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North east and north west: An italian regional competition for international success

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41st Congress of the European Regional Science Association

Italian North East and North West: Economic and Financial Profiles *Comparative Analysis of Internationalisation: trade flows and trends in Foreign Direct Investments*

**Outlook: Catalonia, Bavaria and Baden-Württemberg comparative standing
by Giorgio Dominese***

The paper intends to highlight the development and the competitive standing of two Italian regions, the North East and the North West. In the past 30 years, the average GNP growth registered by the North East, comprising in its “enlarged” version (North East 2) Veneto, Friuli Venezia Giulia, Trentino-South Tyrol (North East 1) and Emilia Romagna, was not only above the national average but also above the results recorded by the North West comprising in its “enlarged” version (North West 2) Piedmont, Valle d’Aosta, Liguria (North West 1) and Lombardy.

During the 90’s, the North East 2 area posted an average GNP growth of 2% against an average of 1,1% of the North West 2 and of 1,3% registered by Italy as a whole. This development was due to the presence of small and medium-sized highly internazionalized enterprises. The dynamic trend was led mainly by exports, especially in the North East 2. After the lira devaluation in 1992, the share of exports was particularly high also on the national level.

Between 1999 and 2000 the North East’s exports increased by 14% whereas at the same time the national growth rate was 16,4% and the North West 2 registered a growth of 14,7% due to the essential contribution of Lombardy. In the first three months of 2001, exports have been particularly dynamic both in the North East 2 (+14,8%) and the North West 2 area (+14,6%). Due to the contribution of Southern Regions, especially the Adriatic ones, Italy’s growth was 15,9%.

The internationalization of the enterprises of the North East 2, which is very high if considered in terms of share of foreign trade on turnover, shows however serious weak spots if examined in terms of direct investments in other countries. From 1997 to 2000, direct investments of the North West 2 amounted to 118.000 billion lire, which corresponds to nearly three-quarters of the national volume. In the North East 2 this figure was even more modest reaching only 18.600 billion lire (10,7% of the national volume).

At the end of March 2001, in the North West 2 area more than 1.276.000 enterprises were operating, corresponding to 26,5% of the total number of Italian enterprises. In the North East 2 area approximately 1.047.000 enterprises (22% of the total of national enterprises) are located. In the period 1997-1999 the number of enterprises in the North West 2 recorded a slight increase (+1%) whereas in the North East 2 their number remained more or less the same.

Diversification of the production, diffusion in the territory and the positive employment structure have always been distinctive elements of the North West and the North East. The national unemployment rate of about 9,6% in April 2001 (which registered a downward trend as compared to 11,4% in April 1999 and 10,8% in April 2000) falls to 4,5% in the North West and to 4% in the North East.

The predominance of small enterprises, very often of an artisan type, characterized by a low level of capital resources, is the basis for a strong relation with the local credit system and only a limited interest in engagements in the capital markets. It does not surprise therefore that in the North East the loans to small enterprises account for 22-23% of total while in the North West they account for 12-13%. The paper concludes with a comparative analysis between the two German regions Bavaria and Baden-Württemberg, the Spanish region Catalonia and the Italian North East and North West, based on the flows of foreign trade and foreign direct investments in the last three years.

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Full Statistical Annex (40 tables) is available on request

A Competitive Challenge

The CSNEA has started – in collaboration with Turin CSAR – a systematic reading of the key phenomena in the Italian Northwest and Northeast regional economy, in the European scenario where these production centres are located. Internationalisation is no longer a marginal factor for businesses, either small companies and craft undertakings. This is a dimension that takes on aspects and prospects that are entirely new if we introduce the concepts of the domestic market – as far as the euro zone and countries in the orbit of the single currency are concerned– or of the global marketplace, where sub-supply, technological innovation and production delocalisation directly affect every size enterprises.

As can be gathered from the Report ‘Comparative Analysis of Internationalisation: trade flows and trends in Foreign Direct Investments’, after the industrial explosion of the Northeast and the record figures of the early 90’s, we have now entered a more reflective stage, but it is still remaining dynamic and promising. However, it worth comparing the Northwester regional system performance with the Northeaster one, and perhaps also with the Adriatic area one, which is emerging as an important European economic region.

A comparison between the Northwest and Northeast shows that a primary quota of the Italian trade and investment in the main markets and in the world regions comes from the “industrial triangle” and that Lombardy has returned to its role of international economic-financial ‘capital’ for the entire country-system.

An ‘internal’ comparison with the Northeast arises immediately, almost a duty bound, at this point in verifying the real capacity for internationalisation and innovation in our country. As it is also immediately evident that we should look at Baden-Württemberg, Bavaria and Catalonia for founding a compatible and significant ground for our comparison. Switzerland of course, represents an important border partner too, either for actual and financial flows, but it does not have the structure of the greater European industrial and production regions.

The Report comes with statistics and graphs, many of which previously unpublished, which illustrate better than long analytical comments some of the key phenomena and variables resulting from our examination. It is an ‘in progress’ analysis because we are dealing with a first general description of highly complicated situations which have a massive effect on the regional economy. The very instruments at our disposal for statistical analysis are not completely suitable or adequate for such a reading of small and craft industries. The task will be easier in entering certain sectors or world areas and the main industrial districts.

