



BANCA D'ITALIA
EUROSISTEMA

Questioni di Economia e Finanza

(Occasional Papers)

A gender equality index for the Italian regions

by Monica Amici and Maria Lucia Stefani

June 2013

Number

190



BANCA D'ITALIA
EUROSISTEMA

Questioni di Economia e Finanza

(Occasional papers)

A gender equality index for the Italian regions

by Monica Amici and Maria Lucia Stefani

Number 190 – June 2013

The series Occasional Papers presents studies and documents on issues pertaining to the institutional tasks of the Bank of Italy and the Eurosystem. The Occasional Papers appear alongside the Working Papers series which are specifically aimed at providing original contributions to economic research.

The Occasional Papers include studies conducted within the Bank of Italy, sometimes in cooperation with the Eurosystem or other institutions. The views expressed in the studies are those of the authors and do not involve the responsibility of the institutions to which they belong.

The series is available online at www.bancaditalia.it.

ISSN 1972-6627 (print)

ISSN 1972-6643 (online)

Printed by the Printing and Publishing Division of the Bank of Italy

A GENDER EQUALITY INDEX FOR THE ITALIAN REGIONS

by Monica Amici* and Maria Lucia Stefani*

Abstract

A gender gap indicator is constructed for the Italian regions, with the aim of highlighting the geographical differences underlying Italy's backwardness at European and international level. The indicator, which adapts the Gender Equality Index developed by Plantenga et al. (2009) for 25 European countries, considers four dimensions: work (counting both employment and unemployment), income, political and economic representation and use of time. The indicator can be interpreted as a gauge of the progress made towards gender equality. A limited number of regions, led by Piedmont and Emilia Romagna, are approximately half-way down the path, while a larger group is positioned around the Italian average, i.e. one-third down the path. By contrast, all the southern regions (except Sardinia) lag far behind. Overall, the value of the indicator in 2010 does not differ significantly compared with 2005.

JEL classification: J16, D63, I31.

Keywords: gender gap, gender index, employment.

Contents

1. Introduction and motivation.....	5
2. From Development Indexes to Gender Indicators	6
2.1 Human Development Index (HDI – UNDP).....	7
2.2 Gender Development Index (GDI – UNDP) e Gender Empowerment Measure (GEM-UNDP)	7
2.3 Inequality-Adjusted Human Development Index (IHDI – UNDP)	8
2.4 Gender Inequality Index (GII – UNDP).....	8
2.5 Global Gender Gap Index (World Economic Forum).....	8
2.6 Gender Equality Index (GEI)	9
3. The Gender Equality Index (GEI) Analysis.....	9
3.1 The concept of equality	9
3.2 Main features of the index, dimensions, sub dimensions, indicators and calculation	10
4. The gender equality index for the Italian regions	11
4.1 The work dimension.....	12
4.2 The income dimension	14
4.3 The decision making power dimension.....	15
4.4 The time dimension.....	16
5. The overall index	19
6. Conclusions.....	21
References.....	23
Tables and figures	25

* Bank of Italy, Trento branch, Economic Research Unit.

1. Introduction and Motivation¹

The 2011 “Report on the situation of the country” of the Italian National Institute of Statistics (Istat, 2011) portrays an Italy where female unemployment is high, despite increasing levels of education, and where population growth is low, partly because of the lack of social services including those for early childhood.²

Italy ranks among the last countries in terms of achievement of gender equality. The country ranked 74th in the 2010 Global Gender Gap Report, it occupied the 21st place in the 2009 analysis of 25 countries conducted by Plantenga *et al.* in the framework of the European GEI, and it is among the last in terms of economic growth. A correlation between these two measures, namely economic growth and gender equality, has been widely documented in the literature (see, e.g., Bianco *et al.*, 2010). Therefore it can be argued that gender equality is important not only from the ethical, social and legal point of view, but also to foster economic growth and the development of a country. The ability to appraise the issue, to understand its root causes and to measure the effects they produce may allow us to understand the size of the problem and also to propose suitable policy actions, focusing on the areas where they can impact the most.

The 1995 Beijing Conference stressed the importance of having clear measures of gender issues, and it was a clear signal of the willingness to address the issue of “equality, development and peace for all women”.

All countries signatory to the platform resulting from the Conference committed to creating and disseminating gender statistics. In Europe the importance of these databases was reaffirmed in the “Roadmap for equality between women and men 2006-2010” and by the 2006 European Council of Brussels, which stressed the importance to further develop statistics and indicators disaggregated by gender (European Pact for Gender Equality, 2006).

The European Institute for Gender Equality (EIGE)³ was created in 2006 to achieve these objectives and generally to support the EU and its Member States in their efforts to achieve gender equality. Its duties include the collection and the analysis of comparable data on gender issues and – as a key priority for the year 2011 – the development of a European gender equality index.⁴

The need to have appropriate indicators on the condition of women and men is felt also in Italy, with an aim to inform policy-making and to help evaluate the impact of policy actions. Sabbadini (2007) underlines the importance of such indicators in countries which

¹ A previous version of this paper was presented at the conference “Women and the Italian economy” organized by the Bank of Italy, held in Rome on March 7th, 2012. The authors would like to thank Rosario Ballatore, Nicola Curci, Francesco Franceschi, Vincenzo Mariani, Marco Paccagnella and Giulia Tanzi for sharing data and methodologies used in their work and for their helpful suggestions, and Eleonora Amici, Magda Bianco, Paola Casavola, Andrea Filippone, Andrea Locatelli, Roberta Zizza for their valuable comments provided in a previous version of this text. The views expressed therein are those of the authors and do not necessarily reflect those of the Bank of Italy.

² During the Council of Barcelona kindergartens have been identified as a factor capable of promoting the participation of women in the labour market and were placed between the objectives of the Lisbon Strategy.

³ Regulation (EC) no 1922/2006 of the European Parliament and of the Council of 20 December 2006.

⁴ To meet the objective to develop and offer the EU a functioning tool with which to identify areas where inequality displays the largest gaps in the Member States, to assess the status and progress of gender equality and suggest monitoring and evaluation indicators, EIGE has been developing a Gender Equality Index for Europe (EIGE, 2011).

have a well-developed legal system, where the presence of regulations that strongly protects the rights of the citizens may lead to the conclusion this type of gap has been overcome.

Within the Italian legal system, calls for the creation of gender statistics are included, among others, in the Prodi - Finocchiaro Directive of 27 March 1997, in the Nicolais - Pollastrini Directive of 23 May 2007 – particularly concerned with public administration, and calls are also contained in various bills under consideration in Parliament and Senate – particularly in the bill on “Rules on gender statistics”⁵ initiated by the national Council for Economy and Labour (CNEL).

Moving in this direction, some years ago Istat began to integrate the gender dimension in many of its surveys,⁶ in an attempt to improve the whole statistical production. A lot remains to be done.

In Italy this need is strongly felt because of the large heterogeneity that characterizes its territories; policy actions that appear suitable for a region may be less so for another, at least in terms of achievable results. This work proposes an indicator designed to capture the phenomenon of gender inequality at the regional level, accounting for its various economic and social facets. Such indicator may help identify the root causes of the observed imbalances, to inform policy actions aimed to address them. It may also be an helpful tool to evaluate the impact of any corrective actions implemented.

This paper contributes to a strand of literature which has received relatively few contributions for the Italian case. An exception is the recent paper by Bozzano (2011) which presents an application to Italian regions of an indicator built according to the one developed by the World Economic Forum (WEF).

