (CENTR) of the respective country. Market services, instead, have higher relative investment shares in the administrative centre as well as in densely-populated regions (PODEN).

Significantly lower relative investments are to be found in larger regions (AREA) in agriculture, metal production (META), non-market services as well as transport equipment, while the inverse is evident for fuel & power products, metal products & electrical goods (METP) as well as the services sectors CRED, TRCO, and TRLO. The location far away from the centre (DIST), i.e. in the periphery, leads to significantly lower relative investments in agriculture and most manufacturing sectors, but to stronger relative specialisation in the market services sectors (besides CRED), non-market services as well as building & construction. Results for the level of the regional unemployment rate (UEWP) as well as for regions being located in countries with a higher economic openness (INT) do not provide clear patterns with respect to the nature of sectoral investment strength. We thus have no evidence that increasing European integration might influence investments in particular sectors.

Summarising, we find market services sectors to have a significantly stronger relative gross fixed capital formation in small markets, central regions, regions with high population density as well as peripheral regions. Manufacturing sectors are mainly located outside the national administrative centres, however, not too far away from those. Investments in manufacturing sectors are, thus, stronger in the central parts of each country, but not in the administrative centre itself. Non-market services investment shares are higher in the peripheral and small regions as well as in regions with high unemployment and a low population density. Relative investments in agriculture, finally, are located neither in the centre nor the periphery, and are stronger in smaller, not densely populated regions, but also in large markets. In addition, the estimates provide evidence for significant country-specific effects.

Table 3: Additional influence of the regional research intensity, GFCF, 1989-94

	AGRO	MINE	CHEM	METP	VARI	CRED	NMSE
RDINT	-	+	+	+	+	-	-

Note: Results are displayed in case of significance only. Detailed results are given in the appendix in Table B3.

In additional, separate estimates, we include the regional research intensity (RDINT) which is only available for the shorter time period 1989 to 1994. These regressions (given in Table 3) provide evidence of the importance of the regional research intensity in seven of the 17 sectors.[14] In case of a high research intensity, the regional investment share is lower than the average investment share with respect to agriculture, credit services as well as non-market services. However, in case of a high research intensity, regional investment shares are higher than the average reagarding the sectors mineral products, chemical, various and metal industries. The co-existence of a low regional research intensity and the higher importance of the sectors agriculture and non-market services is not surprising. However, we expect investments in the manufacturing sectors to be higher in those regions with a higher research activity due to knowledge spillovers etc. – especially for those sectors marked by high research & development activity like e.g. transport equipment and the chemicals industries. The regressions, however, display significant impacts of a high regional research intensity only with respect to four of the eleven manufacturing sectors. The regional research intensity thus seems to be of minor importance in many manufacturing sectors. Though, it is to be expected that these estimation results can be improved with a better, more complete database as well as sector-specific information on regional research activity. With respect to the other explanatory variables which are given in Table B3, the results are extremely robust, though we have a sharply decreased number of observations. Only in a few cases[15], coefficients loose or gain significance, but never change their sign when remaining significant.

[14] Due to the strongly decreased number of observations, we refrained from instrumental-variable estimates.

[15] With respect to the estimates for FUEL, three variables become insignificant, in the estimates for TREQ, BUIL, CRED, and NMSE, two variables loose significance – though in any case, RDINT is only significant in the estimates for CRED and NMSE. However, no systematic pattern is obvious in these changes. CENTR is the variable which looses significance most often (in four cases), though RDINT is only significant in one of these cases. This means that the inclusion of RDINT influences the other variables‘ significance in very few cases, does never change a significant variable‘s sign while some variables loose significance in the estimates due to the decreased number of observations.

Three additional separate estimates are also conducted for the regional deviation from the average level of productivity (DPROD) in the different sectors, on sectoral economies scale (ES), and on the regional deviation from average sectoral labour costs per employee (DLABCOST).[16] These variables are added to the regional characteristics displayed in Table 2. Detailed results, including instrumental-variable estimates (by use of lagged values of GRP, UEWP, DPROD, ES as well as DLABCOST), are displayed in the appendix in Tables B4 to B6. Table 4 summarises the significance of the three additional sectoral variables. Since we only dispose of data for nine manufacturing sectors (and not of all 17 sectors analysed) with differing data availability, the number of observations vary across the different sectors. But, again, the influence of the explanatory variables, we have already discussed above, is mostly robust in spite of the decreased number of observations.[17]

Table 4: Additional influence of sector-specific regional characteristics, GFCF

	FUEL	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	BUIL
DPROD	+	+	+		+	+		+	-
DLABCOST				-				-	+
ES	+	+	+	+	+	+	+	+	

Note: Results are displayed in case of significance only. Detailed results are given in the appendix in Table B4 to Table B6.

The results do provide evidence of a consistent significant impact of the sector-specific regional level of productivity and the level of economies of scale. Unsurprisingly, those regions with higher economies of scale[18] as well as a higher productivity in the different sectors attract a higher relative share of gross fixed capital formation. These impacts, however, cannot be found for building & construction. In addition, the regional level of sectoral productivity seems to be of no importance in textiles as well as metal & electrical products.

The impact of the region-specific level of sectoral labour costs is not a general one, instead, and it is rather mixed. According to traditional trade theory, one would expect all sectors to increase production (and thus investments) in regions with a lower level of sectoral labour costs. This impact should be especially strong or obvious in labour-intensive sectors like the textiles industries. In the estimates, however, we only find significant impacts of sectoral DLABCOST for investments in three sectors – though average labour costs are sufficiently varying across regions. For the paper and printing as well as the metal & electrical products industry, a lower regional level of sectoral labour costs seems to attract investments while the opposite is the case for the building & construction sector.

[16] We tried to add all three variables jointly in one regression for each sector. The results do not change much. The number of observations, however, is still further decreased.

[17] Again, we have no change in sign of any significant variable. With respect to the estimates for TREQ, we have an additional significance of three variables in the estimates including DPROD, in the estimates including DLABCOST, however, two explanatory variables loose significance. A number of changes, though, occur for the regressions including ES: regarding FUEL, four variables become insignificant, regarding FOOD, three, and regarding TEXT, two. Most often, i.e. in three cases, the variable PODEN changes its level of significance.

[18] This result is consistent with Amiti (1999) who found significant positive effects of economies of scale on sectoral concentration in addition to the intermediate goods intensity.

When conducting additional instrumental-variable estimates, most results can be confirmed[19] - except for the three cases with significant DLABCOST. Thus, productivity differentials play a role according to traditional trade theory. However, in contrast to the other manufacturing sectors, building & construction even seems to counteract theoretical assumptions of the traditional trade theory.

Table 5: Additional influence of the regional level of average labour costs, GFCF

	AGRO	META	MINE	CHEM	FOOD	VARI	BUIL	TRCO	CRED	OTHS
DLABCOST	-	+	+	+	-	-	-	+	+	-

Note: Results are displayed in case of significance only. Detailed results are given in the appendix in Table B7

Due to the possible influence of the average regional labour cost in attracting particular sectors, we also included the average, and not sectoral, regional labour cost differential $LABCOST_j$ [20] in the estimates to capture low-wage and high-wage regions. Table 5 presents the results of these additional regressions. Now, according to traditional trade theory, a lower level of regional labour costs than in the other regions should increase production in those sectors highly dependent on labour costs. Thus, this effect should be reflected in higher investments in labour-intensive sectors in those regions with lower labour costs. A high percentage of high-qualified labour in a region increases the average level of regional labour costs. Human-capital intensive production is expected to locate in regions with abundance of high-qualified labour, thus probably "high-cost" regions.

And actually, investment shares in the traditional, labour-intensive sectors AGRO, FOOD, BUIL and VARI[21] turn out to be significantly lower in regions with higher average labour costs.[22] The more capital or human capital intensive sectors „metal products, machinery, equipment, electrical goods", chemical industries, credit & insurance services and transport & communication services, instead, consistently show significantly investment shares in those regions with a high level of local labour costs. However, this also applies to the sector „non-metallic minerals & mineral products".

IV Comparing investment and employment specialisation

The regional characteristics influencing the patterns of employment specialisation reflect to a large extent those of investment specialisation. Table 6 presents the results of the GLS-estimates for the sectoral employment patterns (detailed results are presented in the appendix in Table B8). IV-estimates provide the same results and are given in the appendix in Table

[19] In some few case, the respective region-specific sectoral variable or one of the other explanatory variables looses significance. However, to some extent this can be explained by the lower number of variables included.

[20] Since the variable compensation of employees is not available for the French regions, the number of observations in the regressions is drastically reduced. We thus do not conduct additional IV-estimates.

[21] Included activities like manufacture of wood & wood products, manufacture of articles of jewellery, photographic & cinematographic laboratories can be categorised as labour-intensive.

[22] However, it is not possible to give an exact interpretation of the result for the sector „other services" due to the broad range of included activities.

B9. Again, the manufacturing sectors mostly show higher employment shares in regions with large markets (with the exception of AGRO, MINE and BUIL), though not in the administrative centres (besides BUIL). We also find significantly lower shares in regions with high unemployment rates (not accounting for AGRO, FUEL, BUIL) and in peripheral regions (besides FUEL and BUIL). These general patterns are congruent with those of investment specialisation and do again never apply to the sector building & construction.

Employment specialisation in the services sectors is again stronger in the administrative centres and in peripheral regions. Like for investment specialisation, though less strong, we find differences concerning the specialisation in services between the administrative centres and the peripheral regions. Only administrative centres show significantly higher Balassa-indices in credit and insurance services – in employment like in investment specialisation. In contrast to the results presented above, administrative centres additionally have significantly higher employment shares in non-market services. The coefficient of CENTR, however, now is four times less for employment specialisation in TRCO than it is for investment specialisation, an indication of less pronounced regional differences of relative employment shares in transport & communication services. TRCO, CRED, and OTHS show significantly higher employment shares in those regions with a high market potential – in contrast to investment shares which are lower. In addition, some minor differences are evident for employment in agriculture as well as transport & communication services.[23]

Table 6: Influence of regional characteristics on sectoral employment patterns

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
CENTR			-	-	-	-	-	-	-	-	-	+		+	+	+	+
PODEN	-	-	-	-		+	+		+	+		-		-	+		-
DIST	-	+		-	-	-	-	-	-	-	-	+	+	+		+	+
GRP	-			-	+	+	+		+	+		-	-	+	+	+	-
QUINN_OPENN	+			+		-				-		+	-			-	+
AREA	+	-	-			+	-		+		+	-	-	-	+		
UEWP	+	+	-	-		-		-	-	-	-	+	-	-	-	-	+
DUM_FRA	-	+	+	-	+	+	+	+	-	+			-		+	+	
DUM_IRE		+	+		+	+	+	+		+					+	-	-
DUM_LUX	-		+			+		+				+		-	+		-
DUM_DEN	-		+			+		+		+		+	-		+	-	+
DUM_BEL	-	+	+	-	+			+	-	+	-		-		+	+	+
no. of obs.	494	425	413	418	413	416	417	418	418	418	416	425	416	416	416	418	425

Note: Results are displayed in case of significance only. Detailed results are given in the appendix in Table B8.

Also, clear country-specific effects are obvious: relative employment specialisation is always significantly stronger in at least three other countries than in Italy in the sectors CRED, META, CHEM, METP, FOOD as well as PAPE. In the sectors AGRO and TRLO, employment shares are significantly higher in Italy. This is mostly consistent with the more incomplete data for investment shares. However, we find significantly higher investment shares in FUEL and TRCO in Italy than in the other countries. This is not the case for employment shares which are even significantly lower in FUEL.

[23] Regions with a higher market potential (large area) show a lower (higher) employment specialisation in agriculture whereas investment specialisation was stronger (lower). With respect to transport & communication services, employment specialisation is – also opposed to investment specialisation – higher in regions with a higher market potential and lower in small and not densely populated regions.

In contrast to the explanation of investment specialisation, the explanation of employment specialisation by the regional research intensity is – for a higher number of sectors – consistent with theoretical expectations. The additional influence of the regional research intensity is presented in Table 7. Regions with a higher research intensity demonstrate higher employment specialisation in the research-intensive sectors CHEM, META and METP, but also in OTHS and PAPE. A strongly consistent feature is the fact that specialisation in the sectors AGRO, FUEL, MINE, TEXT and BUIL (whose research intensity is rather low) is lower in those regions with a high number of patents applications in relation to GRP.

Table 7: Additional influence of the regional research intensity, Employment, 1989-94

	AGRO	FUEL	META	MINE	CHEM	METP	TEXT	PAPE	BUIL	OTHS
RDINT	-	-	+	-	+	+	-	+	-	+

Note: Results are displayed in case of significance only. Detailed results are given in Table B10.

The influence of regional sector-specific economies of scale is consistently positive in the manufacturing sectors (besides for building & construction). This means that manufacturing employment shares are generally higher in those regions with higher sectoral ES. Results are confirmed by IV-estimates.