Sub-supply and innovation, new economy impact and electronic and multimedia global access, affect craft enterprises and the providers of advanced services at both the industrial

and sales and distribution stages. Perhaps for the first time, the converging forces of the evolutionary processes of big industry and the nebula of craft workers and small businesses lead to a more functional and synergetic direction. From the internationalisation point of view, it is even much more so and it is immediately perceivable.

However, the production of energy, the competitiveness, connected with giga Watts availability and kW price, the added value of the sector investments and the aspects that are not only bind but also synergic with the industrial economy and that can have the requirements for environmental impact as well as the high technological thresholds that are implied, mark a turnaround that few analysts and even fewer exponents of local or national government show to realize. Yet, the energy crisis in the USA has been an example and we should rapidly 'learn' the importance of the energy factor and the incidence of its cost on industrial production before it begins to strangle all Italian industries.

The entire production system of the most industrialized regions of the North is the epicentre of an economic and structural metamorphosis of historical dimensions. Also from the cultural and social point of view this change will have an important impact that we shall try to reflect in the survey to be carried out over the next two years. Over the next few years the helm of all qualified research with a real 'added value' must be firmly held on international compared analysis, even when examining regional economies and the vast border areas that are becoming competitors to be feared by the Northwest and Northeast. Within these two macro-areas the characteristics and perspectives for each region must not be overlooked or lost. Friuli-Venezia Giulia is definitely an observation point to which this reflection can be applied.

Italian North East and North West: Economic and Financial Profiles In Comparison

1. The present situation

Northeast and Northwest: a fine fabric of small businesses, many of which craft in their very nature, that are composing highly competitive networks and districts opposing the economy of big industry with its multilayer sub-contracting system. This is how the economic profiles of these two large Italian and European areas have often been interpreted by analysts and commentators. Reality is of course, much more complicated and articulated: the Northwest has consolidated networks and specialized districts of highly innovative small businesses, whereas in the Northeast large and medium enterprises with an international nature have been formed, as well as financial intermediaries whose operations can break out of the pure local logic.

In a context of growing integration of international markets, globalisation and localism, in the word positive sense, can live together and receive a greater impulse only if the production structures of each individual territorial area are able to become a system and to co-ordinate themselves with institutional and administrative bodies. According to this approach, however, it is important to be able to monitor progresses and results of the Northeast and Northwest with the most dynamic and enterprising 'European regions', in order to assess and examine their relative strengths and weaknesses, any gaps to be filled and the direction to take in order to avoid competitiveness loss. This is imposed by a highly competitive marketplace, where in the long term it could be fatal, to the competitive positioning of our most advanced economic areas, to loose touch with the 'first in the class'.

The comparative analysis of Catalonia, Baden-Württemberg and Bavaria put forward in the first edition of this Report, and which will be further examined and extended in the future editions being new research lines already activated, is meant to offer an initial contribution to the need of opening a number of windows on a world that is undergoing rapidly and deeply changing.

To perform better than national average, as used to be the approach in analysing one's own performance either of a single company, economic district, province or region, is no longer enough. In globalisation and new economy world, to be better means to reach performances and results that improve on, or at least are in line with those, for example, of Catalan or Bavarian operators. In other words, those who compete with Italy, especially with the strong areas of the Northeast and Northwest. We are talking about industrial production and services with high added value that mainly flow into the outlet markets or just simply into the great marketplace of the euro zone, sharing territorial proximity and cultural affinity, but that are on opposing sides in the battle to win the widest market shares.

For all the competition players there is now a clear distinction between the domestic and the global market, the first being the euro zone and those countries which, although they are not a part of it, are still permanently in the orbit of the single European currency or, for a short time yet, of the German mark. With a fairly accurate forecast, in the next ten years the Northwest and Northeast will be the fiercest competitors in the entire industrial economies world system, upon the condition that Italy proceeds without changing its mind in the transition towards new market capitalism and advanced welfare models' goals.

Most of the economists and of the main forecast centres consider this a much better year than the next two coming years as far as growth in GDP and international trade is concerned. In the future the persistence of oil prices higher than expectation will have an impact more

definite than nowadays on the European and international situation, starting with Asian countries which are just coming vigorously out of the financial crisis of few years ago and which feel high oil prices more keenly than other industrialized countries, that not forgetting the 70's crisis have reduced their oil dependence.

2. GDP trend in the 70's – 90's in the North East and North West

A first figure appears to be unequivocal: the Northwest, especially if analysed in the 'restricted' definition *Northwest 1* (which includes Piedmont, Valle d'Aosta and Liguria), over the past 30 years has clocked up an average GDP growth lower than that of both the *Northeast 1* (which includes Trentino, Alto Adige, Friuli Venezia Giulia and Veneto) and the enlarged area of *Northeast 2* (which includes the previously mentioned regions and Emilia Romagna), and for long time even had lower figures than the national average.

The result slightly changes, at least as average, if we consider *Northwest 2* (which includes the Northwest 1 regions and Lombardy). In the 70's, for example, GDP for Northeast 2 increased on average by 3.3%, against 3.1% for Italy and 2.7% for the Northwest; in the 80's the dynamics of production activities, although very different in each single year were substantially similar to average values, whereas in the 90's Northeast 2 began to move faster (2.0%.) than Northwest 2 (1.1%) and Italy (1.3%).