The remaining of this paper is organized as follows: Section 2 summarises the main indicators used at the international level to measure gender gaps; Section 3 focuses on the indicator recently proposed for European Union countries; the indicator of gender equality for the Italian regions is described in detail in Section 4, which presents results at the regional level along each dimension underlying the index; Section 5 analyses the indicator as a whole, and compares the values it assumed over a five years period; finally Section 6 concludes.

2. From Development Indexes to Gender Indicators

Several indicators are used at the international level to measure gender gaps between countries. Such indicators were developed starting from development indicators, having established that development is not gender neutral. The first indicators were created by the United Nations Organization (UN) within the context of the United Nations Development

⁵ The CNEL has unanimously approved three law proposals on this issue. After those of 2004 and 2006, a third draft was presented on June 26th, 2008. Given the limited availability of resources, it becomes of paramount importance that a policy action is appropriately guided; this is particularly the case if one considers the effect of gender blind policies which may even increase the existing gender disparities. Moving in this direction, the CNEL has further proposed that “gender balance” be made compulsory to evaluate the impact of public policy on citizens of both genders (CNEL, 2010).

⁶ “Women and men have different roles in society and different access to resources, therefore the impact that policy actions have on them may differ. In case of problems, or if the statistics and the approach to the gender issue are weak, the possibility to identify suitable policy actions capable of solving the economic and social problems of the country will be smaller, particularly in what concerns gender differences; this will restrain the opportunity to change and will perpetuate the existing stereotypes” (translated from Sabbadini, 2007).

Programme (UNDP). Since then, the UN has introduced new and more sophisticated indicators, to improve upon the previous versions. Additional indicators were introduced to address a particular need to measure the gender gap for specific purposes or for a particular region.

The following sections describe the main features of the indicators developed by the UNDP and by the World Economic Forum, all of which compare countries at the global level, along with the indicator developed by Plantenga *et al.* (2009) for the European context. This brief review aims to highlight the main features of each indicator, and to motivate the choices that have been made in this paper in the definition of the indicator that is here proposed for Italian regions.

2.1 *Human Development Index (HDI – UNDP)*

The HDI has replaced GDP in the yearly human development reports published by the UNDP since 1990.

It identifies three dimensions which are key for human development: Health (a long and healthy life), Education (access to knowledge) and Living Standards (access to a decent standard of living). Each dimension is characterized by one or more measures, chosen for their ability to represent it. More specifically, Health is characterized by life expectancy at birth; Education is measured by the years of school that a child can expect to receive and by the average years of schooling (which recently replaced literacy); Living standards are approximated by per capita gross national income (Figure A1).

For each dimension i , an index $HDI(i)$ is computed using equation (1):

$$HDI(i) = (Xi_{(actual)} - Xi_{(min)}) / (Xi_{(max)} - Xi_{(min)}) \quad (1)$$

In the case of Education, for which multiple measures are used, the dimension-specific index is computed as the geometric mean of the index computed for each measure. Finally, the overall index is computed as the geometric mean of the three dimension-specific indexes.

2.2 *Gender Development Index (GDI – UNDP) e Gender Empowerment Measure (GEM-UNDP)*

The GDI (also known as Gender-related HDI) and the GEM were introduced in 1995 following the international recognition of the importance of monitoring the progress achieved towards the elimination of gender disparities in all aspects of life, having established that there is no society in which women enjoy the same opportunities that men do.⁷

The GDI is computed by first computing a score for each dimension of the index for the two genders separately; then differences are computed between the achievements of men and women, such differences allow us to compute the gender component of the HDI, which is then used in conjunction with the HDI to compute the gender-related HDI. (Human Development Report, 2007).

The inclusion of the gender component into the original index has been regarded as a key limitation of the GDI; in fact, the levels of the HDI mitigate the differences between men and women, which consequently seem less relevant.

⁷ “In no society do women enjoy the same opportunities as men” (UNDP, 1995).

The GEM complements the GDI, particularly for what concerns the opportunity to take an active role in the political and economic life.⁸ Said otherwise, the GDI measures women's achievements and capabilities in a broad sense, while the GEM is concerned with women's actual use of these capabilities to participate in the economic and political life, i.e., the GEM measures their empowerment.

The GEM is characterized by three dimensions: political participation and the associated decision-making power (measured as the percentage of female Members of Parliament); economic participation and the associated decision-making power (given by the percentage of women among legislators, senior officials and managers, and by the percentage of professional and technical positions occupied by women); and finally access to economic resources (ratio between the estimated income received by women and that received by men) (Human Development Report, 2007).

UNDP has stopped using these two indexes, which have been replaced by the Gender Inequality Index (GII). With this new index, the UNDP has attempted to overcome some of the limitations of the GDI and the GEM, with particular reference to the dependence on the absolute values (e.g., countries with low absolute values and perfect gender equality may rank below countries with high absolute levels and larger gender gaps – mainly because of the strong impact of the income dimension on the overall index) and to the inability of the indicators to represent well the underlying concepts.

2.3 *Inequality-Adjusted Human Development Index (IHDI – UNDP)*

As is true of all measurements which are based on averages, the HDI does not give a clear account of the range and the shape of the distribution of the underlying data; as a result, this index may take similar values for country data with different minima and maxima, or whose distribution has a different variance.

The IHDI was introduced in 2010 (for the twentieth anniversary of the Human Development Report) to overcome this limitation: this index takes into account not only the average achievements attained by a country (in terms of health, education and income), but also their distributions among its citizens. However, the gender dimension is not accounted for in the IHDI.

2.4 *Gender Inequality Index (GII – UNDP)*

The GII was created along with the IHDI. It is a composite index that measures the differences between men and women in the distribution of achievements with regard to three dimensions: reproductive health, empowerment and the labour market.

Reproductive health has two sub-dimensions, i.e., maternal mortality and adolescent fertility rate; the two sub-dimensions of empowerment are the size of parliamentary representation and levels achieved in secondary and higher education; finally, the labour market is represented only by the participation rate of women. The index ranges between 0 – 1, where 0 represents the minimum of the inequality (i.e., the maximum of equality) and 1 is the maximum of the inequality (i.e., the minimum of equality).

⁸ “While doors to education and health opportunities have opened rapidly for women, the doors to economic and political opportunities are barely ajar” (UNDP, 1995).

2.5 *Global Gender Gap Index (World Economic Forum)*

The global gender gap index was adopted by the World Economic Forum in 2006. It is based on three main pillars (World Economic Forum, 2010): firstly, it considers gender differences rather than the levels – thus overcoming the limitations of many previous indices; secondly, it measures the effects (i.e., the outputs), rather than the means and the causes that led to them (i.e., the inputs); last, the chosen variables represent women's achievements towards obtaining some fundamental rights, namely: health, education and political and economic participation (Table A1).

To obtain the global gender gap index, all dimensions are first reduced to the ratio between the female value and the male value – this allows to measure the gender gap and to cancel any effects due to the levels. The ratios thus computed are truncated at the maximum level they can achieve, i.e. 1 for all sub dimensions but the health-related ones, for which desirable reference values are taken from international reports.

Notice that truncation at 1 implies that any case in which a certain value is greater for women than for men would be treated as a case of perfect gender parity.

The final index is obtained as a simple average of its sub-dimensions. This index takes values between 0 and 1.

Over the past five years, Italy ranked about 70th in the list of 134 countries covered in the World Economic Forum report (Table A2).

2.6 *Gender Equality Index (GEI)*

The GEI⁹ was proposed by Plantenga *et al.* (2009) to monitor the progress towards gender equality among EU Member States. The indicator developed in this paper is based on the GEI, whose main features are described in detail in Section 3.

