

3.1 PIEDMONT'S GLOBAL ECONOMIC INTERNATIONALISATION INDEX

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Their successful elaboration of a single figure that sums up a subject with so many facets and can be used to compare the position of Piedmont with that of other Regions and monitor its progress has convinced the members of the technical and scientific working group of the correctness and future validity of their methods.

There is no need, on this occasion, to expatiate on the basic considerations and premises relating to the dangers and the discretionary nature of any attempt to construct a numerical index from qualitative information. It should, however, be borne in mind that four "markers" or "constraints" were employed in the elaboration of the model for Piedmont's global economic internationalisation index (GEII):

- the official nature of the data: the model must only consider economic variables and statistics supplied by reliable official sources. In the case of data drawn from samples, assessment of the sampling and reporting plan must always be possible
- repeatability: the model must comprise information drawn from temporally regular surveys. This constraint rules out all completely casual or one-off inquiries, however interesting. Its underlying assumption is that annual monitoring of the Region's degree of internationalisation must obviously be founded on an index worked out at regular intervals
- comparison with other Regions: the model and the selection of its variables must be such as to enable Piedmont's degree of internationalisation to be compared with that of other Italian Regions and the national index, i.e. benchmarking
- simplicity: the model must only comprise the most significant and important variables in order to facilitate both its updating and its comprehension and interpretation.

The Group has made four changes this year in the methods employed in the construction of the GEII so as to refine it and bring it even closer to the process it is intended to summarise.

The first and most substantial change concerns the sixth elementary index.

It was noted, in fact, that in 2003 this index (end-point of international relations, expressed as the percentage of foreign travellers at Turin's airport) partly overlapped the fifth elementary index (international tourism, expressed as the percentage of foreign tourists).

Since figures illustrating the education and training of foreign students in Piedmont are now available, the Group has decided to realign the GEII by basing the sixth elementary index on international education and training.

The second change concerns the numerical side of the index. Last year's index was mainly directed to benchmarking with the other "competitor" Regions and Italy as a whole.

In view of the methods employed for its construction, an increase in one elementary index whose percentage is lower than the Italian average may be penalised as a negative index.

An increase in Piedmontese exports, for example, has certainly enhanced its internationalisation, and hence the GEII should rise. If this increase falls below the Italian average, however, it will be rated as negative. Without prejudice to the work done in 2003, therefore, especially with respect to the regional and national comparisons, the GEII is now calculated as "points" as well.

This method is used on the stock exchange. It will provide a more correct illustration of Piedmont's own international progression-regression without reference to the performance of other Regions.

The third change relates to the link between the six elementary indices used to calculate the GEII. In 2003, this link was linear and the arithmetic average of the six could be used since they all had

the same weight. In reality, however, the social and economic impact of the situations and circumstances to which they refer is by no means the same. The first, for example, summarises commodity and services imports and exports to the tune of euro 57 bn, whereas the new sixth elementary index is concerned with a mere 1500 or so foreign students. It has thus been decided to weight the elementary indices when the GEII is calculated.

This weighting, of course, cannot be automatic, since some are expressed in euros and others as percentages of persons. This problem has been surmounted by employing a two-step method. The six indices are first ranked in a descending order of priority and then assigned a coefficient descending at a constant rate with 1 as the mean value. This is naturally a discretionary move on the part of the working group. Even so, it is a factor which, as explained in last year's methodological introduction, is present in the construction of an index. Its discretionary nature has been resorted to for the purpose of making the GEII more representative of what it seeks to illustrate, namely Piedmont's degree of internationalisation.

The fourth change concerns some values within the elementary indices. As already envisaged as a possibility last year, because of the absence of data from ONML concerning the initial placement of non-EU workers in regular employment, this information has been replaced by the forecasts of hirings of non-EU persons provided by the Excelsior project, namely the employment and training information system set up by the national Unioncamere and the Ministry of Labour that forms part of the national statistics plan.