GDP different trend obviously allowed the Northeast, which started off with a production structure that was very poor and less well industrialized than that of the Northwest, to increase its weight on national economy: the incidence of the Northeast 2's GDP on the national total went from the 20.3% of the average in the 70's to 22.4% of the average for the 90's. That of the Northwest 2, on the other hand, which suffered greatly from the long and persistent crisis that characterized the economy in Liguria, fell from 36.1% to 32.3% over the same period.

A question arises, at this point, whether this increase in wealth and well-being represented by an indicator like GDP, that by its very nature is synthetic, was spread, that is to say whether this increase was not concentrated in some areas or sectors, but distributed all over the territory, a fact which would have given it greater 'value' in social as well as economic terms.

In this direction an useful indicator could be the per capita GDP on a provincial scale and its variation over time, particularly in the period from 1990 to 1997 (the latest period for which an homogeneous historical database is available from Istat): it is interesting to point out how the ranking of provinces where per capita GDP grew the most over the 90's, in the first 20 out of the 47 that belong to the total area of the Northwest 2 and Northeast 2, as many as fifteen provinces belong to this latter area. Apart from some exceptions, the provinces of the two

areas show differences between them in growth and wealth compatible with a scenario of development that is fairly well balanced.

3. Foreign trade and international relations

In both the Northeast and Northwest, one of the main driving forces of growth which has been traditionally one of the protagonists of the international slice of the Italian economy, has been exports, whose contribution was particularly important, also on a national scale, after devaluation in 1992. On the other hand, in the recent past there has been a drop in sales abroad, as could be expected after the leap ahead in the early 90's. The fall was partly due to a more stable exchange rate for the lira, especially because of the euro launch, and it was partly due to the difficult international situation or actual economic and financial crises that hit some of the most important markets.

At the end of 1999, in spite of a drop in foreign sales for most of the Italian regions, the negative trend appeared finally to have turned to boost Italian exports, also because of the thrust of renewed dynamism in international trade, which showed a strong rate of growth in the year 2000, equal to 11.2%, one of the highest in the recent years. Full and definite confirmation of these expectations came with the data of the regional trend in exports and imports, published in 2000 by Istat. Exports grew at a sharp rate of 16.4%, superior to that of the Northeast 2 (14%) and of the Northwest 2 (14.7%), due to a recovery in production and to a more consolidated projection towards international markets by the local economies in the South.

In 2000, the Northeastern exports were lower than the Northwest's ones: in the Northeast 1 (Trentino Alto Adige, Veneto and Friuli Venezia Giulia) the increase in the first half of the year was 14.3% and in the Northeast 2 (which includes the previously mentioned regions and Emilia Romagna) the growth reached 14%. Of all the regions of the Northeast, only Friuli Venezia Giulia, which reached 17.4%, showed an increase in exports higher than the national average.

The results for the Northeast's regions have been partly affected by statistical factors, such as the fact that exports in 1999 did not fall as they did for most of the other Italian areas, and partly by structural factors, such as the intense delocalisation that has taken place in recent years and that has led important businesses to transfer large portions of their production to foreign markets.

The positive 2000 results, concerning the Northeast and Northwest business projection into international markets can be traced to various factors, such as, for example, the strong dynamics of international trade in all the main international economic areas, aided by a contemporary growth, even though with a more or less strong and sustained pace. Constantly high oil prices did not affect significantly this scenario, whereas greater impact is forecasted on world GDP growth for the year 2001. On the other hand, high oil prices have increased the purchasing power of the OPEC countries and it is therefore not a coincidence that Istat figures show exports to such countries on a national scale contributing more (5.4%) than those to the United States (4.9%).

Fostered by a favourable international situation, exports have certainly found further stimulus in the euro weakness, but also in the renewed capacity of businesses to improve the quality and competitiveness of the goods they produce. In this respect it should be remembered that in 1999-2000, a year from the launch of the single currency, businesses in the North made a greater contribution to increase exports to the member countries of the monetary union, a demonstration of the fact that the introduction of the euro comes along with risks but also with many advantages for entrepreneurs and that the fears connected with losing independence in manoeuvring the exchange rates were largely unfounded.

With regard to imports, it must be pointed out that their growth (+23.6% was the annual variation on a national scale in the first half of 2000) was affected both by an increase in oil and its-by products value and by the real greater demand linked to that more lively economic upturn seen in the first part of the year. From a regional point of view, the Northwest showed a more dynamic situation in imports. In the Northwest 2 they went up by 21.4%, compared with 19.2% in the Northeast 2, while Liguria (50.6%) and Valle d'Aosta (49.4%) were the Northeast's regions with the most marked increases. In Piedmont and Lombardy increases in imports were 15.9% and 21.1% respectively.

Differences in the evolutionary profile of international relations between the Northeast and Northwest, are not particularly big regarding international trade, but they widens more when foreign direct investments in the last few years are taken into consideration. In the period which goes from the beginning of 1997 to the third quarter of 2000, foreign direct investments made by the Northwest 2 amounted to a total of 117,652 billion lire, equal to almost three quarters of the entire national figure. Lombardy accounted for 87,000 billion lire, and together with Piedmont, for over 29,000 billion.