3. **The Gender Equality Index (GEI) Analysis**

3.1 *The concept of equality*

The GEI aims to measure gender equality. However it is not at all obvious what the definition of gender equality should encompass. This definition is necessary to choose the dimensions and variables needed to measure it. Two opposing theories have developed over time: one in which gender equality is associated with the concept of equality between the genders as measured by some "outcome variables", and another where equality is connected to the recognition of the differences between the two genders. While in the former case the focus lies on equality and women are seen as equal to men, in the latter case the focus is instead on the differences between the two genders.

The approach based on equality attracted criticisms because the choice of variables used for the equality index was based on an androcentric vision of society. This vision led to choose, for example, paid employment outside the household as one of the measures, ignoring the importance of female care work.

To overcome these objections it has been proposed to shift the attention from equality to the differences and their protection. However, also this second approach attracted some criticisms, on the grounds that the reaffirmation of the differences could in fact support the stereotypes instead of fighting them, thus crystallizing the existing division of paid and

⁹ Not to be confused with a homonym indicator developed by Social Watch (see <http://www.socialwatch.org>).

unpaid work between men and women. Fraser (1997) proposed to overcome the (really only apparent) dichotomy between the two approaches by replacing the concept of equality/difference with that of fairness, which the author characterized with seven normative principles: the fight against poverty, exploitation, marginalization and androcentrism, and equality in income, leisure and respect. The author proposed a “universal caregiver” social model, where men and women supplement their income with care activities, political and social participation, and preserve a little free time.

Some of the regulatory principles identified by Fraser, though sensible, are difficult to measure. These principles influenced the indicator of Plantenga *et al.* (2009), which is computed for European countries. The authors included an equitable division of time (between free time and care time) as a dimension of their index, in addition to paid employment, income and decision making power. Compared to the international indexes considered above, in the latter indicator the variables related to health (e.g., life expectancy at birth, maternal mortality, adolescent fertility) and education (e.g., literacy rate, enrolment rate in secondary school and expected years of school) are no longer considered, since they are quite homogeneous between European countries.

3.2 *Main features of the index, dimensions, sub dimensions, indicators and calculation*

Four main dimensions compose the European index. They aim to cover the major aspects of civil life, i.e., work, income, decision making power and use of time. Outcome variables are used to characterize each of these dimensions.

Firstly, the work dimension is defined as equitable sharing of paid work. It is composed of two sub dimensions, i.e., participation and unemployment. Participation is measured by the level of employment and is calculated as the difference between female and male employment rates. Similarly, unemployment is computed as the difference between female and male unemployment rates. The data source for these sub dimensions is the European Labour Force Survey (ELFS).

Secondly, the income dimension is defined as equitable sharing of economic resources. It is composed of two sub dimensions, namely pay and income. The former is computed as the ratio between the gender difference in average gross hourly salary and the male average gross hourly salary; it is expressed as a percentage. In this way it quantifies how much the salary of women should increase to equal that of men. The latter aims to measure differences in terms of poverty, comparing the number of single female household heads who live below the poverty line to their male counterpart.

Continuing, the decision making power dimension, defined as equitable sharing of the power to take decisions, has two sub dimensions, i.e., political power and socio-economic power. Political power is given by the difference between the percentage of seats occupied by men and women in national parliaments. Socio-economic power is obtained by taking the difference between the number of women and that of men in highly professional occupations. For this purpose, the indicator uses the category ISCO1 of the International Standard Classification of Occupations (ISCO), which identifies occupations characterized by high decisional power as “Legislators, Executives and Entrepreneurs”.

Finally, the time dimension, or equitable sharing of time between women and men, is composed of two sub-dimensions, namely time devoted to care work and free time. The lack of harmonized data at EU level on the time spent caring for children, elderly and other dependants has led to compute the time devoted to care work using the time spent by the male and female population aged 20-49 in the care of children. This was deemed to be the most representative measure of the difference in care time between the two genders. The

difference in average hours spent weekly by women and men in child care is then computed. Last, free time is measured by the average daily free time in the age group 20-74.¹⁰

To overcome any problems due to differences in units of measurement between components, for the calculation of GEI each sub dimension X_i is standardized using equation (2), following the minimum-maximum method used in the GDI or GEM:

$$X_i = \frac{|X_{i(actual)} - X_{i(min)}|}{(X_{i(max)} - X_{i(min)})} \quad (2)$$

where $X_{i(actual)}$ is the observed gap value; $X_{i(max)}$ is the maximum desirable value (in the case at hand, which involves gender gaps, the most desirable value is zero, which represents full gender equality); and, in the absence of a theoretical minimum, $X_{i(min)}$ will be the highest value reached by the sub dimension in the sample of countries considered (the worst situation is the one that presents the greater gap).

The standardization of the data using the actual minimum value in place of the theoretical minimum value has the advantage of adapting the results obtained to the characteristics of the actual values: the use of the actual minimum allows us to emphasize deviations even when these are concentrated in a small range and they are rather small. On the other hand however, the resulting indicator becomes sensitive to the actual value since this is a “relative” minimum. Therefore, a comparison of indicators calculated for two different dates will be possible only by assuming the same actual minima for both calculations.

Each dimension is then computed as the simple average of its sub-dimensions and the overall index is obtained as the simple average of its four dimensions. The GEI can therefore take values between 0–1, where 1 (one) represents full equality and 0 (zero) stands for complete inequality. In this way, the index provides an immediate measure of the progress achieved toward equality.

In the ranking of EU 25 countries based on the GEI, Italy was among the last, with an overall GEI of 0.41; Finland ranked first, with a value of 0.74.

More in the detail, in this ranking Italy has the lowest level in the political representation component (0.14) and is among the last for the free time sub dimension (0.21). The employment and income dimensions, which are better in some respects, are not enough to improve significantly the position of Italy in the final classification (Table A3).

4. The gender equality index for the Italian regions

Among the indices previously analyzed the GEI is, in our view, the index that can be better adapted to the Italian situation, to allow a comparison between regions. It is in fact designed to compare relatively homogeneous territories, with regard to aspects such as life expectancy at birth, or the level of basic education, that are by contrast relevant when the comparison is extended to countries from different continents. Therefore the GEI has represented the starting point for the indicator developed in this paper. More particularly, it has been customised to take into account the peculiarities of the Italian legislation and the availability of data at regional level: this process has led sometimes to refinements,

¹⁰ In practice, the difference between women and men in daily free time expressed in hours is computed and then divided by the average male value.

sometimes to approximations of a lower quality than the GEI itself.

Regarding the methodology of calculation, the procedure followed in this paper is similar to that described for the European indicator. The dimensions are four as well (the same as the GEI), but with some differences at sub dimension level. The four dimensions of the European indicator were maintained since they are able to show: 1) high gender gaps in the national average and, at the same time, 2) a strong heterogeneity across regions.

One criticism that is often made to this kind of indexes is that the variables chosen to build them are arbitrary. It is a criticism that can not be overcome, especially in a case like this where the phenomenon that is analysed is also influenced by factors unobservable and/or difficult to measure. Accepting then the inevitable arbitrariness of the variables chosen to determine the overall index, a possible mitigation of the problem is to transform the index from static to dynamic by showing movement and direction, more than the stasis represented by the position in a fixed ranking. To this end this analysis tries (whenever possible) to measure the indicator at two different dates, namely 2010 (or the closest year using the last available value) and 2005 (or a year close to it). A time span of at least five years between the first and the second computation is considered to be necessary to produce appreciable changes in all dimensions (in practice, it coincides with the life of regional legislatures).

For brevity, the analysis on the individual components of the indicator is limited to the most recent year¹¹ (in this section), while the temporal comparison is considered when the overall indicator is introduced (section 5).