Table 8: Additional influence of sector-specific regional characteristics, Employment

	FUEL	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	BUIL
DPROD	-	+	+	+	-	+			-
ES	+	+	+	+	+	+		+	-

Note: Results are displayed in case of significance only. Detailed results are given in the appendix in Table B11 and Table B12.

Mostly positive as well, but not as consistent as for investment specialisation, are the coefficients' signs for the regional productivity differentials. While the coefficients were either positive or insignificant (besides for BUIL) with respect to investment specialisation, they are now significantly negative for BUIL as well as for FUEL and TREQ. Only in four of the nine manufacturing sectors, we find the positive sign expected according to the traditional trade theory. Again, IV-estimates provide the same results.

Table 9: Additional influence of the regional level of average labour costs, Employment

	AGRO	FUEL	META	CHEM	METP	TREQ	FOOD	TEXT	VARI	BUIL	TRCO	CRED	OTHS	NMSE
DLABCOST	-	+	+	+	+	+	-	-	-	-	+	+	+	+

Note: Results are displayed in case of significance only. Detailed results are given in Table B13.

The influence of the regional level of labour costs on employment specialisation is given in Table 9. For most sectors, we find specialisation indices which are significant and consistent with traditional trade theory. Specialisation in the labour-intensive sectors AGRO, FOOD, TEXT, BUIL and VARI increases with a lower level of regional labour costs than in the other regions (i.e. than on average). It increases in the rather (human) capital-intensive sectors CHEM, METP, TREQ, TRCO and CRED (but also in FUEL, META, OTHS and NMSE) in those regions with a high-wage level. This higher wage level is generally interpreted a strong indication of a higher level of education.

V Conclusion

In this paper, we investigate the driving forces of relative sectoral investment and employment shares and thus the relative specialisation of EU regions in specific sectors. The econometric analyses aim at identifying the regional determinants of high relative sectoral shares. We test a number of determinants from different theoretical approaches and control for heteroscedasticity and potential endogeneity. Regional factor cost or productivity differentials are supposed to matter according to the traditional trade theory. Sectoral productivity differentials between regions generally (mostly) contribute to the explanation of relative investment (employment) shares in those nine manufacturing sectors analysed. We find no evidence for the relevance of sectoral labour cost differentials in explaining the geographic allocation of a sector's production. Striking is the consistent significance of low (high) regional labour cost levels in explaining high employment shares in labour-intensive (human capital-intensive) sectors. This is less evident for the explanation of investment shares. However, in many sectors, productivity differentials and average regional labour cost differentials thus contribute to the explanation of specialisation patterns in accordance with traditional trade theory. Productivity differentials do so, especially with respect to the explanation of investment patterns, regional labour cost differentials with respect to the explanation of employment patterns.

The influence of the market potential is significant and positive for many manufacturing sectors. For manufacturing sectors, the location close to large markets thus seems to matter according to the predictions of the New Economic Geography. We might be also confronted with further agglomeration potential in the manufacturing sectors, since the regional level of sector-specific economies of scale is consistently significant and positive for the manufacturing sectors. However, market integration, which is supposed to enforce the agglomerative forces of economies of scale does not play a particular role in any sector.

The significance of country-specific dummies indicates that country-specific characteristics are not captured by the regional determinants in our estimates and do influence the sectoral specialisation of regions in most sectors. These country-specific effects differ with respect to each sector concerning investment specialisation, but clear country-specific effects are evident for employment patterns. Italy shows significantly lower employment shares in a number of manufacturing sectors and higher ones in the labour-intensive sectors AGRO and TRLO.

Since investments and employment in most manufacturing sectors are relatively stronger attracted by regions close to (and not far away from) the administrative centre (though not by the administrative centres themselves), we might be confronted with backwash effects predicted by the polarisation theory for peripheral regions. Furthermore, the results indicate that core regions and densely-populated regions show a stronger relative specialisation in the important and growth-orientied services sectors. However, we cannot directly conclude on a cumulative agglomeration of services in the core since peripheral regions show higher relative sectoral shares in some services sectors as well. Though, the specialisation in services of the peripheral regions is less favourable than the one of core regions, especially with respect to investment shares.

The results of our econometric analysis demonstrate that core regions – in contrast to peripheral regions – are marked by a higher potential of economic performance. Peripheral regions compared to core regions, indeed, play a different role in the location of sectoral investments and employment. This is particularly striking for investments. The driving forces of sectoral specialisation are favourable for core regions with respect to growth-oriented market services like credit & insurance services. The services sectors with the highest regional specialisation of peripheral regions, instead, are repair, trade & lodging services as well as other services – both linked to economic activity in tourism.

In addition to some of the services sectors, relative investments and employment in non-market services as well as building & construction are stronger in peripheral regions as well. As long as investments and employment in NMSE and BUIL support education or infrastructure measures, a high relative regional specialisation can be beneficial. However, in general, the relative specialisation in NMSE as well as BUIL does not necessarily represent a specific advantage, but rather a high dependence on non-market economic activities and a poor sectoral diversification.

When regarding "absolute" regional investment shares (presented in Table A1), i.e. regional investment shares not given in relation to EU, these only amount to about 2.5% (3%) of total investments in France (Italy) in BUIL and to about 15% (8.5%) in France (Italy) in NMSE. Thus, the respective importance of those sectors, peripheral regions are more strongly specialised in than regions in the central parts of a country, is not too high. However, to be precise, sectoral investment shares vary between 5.3% for Lazio and 27.5 % for Valle d'Aosta in NMSE. This shows that differences between central and some of the peripheral regions are rather large. In addition, those regions with the highest relative investments shares are clustered in Southern Italy with respect to the sector BUIL, and located in the French regions far away from the French capital, e.g. in Southern France, with respect to NMSE.

Those regions far away from the economic centre mostly show a lower relative specialisation in manufacturing sectors. Furthermore, a particularly low level of regional labour cost seems to contribute to the extension of investments and especially employment in labour-intensive sectors. These patterns are consistent with traditional trade theory. In addition, they do provide hope for the periphery to attract some (labour-intensive) manufacturing production. Some NEG models predict an inverse U-shaped form of sectoral concentration, once transaction costs are sufficiently low. However, the capacity of low-wage and poor performing countries to attract low growth (labour-intensive) sectors might be an advantage, but need not necessarily improve their economic situation to a large extent. In addition, it would be a waste of ressources to promote or even subsidise the location of manufacturing sectors in peripheral regions since these sectors are already established in other regions while profiting from increasing returns to scale at sector level.

A good sign is the stronger relative importance of some of the services sectors – in addition to NMSE and BUIL – in those regions far away from the centre. Though, there are large differences with respect to the sector's importance across space. These are the most obvious for transport & communication services. Its investment share is only about 6 to 9% in Southern Italian regions while it amounts to 24% in Lazio. However, for repair, trade & lodging serv-

ices as well as other services, the variation of regional investment shares is much less pronounced.

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Appendix: Table A1: Sectoral shares of GFCF in total regional GFCF, averages for 1985-94

	AGRO	MANU	SERV	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE	TOTA
FRA	0.029	0.231	0.740	0.050	0.012	0.008	0.016	0.040	0.022	0.024	0.007	0.014	0.014	0.024	0.085	0.086	0.021	0.401	0.147	173815.26
ALS	0.017	0.262	0.721	0.023	0.007	0.013	0.023	0.053	0.026	0.039	0.013	0.025	0.016	0.023	0.077	0.066	0.018	0.438	0.122	6058.46
AQU	0.060	0.210	0.730	0.056	0.001	0.008	0.020	0.026	0.016	0.023	0.003	0.016	0.015	0.028	0.093	0.088	0.020	0.345	0.183	7139.73
AUV	0.059	0.240	0.701	0.030	0.007	0.009	0.012	0.037	0.009	0.033	0.006	0.011	0.058	0.028	0.078	0.071	0.021	0.335	0.196	3293.50
BNO	0.049	0.397	0.554	0.023	0.198	0.005	0.005	0.042	0.036	0.038	0.003	0.012	0.012	0.022	0.080	0.059	0.014	0.262	0.140	4247.96
BOU	0.067	0.236	0.697	0.030	0.013	0.013	0.015	0.054	0.014	0.027	0.006	0.010	0.025	0.029	0.091	0.087	0.019	0.343	0.156	4309.67
BRT	0.070	0.195	0.734	0.025	0.001	0.007	0.004	0.024	0.029	0.056	0.002	0.008	0.013	0.026	0.089	0.068	0.020	0.388	0.170	7299.36
CTR	0.051	0.268	0.680	0.078	0.001	0.008	0.017	0.055	0.019	0.023	0.004	0.017	0.019	0.027	0.080	0.075	0.021	0.353	0.152	6831.59
CHA	0.093	0.274	0.633	0.058	0.005	0.012	0.006	0.061	0.010	0.058	0.013	0.010	0.020	0.021	0.072	0.079	0.017	0.326	0.138	3957.71
CRS	0.043	0.101	0.856	0.041		0.007	0.000	0.005	0.002	0.007	0.000	0.002	0.003	0.033	0.110	0.104	0.018	0.380	0.243	583.04
FRC	0.031	0.303	0.665	0.019	0.003	0.009	0.019	0.073	0.090	0.021	0.004	0.007	0.031	0.027	0.072	0.067	0.015	0.352	0.160	3030.36
HNO	0.026	0.346	0.627	0.080	0.003	0.007	0.062	0.050	0.038	0.022	0.005	0.040	0.017	0.022	0.065	0.126	0.015	0.282	0.139	5258.40
IDF	0.002	0.169	0.828	0.043	0.005	0.003	0.013	0.032	0.024	0.008	0.003	0.012	0.005	0.020	0.093	0.092	0.029	0.511	0.103	52066.87
LRO	0.015	0.163	0.823	0.039	0.016	0.013	0.008	0.023	0.001	0.021	0.004	0.006	0.006	0.026	0.090	0.097	0.021	0.392	0.222	5146.97
LIS	0.059	0.231	0.710	0.033	0.013	0.009	0.003	0.048	0.007	0.022	0.005	0.044	0.020	0.027	0.073	0.074	0.023	0.320	0.219	1708.46
LOR	0.032	0.289	0.679	0.055	0.028	0.010	0.018	0.042	0.036	0.023	0.011	0.024	0.018	0.024	0.065	0.083	0.014	0.369	0.147	6674.31
MPY	0.049	0.225	0.726	0.064	0.003	0.011	0.009	0.024	0.037	0.020	0.010	0.012	0.009	0.026	0.085	0.078	0.020	0.353	0.191	6559.99
NPC	0.017	0.262	0.721	0.040	0.020	0.012	0.018	0.034	0.024	0.040	0.023	0.021	0.010	0.021	0.080	0.087	0.018	0.375	0.160	9877.04
PDL	0.048	0.221	0.731	0.039	0.004	0.006	0.004	0.043	0.019	0.039	0.008	0.011	0.020	0.028	0.080	0.080	0.021	0.379	0.171	8158.94
PIC	0.059	0.286	0.655	0.022	0.014	0.016	0.037	0.056	0.012	0.053	0.012	0.016	0.025	0.023	0.075	0.083	0.015	0.330	0.153	4697.94
POI	0.070	0.192	0.739	0.031	0.000	0.012	0.007	0.029	0.013	0.040	0.004	0.013	0.016	0.026	0.088	0.076	0.027	0.359	0.188	4162.61
PAC	0.015	0.218	0.768	0.095	0.005	0.008	0.026	0.019	0.009	0.017	0.001	0.006	0.005	0.027	0.093	0.113	0.021	0.372	0.170	11988.69
RAL	0.017	0.257	0.725	0.049	0.007	0.010	0.020	0.066	0.009	0.019	0.012	0.013	0.022	0.029	0.084	0.076	0.017	0.383	0.164	17371.57
ITA	0.065	0.282	0.653	0.062	0.013	0.016	0.019	0.048	0.019	0.020	0.024	0.014	0.019	0.028	0.090	0.121	0.017	0.343	0.083	149387.55
ABR	0.089	0.317	0.594	0.080	0.005	0.022	0.009	0.054	0.045	0.020	0.017	0.026	0.017	0.021	0.062	0.075	0.011	0.362	0.084	3236.98
BAS	0.140	0.248	0.612	0.084	0.002	0.010	0.015	0.019	0.030	0.027	0.005	0.003	0.007	0.046	0.036	0.061	0.009	0.325	0.182	1462.09
CAL	0.084	0.205	0.711	0.097	0.001	0.012	0.005	0.004	0.003	0.009	0.019	0.003	0.014	0.037	0.068	0.139	0.008	0.396	0.100	4221.65
CAM	0.050	0.208	0.742	0.046	0.006	0.012	0.012	0.024	0.033	0.016	0.011	0.005	0.012	0.030	0.050	0.130	0.014	0.411	0.137	10765.62
ERO	0.094	0.337	0.570	0.050	0.005	0.036	0.019	0.083	0.014	0.053	0.018	0.013	0.020	0.029	0.112	0.095	0.019	0.268	0.076	11149.81
FVG	0.064	0.276	0.659	0.060	0.018	0.013	0.012	0.058	0.008	0.017	0.013	0.028	0.033	0.017	0.119	0.111	0.017	0.317	0.094	3661.06
LAZ	0.032	0.193	0.775	0.069	0.002	0.008	0.015	0.021	0.014	0.009	0.003	0.014	0.006	0.031	0.091	0.241	0.020	0.369	0.053	16626.76
LIG	0.022	0.218	0.760	0.069	0.013	0.013	0.028	0.034	0.012	0.007	0.004	0.005	0.006	0.027	0.120	0.200	0.019	0.313	0.108	4561.80
LOM	0.043	0.347	0.610	0.043	0.021	0.010	0.033	0.085	0.014	0.021	0.042	0.020	0.029	0.029	0.100	0.080	0.020	0.345	0.064	27848.89
MAR	0.091	0.254	0.654	0.033	0.004	0.012	0.006	0.055	0.008	0.027	0.038	0.014	0.034	0.024	0.093	0.090	0.017	0.364	0.090	3551.63
MOL	0.129	0.291	0.580	0.087	0.013	0.021	0.012	0.010	0.077	0.017	0.011	0.000	0.006	0.036	0.033	0.060	0.010	0.394	0.083	930.35
PIE	0.062	0.368	0.570	0.050	0.027	0.015	0.019	0.076	0.070	0.020	0.031	0.015	0.022	0.021	0.067	0.142	0.017	0.284	0.059	12864.73
PUG	0.091	0.271	0.637	0.104	0.028	0.016	0.011	0.026	0.010	0.017	0.014	0.004	0.013	0.027	0.063	0.078	0.014	0.399	0.085	6981.67
SAR	0.094	0.304	0.603	0.147	0.018	0.019	0.040	0.008	0.002	0.012	0.024	0.002	0.009	0.023	0.091	0.091	0.010	0.306	0.105	4183.74
SIC	0.081	0.213	0.706	0.106	0.003	0.017	0.013	0.010	0.008	0.008	0.006	0.003	0.004	0.034	0.058	0.084	0.012	0.437	0.116	9529.05
TOS	0.071	0.293	0.636	0.061	0.016	0.032	0.022	0.030	0.010	0.012	0.042	0.022	0.019	0.028	0.118	0.119	0.020	0.296	0.084	8359.75
TAA	0.089	0.193	0.718	0.036	0.011	0.012	0.005	0.027	0.006	0.024	0.006	0.011	0.028	0.027	0.209	0.103	0.013	0.277	0.117	3600.19
UMB	0.092	0.312	0.596	0.078	0.045	0.036	0.017	0.025	0.004	0.039	0.024	0.011	0.015	0.017	0.073	0.106	0.014	0.332	0.071	2125.34
VAO	0.060	0.137	0.803	0.047	0.020	0.013	0.003	0.010	0.001	0.009	0.001	0.001	0.004	0.028	0.055	0.131	0.008	0.334	0.275	674.56
VEN	0.076	0.303	0.622	0.037	0.011	0.019	0.020	0.064	0.007	0.024	0.042	0.020	0.032	0.027	0.097	0.117	0.016	0.322	0.070	13051.87
DEN	0.051	0.258		0.073		0.012				0.027	0.007	0.019		0.028		0.142	0.019		0.122	17437.54
IRE	0.099	0.248	0.577	0.047	0.003	0.012	0.026	0.041	0.003	0.053	0.008	0.010	0.011	0.021		0.128	0.047		0.067	5575.79
LUX	0.024	0.180	0.592	0.026	0.046	0.011	0.004	0.022	0.001	0.011	0.021	0.005	0.026	0.019	0.082	0.080	0.119	0.166	0.187	1834.36