Companies' internationalisation in the Northeast 2 is very evident if seen as the incidence of foreign trade on turnover and it shows serious weaknesses if seen as the number of direct investments made in other countries. Businesses in the Northeast 2 limited themselves to a more modest outlay of approximately 18,536 billion lire, equal to 11.1% of the national figure, which drops to 5.4% for the Northeast 1, 4.3% for Veneto and a poor 1.0% for Friuli Venezia Giulia. Foreign direct investments are gathering around the medium to large-sized enterprises, often organized on a transnational scale, even if small companies have learned to create 'alliances' and take advantage of the e-economy resources, which are still greatly untapped.

4. The structure of the production system

A breakdown of the division of the production system shows that in the Northwest 2 there were almost 1,272,000 businesses active at the end of June 2000, equal to 26.5% of the national total, and in the Northeast 2 there were about 1,051,000, equal to 21.9% of the national total. However, the period from 1997 to the first half of 2000 showed a greater growth for businesses of Northwest 2 (1.6%) than for those of Northeast 2 (0.2%). This latter result must be connected with the more intensive (compared to some time ago) businesses aggregation and merging or restructuring processes going on in the Northeast 2, this was achieved by the Northwest a good time before, for the purpose of businesses' re-shaping in a way that they can compete in the markets of globalization and that they meet the new competition on equal terms.

The richness of the production network, its articulated spread throughout the territory and the consequent positive employment scenario have always been a distinguishing feature of the Northwest and Northeast; in this latter area in particular there have been recent signs of serious problems caused by lack of manpower, especially in some industrial sectors (particularly in Veneto), that are conditioning production's development. The unemployment rate stands at 10.8% at a national scale (decreasing from 11.4% in 1999), and it drops to 5.4% in the Northwest 2 and 4.3% in the Northeast 2. The Northwest 2 figure is altered by the weight and trend of the labour market in Lombardy. Without this region, in fact, the unemployment rate would rise drastically in Piedmont (6.6%) and above all in Liguria (9.2%).

The positive trend in the labour market in most of the Northwest and Northeast regions is due on a hand, as in all the more evolved systems, to the growing contribution of the service sector, and on another hand to the capacity of manufacturing industries to create new opportunities and play a leading role in the development process. In this respect, it must be remembered, for example, that in Veneto 34.5% of employment is concentrated in the industrial sector, compared with 23.6% on a national scale (a little under 30% in Northeast 2). In the Northwest 2 industrial employment stood at 30.4%, but the figure drops dramatically to 27.6% if Lombardy is excluded.

5. The credit and financial system

In the growth of credit aggregates the Northwest has shown itself less dynamic than the Northeast's regions. This can be explained partly because of the increased recourse to the capital markets by the large and medium-sized businesses in the Northwest, while the Northeast ones on average, are depending much more on bank financing.

The vitality of the production network in the Northeast 1 and 2, the strong preponderance of small and craft businesses, generally characterized by a low rate of tangible net worth and by

a precarious financial equilibrium, albeit in a context of good economic results, lead the Northeast businesses to keep close relationships with the credit system, especially at a local level, even if this relationship has undergone a deep change in recent years.

In this context it is not surprising that in the first half of 2000 in comparison with 1995, bank lending increased by 55% in the Northeast 2. This result is opposed to an increase of 48.8% for the Northwest 2 and 34.1% nationally. Compared to the beginning of the year, the difference between credits granted in the two areas decreased. Furthermore, in Piedmont according to the figures for June 2000 over 15% of financing is granted directly to small businesses and craft enterprises. This is a positive sign for the recovery of a favourable regional situation.

The greater dynamism of the Northeast has attracted a growing number of new intermediaries, starting from the big banks of the Northwest, which have contributed to widen the distribution of bank branches all over the territory. The total for the Northeast 2 reached 7,332 points of sale at the end of June 2000, it is equal to 26.6% of the national figure.

The spreading of the network was particularly significant in Veneto, with an increase of 18.0%, which took the number of regional branches to 2,868, equal to 10.4% of the total figure for Italy, an increase of around half a point compared with three years ago. Lombardy and Piedmont alone, with over 7,600 branches, have a concentration of almost 28% of the banking networks. In Piedmont in particular the number of branches went from 2,093 in 1996 to 2,314 in June of this year that means an increase of 10.6%. This was not enough, however, for avoiding a drop in Piedmont's share on the national total, which was 8.4% in June.

The subdivision of financing per economic sectors, in which the banks' customers are involved and per dimensions of such financing, shows once again the predominating role of small and medium sized businesses: in the Northeast 2 around 21.2% of banks investments are in craft enterprises or in small businesses, whereas in the Northwest 2 the percentage is reduced drastically to a more modest 12.5%.

With regard to bank deposits, which include traditional savings deposits, current accounts and savings certificates (sharply reducing at savers' eyes, especially as medium and long term alternatives), Northwest 2 clearly differs from Northeast 2: in the period 1995-2000 deposits remained substantially stable in this area, whereas there was a drop of almost 13% in the Northeast 2. However, the difference between the Northwest and Northeast is mainly due to the 6.8% growth of deposits in Lombardy, because Milan, the regional capital, is hosting most of the financing companies and trust fund investment management companies which have

moved massive flows of liquidity in recent years (their current accounts are included in those deposits aggregation monitored by the Bank of Italy).