4.1 *The Work dimension*

The Work dimension for the Italian regions is measured using the data on employment, unemployment and inactivity, provided by the Istat *Labour Force Survey*. With respect to the GEI, a measure of inactivity is added in the indicator developed in this paper since an analysis limited to the first two components (employment and unemployment) could give a distorted picture of the actual gender gaps in the Italian labour market and, therefore, induce ineffective policies¹².

While unemployment rates between men and women present small gaps, the Italian labour market presents wider and more significant gaps if one considers also relevant categories of people who are not actively looking for a job. After introducing the distinction between the inactive because of discouragement, the inactive due to family reasons and the inactive for other reasons, Curci and Mariani (2012) found that gender gaps are particularly large among those not seeking employment because they are held back

¹¹ To make the temporal comparison between 2005 and 2010 possible, taking into account what was stated in section 3.2, in the following sections devoted to the single components of the indicator, even if the comment is drawn on 2010 outcomes, the minimum values of each of them are computed taking into consideration also the values that they assume in 2005.

¹² Policy considerations that neglect inactivity and its determinants might in fact lead to wrong decisions and to an inefficient use of resources. To this purpose, Sabbadini (2007) mentions the case of Calabria, which was denied the European incentives devoted to firms hiring women (see Regulation of the European Commission (EC) no 2204/2002), since women in that region did not fill the definition of “disadvantaged women”. According to the mentioned EC Regulation the condition of disadvantage was defined on the basis of the average unemployment rates and on the gender gap on average unemployment rates. The computation excluded therefore women that, for any reason (e.g. discouragement, care work), stopped searching for a job, even though they were willing to work, who are a great number in Calabria.

by family commitments and care duties. The authors found gender gaps, even if in significantly lower amount, also among the discouraged, i.e. those who have stopped looking for a job after having done so vainly for some time. The examination of the reasons for inactivity leads to presume, in these two cases, that such individuals would work if the determinants of their inactivity were removed. In particular, policies to promote work-life balance could facilitate the introduction or reintegration in the labour market of women who are inactive for family reasons.

In this paper, because of these considerations, people who are inactive for family reasons and discouragement are added to unemployed people (this gives us a measure of unexploited labour resources which could become available under certain conditions), whereas only the unemployed are included in the indicator proposed by Plantenga *et al.* (2009).

The results obtained provide a picture of gender gaps in the labour market different from than what would come out considering only employed and unemployed (Table 1).¹³

Table 1

The Work dimension in the Italian regions (1)

Region	Absolute employment gap	Standardized employment gap	Absolute unemployment gap widened	Standardized unemployment gap	Standardized work dimension (1)
Piedmont	15.52	0.57	7.84	0.63	0.60
Valle d'Aosta	13.94	0.61	9.39	0.55	0.58
Lombardy	18.41	0.48	11.13	0.47	0.48
Liguria	16.13	0.55	8.86	0.58	0.56
P.A. Bolzano	16.16	0.55	10.18	0.51	0.53
P.A. Trento	17.24	0.52	10.18	0.51	0.52
Veneto	21.95	0.39	13.79	0.34	0.36
Friuli Venezia Giulia	15.91	0.55	10.23	0.51	0.53
Emilia-Romagna	14.94	0.58	9.60	0.54	0.56
Tuscany	18.83	0.47	11.24	0.46	0.47
Umbria	19.72	0.45	12.19	0.42	0.43
Marche	17.52	0.51	10.69	0.49	0.50
Lazio	20.61	0.42	12.74	0.39	0.41
Abruzzo	22.93	0.36	12.88	0.38	0.37
Molise	23.78	0.33	14.05	0.33	0.33
Campania	28.75	0.20	17.44	0.17	0.18
Puglia	30.15	0.16	17.45	0.17	0.16
Basilicata	23.91	0.33	12.65	0.40	0.36
Calabria	24.16	0.32	14.18	0.32	0.32
Sicily	28.45	0.20	16.85	0.19	0.20
Sardinia	18.36	0.49	11.07	0.47	0.48
Italy	20.35	0.43	12.13	0.42	0.43

Source: authors' computations based on Istat *Labour Force Survey* data.

(1) Year 2010. Values in bold are below the national average.

Italy has a standardized mean value equal to 0.43. The regions with the highest values

¹³ These last results (not reported) show lower gender gaps in some Southern regions compared to the ones computed taking into account inactivity, which is in line with the aforementioned reasoning of Sabbadini (2010). See footnote 12.

are Piedmont (0.60), Valle d'Aosta (0.58), Emilia-Romagna and Liguria (both 0.56). Among the Southern regions Sardinia is the only one that yields a result above the Italian average (0.48); both components of the labour dimension contribute to this, but it is important to emphasize that good results in the sub dimension “unused labour” can be interpreted as an equality in the absence of employment opportunities, rather than in an equality in the presence of opportunity. Overall Italy turns out to be divided, with the South and the Islands on one side and the North and the Centre on the other. Compared to the national average, the South shows values around 0.30 with the minimum of Puglia (0.16), Campania (0.18), and Sicily (0.20). The North-Central regions have a total value above the average at around 0.50 with the exception of Lazio and Veneto: the latter shows values below the Italian average in both sub dimensions of the labour component.

4.2 The Income dimension

The Income dimension is represented, at this stage, only by the wage gap that can be calculated from the Istat *Labour Force Survey* data. In particular, the wage gap by gender at regional level is calculated following the methodology used by Cuciniello and Paccagnella (2011), where the authors, on the basis of income data available in the cited Istat survey from 2009, calculate income gap by gender, with some regressions that control for individual characteristics including sex.¹⁴

Table 2

The Income dimension in the Italian regions (1)

Region	Absolute wage gap	Standardized wage gap	Standardized wage dimension (1)
Piedmont	8.80	0.37	0.37
Valle d'Aosta	8.80	0.37	0.37
Lombardy	9.60	0.31	0.31
Liguria	9.40	0.32	0.32
P.A. Bolzano	11.40	0.18	0.18
P.A. Trento	11.40	0.18	0.18
Veneto	9.50	0.32	0.32
Friuli Venezia Giulia	10.20	0.27	0.27
Emilia-Romagna	10.20	0.27	0.27
Tuscany	7.80	0.44	0.44
Umbria	6.70	0.52	0.52
Marche	8.30	0.40	0.40
Lazio	8.00	0.42	0.42
Abruzzo	12.30	0.12	0.12
Molise	10.90	0.22	0.22
Campania	10.40	0.25	0.25
Puglia	13.90	0.00	0.00
Basilicata	10.50	0.24	0.24
Calabria	12.60	0.09	0.09
Sicily	7.80	0.44	0.44
Sardinia	10.20	0.27	0.27
Italy	9.94	0.29	0.29

Source: authors' computations based on Istat *Labour Force Survey* data.

(1) Years 2009-2010 (average). Values in bold are below the national average.

¹⁴ Additional controls include: citizenship, educational attainment, age (and age squared), tenure (and tenure squared), sector of economic activity, kind of profession, contract type (full time or part time), household type, year and term. These data are available only from 2009, which makes computations for the 2005 series impossible. As a result, the 2005 series of income gaps was set equal to the 2010 one.

The results confirm that across the Southern regions gender wage gaps are higher than the national average, but the phenomenon is present also in the North (Table 2). Among the Southern regions, Sicily stands out as it shows the lowest gap when compared with the other regions. Among the possible explanations there are the significant presence of employees in public administration, where the wage gap is lower, and the consideration that, where it is more difficult to find a job, the women employed are those with higher qualification and therefore they occupy positions where the wage gap tends to be minor.