Appendix B: Estimation Results

Table B1: GLS-Estimates of the Determinants of Sectoral Specialisation, GFCF, Regional Characteristics

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	3.6645	-0.3870	3.5323	1.9030	0.3975	0.8764	0.3562	0.8488	1.5497	1.2906	1.8888	0.7304	0.7538	-0.0152	0.3518	2.6416	0.4809
	9.19	-0.94	2.78	5.41	1.83	6.76	0.60	3.93	4.62	3.94	4.90	12.20	6.49	-0.06	5.94	16.89	3.45
CENTR	-0.7152	0.6094	-1.3718	-0.8509	-0.5506	-0.7050	-0.5671	-0.8720	-1.7857	-0.4652	-1.2109	0.0874	0.1351	1.6121	0.0857	0.2696	0.1205
	-3.13	2.59	-1.91	-4.38	-4.59	-9.85	-1.74	-7.32	-9.62	-2.57	-5.70	2.55	2.11	11.05	2.62	3.12	1.51
PODEN	-6.8820	-1.3280	-4.3186	-1.3549	-0.4305	-0.0103	-0.9823	-1.0061	-0.9594	0.0826	-0.3548	-0.4181	0.5347	2.6983	0.4755	1.3921	-0.5275
	-9.77	-1.83	-1.96	-2.25	-1.16	-0.05	-0.97	-2.72	-1.66	0.15	-0.54	-3.95	2.68	5.95	4.68	5.19	-2.14
DIST	-1.0713	0.1735	-0.7398	-0.7202	-0.3286	-0.3770	-0.8404	-0.8967	-0.6950	-0.6214	-0.6639	0.0540	0.2104	0.4607	0.0163	0.2565	0.4727
	-6.89	1.08	-1.24	-5.44	-3.94	-7.73	-3.73	-11.04	-5.39	-5.04	-4.58	2.31	4.81	4.63	0.73	4.36	8.68
GRP	0.0124	0.0014	0.0135	0.0035	0.0045	0.0031	0.0039	0.0029	0.0106	0.0011	0.0019	0.0009	-0.0018	-0.0113	-0.0009	-0.0020	-0.0008
	5.15	0.58	1.81	1.71	3.53	4.00	1.13	2.26	5.38	0.56	0.85	2.57	-2.71	-7.24	-2.49	-2.14	-0.89
QUINN_OPENN	-0.0141	0.0959	-0.0700	0.0029	0.0087	-0.0001	0.0814	0.0385	-0.0206	-0.0054	0.0071	-0.0278	-0.0113	0.1057	-0.0082	-0.0983	0.0100
	-0.49	3.22	-0.75	0.11	0.55	-0.01	1.87	2.44	-0.84	-0.23	0.25	-6.38	-1.33	5.47	-1.90	-8.60	0.99
AREA	-0.0213	0.0120	-0.0587	0.0003	-0.0024	0.0034	-0.0153	-0.0031	0.0030	-0.0024	0.0093	-0.0009	0.0054	0.0161	0.0043	0.0006	-0.0078
	-3.77	2.06	-3.14	0.06	-0.81	1.91	-1.87	-1.04	0.64	-0.53	1.75	-1.12	3.39	4.44	5.28	0.28	-3.95
UEWP	0.0660	0.0973	-0.0116	-0.0098	0.0104	-0.0346	0.0038	-0.0119	-0.0151	-0.0384	-0.0657	0.0097	-0.0251	-0.0258	-0.0101	0.0202	0.0081
	6.73	9.64	-0.38	-1.17	2.01	-11.16	0.27	-2.30	-1.88	-4.90	-7.14	6.62	-9.05	-4.09	-7.15	5.40	2.37
DUM_FRA	-1.3308	-0.7341	0.4700	-0.7401	-0.0173	-0.0135	0.1876	0.2881	-0.7965	0.1771	-0.1144	-0.0658	-0.0490	-0.3410	0.0752	0.1531	0.5026
	-15.51	-8.31	1.64	-10.12	-0.38	-0.50	1.54	6.42	-11.34	2.60	-1.43	-5.11	-2.03	-6.21	6.10	4.71	16.74
DUM_IRE	0.8755	-2.3674	2.9846	0.1481	0.8922	0.7598	0.4253	2.0546	0.7526	0.6465	0.5525	-0.2444	--	-1.2490	0.4803	--	0.1992
	2.02	-5.31	1.79	0.33	3.18	4.53	0.56	7.36	1.73	1.52	1.11	-3.76		-4.13	7.08		1.32
DUM_DEN	-1.0486	-0.6364	--	--	--	--	--	--	--	--	--	-0.0652	--	--	--	--	0.4732
	-3.03	-1.78										-1.25					3.90
DUM_LUX	-1.1348	-0.7172	3.3211	0.1656	0.2371	0.2296	-0.4839	0.2160	1.9503	-0.3970	1.6401	-0.1424	-0.1114	-1.6229	2.4484	-0.8406	0.5754
	-3.36	-2.06	2.81	0.50	1.17	1.89	-0.88	1.07	6.22	-1.30	4.55	-2.81	-1.03	-6.57	44.20	-5.75	4.87
no. of obs.	377	377	353	361	360	361	353	361	360	361	361	377	358	363	363	358	377
Prob Chi²	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-values of the GLS estimates. The probability of the Chi²-test gives the joint significance of all coefficients.

Table B2: Instrumental-Variable Estimates of the Determinants of Sectoral Specialisation, GFCF, Regional Characteristics

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	3.6739	-0.1711	3.4874	1.9587	0.3971	0.9532	0.6484	0.9002	1.4278	1.4045	2.1656	0.6980	0.7816	0.0431	0.3716	2.4671	0.4384
	8.46	-0.39	2.48	5.11	1.67	6.86	0.99	3.82	4.02	3.89	5.16	11.45	6.38	0.15	5.73	15.42	2.91
CENTR	-0.6511	0.5167	-1.4332	-0.8326	-0.5880	-0.7249	-0.5460	-0.8950	-1.7849	-0.4938	-1.2266	0.0802	0.1537	1.6616	0.0737	0.2704	0.1318
	-2.65	2.06	-1.84	-4.00	-4.53	-9.61	-1.55	-7.00	-9.23	-2.52	-5.38	2.33	2.31	10.79	2.10	3.11	1.55
PODEN	-7.0183	-1.4313	-4.7721	-1.1848	-0.5673	0.0246	-0.7460	-1.1475	-0.9967	0.1631	-0.2085	-0.5717	0.6716	2.5998	0.4710	1.2927	-0.4648
	-8.93	-1.78	-1.92	-1.77	-1.36	0.10	-0.66	-2.78	-1.60	0.26	-0.28	-5.19	3.13	5.24	4.15	4.62	-1.70
DIST	-1.0838	0.1437	-0.8158	-0.6856	-0.3489	-0.3812	-0.8489	-0.9049	-0.6391	-0.6369	-0.6705	0.0464	0.2325	0.4571	0.0166	0.2603	0.4743
	-6.61	0.86	-1.28	-4.94	-3.95	-7.57	-3.55	-10.61	-4.86	-4.87	-4.41	2.02	5.24	4.45	0.71	4.49	8.34
GRP (IV)	0.0127	0.0022	0.0151	0.0030	0.0050	0.0029	0.0027	0.0034	0.0107	0.0008	0.0013	0.0014	-0.0023	-0.0111	-0.0008	-0.0016	-0.0010
	4.75	0.81	1.80	1.31	3.50	3.43	0.71	2.40	5.04	0.39	0.52	3.79	-3.14	-6.52	-2.13	-1.66	-1.08
QUINN_OPENN	-0.0151	0.0729	-0.0626	-0.0056	0.0087	-0.0039	0.0703	0.0351	-0.0163	-0.0119	-0.0086	-0.0248	-0.0142	0.0993	-0.0105	-0.0835	0.0119
	-0.48	2.28	-0.61	-0.20	0.50	-0.39	1.48	2.05	-0.63	-0.45	-0.28	-5.64	-1.60	4.82	-2.24	-7.19	1.10
AREA	-0.0224	0.0115	-0.0624	0.0008	-0.0041	0.0032	-0.0147	-0.0044	0.0015	-0.0026	0.0097	-0.0019	0.0062	0.0167	0.0041	0.0002	-0.0070
	-3.66	1.83	-3.03	0.16	-1.24	1.69	-1.65	-1.38	0.30	-0.54	1.70	-2.17	3.69	4.33	4.70	0.08	-3.28
UEWP (IV)	0.0695	0.1088	-0.0072	-0.0067	0.0143	-0.0362	-0.0092	-0.0095	-0.0088	-0.0399	-0.0716	0.0111	-0.0265	-0.0230	-0.0087	0.0177	0.0083
	6.10	9.36	-0.20	-0.69	2.36	-10.27	-0.55	-1.60	-0.97	-4.35	-6.73	6.95	-8.52	-3.20	-5.30	4.35	2.11
DUM_FRA	-1.3266	-0.7835	0.5049	-0.7570	-0.0060	-0.0195	0.1565	0.2898	-0.7702	0.1671	-0.1509	-0.0545	-0.0578	-0.3639	0.0717	0.1868	0.5006
	-14.42	-8.34	1.62	-9.67	-0.12	-0.69	1.19	6.03	-10.55	2.27	-1.76	-4.22	-2.31	-6.28	5.42	5.72	15.68
DUM_IRE	0.8344	-2.3878	3.1735	0.0768	0.9697	0.7892	0.4361	2.1101	0.8240	0.6771	0.5389	-0.2061	--	-1.3786	0.4841	--	0.1515
	1.82	-5.10	1.79	0.16	3.27	4.57	0.54	7.21	1.86	1.51	1.03	-3.21		-4.40	6.76		0.95
DUM_DEN	-1.0998	-0.5916	--	--	--	--	--	--	--	--	--	-0.0661	--	--	--	--	0.4592
	-3.02	-1.59										-1.30					3.64
DUM_LUX	-1.1839	-0.5811	3.4016	0.1542	0.2879	0.2135	-0.6776	0.2398	2.0208	-0.4186	1.5437	-0.1203	-0.1422	-1.6567	2.4634	-0.8086	0.5737
	-3.31	-1.59	2.70	0.45	1.34	1.70	-1.15	1.13	6.30	-1.28	4.07	-2.40	-1.29	-6.47	42.12	-5.60	4.62
no. of obs.	358	358	334	342	341	342	334	342	341	342	342	358	339	344	344	339	358
Prob F	0.000	0.000	0.001	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the t-values of the IV estimates. The probability of the F-test gives the joint significance of all coefficients.