Economic Internationality in comparison

Outlook: Catalonia, Bavaria and Baden-Württemberg

Globalisation forces entrepreneurs not only to seek new market outlets for their products, but also to delocalise different stages of the production processes in those economic areas that are more economical and practical for the chain value created by the company's core business. This does not necessarily mean to delocalise where the cost of labour or of other production factors are lower, as is generally held to be the case, but also to invest and to be located where institutions, administration, taxes, technology and culture are particularly favourable to business initiative, in other words, where there is a co-ordinated group of public and private protagonists who are able of working as a 'system' thus to facilitate local economic development.

The proposed comparative analysis of the relations between the Italian Northwest and Northeast with the profile of Catalonia, Bavaria and Baden-Württemberg, therefore arises not just because of the greater geographical proximity, if compared with other market outlets, but also because it is clear that these 'European regions' (some, such as Baden-Württemberg or Bavaria, are as big as Belgium or Denmark) represent a successful example of economic development on an international scale.

Contributions have been made, according to the situation (which will be the subject of the future analysis), by a decisive co-ordinated action of the public bodies responsible for governing local economies and of private initiatives, relationships between schools, universities and the business world (Baden-Württemberg is exemplary), and the role of big companies, without forgetting small and medium-sized companies with their capacity to create efficient local business networks.

This context also includes a strong vocation of local operators to internationalisation, as well as a capacity to attract foreign investments which, in some cases such as Baden-Württemberg and Catalonia represent a model or modus operandi which can give useful indications also to operators from other European economic areas where significant economic dynamism is a strong characteristic, such as the Italian Northwest and Northeast.

1. Foreign trade

In 1999 Germany, Italy and Spain exported a total of over € 807 billions, almost 61% of which representing foreign sales by German operators, 26.8% by Italians and the remaining 12.3% by Spanish operators. In other terms, the weight of these three great European Countries export vocation can be placed almost on a logarithmic scale where the whole German economic, demographic and social weight is largely felt.

The five great aggregations or 'European regions' considered in this Report, i.e. Italian Northwest and Northeast, Catalonia, Bavaria and Baden-Württemberg, account for over 40% of all exports for the three countries taken as a whole, although each of the individual regions or 'European regions' plays a different role in its own Country. For example Catalonia, with

over € 26 billions of exports in 1999, accounts for over a quarter of all the Spanish exports, whereas the Northwest and Northeast cover more than 62% of all Italian companies' foreign sales. Bavaria and Baden-Württemberg account approximately for one third of total German exports.

In other words, we are talking about areas whose economies have developed greatly over the last decades, where an important role was played by small and medium-sized businesses, albeit with different methods and plans. Now, internationalisation seen as a projection into the world market in order to sell products and services, and later, globalisation, seen as the ability to re-organize the different stages of the production process on a world scale, have been the scheme for this model of success.

The biggest flow of exported goods goes in the direction of the European Union markets, with peaks of 71.2% from Catalonia, which alone, exports mainly to four Countries, i.e. France, Portugal, UK and Germany, and of 47.6% to Baden-Württemberg, which on the other hand shows a very strong vocation for exports to North American markets, where it sells almost 18% of all its regional products. Similar results, although less clamorous, are found also for Bavarian foreign trade: 52.9% of its exports goes to the European Union markets and 14.8% to North America ones. This is a phenomenon that appears to be perfectly aligned with the attitude and the ability of the German operators to go international on a large scale, with a considerable success also in acquisition processes, as can be seen from the operations in the automobile sector (Mercedes-Benz and Chrysler) and in the financial one (Deutsche Bank and Bunker Trust).

In general, it must be remembered that the reason for the minor influence of the EU as a market outlet for Bavaria and Baden-Württemberg is prevalently statistical: these "European regions", in fact, have a considerable economic clout on a European scale and represent important market outlets for other European regions and countries, whereas internal trade as well as with the German market is not counted as foreign trade. The Northwest 1 (i.e. excluding Lombardy) and the Northeast 1 (excluding Emilia Romagna) are in an intermediate position, as exports to single market member countries account for 63% and 57.1% respectively.

The North American market accounts for 8.4% of exports from the Northwest 2 and for 11.2% from the Northeast 2; in absolute terms, however, the flow of goods exported during 1999 is practically the same: € 7,648 millions for the Northwest 2 and 7,656 for the Northeast 2. With regards to Central and Eastern Europe markets, on which not only economic but also financial operators are concentrating their interest (consider for instance, the important banks' acquisitions made in Poland or Slovenia by national banking groups), Germany has the

biggest weight in trade. Given 100 as exports' total, from Germany, Italy and Spain, about three quarters of the operations are carried out by German enterprises, and similar results are shown for imports.

Bavaria and the Northeast 1 (excluding Emilia Romagna) are the regions where exports to Central and Eastern Europe have a greater influence on the remaining trades: they respectively account for 10.7% and for 10.1% of the total exports made to other international markets by operators from the two 'European regions'. Latin America, whose weight on Germany, Italy and Spain exports together is less than a third of those from Central and Eastern Europe, takes on a greater relevance, as would be expected, for Spain and Catalonia: exports to South America account for 6.4% of total exports from Catalonia and 5.7% of those from Spain.