The other sub dimension considered in the European indicator (i.e., the one represented by the difference in the degree of poverty among heads of single-parent households) could not be calculated because of the unavailability of the relevant regional data. Thus, at least in this first phase, this sub dimension does not contribute to the computation of the indicator.

4.3 *The Decision making power dimension*

As for the decision-making power dimension, it has been possible to follow the same decomposition applied in the European index, between political power and socio-economic power.

In Plantenga *et al.* (2009) political power is calculated on the basis of the gap between women and men in national parliaments. The Italian region equivalent is, by analogy, regional parliament. Considering that a thorough analysis of political representation at regional level could not be evaluated ignoring the executive (government) bodies (“giunte regionali”), the sub dimension of political power is in turn decomposed into two additional dimensions: the legislative power, represented by the regional parliaments, and the executive power, represented by the “giunte”.

The difference (in percentage) between the number of women and men who sit in regional parliaments and “giunte” was then standardized; the simple average of the two sub dimensions was then computed.¹⁵

For the second sub dimension, the socio-economic power, the data from the *Labour Force Survey* could be used as, from 2011, Istat has adopted a new classification of occupations (called CP2011), created to align with the changes introduced by the ISCO and to facilitate international comparisons. The Italian equivalent of the category ISCO1, used in the GEI, is the Group 1¹⁶.

Italy has an average value of 0.28 (Table 3) for decision-making power dimension, a value lower than that of the dimensions previously analyzed, revealing a lack of female participation in political power (0, 33) and in the economy (0.23). The division between North and South, which was significant in the work dimension, is not very strong and regions such as Veneto and Lombardy are located, along with Abruzzo, Lazio and Sicily, at the lowest levels of the ranking. The regions that lead the rankings are Emilia-Romagna (0.44), Umbria (0.43), Piedmont and Liguria (both 0.42). However, whilst for Umbria, Piedmont and Emilia-Romagna the average is driven by the political power component, Liguria has more balanced contribution of the two components.

¹⁵ The data analyzed include both the President of the Regional Council and the President of the Region. The President of the Regional Council is elected by the councillors among themselves, and no additional weight was attributed to him. The same applies to the President of the Region, notwithstanding the fact that she is elected in a different way and has greater executive powers.

¹⁶ According to Istat, the group includes law makers, entrepreneurs and senior managers.

Table 3

The Decision making power dimension in the Italian regions (1)

Region	Absolute gap in regional councils	Standardized gap in regional councils	Absolute gap in regional governments	Standardized gap in regional governments	Standardized political power	Gap in ISCO1	Standardized gap in ISCO1	Standardized political power dimension
Piedmont	63.33	0.37	38.46	0.62	0.49	0.42	0.35	0.42
Valle d'Aosta	77.78	0.22	77.78	0.22	0.22	0.42	0.35	0.28
Lombardy	82.50	0.18	88.24	0.12	0.15	0.53	0.17	0.16
Liguria	70.00	0.30	50.00	0.50	0.40	0.36	0.43	0.42
P.A. Bolzano	48.57	0.51	77.78	0.22	0.37	0.46	0.28	0.32
P.A. Trento	77.14	0.23	55.56	0.44	0.34	0.46	0.28	0.31
Veneto	86.67	0.13	69.23	0.31	0.22	0.55	0.14	0.18
Friuli Venezia G.	89.66	0.10	45.45	0.55	0.32	0.40	0.37	0.35
Emilia-Romagna	60.00	0.40	23.08	0.77	0.58	0.45	0.29	0.44
Tuscany	67.27	0.33	9.09	0.91	0.62	0.53	0.17	0.40
Umbria	67.74	0.32	25.00	0.75	0.54	0.43	0.32	0.43
Marche	65.71	0.34	63.64	0.36	0.35	0.51	0.21	0.28
Lazio	100.00	0.00	46.67	0.53	0.27	0.60	0.06	0.16
Abruzzo	77.78	0.22	77.78	0.22	0.22	0.55	0.14	0.18
Molise	100.00	0.00	80.00	0.20	0.10	0.35	0.44	0.27
Campania	51.72	0.48	84.62	0.15	0.32	0.57	0.11	0.21
Puglia	92.31	0.08	6.67	0.93	0.51	0.54	0.15	0.33
Basilicata	100.00	0.00	14.29	0.86	0.43	0.55	0.14	0.28
Calabria	100.00	0.00	85.71	0.14	0.07	0.64	0.00	0.04
Sicily	93.48	0.07	84.62	0.15	0.11	0.52	0.19	0.15
Sardinia	85.00	0.15	53.85	0.46	0.31	0.46	0.28	0.29
Italy	78.89	0.21	55.12	0.45	0.33	0.49	0.23	0.28

Source: Ministry of Interior– Website Regione Puglia – Website Regione Tuscany – Website Regione Sardinia - Website of the “Conferenza dei Presidenti delle Assemblee legislative delle Regioni e delle Province autonome”; authors’ computations based on Istat *Labour Force Survey* data.

(1) Year 2010. Values in bold are below the national average.

4.4 The Time dimension

The time dimension was analysed in two components: care time and leisure time.

As mentioned, in the computation of the GEI, the lack of data harmonized at the European level has led to measuring care time as time devoted to the care of children by the male and female populations in the age group between 20 – 49 years. The data from the *Time use* Istat survey for 2008-2009 allow considering a broader reference population, which can be compared to the population used to study the free time dimension.

In particular, the chosen sample includes married women and man aged between 20 and 74. Caring time includes that devoted to the children of the household. This definition excludes any paid babysitting activities. The broadening of the age group proposed here stems from the observation of the structure of the Italian social system, which is characterized by a longstanding lack of nursing schools for the youngest children. As it is reported in the Istat yearly report on the situation of the country (Istat, 2011), Italian women, including those who have retired from paid employment, generally work at home for their families, children and nephews. In this way, these women provide many social services, in particular those targeted to the youngest children.

In practice, the indicator computes the ratio between the absolute value of the gender

difference in daily minutes spent in care activities in the region on average, and the corresponding figure for men only.

The same reference population was used for leisure; in this case, the gap is computed as the ratio between the gender difference in average daily minutes devoted to free time and the average male value.¹⁷

Table 4

The Time dimension in the Italian regions (1)

Region	Absolute gap in time spent in children care	Standardized gap in time spent in children care	Absolute gap in leisure	Standardized gap in leisure	Standardized time dimension
Piedmont	61.84	0.73	27.75	0.29	0.51
Valle d'Aosta	61.84	0.73	27.75	0.29	0.51
Lombardy	78.08	0.66	27.77	0.29	0.48
Liguria	80.43	0.65	25.23	0.35	0.50
P.A. Bolzano	100.95	0.57	21.92	0.44	0.50
P.A. Trento	100.95	0.57	21.92	0.44	0.50
Veneto	110.16	0.53	21.70	0.44	0.48
Friuli Venezia Giulia	58.72	0.75	24.20	0.38	0.56
Emilia-Romagna	78.24	0.66	21.30	0.45	0.56
Tuscany	127.47	0.45	27.65	0.29	0.37
Umbria	95.20	0.59	31.75	0.18	0.39
Marche	89.86	0.61	29.32	0.25	0.43
Lazio	72.08	0.69	24.15	0.38	0.53
Abruzzo	78.97	0.66	30.23	0.22	0.44
Molise	116.94	0.50	28.14	0.28	0.39
Campania	142.51	0.39	28.67	0.26	0.33
Puglia	101.71	0.56	26.94	0.31	0.44
Basilicata	178.83	0.23	34.11	0.12	0.18
Calabria	232.72	0.00	30.56	0.21	0.11
Sicily	130.47	0.44	29.76	0.23	0.34
Sardinia	89.57	0.62	24.36	0.37	0.49
Italy	104.17	0.55	26.91	0.31	0.43

Source: authors' computations based on Istat *Time use Survey* data.