With regard to inward FDIs, since these fluctuate widely from one year to another, and since those that arrived in the past are still "international" in the present, it has seemed more reasonable to think in terms of stocks rather than flows.

The new GEII is thus composed of two sub-indices, each composed of three elementary indices.

Economic internationalisation index (EII) with its three elementary indices:

- disposition to engage in foreign trade in commodities and services, expressed as the sum of imports and exports divided by the GDP

$$\frac{\sum (X + M)}{Y} \text{ where } X = \text{ exports, } M = \text{ imports and } Y = \text{ GDP}$$

- degree of attractiveness of foreign investments, expressed as the value of the flow of inward FDIs in the period 2000-2003 divided by the GDP

$$\frac{\sum FDI}{Y} \text{ where } FDI = \text{ foreign direct investments and } Y = \text{ GDP}$$

- foreign manpower (self-employed, employees): foreign employers as a percentage of the total employers, and the forecast of hirings of non-EU persons as a percentage of the total hirings

$$\frac{\text{Foreign employers}}{\text{Total employers}} ; \frac{\text{Non-EU hirings}}{\text{Total hirings}}$$

Social internationalisation index (SII) with its three elementary indices:

- presence of foreigners, expressed as a percentage of the total resident population

$$\frac{\text{Foreign population}}{\text{Total population}}$$

- international tourism. This elementary index is designed to evaluate Piedmont as a destination for international tourism by comparison with Italy as a whole

$$\frac{\text{Foreign tourists in Piedmont}}{\text{Foreign tourists in the whole of Italy}}$$

- international education and training. This elementary index is designed to evaluate Piedmont as a place for the education and training for foreign students and is expressed as the ratio between foreign undergraduates and the total number of undergraduates as supplied by the Ministry for Education, the Universities and Research (MIUR) for the academic year 2002-2003.

$$\frac{\text{Foreign university students}}{\text{Total university students}}$$

As stated earlier, these elementary indices have now been weighted in order to produce a more representative GEII. They have, in fact, been ranked in a descending order of importance and then assigned the following weighting coefficient descending at a constant rate.

The GEII has thus been calculated in the form of points for the purpose of determining its progress over the course of time. The crude indices elaborated in last year's Report have been used to work out the points. The weighting coefficients multiplied by 1000 form the base of the points for 2003. The GEII, therefore, starts off from 2003 with 6000 points. In 2004, it moved up by 3% to 6196 points. This increase was mainly attributable to the EII, which rose 5% in response to an albeit slower, but still positive, flow of inward FDIs.

GEII weighting coefficients

	Elementary index
1 - disposition to engage in foreign trade	1,5
2 - attractiveness of foreign investments	1,3
5 - international tourism	1,1
4 - foreign population	0,9
3 - foreign manpower	0,7
6 - international education and training	0,5

The SII expresses a 2% increase in the percentage of foreign tourists. Since the sixth elementary index now illustrates a different parameter and is obviously devoid of any previous data, the value assigned to it last year has been retained. Benchmarking has once again been employed to determine the internationalisation index by expressing Piedmont's values (and those of the other Regions) as percentages of the Italian totals.

Piedmont's degree of internationalisation

	2003	2004	% change
GEII	6.000	6.196	3%
EII	3.500	3.679	5%
Elementary index 1 - disposition to engage in foreign trade	1.500	1.502	0%
Elementary index 2 - attractiveness of foreign investments	1.300	1.560	20%
Elementary index 3 - foreign manpower	700	618	-12%
SII	2.500	2.517	1%
Elementary index 4 - foreign population	900	916	2%
Elementary index 5 - international tourism	1.100	1.100	0%
Elementary index 6 - international education and training	500	500	0%