Table B3: GLS Estimates of the Determinants of Sectoral Specialisation, GFCF, Regional Characteristics including RDINT

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	4.1133	0.1035	2.4779	3.5885	0.5799	0.9230	-0.0689	1.0466	1.4919	0.7240	2.1542	0.6701	0.7149	0.3764	0.5655	2.1454	0.6660
	6.13	0.14	1.34	5.44	1.39	4.24	-0.07	2.51	2.53	1.14	3.05	7.28	3.45	0.77	5.41	9.21	2.85
CENTR	-1.0865	0.4123	-1.5501	-0.9904	-0.5511	-0.7260	-0.8149	-0.9342	-1.8806	-0.2716	-1.2023	0.0503	0.1842	1.9619	-0.0026	0.2212	0.0985
	-3.77	1.31	-2.04	-3.66	-3.22	-8.14	-2.14	-5.47	-7.78	-1.05	-4.16	1.27	2.17	9.77	-0.06	2.32	0.98
PODEN	-6.2533	-1.9967	-4.5494	-1.6611	-0.5617	-0.2778	0.8723	-1.0115	-1.6714	0.3255	-0.7656	-0.4584	0.7979	3.0794	0.5762	0.6855	-0.4135
	-6.61	-1.94	-1.80	-1.86	-0.99	-0.94	0.69	-1.79	-2.09	0.38	-0.80	-3.53	2.85	4.64	4.07	2.17	-1.26
DIST	-1.4943	0.1317	-0.6397	-1.1883	-0.4030	-0.5439	-0.9568	-0.8748	-0.9861	-0.4279	-0.7923	0.0252	0.2308	0.4144	-0.0016	0.2019	0.6682
	-6.17	0.50	-1.00	-5.23	-2.80	-7.25	-2.77	-6.09	-4.85	-1.96	-3.26	0.76	3.24	2.45	-0.04	2.52	7.92
GRP	0.0125	0.0034	0.0174	0.0030	0.0028	0.0018	-0.0016	0.0030	0.0111	-0.0012	0.0005	0.0015	-0.0025	-0.0129	-0.0007	0.0001	0.0003
	4.10	1.01	2.15	1.05	1.53	1.93	-0.39	1.66	4.32	-0.42	0.15	3.51	-2.77	-6.04	-1.54	0.11	0.31
QUINN_OPENN	-0.0265	0.0574	0.0246	-0.1205	-0.0119	-0.0086	0.0815	0.0257	-0.0212	0.0289	-0.0220	-0.0203	-0.0103	0.0702	-0.0214	-0.0534	0.0023
	-0.55	1.10	0.19	-2.55	-0.40	-0.55	1.23	0.86	-0.50	0.64	-0.43	-3.10	-0.70	2.00	-2.87	-3.20	0.14
RDINT	-0.0910	0.0032	-0.1163	0.0602	0.0858	0.0762	0.0567	-0.0137	0.0357	0.0292	0.0985	-0.0026	0.0014	0.0019	-0.0138	0.0130	-0.0722
	-2.41	0.08	-1.16	1.69	3.80	6.48	1.12	-0.61	1.12	0.85	2.58	-0.50	0.12	0.07	-2.44	1.03	-5.49
AREA	-0.0102	0.0059	-0.0543	0.0042	-0.0062	0.0023	-0.0015	-0.0039	0.0026	-0.0008	0.0065	-0.0021	0.0075	0.0217	0.0050	-0.0047	-0.0078
	-1.28	0.68	-2.56	0.56	-1.31	0.94	-0.14	-0.82	0.38	-0.12	0.81	-1.88	3.16	3.88	4.23	-1.76	-2.80
UEWP	0.0367	0.1211	-0.0318	0.0082	0.0253	-0.0214	0.0024	-0.0136	0.0146	-0.0399	-0.0456	0.0074	-0.0271	-0.0224	-0.0132	0.0215	-0.0058
	2.68	8.13	-0.87	0.63	3.09	-5.01	0.13	-1.67	1.26	-3.22	-3.29	3.95	-6.68	-2.33	-6.42	4.72	-1.23
DUM_FRA	-1.1326	-0.8878	0.6170	-1.2895	-0.1884	-0.2193	0.1023	0.3861	-1.0134	0.1701	-0.3029	-0.0605	-0.1258	-0.4153	0.0461	0.1548	0.7686
	-7.28	-5.24	1.49	-8.76	-2.02	-4.51	0.49	4.15	-7.70	1.20	-1.92	-2.84	-2.72	-3.80	1.98	2.98	14.20
DUM_IRE	1.0721	-2.1278	--	--	--	--	--	--	--	--	--	-0.1154	--	-1.8847	0.5376	--	0.4023
	1.92	-3.50										-1.51		-4.02	5.38		2.07
DUM_DEN	-0.8474	-0.4824	--	--	--	--	--	--	--	--	--	-0.0592	--	--	--	--	0.7408
	-1.97	-1.03										-1.00					4.94
DUM_LUX	-0.7105	-0.4881	3.6216	0.0278	-0.1039	0.0917	-0.3988	0.2164	0.8072	-0.5341	0.6796	-0.0837	-0.1007	-2.2604	2.8708	-0.7074	0.7914
	-1.71	-1.08	2.49	0.05	-0.32	0.54	-0.56	0.66	1.75	-1.08	1.23	-1.46	-0.62	-5.89	35.06	-3.87	5.46
no. of obs.	216	216	202	203	203	203	197	203	203	203	203	216	203	205	205	203	216
Prob Chi²	0.000	0.000	0.010	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-values of the GLS estimates. The probability of the Chi²-test gives the joint significance of all coefficients.

Table B4: GLS and IV Estimates of the Determinants of Sectoral Specialisation (GFCF) including DPROD

	FUEL		MINE		CHEM		METP		TREQ		FOOD		TEXT		PAPE		BUIL	
	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV
Constant	-0.7608	-0.6941	1.4478	1.6150	0.3171	0.2649	0.8645	0.9544	-0.0618	0.1164	0.8483	0.8606	1.5615	1.4407	1.3157	1.3861	0.8240	0.7956
	-1.60	-1.36	3.50	3.35	1.49	1.05	6.08	5.88	-0.09	0.14	3.68	3.12	3.97	3.21	4.33	3.95	11.36	9.75
DPROD	0.0110	0.0115	0.0133	0.0139	0.0104	0.0145	0.0018	-0.0042	0.0531	0.0375	0.0108	0.0157	-0.0104	-0.0093	0.0191	0.0265	-0.0074	-0.0084
	5.91	5.10	1.70	1.42	3.77	3.36	0.51	-0.88	5.52	2.42	3.24	2.71	-1.57	-0.62	4.19	3.85	-4.62	-3.48
CENTR	0.7020	0.6580	-0.9439	-0.9871	-0.4561	-0.4914	-0.6699	-0.6810	-0.4365	-0.5214	-0.8084	-0.8391	-1.7939	-1.7957	-0.6014	-0.6709	0.1034	0.0960
	2.87	2.57	-4.47	-4.12	-4.14	-3.88	-9.21	-8.45	-1.28	-1.33	-6.95	-6.36	-8.90	-8.06	-3.84	-3.69	2.81	2.45
PODEN	-1.0314	-0.9767	-1.2232	-1.1116	-0.2961	-0.3055	-0.0512	0.2464	-3.0013	-2.6540	-1.0615	-1.1796	-1.4035	-1.5100	-0.5240	-0.5156	-0.4525	-0.5783
	-1.33	-1.14	-1.82	-1.37	-0.86	-0.73	-0.21	0.79	-2.71	-1.80	-2.86	-2.65	-2.21	-2.03	-1.09	-0.91	-3.91	-4.36
DIST	0.1578	0.2562	-0.9588	-1.0699	-0.2631	-0.2858	-0.3478	-0.3506	-0.5828	-0.7635	-0.8654	-0.9236	-0.8430	-0.8573	-0.6937	-0.7415	0.0598	0.0545
	0.85	1.28	-5.87	-5.61	-2.72	-2.55	-6.27	-5.52	-2.15	-2.37	-9.78	-8.91	-5.32	-4.50	-5.88	-5.36	2.14	1.78
GRP	-0.0028	-0.0025	0.0018	0.0009	0.0037	0.0034	0.0040	0.0032	0.0092	0.0082	0.0032	0.0035	0.0132	0.0131	0.0034	0.0029	0.0010	0.0015
	-0.98	-0.81	0.74	0.29	2.83	2.17	4.73	3.14	2.36	1.66	2.34	2.14	5.72	4.89	1.97	1.46	2.37	3.10
QUINN_OPENN	0.1441	0.1268	0.0432	0.0318	0.0055	0.0077	-0.0059	-0.0097	0.0883	0.0907	0.0314	0.0304	-0.0179	-0.0120	-0.0184	-0.0255	-0.0300	-0.0256
	4.09	3.39	1.42	0.90	0.35	0.42	-0.56	-0.81	1.78	1.56	1.85	1.53	-0.62	-0.37	-0.83	-1.03	-5.71	-4.53
AREA	0.0142	0.0149	0.0074	0.0114	0.0014	0.0011	0.0037	0.0051	-0.0259	-0.0241	-0.0012	-0.0014	0.0048	0.0060	-0.0047	-0.0033	-0.0012	-0.0029
	2.03	1.90	1.21	1.52	0.42	0.28	1.75	2.02	-2.61	-1.90	-0.37	-0.35	0.83	0.85	-1.08	-0.63	-1.19	-2.43
UEWP	0.0822	0.0915	-0.0083	-0.0078	0.0138	0.0190	-0.0310	-0.0386	0.0515	0.0351	-0.0084	-0.0045	-0.0183	-0.0130	-0.0149	-0.0095	0.0037	0.0035
	7.52	7.37	-0.86	-0.66	2.87	3.13	-7.27	-6.46	3.10	1.46	-1.64	-0.70	-1.89	-0.88	-1.81	-0.81	1.69	1.04
DUM_FRA	-0.5501	-0.6742	-0.6899	-0.7437	-0.0669	-0.0511	-0.0333	-0.0478	0.3168	0.3252	0.2526	0.2726	-0.7970	-0.8067	0.1261	0.1067	-0.0525	-0.0330
	-4.80	-5.19	-6.87	-6.02	-1.26	-0.79	-0.96	-1.15	2.01	1.64	4.68	4.11	-8.37	-6.88	1.81	1.31	-3.09	-1.71
DUM_IRE	--	--	-0.1129	-0.3896	0.5355	0.6301	--	--	--	--	1.8890	1.8203	0.5246	0.4353	0.7949	0.7991	-0.2880	-0.2264
			-0.22	-0.62	2.01	1.91					6.72	5.21	1.08	0.74	2.19	1.84	-3.49	-2.44
DUM_DEN	-0.8637	-0.8163	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.0708	-0.0665
	-2.05	-1.80															-1.13	-0.97
DUM_LUX	-0.9157	-0.7576	0.0977	0.0042	0.1709	0.1698	0.2531	0.1953	0.3931	0.1641	0.3151	0.3771	2.1666	2.1256	-0.0218	0.0994	-0.2953	-0.2927
	-2.25	-1.72	0.27	0.01	0.97	0.81	2.10	1.42	0.68	0.23	1.61	1.61	6.15	4.49	-0.08	0.30	-4.58	-3.79
no. of obs.	297	253	295	251	291	248	292	249	284	241	295	251	294	250	289	244	301	256
Prob Chi² / F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-(t-)values of the GLS (IV) estimates. The probability of the Chi²/F-test gives the joint significance of all coefficients.