(1) Years 2008-2009. Values in bold are below the national average.

As for the time dimension, Italy presents the average value of 0.43 (Table 4) and, at the national level, the greatest disparity concerns the division of free time (0.31). Such value brings to the fore both the absence of care services for the youngest children and the imbalance in the division of time devoted to household chores.

Istat data also show that the regions in which such differences are most apparent are also those with the lowest available services for the care of children who are less than 3 years old (Table 5).

¹⁷ The definition of free time encompasses the time devoted to the following activities: volunteering, participation to social and religious activities, leisure and cultural activities, sports and open air activities, arts, pastime and games, mass media and communication activities.

Table 5

Indicators of regional availability of care services for children aged 0-2 (1)
(per 100 residents aged 0-2)

REGION	Kindergartens. Territorial indicators	Integrated services and innovative early childhood. Territorial indicators	Total
Piedmont	11,5	3,3	14,8
Valle d'Aosta	19,8	5,7	25,4
Lombardy	15,1	3,6	18,7
P.A. Bolzano	3,9	10,4	14,4
P.A. Trento	16,0	3,8	19,8
Veneto	10,7	1,8	12,5
Friuli Venezia Giulia	14,5	3,2	17,7
Liguria	13,8	2,8	16,6
Emilia-Romagna	25,2	4,3	29,5
Tuscany	17,4	3,0	20,4
Umbria	21,3	6,4	27,7
Marche	14,4	1,7	16,1
Lazio	12,9	0,7	13,6
Abruzzo	8,1	2,0	10,0
Molise	4,7	0,7	5,4
Campania	1,7	1,0	2,7
Puglia	4,1	0,9	5,0
Basilicata	7,6	0,2	7,8
Calabria	3,1	0,4	3,5
Sicily	5,1	0,1	5,2
Sardinia	10,9	2,2	13,2
ITALY	11,3	2,3	13,6

Source: Istat, *L'offerta comunale di asili nido e altri servizi socio-educativi per la prima infanzia.*

(1) School year 2009-2010.

5. The overall index

The several sub dimensions described in Section 4 compose the overall index, in whose definition each sub dimension is assigned the same weight (Table 6).

Table 6

The Gender equality index for the Italian regions (1)

Region	Standardized labour dimension	Standardized income dimension	Standardized decision making power dimension	Standardized time dimension	The overall index
Piedmont	0.60	0.37	0.42	0.51	0.47
Emilia-Romagna	0.56	0.27	0.44	0.56	0.46
Liguria	0.56	0.32	0.42	0.50	0.45
Umbria	0.43	0.52	0.43	0.39	0.44
Valle d'Aosta	0.58	0.37	0.28	0.51	0.44
Friuli Venezia Giulia	0.53	0.27	0.35	0.56	0.43
Tuscany	0.47	0.44	0.40	0.37	0.42
Marche	0.50	0.40	0.28	0.43	0.40
Provincia Autonoma Bolzano	0.53	0.18	0.32	0.50	0.38
Lazio	0.41	0.42	0.16	0.53	0.38
Sardinia	0.48	0.27	0.29	0.49	0.38
Provincia Autonoma Trento	0.52	0.18	0.31	0.50	0.38
ITALY	0.43	0.29	0.28	0.43	0.36
Lombardy	0.48	0.31	0.16	0.48	0.35
Veneto	0.36	0.32	0.18	0.48	0.34
Molise	0.33	0.22	0.27	0.39	0.30
Sicily	0.20	0.44	0.15	0.34	0.28
Abruzzo	0.37	0.12	0.18	0.44	0.28
Basilicata	0.36	0.24	0.28	0.18	0.27
Campania	0.18	0.25	0.21	0.33	0.24
Puglia	0.16	0.00	0.33	0.44	0.23
Calabria	0.32	0.09	0.04	0.11	0.14
North West	0.55	0.34	0.32	0.50	0.43
North East	0.50	0.24	0.32	0.52	0.40
Centre	0.45	0.45	0.32	0.43	0.41
South and Islands	0.30	0.20	0.22	0.34	0.27

(1) Year 2010. Values in bold are below the national average.

The overall index clearly shows how the North and the South of the country differ from the national average value (0.36).

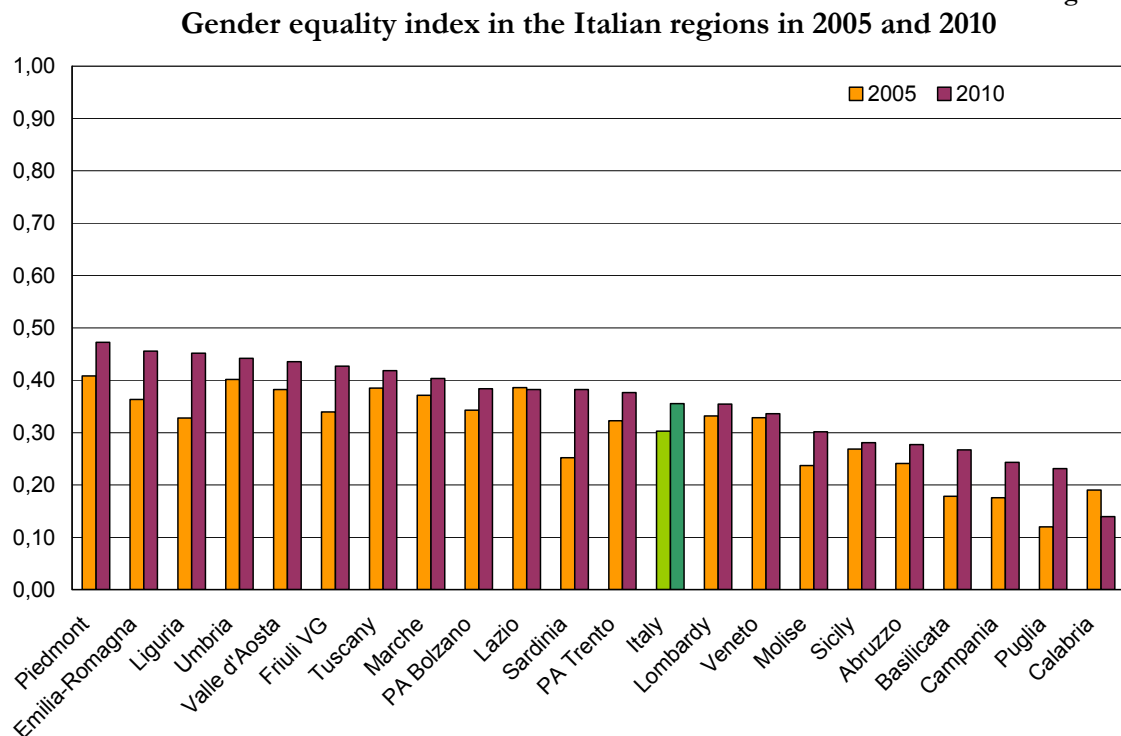
The index takes values above the average in all Northern and Central regions, with the sole exceptions of Veneto and Lombardy. Piedmont achieves the maximum value along all four sub dimensions and in the overall index. The Emilia-Romagna, Liguria, Umbria and Valle d'Aosta regions immediately follow Piedmont in the ranking. The average index value is higher in the North Western regions than in the North East; this is due to the aforementioned poor performance of the Veneto region, as well as to the positioning of the Autonomous Provinces of Trento and of Bolzano, just above the national average. The

average in the Central regions is slightly higher than that in the North East and marginally lower than that in the North West. In this last area, every region displays all index values above the national average (overall and for each dimension) with the sole exception of Lombardy, for what concerns decision making power.