Piedmont's internationalisation indices

	Piedmont	Italy
GEII	96,2	100,0
EII	94,3	100,0
Elementary index 1 - disposition to engage in foreign trade	112,1	100,0
commodities	116,6	100,0 ^(a)
services	90,0	100,0 ^(b)
Elementary index 2 - attractiveness of foreign investments	84,3	100,0 ^(c)
Elementary index 3 - foreign manpower	98,7	100,0
employers	89,6	100,0 ^(d)
employees	107,8	100,0 ^(e)
SII	96,4	100,0
Elementary index 4 - foreign population	97,3	100,0 ^(f)
Elementary index 5 - international tourism	104,7	100,0 ^(g)
Elementary index 6 - international education and training	87,2	100,0 ^(h)

^(a) commodity exports updated to 2003. Source: Istat, Coeweb database. GDP estimated for 2003. Source: Prometeia, *Scenari delle economie locali*, July 2004

^(b) services exports updated to 2003. Source: Foreign Exchange Office. The national datum does not include transport, since this item cannot be broken down to produce regional figures.

^(c) FDIs (less disinvestments) updated to 2003. Source: Foreign Exchange Office.

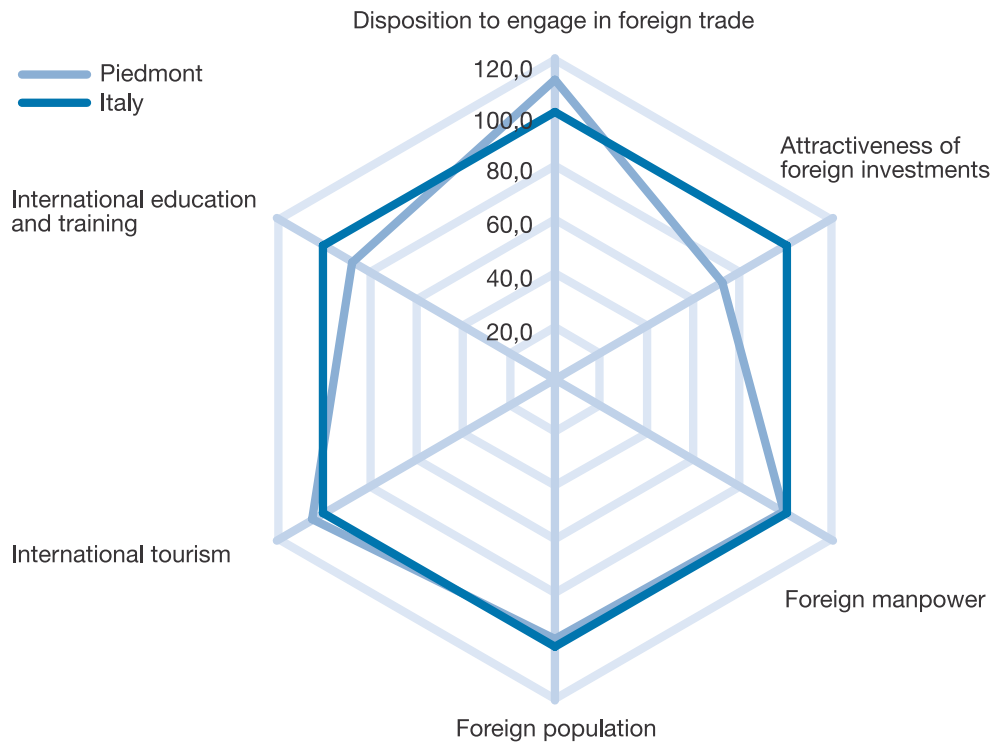
^(d) foreign entrepreneurs updated to 31.12.2003. Source: Infocamere, Stockview database

^(e) forecast non-EU hirings. Source: Excelsior (employment and training information system set up by the national Unioncamere and the Ministry of Labour)

^(f) foreign population updated to 2003. Source: Istat, *Statistiche del turismo* - Year 2003

^(g) foreign students updated to academic year 2002-2003. Source: Murst.

The “cutting edge” of Piedmont’s internationalisation



Piedmont's GEII is about 4% below the national figure due to a downturn in both its SII and its EII. This result is the first opposite of that achieved in the previous year because of the changes in both the methods and the contents.