Compared with the total result of Lombardy (3.2%) and Northeast 1 (1.6%), in 1999 Piedmont, with 4.1%, showed a significant predisposition for exports to Latin American markets. In absolute terms the figure is € 1,058 million, that is to say almost a fifth of the national total. However, for all the regions and 'European regions' during 1999 trade with Latin America experienced heavy slumps, due to the crisis affecting the key countries, especially at the beginning of the year.

A brief comment must be made on Piedmont's relationships with neighbouring Switzerland, whose inter-trade, notwithstanding their territorial closeness, has a lower weight than would it be imagined. A little less than 2.8% of Piedmont's imports and about 3.5% of its exports involve Swiss operators. On the other hand, Switzerland's international relationships are strongly oriented towards the German market: among its main trading partners, Germany, according to 1999 data, is the most important with a quota of 36.9% of Swiss imports, followed by France with 14.2%, Italy with 11.6% and the United States with 6.9%. The main market outlets for Swiss exports are, again, Germany with a quota of 26.6%, the United States with 13%, France with 10.7% and Italy with 9.1%.

2. Direct investments and their evolution

The case of Baden-Württemberg

All the operators in the regions and in the 'European regions' examined in the trade analysis carried on in this Report, are also protagonists in the projection towards international markets. The situation changes, however, when direct investments made by enterprises are examined: in this case the special role of Lombardy and of the German Länder clearly emerges. If we consider the fact that Lombardy alone invested over € 19 billion, equal to 65% of total Italian foreign investments and in any case higher than the total operations carried out by Spain.

The same can be said about, for example, Bavaria, whose based companies made foreign investments for over € 18 billion in 1998 and approximately € 12 billion in 1999; their weight

on the Germany total was lighter because operators from the other Länder also made massive investments on foreign markets.

Foreign direct investments by Baden-Württemberg after the considerable flow in 1998 (linked to acquisitions abroad), equal to over 34 billion euro, stabilized at just over € 9 billion in 1999. Germany's direct investments amounted in 1998 to almost € 86 billion and in 1999 to over 111.

Predominance of German investors on international markets is seen in almost all the main economic areas, starting with the euro zone and North America markets. In the Central and Eastern European countries, Bavarian operators alone invested almost four times more than the total invested by Italian enterprise. Only in Latin America and South East Asia the gap between Spanish and Italian operators and German ones close a little and appear less evident.

Piedmont invested € 3,869 million abroad in 1998 and 2,040 in the first nine months of 1999, most of which directed towards European Union member countries (€ 2,154 million in 1998 and € 1,068 in the first nine months of 1999) and North America (579 and 226 respectively).

More in general, the Northwest 2 has invested in international markets, from the beginning of 1998 to September 1999, over € 30 billion, whereas the Northeast 2 invested over seven times less, that is to say a little over € 4.1 billion, confirming a relative weakness of operators in the Northeast in transforming their purely commercial presence in international markets into a more solid and durable relationship that goes all over the distribution and production stages.

Although this prospect has its limits in the size of businesses, which in any case is a less binding condition than in the past, this situation appears to show signs of change in the recent past, due to the greater enterprise of operators, who may be 'small' but are already used to think globally in new market contexts.

FDI, innovation, research and development

The positive experience of ITP, the regional agency for investments in Turin and Piedmont, which since the beginning attracted Motorola research centre to its region and facilitated the arrival of the English firm Colt, underlines the importance in the era of globalisation and of the new economy, of sharing knowledge inside the network and of creating the background for an increasingly closer, dynamic and flexible relationship between research, innovation, training, investments and development. In Turin, for example, there are already over two hundred public and private research units plus the Polytechnic incubator which represents a good starting point for development consolidation in this advanced industrial district, that is to say the new border lines towards which many European areas with strong production dynamism are moving or towards they have already moved ahead.

In such a context, it may be useful to briefly mention the key points of Baden-Württemberg's experience in establishing relationships among research, education system and development. This is in some ways a unique experience, a topic of many international studies and analyses and a point of reference for many public and private operators which have taken their inspiration from it to give a thrust to the development of their areas.

First of all we must remember that responsibilities for research, technology, industry, regional policies, and the credit system in Germany are divided between the federal government and the individual Länder. Baden-Württemberg is internationally known for the active, very dynamic and in some way 'aggressive' use that the local government has made of its powers to sustain the local economy. In this respect, it must be pointed out that Baden-Württemberg has become the most highly industrialized Land in Germany, to the extent that the added value of the manufacturing industry accounts for almost 36% of the total, compared with 30% for Rhineland-Palatinate which follows closely, or with 28.8% for Bavaria.

These results have been achieved thanks also to the industrial policy put in place in the 70's by the local government led by a conservative party, which however featured a strong leadership that paid attention to delineate a system of institutions, vitalised by co-operation between public and private sectors, as well as to provide assistance and support in technologies transfer to small and medium-sized businesses.

One of the specific features of Baden-Württemberg compared with the other German Länder is the original network of Steinbeis Centres for the transfer of technologies (Steinbeis-Transferzentrum) which report to the Fachhochschule, a network of polytechnics where the general study plan, known as the dual plan, includes semesters in classroom alternated with semesters of actual work in companies, under the supervision of teachers. The latter, on the other hand, can take advantage of federal law for dedicating a good portion of their working time to free-lancing, so that links are forged with the realities of production in real time or better reduced 'time to market', to use one of the new economy words.