The value of the index computed for the Southern regions is lower than the national average; the values for Sardinia are instead higher than the national average along three of the four dimensions. In Sicily, the negative impact of the labour component is partly counterbalanced by the value of in the income component, which is one of the best at the national level along with the Umbria and Tuscany Regions. The index takes the lowest value in the Calabria region, compared to which the Puglia and Campania region perform slightly better.

A comparison of the index between the years 2005 and 2010 reveals that Italy has not changed much, moving only from a value of 0.30 to 0.36 (Table A7, Figure 1).¹⁸

Figure 1



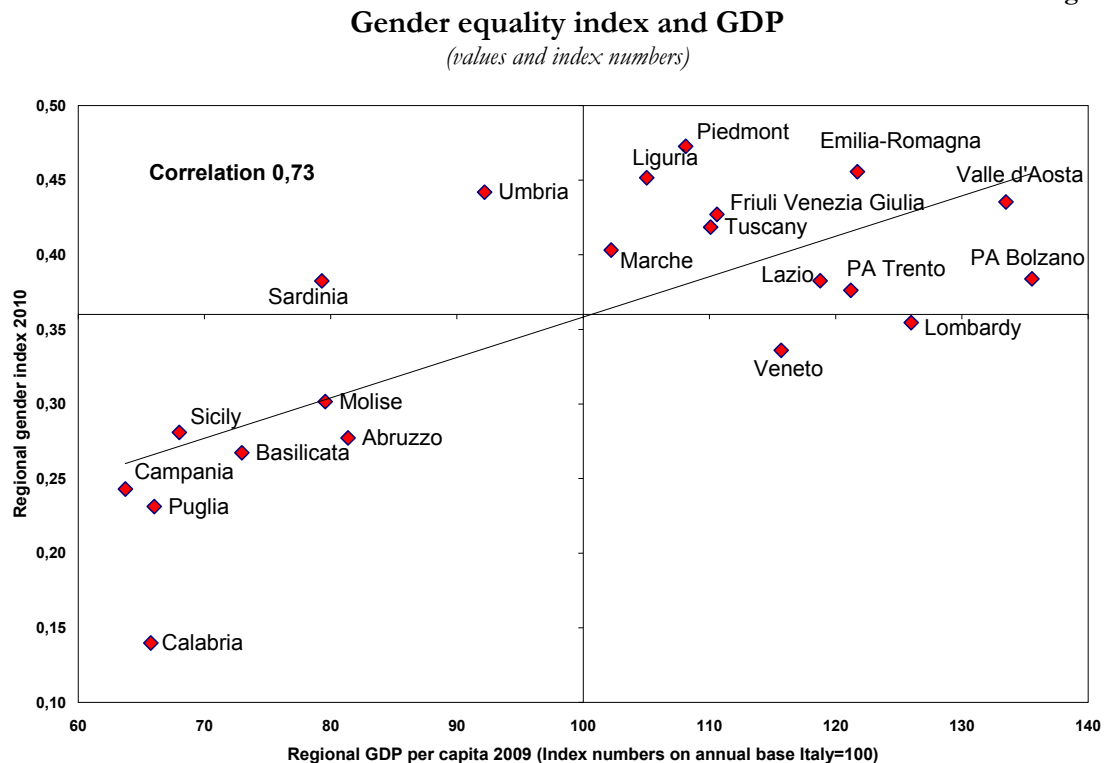
Among the Southern regions, the performance of the index improved significantly in Puglia and, to a lesser extent, also in Sardinia and Basilicata, whereas it worsened in Calabria. Moving then to the Central and Northern regions, the most significant improvement can be observed in Liguria. Some progress is observed also in the Friuli Venezia Giulia and Emilia-Romagna regions, while the indicator remained unchanged in the Lazio and Veneto regions.

There is a strong correlation between the indicator presented in this paper and GDP (0.73; see Figure 2). Plotting the values of these two variables on a Cartesian space whose axes intersect at the mean values of the variables, Italian regions appear divided in two groups: almost all Northern regions have both a gender indicator value and a GDP figure above the national average, whereas almost all Southern regions are associated to both a lower index value and lower GDP. Exceptions are limited to Lombardy and Veneto (low

¹⁸ Detailed tables for each dimension computed for 2005 are reported in the appendix (Tables A4 – A6).

indicator, high income) and Umbria and Sardinia (high indicator, low income).

Figure 2



Source: PIL, Istat, *Conti economici regionali*, year 2009.

6. Conclusions

This paper proposes an indicator which appears suitable to measure the gender gaps existing among the Italian regions. It is based on the GEI index developed for 25 European countries by Plantenga *et al.* (2009), which have been adapted to the Italian case. This new index has been developed for two main purposes: the first is to highlight the geographical differences behind the backwardness of Italy in a European or international comparison; the second is to introduce a tool which may help guide policy actions that attempt to close gender gaps.

The analysis of the sub dimensions that compose the index allows to analyse in detail certain aspects which are particularly relevant for the Italian case. An analysis of the available data reveals that in Italy the division of time between men and women is very unequal. Furthermore, women are largely underrepresented in socio-economic and political institutions, and finally large gaps are observed in what concerns employment and income.

In line with the existing literature, a clear evidence emerges of a gap between the North and the South of the country. There are however exceptions, in particular Sardinia performs well in the South, whereas the performance of Lombardy and Veneto (in the North) is slightly below the national average.

Regarding this index as a measure of the progress achieved towards gender parity, only few regions have travelled half of the path (including Piedmont and Emilia-Romagna); a larger groups is around the Italian average, which lies about one third of the path; finally, all Southern regions but Sardinia have achieved the least progress.

The features introduced in the index developed in this paper, starting from the European GEI, can be further developed and enriched. The proposed dimensions may be specified in greater detail and new dimensions may be included. The analysis of time use, for instance, may consider household chores as well as assistance to elderly and differently able household members, in addition to child care. Further, the labour sub dimension may be split between employment and self-employment, which may be particularly relevant if one considers the vast amount of national and local incentives aimed to support female entrepreneurship.

Additional dimensions may include differences in educational achievement (particularly in higher education) and the degree of participation in scientific vis-à-vis humanistic fields.

In conclusion, we hope that a greater knowledge of gender gaps, supported by tools as the one proposed in this paper, may help think about the causes of the backwardness of Italy and find a way to foster progress towards gender parity.

References

Bianco M., F. Lotti, R. Zizza (2010), “Il genere entra nell’economia. Un’analisi descrittiva dei divari”, Banca d’Italia, mimeo.

Bozzano M. (2011), “Assessing Gender Inequality among Italian Regions: An Exploratory Analysis”, Università di Pavia, mimeo

CEDAW (2011), Lavori in Corsa: 30 anni, *RAPPORTO OMBRA*
<http://www.scribd.com/doc/59537526>

CNEL (2010), Il lavoro delle donne in Italia. Osservazioni e proposte. Assemblea 21 luglio 2010.

Cuciniello V. e M. Paccagnella (2011), Banca d’Italia, mimeo

Curci N. e Mariani V. (2012), “Le differenze di genere nel mercato del lavoro: consistenze e flussi”, Banca d’Italia, mimeo.