Establishment of education and training as the sixth elementary index certainly depressed the SII, since the presence of nearly 1500 foreign students in Piedmont's three universities out of a total of over 90,000 is well below the national average. The EII, too, was pulled down, mainly on account of the attractiveness of inward FDIs in the second elementary index.

These, indeed, increased as has been stated several times, but their value (with respect to the GDP) was less when related to Italy as a whole.

The EII also reveals a strong disposition to engage in the import-export of commodities (up by comparison with the previous year) and the employment of non-EU manpower. Foreign trade in services, on the other hand, while well ahead of the previous year, is below the average and the same is true of the number of foreign entrepreneurs and the attractiveness of FDIs.

On the "social" side, Piedmont has a higher percentage of the total number of foreign tourists, a resident foreign population slightly below the national average, and very few foreign students. This year's Report also benchmarks Piedmont's internationalisation against that of the other Italian Regions. Calculation of their GEII, in fact, immediately shows what great differences exist. The GEII for Lombardy and the Veneto, for example, are decidedly higher. There are also marked differences between them. Both have high values for disposition to export commodities and services. With regard to their attractiveness for foreign investments, however, Lombardy's elementary index is 195 (Italy = 100), whereas the Veneto's is only 55.

This can be seen as an indication that the Veneto is more interested in delocalising its production abroad rather than devising policies to attract foreign investors. Another feature in some way associated with this picture is that the Veneto has the highest foreign manpower index.

Emilia Romagna is highly competitive with respect to all the economic components except inward FDIs (only a tenth of the national average when measured against the GDP).

The SII for these three Regions indicate that their foreign populations are more substantial.

That of Emilia Romagna, for example, is 40% greater than the national average. In terms of international education and training, the values for all three Regions exceed the national average.

This decidedly positive and encouraging result is very evident in Emilia Romagna.

Bologna University, in particular, has a large number of foreign students.

Piedmont's internationalisation indices

	Piedmont	Emilia Romagna	Lombardy	Veneto	Italy
GEII	96,2	84,2	152,3	110,6	100,0
EII	94,3	69,0	163,0	93,8	100,0
Elementary index 1 - disposition to engage in foreign trade	112,1	102,4	162,9	134,8	100,0
commodities	116,6	110,9	163,0	139,5	100,0
services	90,0	60,7	162,6	111,7	100,0
Elementary index 2 - attractiveness of foreign investments	84,3	9,8	195,7	55,2	100,0
Elementary index 3 - foreign manpower	98,7	106,2	112,2	107,5	100,0
employers	89,6	100,7	123,1	101,7	100,0
employees	107,8	111,6	101,4	113,3	100,0
SII	96,4	125,9	123,4	134,1	100,0
Elementary index 4 - foreign population	97,3	139,8	145,2	127,9	100,0
Elementary index 5 - international tourism	104,7	57,6	116,3	138,3	100,0
Elementary index 6 - international education and training	87,2	180,4	108,6	136,1	100,0

3.2 CLOSING THOUGHTS

Prepared by Unioncamere Piemonte, Ires Piemonte, Itp Investimenti Torino Piemonte and Centro Estero Camere Commercio Piemontesi

A year has passed since the last edition of the Internationalisation Report. The international situation however has not improved. Uncertainty predominates, especially in the geopolitical sphere. The crimes committed in Madrid and at Beslan and many other places during 2004 give the impression of a global conflict with an invisible foe, terrorism, all the more underhand because it is not declared outright. Exchanges of all kinds, whether in commodities, services, capital, persons or ideas are rendered difficult in a context of this kind.

It was against this background of incertitude, indeed, that the European Union opened its doors to ten new members in 2004 and more entries are planned in the near future. A vast European market with a GDP of USD 10,000 bn and 450 million inhabitants, very dynamic, too, especially in the newly admitted countries, and optimistic prospects of growth. As Jeremy Rifkin has put it, this new area could become "a victorious alternative to the clouded old American utopia".

Rifkin, in particular, views Europe's approach to internationalisation and social integration as two winning factors in an increasingly dense and interconnected future world.