Table B5: GLS and IV Estimates of the Determinants of Sectoral Specialisation (GFCF), including ES

	FUEL		MINE		CHEM		METP		TREQ		FOOD		TEXT		PAPE		BUIL	
	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV
Constant	0.8180	0.2758	2.3444	3.6543	0.1678	-0.5443	0.8974	0.6599	-0.6072	-1.0852	0.6984	0.1658	1.4898	1.5681	1.0207	0.6256	0.6405	0.7523
	1.62	0.47	5.48	5.76	0.74	-1.56	6.14	3.13	-1.00	-1.30	2.56	0.40	3.56	2.40	2.53	1.14	8.25	5.98
CENTR	0.0326	-0.2963	-0.9168	-1.0129	-0.8926	-1.4816	-0.7064	-0.8153	-0.5508	-0.5776	-0.8274	-0.9160	-1.9990	-1.9453	-0.5334	-0.5548	0.0920	0.0833
	0.13	-1.11	-4.39	-4.25	-7.72	-8.80	-9.83	-9.29	-1.86	-1.65	-6.34	-5.68	-9.37	-6.40	-2.74	-2.47	2.52	1.93
PODEN	-1.2902	-1.1909	-1.4416	-1.7174	-0.4378	-0.6988	-0.4763	-1.3996	-0.5700	-0.9556	-0.5061	0.0840	-0.7840	-1.1886	0.3524	0.5674	-0.5754	-0.7148
	-1.60	-1.32	-2.06	-1.96	-1.17	-1.42	-1.94	-3.88	-0.57	-0.75	-1.16	0.15	-1.19	-1.39	0.54	0.72	-4.87	-4.98
DIST	-0.1392	-0.1714	-0.7639	-0.8267	-0.3369	-0.3332	-0.3743	-0.3579	-0.6295	-0.7105	-0.8551	-0.8749	-1.0001	-0.9155	-0.5288	-0.4504	0.0535	0.0479
	-0.83	-0.96	-5.29	-4.59	-4.32	-3.37	-7.67	-5.90	-3.09	-2.91	-9.69	-8.23	-5.83	-4.13	-3.93	-2.83	2.13	1.61
GRP	0.0015	0.0025	0.0040	0.0049	0.0047	0.0066	0.0039	0.0064	0.0025	0.0035	0.0007	-0.0013	0.0100	0.0106	-0.0001	-0.0009	0.0014	0.0019
	0.56	0.86	1.74	1.70	3.76	4.09	4.92	5.70	0.76	0.86	0.47	-0.66	4.65	3.87	-0.03	-0.35	3.44	4.03
ES	0.0119	0.0152	0.0373	0.0477	0.0874	0.1927	0.0486	0.1557	0.0572	0.0495	0.0752	0.1579	0.0441	0.0018	0.0619	0.0873	0.0013	-0.0021
	7.20	7.22	2.49	1.25	10.35	8.89	6.10	5.70	10.74	6.58	5.74	5.53	2.11	0.04	4.00	3.34	0.32	-0.27
QUINN_OPENN	0.0053	0.0346	-0.0467	-0.1392	0.0062	0.0333	-0.0099	-0.0126	0.0806	0.1308	0.0126	0.0136	-0.0246	-0.0275	-0.0062	0.0176	-0.0203	-0.0266
	0.14	0.81	-1.51	-3.45	0.37	1.40	-0.93	-0.87	1.83	2.21	0.64	0.51	-0.83	-0.60	-0.22	0.47	-3.54	-3.22
AREA	0.0037	0.0014	-0.0011	-0.0023	-0.0056	-0.0101	-0.0005	-0.0067	-0.0029	-0.0054	0.0013	0.0066	0.0070	0.0058	-0.0037	-0.0028	-0.0015	-0.0026
	0.60	0.20	-0.20	-0.37	-1.96	-2.71	-0.25	-2.55	-0.38	-0.57	0.38	1.43	1.29	0.82	-0.74	-0.49	-1.59	-2.29
UEWP	0.0645	0.0623	-0.0048	-0.0069	0.0028	-0.0068	-0.0323	-0.0318	0.0031	0.0002	-0.0115	-0.0134	-0.0089	0.0045	-0.0365	-0.0452	0.0092	0.0111
	5.42	4.26	-0.51	-0.57	0.55	-0.94	-10.10	-7.56	0.23	0.01	-2.05	-1.86	-1.04	0.41	-4.23	-4.17	5.87	5.72
DUM_FRA	-0.4090	-0.2582	-0.7184	-0.8921	0.2203	0.5750	0.0384	0.1651	0.1904	0.2697	0.2409	0.2660	-0.8374	-0.9224	0.2887	0.3826	-0.0401	-0.0623
	-3.75	-1.89	-7.84	-5.62	4.43	6.44	1.28	3.41	1.65	1.82	4.51	3.78	-9.01	-6.91	3.56	3.62	-2.22	-1.92
no. of obs.	314	262	313	260	312	259	314	262	305	252	291	238	279	202	313	260	287	230
Prob Chi² / F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-(t-)values of the GLS (IV) estimates. The probability of the Chi²/F-test gives the joint significance of all coefficients.

Table B6: GLS and IV Estimates of the Determinants of Sectoral Specialisation (GFCF), including DLABCOST

	FUEL		MINE		CHEM		METP		TREQ		FOOD		TEXT		PAPE		BUIL	
	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV
Constant	-0.5926	-4.0129	1.5320	2.0262	0.4917	0.4337	0.8843	0.5000	-0.3690	-0.3983	0.9922	0.9535	1.6079	1.2914	1.8042	2.0533	0.7257	0.7030
	-1.18	-0.67	3.65	1.76	2.23	1.49	6.23	0.76	-0.52	-0.44	4.25	3.13	3.99	2.24	5.50	5.38	9.89	8.05
GRP	0.0000	-0.0112	0.0028	0.0035	0.0052	0.0050	0.0039	0.0021	0.0038	0.0027	0.0041	0.0046	0.0127	0.0133	0.0048	0.0046	0.0011	0.0018
	0.00	-0.52	1.14	0.38	4.12	2.98	4.74	0.81	0.93	0.51	3.02	2.66	5.47	4.00	2.59	2.12	2.47	3.46
CENTR	0.6511	0.6710	-0.9640	-1.1559	-0.3868	-0.3892	-0.6642	-0.8276	-0.5268	-0.4878	-0.8265	-0.8594	-1.7961	-1.8277	-0.3964	-0.4141	0.0837	0.0742
	2.51	1.01	-4.51	-2.61	-3.44	-2.81	-9.13	-3.40	-1.41	-1.04	-6.70	-5.50	-8.52	-6.05	-2.46	-2.20	2.18	1.36
UEWP	0.0938	0.0893	-0.0136	-0.0223	0.0103	0.0142	-0.0330	-0.0280	0.0040	-0.0087	-0.0107	-0.0061	-0.0135	0.0007	-0.0328	-0.0353	0.0113	0.0111
	8.22	2.17	-1.44	-0.81	2.10	2.15	-10.31	-2.35	0.25	-0.41	-2.03	-0.87	-1.49	0.05	-4.35	-3.70	6.56	2.34
PODEN	-1.3764	3.1175	-1.3499	-1.5177	-0.5688	-0.4899	-0.0198	0.7407	-0.7234	-0.5626	-1.2293	-1.3558	-1.3795	-1.6275	-0.9729	-1.0570	-0.4680	-0.6486
	-1.67	0.39	-2.01	-0.82	-1.61	-1.00	-0.09	0.79	-0.63	-0.37	-3.27	-2.83	-2.14	-1.74	-1.84	-1.62	-3.89	-4.16
AREA	0.0138	0.0720	0.0066	0.0055	-0.0020	-0.0006	0.0035	0.0172	-0.0107	-0.0077	-0.0035	-0.0018	0.0054	0.0122	-0.0131	-0.0153	-0.0005	-0.0033
	1.82	0.71	1.07	0.17	-0.58	-0.13	1.66	1.13	-0.96	-0.52	-1.02	-0.36	0.90	1.33	-2.68	-2.44	-0.47	-1.00
DIST	0.1943	0.4719	-0.9821	-1.2923	-0.1816	-0.1874	-0.3396	-0.6357	-0.6087	-0.5303	-0.8529	-0.9402	-0.9054	-1.1835	-0.5553	-0.5210	0.0414	0.0222
	0.95	0.80	-5.83	-4.27	-1.80	-1.46	-5.94	-1.86	-1.80	-1.25	-9.11	-7.43	-5.43	-4.56	-4.30	-3.17	1.38	0.37
QUINN_OPENN	0.1180	0.2734	0.0405	0.0209	-0.0054	-0.0046	-0.0062	0.0088	0.1177	0.1236	0.0239	0.0252	-0.0222	-0.0045	-0.0335	-0.0458	-0.0282	-0.0230
	3.20	0.90	1.31	0.45	-0.33	-0.22	-0.59	0.24	2.26	1.92	1.38	1.15	-0.75	-0.11	-1.41	-1.70	-5.19	-3.28
DLABCOST	-0.0011	0.0381	0.0005	-0.0216	-0.0001	0.0006	-0.0004	0.0074	0.0000	-0.0003	-0.0004	0.0027	-0.0005	0.0092	-0.0007	0.0001	0.0028	-0.0047
	-0.99	0.58	0.16	-0.23	-1.25	0.96	-1.67	0.87	0.07	-0.17	-0.82	1.14	-0.59	1.83	-1.88	0.02	2.24	-0.31
DUM_FRA	-0.6720	-0.0978	-0.6710	-0.7741	-0.0691	-0.0724	-0.0328	-0.0376	0.2976	0.3514	0.2424	0.2598	-0.8348	-0.8623	0.1272	0.1291	-0.0639	-0.0367
	-5.49	-0.08	-6.73	-5.59	-1.27	-0.99	-0.96	-0.38	1.71	1.53	4.34	3.47	-8.65	-5.86	1.74	1.38	-3.56	-0.84
DUM_IRE	-2.2424	-4.4100	-0.2876	--	0.9557	--	0.7353	--	0.3429	--	1.9227	--	--	--	1.1736	--	-0.5751	--
	-3.50	-1.13	-0.31		2.53		2.99		0.24		4.75				2.23		-3.51	
DUM_DEN	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.3237	--
																	-2.14	
DUM_LUX	-0.8072	-0.5131	0.2263	0.9185	0.2267	-0.3461	0.2838	0.3920	-0.2554	-0.1846	0.2614	-0.1647	2.0216	0.5354	-0.4234	-0.5986	-0.1511	-0.0405
	-2.08	-0.47	0.63	0.28	1.18	-0.66	2.21	0.88	-0.41	-0.16	1.26	-0.39	5.71	0.59	-1.60	-1.28	-2.62	-0.30
no. of obs.	296	249	291	245	285	240	291	245	265	210	291	245	286	240	266	212	294	246
Prob Chi² / F	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.096	0.288	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-(t-)values of the GLS (IV) estimates. The probability of the Chi²/F-test gives the joint significance of all coefficients.

Table B7: GLS and IV Estimates of the Determinants of Sectoral Specialisation (GFCF), including DLABCOST