The efficiency and effectiveness of the training, education and research system are enough to explain why the common denominator of businesses in B-W is the special emphasis given to technological and quality perfection in manufacturers' products, independently of their dimensions. In turn, the success and exceptional competitiveness shown by businesses in B-W in international markets derives from this aspect. To grasp the meaning of the special characteristics in the relationship between research and development in B-W, we may point out that taking 100 as the German average, Baden-Württemberg stands out for the presence of some of the skills linked to technological innovation: for example there are 47% more

physicists and mathematicians, 42% more electronic engineers, 35% more technicians specialized in machinery, 33% more production specialists, 26% more technical designers and 24% more mechanical engineers.

At these figures' light it is easily understood not only how the manufacturing sector, especially that of capital goods in the machinery, automobile and electro-mechanical sectors, is the buffer for economic growth in the Land, but also how it has become one of the European areas with the most competitive system. In the forty years from the beginning of the 50's to the early 90's, approximately 90% of employment growth in industry came about in the three sectors mentioned above. This exceptional performance, which has continued through time, shows a further feature of the B-W system: the small and medium-sized businesses that are extremely flexible and often featured by sub-supplier status especially for large industries. This area is particularly focused on machine tools or precision instruments components, with a strong contingent at the sector's top quality demand, especially for components with higher technological and engineering content. It can be seen why in this context large multinationals such as IBM, Sony and others have chosen B-W to establish some of their more advanced activities or to locate their main European headquarters. It is not by chance that in 1999 B-W also attracted new direct investments for € 3,511 million, 1,954 million of which from the euro zone and 874 million from the United States.

3. Bavaria: its industrial structure in the age of widespread innovation

Bavaria is undoubtedly one of the most dynamic and innovative industrialized areas in Europe, with an economic structure apparently dominated by the existence of a great metropolis such as Munich. Actually around the nucleus of the Land capital there is room for an articulated production network which is distributed throughout the territory and that contributes to the consolidation of the economic homogeneity of this important German Land.

Its strengths are due to the automobile, electronics, telecommunications, engineering and space sectors, the production of motors, energy and arms, as well as to the size of the financial sector and of its connected services. Turin, Piedmont and the Northwest reflect an industrial structure and value in the Italian and European economies that is proportionately similar to, and in some cases is the same as the Bavarian one, albeit profoundly differences in the social, cultural and infrastructure context. The centuries-old industrial tradition of Turin has recently been flanked by the more up-to-date success of Munich as one of the production poles in Europe and the world. In the same way, the Northeast has taken part in the Bavarian experience, once again within the original and special character of its own culture.

Let us return to the 'case' of Bavaria. With 14.7% of the population (12.1 millions) and 16% of the employed (5.8 millions) Bavaria contributes over 17% of the German national GDP. From the historical point of view, it must be said that the added value per employee in Bavaria, measured in real terms with 1991 prices, went from DM 46,400 in 1970, to 58,300 in 1980, to 73,500 in 1990 and then to over 100,000 in 1998: a lasting performance confirmed without interruption over the years.

One of the strengths of the Bavarian economy is the manufacturing industry, which accounts for 28.8% of regional GDP, compared with 39.1% of services, 12.9% of trade and transport, and 1.3% of agriculture. Between 1990 and 1998 the added value of the Bavarian industry increased in real terms of almost 44%, whereas the added value for services grew of over 137% in the same period. Due to the effect of such different dynamics, in the analysed period, the incidence of industry on regional GDP dropped by 4.5 percentage points and that of services increased by almost 12 points.

This evolutionary profile should not conjure up a picture of a slow inexorable decline in the role of the manufacturing industry, but rather it highlights the phenomenon experimented also by other advanced parties of the international economy of sub-contracting and outsourcing those activities and services that previously were part of the business. Just think, for example, of accounting, marketing and all the consultancy and customer services that are included in the so-called advanced outsourcing. In other words, a good part of the growth in services refers to activities directly outsourced by businesses or indirectly linked to the new organizational formulas and production processes made possible by technological innovation. The evolutionary profiles of industry and services must therefore be read together, especially in the Bavarian case, in order to understand the close interdependence that links them in a networked structure.

Notwithstanding Bavaria immediately evokes Munich and the concentration of a great metropolis that monopolises all the production structures, the real situation is different and is more reminiscent of the widely recognized polycentrism of Baden-Württemberg, with its capital Stuttgart (over 600,000 inhabitants) and its network of medium sized cities such as Mannheim and Karlsruhe, and the important university cities of Heidelberg, Tübingen, Freiburg, Ulm and Konstanz.

As the local operators proudly underline, Bavarian industry is also a much more decentralized model than other industrialised Länder. At least one business of a certain importance has established its headquarters in one of the 1,441 out of the 2,056 municipalities in Bavaria, and if Munich, with about 126,000 people employed in industry represents the main pivot, Nuremberg, Fürth and Erlangen, with a total of 100,000 employed, form an important industrial pole, in the same way that Ingolstadt (33,300 employees) and Augsburg (33,100) play a significant role.