China is another subject that invites due reflection. Her impetuous growth, especially when seen in relation to her immense size, has upset the equilibria of the world's economies. With a growth rate of 40% in 2003 alone, she has become number 3 and number 4 in the imports and exports leagues respectively. China, indeed, is turning into the place where products are made.

Goods made in China, especially those backed by European, US and Japanese know-how and brand names are by no means of poor quality, because they are produced in accordance with the standards laid down by the customer.

Japan, too, has set out once again along the road to growth from the moment she routed her exports to China instead of the United States. A link between the two countries could serve as a driving force for the growth of Asia as a whole. Asian and Chinese expansion has placed a heavy strain on the raw materials markets, since the heavy demand thus created has sky-rocketed the prices of steel, rubber and energy (oil). China's real challenge is to boost her domestic market. Some, mainly young, future-looking Chinese consumers are beginning to get the message, but they are still very few when judged against the potentialities and the total number of consumers. Italy and Piedmont, however, moved with leaden feet in such a dynamic international context. "Made in Italy" goods (textiles, clothing, furniture, jewellery and footwear) were faced with stiff competition and penalised by an over-heavy euro. Market shares fell as a result, sometimes like a stone, as in the US where imports from Italy nosedived a full 18%. On the other hand, exports to Central and Eastern European countries, most of which joined the EU in 2004, did very well. Piedmont confirmed its standing as an international region through cooperation projects with European and other nations, while its universities took on more foreign students and worked in conjunction with European training networks and overseas institutions.

There was also an increase in the number of foreign tourists.

These bright lights, however, could not dispel some shadowy patches. Good results in Eastern Europe were offset by poor performances in the main industrialised countries, especially the more dynamic Asian economies. In some cases, the product mix was a drawback (textiles, for example, are in the doldrums everywhere), in others excellent qualities were not put to good use. Despite the acknowledged know-how, for example, with which Piedmontese firms, particularly those in and around Turin, are endowed in the construction of capital expenditure items to be employed in industry (machine tools, robots, industrial machinery), the Region failed to gain a foothold in the supply of commodities to China. In a country where new factories are springing up every day, Piedmont's contribution could have been better, both quantitatively and qualitatively. Here, indeed, the public bodies can act by creating the premises for a more structured and more synergic approach to foreign markets. Two correlated aspects are of strategic importance in this context: concentration of the scanty public resources to make sure they are not frittered away in a thousand and one little rivulets, and creation of a form of coordination for initiatives abroad. Allocation of resources to individual projects with a strong impact must be the result of a medium/long-term vision in which both strategic and geographic priorities are duly identified. Piedmont's good performance in Eastern Europe in 2003, for instance, must not blind us to its hitherto scanty investments in other emerging countries, such as those of Asia.

The research project entitled "The countenance of SMEs that venture abroad" was conducted on 400 exporting firms. It has revealed the need for better regional coordination of the promotional activities of all those concerned with internationalisation. Now as never before, at a time when things are going badly and public resources are fewer and further between, teamwork is required and overlapping and duplication must be avoided.

The internationalisation strategies of these enterprises are often rudimentary, poorly structured one-off affairs that are mostly handled by the entrepreneur himself. Instead there should be a structured, professional and well-informed approach. Recently, however, more and more firms of this kind are looking abroad for trading opportunities no longer offered locally. Lacking experience and a sufficient stock of human and economic resources, they turn, more replete with hope than others, to outside agencies offering export services to obtain targeted and above all tailor-made support. Training is thus required to strengthen a firm's ability to work out a clear competitive strategy backed by a plan setting out the stages of its execution, and by due awareness of its organisational results.

The final objective is somewhat ambitious: augmentation of Piedmont's competitiveness through internationalisation. Operation in a context competitive in terms of both infrastructures and human capabilities serves to render both individual enterprises and their entirety truly competitive, attract international firms and qualified human resources, enrich the Region and set in motion a virtuous spiral leading to the growth of the economy as a whole.

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