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	3.7583	-0.6995	2.0478	1.4416	0.2970	0.6693	0.4074	0.8276	1.3116	1.0348	1.5048	0.7842	0.5027	0.1344	0.2411	2.6988	0.9624
	10.41	-1.49	3.27	3.25	1.78	4.51	0.51	3.95	2.98	4.01	3.87	10.30	3.21	0.44	4.13	15.33	5.62
DLABCOST	-0.1889	0.0679	0.3739	0.1132	0.1745	-0.0046	-0.0530	-0.0385	-0.0465	0.0213	-0.1420	-0.0157	0.0292	0.1865	0.0205	-0.0949	-0.0044
	-5.94	1.64	5.40	2.31	9.47	-0.28	-0.61	-1.66	-0.96	0.75	-3.31	-2.34	1.68	5.65	3.23	-4.88	-0.29
CENTR	-0.8749	0.2898	-2.4904	-1.8624	-0.9354	-0.5563	-0.5246	-0.6242	-1.7400	-0.3262	-0.5419	0.1477	-0.0092	1.3010	-0.0444	0.5405	0.1038
	-3.73	0.95	-5.72	-6.04	-8.06	-5.40	-0.95	-4.29	-5.68	-1.82	-2.01	2.99	-0.08	6.21	-1.10	4.42	0.93
PODEN	-7.3569	-2.2395	-4.0860	-1.9842	-0.9604	0.5316	-1.3002	-0.9606	-0.9652	0.3959	1.3657	-0.3851	0.7597	2.9652	0.4557	1.3288	-0.9309
	-11.53	-2.69	-3.62	-2.49	-3.19	1.99	-0.91	-2.55	-1.22	0.85	1.95	-2.86	2.69	5.44	4.34	4.19	-3.08
DIST	-0.0011	0.0001	-0.0009	-0.0020	-0.0005	-0.0003	-0.0010	-0.0008	-0.0013	-0.0007	-0.0001	0.0001	0.0001	0.0003	-0.0001	0.0004	0.0006
	-5.68	0.52	-2.65	-8.20	-5.47	-3.35	-2.13	-7.11	-5.40	-4.56	-0.32	1.99	0.61	1.81	-3.52	3.54	6.80
GRP	0.0121	-0.0058	0.0015	-0.0053	0.0008	0.0032	0.0074	0.0033	0.0095	-0.0008	0.0028	0.0024	-0.0049	-0.0121	-0.0012	0.0011	0.0022
	4.94	-1.80	0.36	-1.77	0.71	3.15	1.38	2.31	3.16	-0.48	1.08	4.57	-4.62	-5.90	-2.91	0.96	1.91
QUINN_OPENN	-0.0260	0.1431	0.0276	0.0782	0.0227	-0.0023	0.0686	0.0255	-0.0099	-0.0040	-0.0169	-0.0331	0.0133	0.1070	0.0048	-0.1036	-0.0174
	-1.01	4.25	0.60	2.41	1.86	-0.21	1.18	1.67	-0.31	-0.21	-0.60	-6.07	1.16	4.83	1.13	-8.05	-1.42
AREA	-0.0014	0.0306	-0.0107	0.0513	0.0102	0.0096	-0.0160	0.0094	0.0427	0.0207	0.0206	-0.0071	0.0174	0.0026	0.0061	-0.0106	-0.0309
	-0.17	2.73	-0.72	4.90	2.58	2.74	-0.81	1.91	4.10	3.40	2.25	-3.95	4.71	0.37	4.40	-2.55	-7.59
UEWP	0.0448	0.0932	0.0201	-0.0166	0.0273	-0.0359	0.0116	-0.0208	-0.0329	-0.0450	-0.0863	0.0116	-0.0310	-0.0052	-0.0086	0.0163	0.0160
	4.64	7.42	1.12	-1.31	5.71	-8.47	0.52	-3.48	-2.61	-6.10	-7.77	5.72	-6.92	-0.60	-5.18	3.25	3.50
DUM_IRE	0.0456	-3.2722	0.7908	-2.4042	0.1036	0.4024	0.3185	1.2473	-1.5893	-0.7259	0.0318	0.0602	--	-0.4638	0.4468	--	1.4760
	0.09	-4.85	0.82	-3.54	0.40	1.77	0.25	3.89	-2.35	-1.84	0.05	0.55		-1.06	5.28		6.01
DUM_DEN	-0.1881	-1.0003	--	--	--	--	--	--	--	--	--	0.0972	--	--	--	--	1.0741
	-0.57	-2.34										1.41					6.91
DUM_LUX	0.6616	-0.9909	2.2220	0.1022	-0.5634	0.2497	-0.0775	0.3649	2.2830	-0.5156	2.3246	-0.0994	-0.2074	-2.7669	2.4078	-0.4504	0.5371
	1.97	-2.26	3.83	0.25	-3.65	1.82	-0.11	1.88	5.60	-2.16	6.47	-1.40	-1.43	-9.89	44.66	-2.77	3.37
no. of obs.	219	219	206	207	207	207	199	207	207	207	207	219	204	209	209	204	219
Prob Chi²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0716	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: Lines below coefficients report the z-values of the GLS estimates. The probability of the Chi²-test gives the joint significance of all coefficients.

Table B8: GLS-Estimates of the Determinants of Sectoral Specialisation, EMPLOYMENT, Regional Characteristics

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	1.7445	0.0977	1.0502	1.3214	0.2791	1.0617	0.8583	0.9179	3.9873	0.8778	3.0609	0.5809	1.6616	0.8439	0.2187	0.6672	0.7753
	3.64	1.17	3.49	5.10	2.66	9.03	3.43	8.94	6.48	9.74	8.11	5.48	22.33	9.48	6.96	15.24	9.94
CENTR	-0.1033	0.0534	-0.5747	-0.4497	-0.2499	-0.8500	-0.5995	-0.5322	-3.9784	-0.1834	-1.3249	0.1323	0.0656	0.3468	0.2345	0.3032	0.7806
	-0.30	0.92	-2.75	-2.54	-3.42	-10.64	-3.53	-7.59	-9.46	-2.98	-5.16	1.79	1.30	5.73	10.97	10.14	14.36
PODEN	-0.2524	-0.0361	-0.0904	-0.1041	-0.0098	0.1026	0.0718	0.0115	0.5340	0.0442	0.0462	-0.1280	-0.0053	-0.0360	0.2499	0.0002	-0.0849
	-2.78	-2.43	-1.71	-2.30	-0.53	5.02	1.65	0.64	4.97	2.81	0.70	-6.78	-0.41	-2.33	45.75	0.03	-6.11
DIST	-0.4671	0.1249	0.2175	-0.4971	-0.1942	-0.4212	-0.4304	-0.4845	-2.7505	-0.4190	-0.6228	0.5016	0.3057	0.1879	0.0222	0.1425	0.2499
	-2.04	2.96	1.20	-3.88	-3.07	-7.27	-3.49	-9.52	-9.02	-9.39	-3.35	9.37	8.33	4.28	1.43	6.57	6.34
GRP	-0.0172	0.0004	0.0017	-0.0022	0.0029	0.0055	0.0036	-0.0002	0.0127	0.0035	0.0019	-0.0011	-0.0005	0.0009	0.0010	0.0011	-0.0030
	-10.44	1.34	1.57	-2.35	7.63	12.98	4.03	-0.42	5.66	10.60	1.40	-2.74	-1.92	2.86	8.51	6.92	-10.46
QUINN_OPENN	0.1126	0.0028	-0.0116	0.0325	0.0037	-0.0187	-0.0097	0.0010	0.0098	-0.0151	-0.0307	0.0204	-0.0145	0.0038	-0.0001	-0.0088	0.0214
	3.24	0.46	-0.53	1.72	0.49	-2.18	-0.53	0.14	0.22	-2.30	-1.11	2.65	-2.68	0.58	-0.02	-2.76	3.77
AREA	0.0120	-0.0027	-0.0195	0.0010	-0.0007	0.0034	-0.0092	0.0020	0.0199	0.0010	0.0186	-0.0066	-0.0025	-0.0047	0.0016	0.0002	0.0005
	1.88	-2.16	-4.22	0.27	-0.46	2.01	-2.56	1.37	2.24	0.73	3.42	-4.21	-2.33	-3.68	3.46	0.35	0.39
UEWP	0.1647	0.0086	-0.0156	-0.0113	-0.0003	-0.0281	-0.0049	-0.0166	-0.1189	-0.0245	-0.1004	0.0393	-0.0112	-0.0069	-0.0058	-0.0033	0.0200
	13.04	4.09	-2.11	-1.76	-0.11	-9.73	-0.80	-6.56	-7.82	-10.98	-10.82	14.74	-6.14	-3.16	-7.51	-3.01	10.18
DUM_FRA	-1.3849	0.1229	0.1943	-0.4059	0.0704	0.1854	0.5744	0.4424	-1.3845	0.2199	-0.1361	0.0317	-0.2950	0.0272	0.1550	0.2523	0.0330
	-10.73	4.90	2.04	-5.31	2.11	5.36	7.81	14.58	-7.61	8.26	-1.23	0.99	-13.47	1.04	16.75	19.50	1.41
DUM_IRE	-0.8691	0.2429	1.3959	0.2508	0.2891	0.7625	0.6502	1.0817	1.2014	0.4188	0.2782	0.0678	0.0554	-0.0779	0.1479	-0.6027	-0.4135
	-1.38	2.15	3.26	0.69	1.93	4.51	1.87	7.55	1.40	3.33	0.51	0.47	0.52	-0.61	3.27	-9.87	-3.92
DUM_DEN	-1.2737	0.0187	0.5481	-0.3241	0.0477	0.5167	0.3459	0.8135	-0.6124	0.2947	0.1396	0.2393	-0.3570	-0.0593	0.1815	-0.3698	0.3340
	-2.56	0.23	1.75	-1.21	0.44	4.28	1.35	7.68	-0.96	3.17	0.36	2.27	-4.67	-0.65	5.62	-8.18	4.30
DUM_LUX	-2.0909	-0.0036	4.8394	0.2919	0.0606	0.6020	-0.0564	0.3154	0.1469	0.0176	0.6914	0.6307	-0.1131	-0.2302	1.0886	-0.0345	-0.9033
	-4.22	-0.04	14.86	1.04	0.53	4.47	-0.20	2.82	0.22	0.18	1.60	6.00	-1.33	-2.26	30.24	-0.72	-11.67
DUM_BEL	-2.9501	0.1282	0.3929	-0.4308	0.1988	-0.0543	-0.0190	0.1561	-2.0213	0.1557	-0.3468	0.0415	-0.1252	0.0080	0.1636	0.4139	0.3768
	-15.88	4.07	3.47	-4.49	5.02	-1.25	-0.21	4.11	-8.87	4.66	-2.49	1.04	-4.56	0.24	14.12	25.53	12.79
no. of obs.	494	425	413	418	413	416	417	418	418	418	416	425	416	416	416	418	425
Prob Chi²	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-values of the GLS estimates. The probability of the Chi²-test gives the joint significance of all coefficients.

Table B9: IV-Estimates of the Determinants of Sectoral Specialisation, EMPLOYMENT, Regional Characteristics

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	1.6371	0.1372	1.0130	1.3873	0.2771	1.0464	0.8038	0.9466	4.2425	0.8827	3.1422	0.5031	1.6747	0.8826	0.2212	0.6584	0.7934
	3.11	1.55	3.19	4.77	2.36	8.11	2.92	8.34	6.12	8.95	7.55	4.30	19.87	8.94	6.32	13.69	9.15
CENTR	-0.1254	0.0643	-0.5813	-0.4148	-0.2339	-0.8325	-0.5711	-0.5274	-4.0903	-0.1845	-1.3432	0.1053	0.0654	0.3555	0.2324	0.2973	0.7764
	-0.34	1.07	-2.71	-2.15	-2.95	-9.79	-3.15	-7.01	-8.91	-2.82	-4.89	1.33	1.18	5.46	10.07	9.33	13.22
PODEN	-0.2563	-0.0366	-0.0849	-0.1063	-0.0130	0.1009	0.0725	0.0106	0.5569	0.0452	0.0533	-0.1254	-0.0044	-0.0396	0.2511	0.0001	-0.0873
	-2.63	-2.38	-1.56	-2.15	-0.65	4.63	1.56	0.55	4.73	2.70	0.76	-6.16	-0.31	-2.37	42.43	0.01	-5.80
DIST	-0.4847	0.1324	0.1767	-0.4696	-0.1817	-0.4030	-0.4134	-0.4862	-2.8910	-0.4222	-0.6168	0.4819	0.3119	0.1810	0.0215	0.1426	0.2451
	-1.98	2.99	0.94	-3.30	-2.63	-6.42	-3.09	-8.75	-8.53	-8.75	-3.04	8.22	7.60	3.77	1.26	6.06	5.65
GRP (IV)	-0.0165	0.0004	0.0017	-0.0025	0.0028	0.0054	0.0035	-0.0002	0.0126	0.0034	0.0019	-0.0008	-0.0006	0.0008	0.0009	0.0011	-0.0029
	-9.59	1.11	1.56	-2.45	6.85	11.98	3.63	-0.45	5.17	9.87	1.32	-1.99	-2.06	2.46	7.68	6.39	-9.45
QUINN_OPENN	0.1124	-0.0002	-0.0066	0.0300	0.0046	-0.0168	-0.0068	-0.0005	0.0019	-0.0148	-0.0330	0.0247	-0.0144	0.0023	0.0002	-0.0082	0.0188
	3.02	-0.03	-0.29	1.45	0.55	-1.83	-0.35	-0.06	0.04	-2.11	-1.11	2.98	-2.41	0.33	0.06	-2.39	3.06
AREA	0.0108	-0.0027	-0.0184	0.0015	-0.0010	0.0038	-0.0083	0.0023	0.0220	0.0013	0.0188	-0.0072	-0.0023	-0.0047	0.0016	0.0001	0.0003
	1.58	-2.10	-3.76	0.36	-0.53	2.06	-2.08	1.41	2.19	0.91	3.13	-4.15	-1.89	-3.28	3.09	0.15	0.21
UEWP (IV)	0.1751	0.0090	-0.0187	-0.0146	-0.0011	-0.0300	-0.0052	-0.0175	-0.1280	-0.0254	-0.1051	0.0414	-0.0127	-0.0080	-0.0061	-0.0032	0.0221
	12.37	3.95	-2.34	-2.00	-0.39	-9.31	-0.75	-6.12	-7.34	-10.24	-10.08	13.77	-6.02	-3.23	-7.01	-2.61	9.91
DUM_FRA	-1.3692	0.1286	0.1762	-0.4458	0.0680	0.1752	0.5489	0.4383	-1.4828	0.2106	-0.1691	0.0498	-0.2987	0.0193	0.1519	0.2528	0.0463
	-9.82	4.75	1.72	-5.10	1.80	4.54	6.68	12.85	-7.12	7.11	-1.36	1.39	-11.85	0.65	14.51	17.50	1.75
DUM_IRE	-0.8277	0.2291	1.3571	0.2039	0.2979	0.7455	0.5874	1.0579	1.1413	0.4048	0.2989	0.1253	0.0547	-0.0936	0.1519	-0.5878	-0.4203
	-1.23	1.98	3.11	0.52	1.85	4.20	1.60	6.94	1.23	3.06	0.52	0.82	0.47	-0.69	3.15	-9.10	-3.70
DUM_DEN	-1.2227	0.0198	0.4963	-0.3713	0.0412	0.4915	0.2951	0.7943	-0.7240	0.2784	0.1355	0.2710	-0.3615	-0.0745	0.1857	-0.3615	0.3492
	-2.31	0.23	1.53	-1.27	0.34	3.80	1.07	6.94	-1.04	2.80	0.32	2.39	-4.28	-0.75	5.29	-7.46	4.16
DUM_LUX	-1.9979	-0.0176	4.8288	0.2267	0.0399	0.5835	-0.0623	0.3002	0.1036	0.0123	0.6621	0.6767	-0.1238	-0.2587	1.0866	-0.0268	-0.8902
	-3.78	-0.21	14.89	0.76	0.33	4.21	-0.21	2.59	0.15	0.12	1.48	6.15	-1.37	-2.44	28.88	-0.55	-10.92
DUM_BEL	-2.8892	0.1206	0.3764	-0.4607	0.1954	-0.0557	-0.0043	0.1469	-2.1581	0.1528	-0.3972	0.0604	-0.1335	-0.0067	0.1585	0.4200	0.3768
	-14.48	3.68	3.21	-4.37	4.51	-1.20	-0.04	3.57	-8.59	4.28	-2.65	1.39	-4.39	-0.19	12.55	24.09	11.73
no. of obs.	438	371	360	364	360	362	363	364	364	364	362	371	362	362	362	364	371
Prob F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the t-values of the IV estimates. The probability of the F-test gives the joint significance of all coefficients.