Bavarian industry employs over one million two hundred thousand people distributed throughout almost all the sectors of economic activity: consider in this respect that 235 of the 257 industrial sectors statistically counted by national and federal specialised institutes, can be found on the Bavarian territory, that is to say practically the entire spectrum of the industrial production.

The wealth of the Bavarian production structure is seen also in the size of the companies involved. Side by side with the bigger multinational enterprises there are a considerable number of small and medium-sized companies. Approximately 6,100 businesses have less than 100 employees, whereas those employing between 100 and 499 people number are over 1,800 companies. In 1998, these two groups of enterprises alone accounted for 52% of the total Bavarian employment figures and over 42% of its turnover.

From the territorial distribution point of view, there are obviously significant differences between the various administrative districts of Bavaria. Out of every 1,000 inhabitants 123 work in the industries of Upper Franconia and 112 in Central Franconia, whereas Upper Bavaria is at a lower level with just 84 employees in industry out of every 1,000 inhabitants. The figures for the other districts are close to Bavaria average which is 99 employees out of every 1,000 inhabitants. These indices are much higher than German average, which has 78 people

employed for every 1,000 inhabitants. Not by coincidence, only Baden-Württemberg features a higher degree of industrialization. There are also points of excellence in the profile under examination, represented by Schweinfurt (341 employed out of 1,000 inhabitants), the Dingolfing-Landau district (297), Ingolstadt (293), Erlangen (289) and Regensburg (209).

With regard to employment, the most important Bavarian sector is electronics and electricity, with almost 216,000 employed, followed by the engineering industry (192,000), automobiles (around 181,000), chemicals (130,000) and food (over 91,000).

Most of the sectors in Bavaria show high exports on turnover ratio, to demonstrate the high degree of internationalisation of this Land. According to the 1998 data, published by the Bavarian economic Ministries, the engineering industry has an export ratio of 50.7%, automobiles and their components 54%, the telecommunication technology sector almost 60%, the chemical industry around 47%, and, at the end there's a traditional sector, textiles which have an export ratio of over 30%.

An analysis of the industrial system in Bavaria, like that in Baden-Württemberg, highlights the important role played by small businesses, also of craft nature, especially in the closely knit network of sub-suppliers, with high added value and innovative technological content. From the automobile sector to that of engineering and the space industry, small German and Italian businesses make an important contribution to the degree of competitiveness of single local business networks and their co-operation, if developed with greater synergy than till now, can add further stimulus for the whole European area.

The Northeast and Northwest euro-regions and their trade with the Alpine hinge countries

Globalisation of the world's economy forces companies to make operational choices that no longer take geographical vicinity into account for trade decisions, as they search for areas where production factors are the cheapest, either be they raw materials or intermediate goods or labour, or where there are market outlets that create more favourable conditions for growth and remunerative perspectives for businesses themselves.

Notwithstanding, there is no doubt that territorial proximity, which also implies cultural and political factors as well as economic and financial ones, plays an important role in trade, the direction and size of the flow must be constantly monitored because in the end it is the figures that confirm the validity of a hypothesis or simply a cliché. That is what we hope to achieve with this brief paragraph and its rich appendix of statistical documentation on trade in the Euro regions of the Italian Northeast and Northwest with the 'Alpine hinge' countries, i.e. France, Switzerland, Austria, Slovenia and, for economic continuity, Croatia.

France, among all the countries mentioned above, is the most important market outlet for exports from both the Northwest 2 (29,681 billion lire in 2000) and the Northeast 2 (17,212 billions); in terms of percentage the figures show that as many as 14.7% of all the exports from the Northwest 2 to the rest of the world go to France and that the Northwest is among the leading market outlets for France, with a quota of 5.4%, just to give an idea, more than the Netherlands, with 4.7%, or Switzerland with 3.7%.

Switzerland itself, whose trade has a significant quota of exports to and imports from the Northwest, if seen in relation to those of most countries (4.9% exports and 5.3% imports), is

not as important as an operator from the Northwest would expect: only 4.5% of the Northwest 2 exports go to Switzerland, whereas the figure for imports stands at 5.3%.

Austria, 40% of whose trade is with Germany, plays an important role particularly for the Northeast 2, which sends around 3.9% of its exports there and whose imports from Austria account for about 4.7% of the Northeast's imports from the rest of the world. Particularly important for trade with Austria is the Adriatic Euro region, which accounts for almost 54% of the Italian exports to Austria, compared with 47.3% of the Northeast (which is in any case the predominating part of the Euro region) and 34.2% of the Northwest 2.

Slovenia and Croatia are both becoming, with different rhythms, methods and opportunities, particularly important partners for the Northeast 2 Euro region, which alone accounts for more than Slovenian imports than the whole of Austria (8.7% compared with 7.9%). The Northwest Euro region also shows a propensity for consolidation of trade with Slovenia, to such an extent that it accounts for more Slovenian imports than the whole Croatia (5.4% compared to 4.3%), but also, for example, for more than UK and Spain together (only 4.6%).

On the other hand, Croatia shows a marked attitude for trade consolidation with the Northeast (and with the Adriatic area in general), which makes it close to 61% of all the national exports to Croatia, and which makes it the second trading partner (with an average import-export quota of 10%) after Germany, which accounts for over 18% either of imports and exports.