Table B10: GLS Estimates of the Determinants of Sectoral Specialisation, EMPLOYMENT, Regional Characteristics including RDINT

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	2.4924	0.3024	0.3740	1.6484	0.2565	0.6857	0.6200	0.9468	4.3851	0.5808	2.3223	0.4352	1.5933	0.9023	0.1671	0.6479	1.1342
	3.10	3.21	0.80	3.28	1.33	3.48	1.37	5.13	3.62	4.32	3.39	2.51	10.53	5.34	2.96	8.67	7.87
CENTR	-0.4576	0.1035	-0.4701	-0.5078	-0.1086	-0.6714	-0.4244	-0.5051	-5.0331	-0.0774	-1.2941	0.0291	0.0517	0.4021	0.2358	0.3068	0.7518
	-1.00	2.08	-1.98	-1.98	-1.10	-6.72	-1.85	-5.36	-8.14	-1.13	-3.72	0.32	0.67	4.68	8.21	8.04	9.87
PODEN	-0.2190	-0.0331	-0.1034	-0.0987	-0.0391	0.0754	0.0768	0.0035	0.7172	0.0292	0.0445	-0.1154	-0.0031	-0.0529	0.2540	-0.0042	-0.0856
	-1.80	-2.56	-1.68	-1.48	-1.53	2.90	1.29	0.14	4.47	1.64	0.49	-4.85	-0.16	-2.37	34.09	-0.42	-4.33
DIST	-0.4054	0.1929	0.1227	-0.5419	-0.1515	-0.2823	-0.2928	-0.5107	-4.7239	-0.4549	-0.4311	0.4911	0.3133	0.1753	0.0249	0.1808	0.1901
	-1.07	4.23	0.56	-2.30	-1.68	-3.09	-1.39	-5.92	-8.35	-7.25	-1.35	5.86	4.45	2.23	0.95	5.18	2.73
GRP	-0.0109	0.0003	0.0006	-0.0018	0.0017	0.0047	0.0031	0.0000	0.0134	0.0022	0.0029	0.0004	-0.0012	0.0008	0.0008	0.0009	-0.0032
	-5.10	0.86	0.44	-1.18	2.97	8.06	2.31	0.04	3.68	5.41	1.42	0.76	-2.71	1.53	4.93	3.95	-7.11
QUINN_OPENN	0.0597	-0.0066	0.0292	0.0340	-0.0036	-0.0017	0.0003	0.0005	0.0601	-0.0049	0.0236	0.0313	-0.0085	0.0026	0.0049	-0.0094	-0.0027
	1.04	-0.98	0.88	0.95	-0.26	-0.12	0.01	0.04	0.69	-0.51	0.48	2.53	-0.79	0.21	1.22	-1.75	-0.26
RDINT	-0.1516	-0.0125	0.0653	-0.1230	0.0561	0.0352	-0.0071	-0.0089	-0.1392	0.0597	-0.0308	-0.0275	0.0103	0.0035	-0.0009	0.0133	0.0040
	-3.55	-2.46	2.67	-4.66	5.55	3.43	-0.30	-0.92	-2.19	8.47	-0.86	-2.93	1.31	0.39	-0.31	3.40	0.51
AREA	0.0081	-0.0034	-0.0189	0.0117	-0.0021	0.0048	-0.0033	0.0048	0.0581	0.0031	0.0198	-0.0086	-0.0027	-0.0064	0.0019	-0.0021	0.0009
	0.88	-2.41	-2.80	1.60	-0.75	1.70	-0.51	1.79	3.30	1.58	2.00	-3.32	-1.22	-2.60	2.31	-1.93	0.40
UEWP	0.1587	0.0027	-0.0055	-0.0375	0.0073	-0.0245	-0.0076	-0.0207	-0.1619	-0.0146	-0.1072	0.0367	-0.0101	-0.0069	-0.0069	-0.0007	0.0207
	9.08	1.43	-0.60	-3.79	1.94	-6.38	-0.86	-5.71	-6.81	-5.54	-8.01	10.47	-3.42	-2.10	-6.30	-0.47	7.09
DUM_FRA	-1.0798	0.1725	0.0223	-0.3128	-0.0841	0.0956	0.5117	0.4444	-1.9027	0.0522	-0.0151	0.1762	-0.3081	0.0112	0.1453	0.2544	0.0005
	-4.90	4.74	0.13	-1.65	-1.16	1.29	3.01	6.39	-4.17	1.03	-0.06	2.63	-5.42	0.18	6.85	9.03	0.01
DUM_IRE	0.0785	0.2909	1.2623	-0.1437	0.1931	0.5878	0.2398	0.8446	-0.7788	0.1462	0.3375	0.3787	0.0333	-0.0360	0.1355	-0.4824	-0.4732
	0.09	2.71	2.28	-0.24	0.84	2.37	0.45	3.85	-0.54	0.92	0.39	1.92	0.17	-0.17	1.90	-5.44	-2.88
DUM_DEN	-0.8585	0.0548	0.2924	-0.4204	-0.0938	0.3500	0.0960	0.7220	-1.4805	0.0649	0.3004	0.3093	-0.3180	-0.0741	0.1883	-0.3134	0.3487
	-1.34	0.76	0.77	-1.03	-0.60	2.20	0.26	4.83	-1.51	0.60	0.54	2.32	-2.61	-0.54	4.13	-5.17	3.14
DUM_LUX	-1.4136	-0.0805	4.0975	0.5699	-0.2057	0.4423	-0.0659	0.2830	0.6191	-0.1867	0.7931	0.8565	-0.1489	-0.3233	1.2090	-0.0211	-0.9470
	-2.25	-1.22	10.74	1.38	-1.30	2.42	-0.16	1.87	0.62	-1.70	1.25	7.03	-1.06	-2.06	23.04	-0.35	-9.34
DUM_BEL	-2.3059	0.0996	0.2386	-0.2465	0.1002	-0.0842	0.0845	0.1625	-2.6071	0.0374	-0.3496	0.2178	-0.1893	-0.0479	0.1390	0.4033	0.3093
	-8.55	3.27	1.64	-1.57	1.66	-1.37	0.60	2.82	-6.88	0.89	-1.64	3.89	-4.02	-0.91	7.90	17.25	6.63
no. of obs.	263	199	192	192	192	190	191	192	192	192	190	199	190	190	190	192	199
Prob Chi²	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-values of the GLS estimates. The probability of the Chi²-test gives the joint significance of all coefficients.

Table B11: GLS and IV Estimates of the Determinants of Sectoral Specialisation (EMPLOYMENT) including DPROD

	FUEL		MINE		CHEM		METP		TREQ		FOOD		TEXT		PAPE		BUIL	
	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV
Constant	0.0896	0.1306	1.3974	1.5431	0.2550	0.2541	1.0430	1.0266	0.8832	0.8469	0.8692	0.8897	4.0137	4.3588	0.8910	0.9322	0.9217	0.8790
	1.04	1.42	5.54	5.30	2.45	2.15	8.83	7.90	3.55	3.09	8.36	7.50	6.43	6.09	9.56	8.81	8.58	6.75
DPROD	-0.0010	-0.0008	0.0209	0.0330	0.0040	0.0056	0.0036	0.0035	-0.0026	-0.0026	0.0052	0.0054	-0.0057	-0.0240	0.0015	0.0009	-0.0239	-0.0227
	-3.54	-2.70	5.76	5.24	4.26	3.73	2.45	2.11	-3.97	-3.65	3.03	1.96	-0.48	-1.01	1.57	0.68	-8.85	-5.93
CENTR	0.0423	0.0549	-0.4580	-0.4194	-0.2727	-0.2700	-0.8462	-0.8279	-0.5828	-0.5532	-0.5149	-0.5110	-3.9892	-4.1261	-0.1875	-0.1735	0.1573	0.1383
	0.72	0.90	-2.68	-2.20	-3.79	-3.40	-10.59	-9.72	-3.45	-3.06	-7.37	-6.75	-9.44	-8.86	-3.02	-2.57	2.30	1.86
PODEN	-0.0371	-0.0377	-0.1692	-0.2205	0.0182	0.0296	0.0982	0.0958	0.0515	0.0508	0.0091	0.0076	0.5462	0.6114	0.0471	0.0452	-0.1206	-0.1181
	-2.49	-2.42	-3.75	-4.12	0.95	1.29	4.79	4.36	1.19	1.09	0.51	0.39	4.93	4.68	2.95	2.60	-6.89	-6.19
DIST	0.1222	0.1314	-0.5945	-0.6238	-0.2203	-0.2235	-0.4212	-0.4028	-0.4319	-0.4128	-0.4819	-0.4881	-2.7434	-2.8427	-0.4047	-0.3913	0.5355	0.5151
	2.89	2.93	-4.75	-4.33	-3.52	-3.21	-7.27	-6.41	-3.49	-3.06	-9.54	-8.78	-8.95	-8.21	-8.93	-7.81	10.77	9.34
GRP	0.0006	0.0005	-0.0031	-0.0039	0.0025	0.0022	0.0053	0.0052	0.0035	0.0033	-0.0004	-0.0004	0.0128	0.0133	0.0033	0.0032	-0.0009	-0.0008
	1.91	1.57	-3.32	-3.72	6.48	5.09	12.33	11.37	3.89	3.47	-0.96	-0.96	5.64	5.20	10.14	9.25	-2.42	-2.05
QUINN_OPENN	0.0019	-0.0011	0.0306	0.0253	0.0065	0.0081	-0.0183	-0.0164	-0.0083	-0.0059	0.0032	0.0022	0.0095	0.0004	-0.0150	-0.0162	0.0071	0.0106
	0.30	-0.16	1.67	1.22	0.86	0.96	-2.13	-1.78	-0.46	-0.30	0.42	0.27	0.21	0.01	-2.24	-2.21	0.95	1.26
AREA	-0.0024	-0.0026	0.0023	0.0034	0.0001	0.0002	0.0037	0.0042	-0.0099	-0.0091	0.0025	0.0029	0.0197	0.0210	0.0003	0.0003	-0.0083	-0.0086
	-1.95	-1.94	0.63	0.82	0.05	0.11	2.18	2.23	-2.77	-2.29	1.71	1.72	2.20	2.06	0.22	0.22	-5.69	-5.27
UEWP	0.0094	0.0097	-0.0070	-0.0082	0.0006	0.0000	-0.0264	-0.0283	-0.0084	-0.0097	-0.0151	-0.0157	-0.1222	-0.1426	-0.0240	-0.0266	0.0212	0.0216
	4.43	4.18	-1.13	-1.12	0.23	0.01	-8.83	-8.35	-1.36	-1.39	-5.86	-5.15	-7.38	-6.21	-9.88	-9.07	6.59	4.75
DUM_FRA	0.1124	0.1197	-0.4739	-0.5646	0.0710	0.0659	0.1770	0.1668	0.5780	0.5527	0.4462	0.4447	-1.3749	-1.4396	0.2189	0.2075	0.0343	0.0463
	4.42	4.31	-6.32	-6.31	2.16	1.75	5.09	4.30	7.92	6.76	14.78	12.95	-7.48	-6.70	8.28	7.01	1.16	1.37
DUM_IRE	--	--	0.1580	0.0540	0.2036	0.1877	--	--	--	--	1.0956	1.0791	1.3719	1.2950	0.4799	0.4609	0.0299	0.0491
	--	--	0.42	0.12	1.27	1.02	--	--	--	--	7.07	6.11	1.47	1.20	3.54	3.04	0.20	0.28
DUM_DEN	0.0420	0.0444	-0.3699	-0.4459	0.0570	0.0570	0.5317	0.5037	0.3159	0.2605	0.8117	0.7919	-0.6143	-0.7384	0.3297	0.3064	0.2767	0.3040
	0.46	0.46	-1.38	-1.47	0.51	0.46	4.24	3.72	1.20	0.91	7.45	6.64	-0.93	-1.00	3.42	2.91	2.58	2.58
DUM_LUX	0.0477	0.0339	0.0108	-0.2812	0.0609	0.0474	0.5949	0.5694	-0.1443	-0.1624	0.3659	0.3530	0.2636	0.5741	0.0178	-0.0316	0.2706	0.3131
	0.48	0.32	0.04	-0.82	0.51	0.35	4.42	3.84	-0.51	-0.52	3.09	2.63	0.35	0.61	0.17	-0.26	2.25	2.21
DUM_BEL	0.1515	0.1411	-0.4849	-0.5583	0.1285	0.0875	-0.0484	-0.0476	0.0595	0.0742	0.1768	0.1690	-2.0336	-2.2126	0.1368	0.1305	0.0416	0.0415
	4.70	4.15	-5.21	-5.27	3.04	1.69	-1.12	-1.02	0.64	0.73	4.61	3.95	-8.83	-8.52	4.10	3.63	1.12	1.02
no. of obs.	410	355	414	358	409	354	410	355	407	352	414	358	414	358	408	351	414	358
Prob Chi² / F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-(t-)values of the GLS (IV) estimates. The probability of the Chi²/F-test gives the joint significance of all coefficients.

Table B12: GLS and IV Estimates of the Determinants of Sectoral Specialisation (EMPLOYMENT), including ES

	FUEL		MINE		CHEM		METP		TREQ		FOOD		TEXT		PAPE		BUIL	
	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV	GLS	IV
Constant	0.1797	0.2018	1.3088	-0.0098	0.2061	-0.5070	0.8628	0.0405	0.2076	-0.5402	0.8648	0.5146	3.8310	3.8685	0.7590	0.4992	0.7996	0.9896
	1.74	1.43	3.90	-0.02	1.74	-2.45	4.42	0.13	0.56	-1.06	5.22	1.86	3.27	1.84	6.03	2.78	4.63	3.16
ES	0.0013	0.0018	0.0870	0.1932	0.0393	0.0946	0.0627	0.2117	0.0296	0.0350	0.0438	0.0850	-0.0352	-0.2248	0.0234	0.0304	-0.0373	-0.0578
	4.53	4.63	8.48	6.27	10.15	8.64	6.80	6.28	9.92	8.82	5.84	4.83	-0.70	-2.03	5.59	4.51	-4.59	-3.87
CENTR	0.0193	-0.0079	-0.5543	-0.7456	-0.3123	-0.6253	-0.8011	-0.9127	-0.5131	-0.5080	-0.4576	-0.4922	-4.2844	-4.1099	-0.1691	-0.1839	0.1094	0.1079
	0.44	-0.16	-3.88	-4.11	-5.73	-7.29	-9.61	-8.88	-3.28	-3.04	-6.34	-5.62	-8.38	-5.31	-3.20	-3.19	1.49	1.30
PODEN	0.1694	0.2016	-0.9440	-1.7389	-0.1862	-0.1965	-0.4426	-1.6274	0.4030	-0.0052	-0.6063	-0.3421	0.2709	0.8907	-0.1122	-0.2071	-1.9018	-1.9911
	1.21	1.19	-1.97	-2.57	-1.08	-0.86	-1.56	-3.81	0.76	-0.01	-2.54	-1.07	0.17	0.42	-0.64	-1.01	-8.10	-7.29
DIST	0.1014	0.0892	-0.6517	-0.9270	-0.1720	-0.2307	-0.4256	-0.3803	-0.3047	-0.3133	-0.4966	-0.5086	-3.5889	-3.9123	-0.3664	-0.3680	0.4479	0.4492
	3.21	2.42	-6.11	-6.09	-3.71	-3.83	-6.96	-4.93	-2.63	-2.46	-9.73	-8.39	-8.76	-6.47	-9.28	-8.19	8.56	7.57
GRP	-0.0006	-0.0007	0.0006	0.0040	0.0030	0.0036	0.0060	0.0092	0.0016	0.0026	0.0009	-0.0002	0.0128	0.0107	0.0036	0.0039	0.0054	0.0058
	-1.16	-1.13	0.35	1.65	4.96	4.55	6.12	6.69	0.85	1.24	1.10	-0.15	2.33	1.47	5.85	5.51	6.52	6.17
QUINN_OPENN	0.0005	-0.0006	0.0157	0.0743	0.0004	0.0424	-0.0088	0.0235	0.0124	0.0677	-0.0101	-0.0018	0.0639	0.1056	-0.0154	0.0045	0.0224	0.0132
	0.06	-0.06	0.63	1.80	0.05	2.93	-0.61	1.06	0.45	1.82	-0.83	-0.10	0.75	0.70	-1.67	0.36	1.72	0.63
AREA	-0.0017	-0.0020	-0.0045	-0.0077	-0.0021	-0.0031	-0.0005	-0.0086	-0.0024	-0.0034	-0.0006	0.0022	0.0280	0.0459	-0.0009	-0.0018	-0.0146	-0.0141
	-1.45	-1.43	-1.15	-1.46	-1.38	-1.57	-0.21	-2.51	-0.55	-0.68	-0.28	0.82	1.98	2.22	-0.63	-1.11	-7.44	-6.07
UEWP	-0.0019	-0.0046	-0.0185	-0.0110	-0.0030	-0.0109	-0.0318	-0.0334	-0.0153	-0.0165	-0.0093	-0.0112	-0.1210	-0.1318	-0.0188	-0.0204	0.0531	0.0587
	-0.91	-1.63	-2.82	-1.14	-1.30	-3.13	-8.48	-6.65	-2.17	-1.98	-2.98	-2.81	-5.78	-4.67	-7.94	-7.18	16.72	15.56
DUM_FRA	0.1464	0.1839	-0.1643	0.2786	0.1738	0.4157	0.2960	0.5845	0.6189	0.7381	0.4452	0.4749	-1.6785	-2.1494	0.2684	0.3300	0.0039	-0.0900
	6.63	5.74	-2.14	1.65	6.14	7.46	6.77	7.08	8.04	7.25	13.02	9.65	-5.94	-4.15	9.79	8.54	0.10	-1.12
DUM_DEN	--	--	-0.4601	-0.6307	0.0826	0.2439	0.4786	0.4658	0.3395	0.2736	0.5287	0.3438	-1.1792	-1.9299	0.3570	0.3655	--	--
	--	--	-1.43	-1.27	0.72	1.38	2.55	1.66	0.97	0.60	3.27	1.42	-1.12	-1.21	2.99	2.31	--	--
no. of obs.	270	218	271	217	266	213	272	219	268	213	271	217	240	161	271	217	265	208
Prob Chi² / F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-(t-)values of the GLS (IV) estimates. The probability of the Chi²/F-test gives the joint significance of all coefficients.

Table B13: GLS Estimates of the Determinants of Sectoral Specialisation (EMPL.), Regional Characteristics including DLABCOST

	AGRO	FUEL	META	MINE	CHEM	METP	TREQ	FOOD	TEXT	PAPE	VARI	BUIL	TRLO	TRCO	CRED	OTHS	NMSE
Constant	3.8892	-0.0891	0.7918	0.9652	-0.0782	0.6649	0.1701	0.8780	4.3770	0.6673	2.8371	1.1832	1.5398	0.3252	0.0373	0.6597	0.6227
	7.02	-2.05	2.51	3.26	-0.99	5.41	0.69	7.08	5.34	7.33	5.82	7.84	13.51	3.27	1.10	12.73	8.02
DLABCOST	-0.4996	0.0213	0.0674	0.0349	0.0608	0.0418	0.0751	-0.0209	-0.2355	0.0133	-0.0841	-0.0716	0.0070	0.1055	0.0265	0.0264	0.0266
	-10.74	5.81	2.35	1.30	8.48	3.74	3.35	-1.86	-3.16	1.61	-1.90	-5.65	0.68	11.67	8.58	5.60	4.08
CENTR	0.3944	0.0465	-0.3730	-0.8283	-0.2608	-0.7130	-0.5898	-0.3462	-3.7686	-0.0735	-0.7710	0.3217	0.0236	0.0296	0.1353	0.2501	0.5479
	1.05	1.57	-1.79	-4.23	-5.00	-8.78	-3.62	-4.23	-6.96	-1.22	-2.39	3.14	0.31	0.45	6.03	7.31	10.40
PODEN	-0.5988	0.0006	-0.1142	0.1610	-0.0165	0.1178	0.1469	-0.0096	0.6965	-0.0572	0.0758	-0.2064	-0.0288	0.0711	0.2842	-0.0020	-0.0374
	-5.53	0.07	-1.92	2.88	-1.11	5.08	3.16	-0.41	4.50	-3.33	0.83	-7.00	-1.34	3.79	44.36	-0.21	-2.47
DIST	0.1255	0.1679	0.5638	-0.9579	-0.1125	-0.2206	-0.3592	-0.4742	-4.7257	-0.3871	-0.1862	0.6581	0.2942	0.0488	-0.0345	0.1453	0.1152
	0.39	6.55	3.21	-5.80	-2.56	-3.22	-2.61	-6.86	-10.34	-7.62	-0.69	7.41	4.63	0.88	-1.82	5.03	2.52
GRP	0.0007	-0.0009	-0.0008	-0.0100	0.0014	0.0053	-0.0005	0.0003	0.0112	0.0035	0.0047	0.0027	-0.0021	-0.0021	-0.0002	0.0010	-0.0036
	0.23	-3.82	-0.49	-6.52	3.31	8.31	-0.35	0.49	2.64	7.29	1.84	3.37	-3.53	-4.04	-1.07	3.57	-8.68
QUINN_OPENN	-0.0752	0.0231	0.0142	0.0802	0.0286	0.0004	0.0313	-0.0021	0.0090	-0.0093	-0.0413	-0.0296	-0.0014	0.0537	0.0170	-0.0060	0.0408
	-1.74	6.81	0.57	3.42	4.59	0.04	1.61	-0.21	0.14	-1.29	-1.07	-2.51	-0.16	6.83	6.33	-1.46	6.74
AREA	-0.0415	-0.0024	-0.0226	0.0408	-0.0008	0.0062	0.0105	0.0070	0.0970	0.0075	0.0265	-0.0228	0.0013	-0.0059	0.0042	-0.0037	-0.0006
	-3.23	-2.35	-3.29	6.33	-0.46	2.33	1.95	2.58	5.43	3.77	2.50	-6.51	0.50	-2.70	5.64	-3.29	-0.34
UEWP	0.1754	0.0041	-0.0240	-0.0459	0.0065	-0.0260	-0.0058	-0.0189	-0.1784	-0.0207	-0.1096	0.0443	-0.0136	0.0016	-0.0059	0.0003	0.0213
	13.41	3.97	-3.36	-6.84	3.64	-9.35	-1.04	-6.74	-9.61	-10.02	-9.93	12.43	-5.28	0.70	-7.73	0.27	11.60
DUM_IRE	2.0264	0.2798	1.5415	-1.6104	0.2709	0.5491	-0.4248	0.6894	-3.5223	-0.0594	-0.3472	0.8351	-0.1006	0.1506	0.0737	-0.3737	-0.2015
	2.41	4.22	3.36	-3.74	2.36	3.08	-1.18	3.83	-2.96	-0.45	-0.49	3.64	-0.61	1.04	1.49	-4.96	-1.71
DUM_DEN	2.5246	-0.0482	0.2788	-1.1789	-0.1971	0.1374	-0.4557	0.6003	-2.5174	-0.0647	-0.0540	0.8863	-0.3976	-0.2764	0.0711	-0.3613	0.3777
	4.83	-1.17	0.95	-4.30	-2.70	1.21	-1.99	5.23	-3.32	-0.77	-0.12	6.22	-3.77	-3.00	2.26	-7.53	5.15
DUM_LUX	2.0740	-0.1977	4.2254	0.2091	-0.3200	0.3153	-0.4398	0.3611	1.3262	-0.0581	1.1097	1.0700	-0.1362	-0.7688	0.9742	-0.2307	-0.9574
	3.79	-4.59	14.40	0.76	-4.36	2.76	-1.92	3.13	1.74	-0.69	2.45	7.18	-1.28	-8.31	30.84	-4.79	-12.49
DUM_BEL	-6.7478	0.1552	1.0219	-0.8235	0.8400	0.3095	0.4831	-0.0118	-5.0615	0.8644	-1.4356	-0.6039	0.1723	0.6388	0.3182	0.6678	0.6038
	-14.97	4.38	3.89	-3.34	12.79	3.03	2.35	-0.11	-7.41	11.40	-3.54	-4.92	1.81	7.71	11.25	15.48	9.56
no. of obs.	239	239	235	235	235	235	235	235	235	235	235	239	235	235	235	235	239
Prob Chi²	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Lines below coefficients report the z-values of the GLS estimates. The probability of the Chi²-test gives the joint significance of all coefficients.