Fraser N. (1994), “After the Family Wage: Gender Equity and the Welfare State.”, *Political Theory* 22 (4):591-618.
<http://www.jstor.org/pss/192041>

EIGE (2011), *Programma di lavoro annuale 2011*

Istat (2004), *Come cambia la vita delle donne*.
http://www3.istat.it/salastampa/comunicati/non_calendario/20040308_00/testointegrale.pdf

Istat (2011), *La situazione del Paese nel 2010*.
<http://www3.istat.it/istat/eventi/2011/rapportoannuale/>

Plantenga J., Remery C., Figueiredo H. and Smith M. (2009). “Towards a European Union Gender Equality Index”, *Journal of European Social Policy*, 19. 19-33.
disponibile in <http://esp.sagepub.com/content/19/1/19>

Sabbadini L.L. (2007), *Violenza di genere, discriminazione, statistiche economiche: nuove sfide nella misurazione in un’ottica di genere*, Istat
<http://en.istat.it/istat/eventi/2007/globalforum/lunedipomeriggio/Sabbadini%20italiano.pdf>

UNDP (2010), *Technical notes*.
http://hdr.undp.org/en/media/HDR_2010_EN_TechNotes_reprint.pdf
<http://hdr.undp.org/en/statistics/gii/>
<http://hdr.undp.org/en/statistics/ihdi/>

UNDP (2007), *Technical notes*.
http://hdr.undp.org/en/media/HDR_20072008_Tech_Note_1.pdf

UNDP (2007), *Gender Empowerment Measure*.

http://hdr.undp.org/en/media/HDR_20072008_GEM.pdf

http://hdr.undp.org/en/statistics/indices/gdi_gem/

UNDP (1995), *The revolution for gender equality*.

http://hdr.undp.org/en/media/hdr_1995_en_overview.pdf

World Economic Forum (2010), *Global Gender Gap Report 2010*.

http://www3.weforum.org/docs/WEF_GenderGap_Report_2010.pdf

Tables and figures

Figure A1

Main indexes of development and gender

Human Development Index (HDI)										
DIMENSION	Health		Education				Living standards			
INDICATOR	Life expectancy at birth		Mean years of schooling		Expected years of schooling		GNI per capita (PPP US\$)			
DIMENSION INDEX	Life expectancy index		Education index				GNI Index			
Gender-related Development Index (GDI)										
DIMENSION	Long and healthy life			Knowledge				A decent standard of living		
INDICATOR	Female life expectancy at birth	Male life expectancy at birth	Female adult literacy rate	Female GER	Male adult literacy rate	Male GER	Female estimated earned income	Male estimated earned income		
DIMENSION INDEX	Female and male life expectancy index			Female and male education index				Female and male income index		
EQUALLY DISTRIBUTED INDEX	Equally distributed life expectancy index			Equally distributed education index				Equally distributed income index		
Gender empowerment measure (GEM)										
DIMENSION	Political participation and decision-making		Economic participation and decision-making				Power over economic resources			
INDICATOR	Female and male shares of parliamentary seats		Female and male shares of position on legislators, senior officials and managers		Female and male shares of professional and technical positions		Female and male estimated earned income			
EQUALLY DISTRIBUTED equivalent percentage (EDEP)	EDEP for parliamentary representation		EDEP for economic participation				EDEP for income			

Inequality-adjusted Human Development Index (IHDI)

DIMENSION	Long and healthy life	Knowledge		A decent standard of living
INDICATOR	Life expectancy at birth	Mean years of schooling	Expected years of schooling	GNI per capita (PPP US\$)
DIMENSION INDEX	Life expectancy	Years of schooling		Income/consumption
Inequality-adjusted INDEX	Inequality-adjusted life expectancy index	Inequality-adjusted education index		Inequality-adjusted income index

Gender Inequality Index (GII)

DIMENSION	Health		Empowerment		Labour market	
INDICATOR	Maternal mortal ratio	Adolescent fertility rate	Female and male population with at least secondary education	Female and male shares of parliamentary seats	Female and male labour force participation rates	
DIMENSION INDEX	Female reproductive health index		Female empowerment index	Female labour market index	Male empowerment index	Male labour market index
	Female gender index			Male gender index		

Source: UNDP (2010)

Table A1

Dimensions and subdimension of the WEF Index

Economic participation and opportunity	Ratio: Female labour force participation over male value
	Ratio: Female labour force participation over male value
	Ratio: Female labour force participation over male value
	Ratio: Female labour force participation over male value
	Ratio: Female professional and technical workers over male value
Educational attainment	Ratio: Female literacy rate over male value
	Ratio: Female literacy rate over male value
	Ratio: Female literacy rate over male value
	Ratio: Female gross tertiary level enrolment over male value
Health and survival	Sex ratio at birth (converted to female-over-male ratio)
	Ratio: Female healthy life expectancy over male value
Political empowerment	Ratio: Women with seats in parliament over male value
	Ratio: Women at ministerial level over male value
	Ratio: Number of years of a female head of state or government (last 50 years) over male value

Source: World Economic Forum (2010).

Table A2

The Italian rankings and scores over the last five years according to the WEF

	Anno				
	2006	2007	2008	2009	2010
Overall ranking	77	84	67	72	74
Overall score (1)	0.6456	0.6498	0.6788	0.6798	0.6765
Economic participation and opportunity ranking	87	101	85	95	97
Score (1)	0.5265	0.5432	0.5872	0.5898	0.5893
Educational attainment ranking	26	32	43	46	49
Score (1)	0.9969	0.9969	0.9957	0.9955	0.9948
Health and survival ranking	77	82	83	88	95
Score (1)	0.9717	0.9719	0.9719	0.9719	0.9697
Political Empowerment	72	80	46	45	54
Score (1)	0.0872	0.0872	0.1604	0.1619	0.1523

(1) The score takes values from 0 to 1, where 0 = inequality, 1 = equality.

Source: *World Economic Forum. The Global Gender Gap Report*, different years.

Table A3

Overall ranking of 25 EU member states on the European Union GEI

	<i>Participation</i>	<i>Unemployment</i>	<i>Pay</i>	<i>Income</i>	<i>Political power</i>	<i>Socio-economic power</i>	<i>Care activities</i>	<i>Leisure</i>	<i>Composite index score</i>
Finland	0.91	0.96	0.41	0.96	0.72	0.47	0.85	0.66	0.74
Sweden	0.90	0.98	0.50	0.85	0.90	0.51	0.46	0.68	0.72
Denmark	0.81	0.91	0.34	0.93	0.71	0.32	0.87	0.64	0.69
The Netherlands	0.67	0.93	0.23	0.89	0.70	0.35	0.62	0.78	0.65
Belgium	0.65	0.81	0.44	0.81	0.66	0.51	0.48	0.56	0.61
Latvia	0.80	0.96	0.32	0.81	0.36	0.81	0.46	0.24	0.60
Lithuania	0.84	0.99	0.43	0.78	0.38	0.82	0.46	0.04	0.59
Germany	0.72	0.86	0.16	0.78	0.60	0.42	0.46	0.70	0.59
United Kingdom	0.71	0.92	0.01	0.78	0.33	0.59	0.46	0.70	0.56
Hungary	0.70	0.96	0.52	0.96	0.09	0.60	0.46	0.20	0.56
France	0.73	0.82	0.44	0.93	0.16	0.65	0.48	0.26	0.56
Portugal	0.71	0.81	0.36	0.89	0.36	0.59	0.25	0.45	0.55
Slovenia	0.78	0.90	0.64	0.70	0.16	0.58	0.46	0.18	0.55
Estonia	0.88	0.83	0.12	0.78	0.31	0.66	0.46	0.33	0.55
Luxembourg	0.52	0.76	0.38	1.00	0.41	0.28	0.46	0.45	0.53
Poland	0.70	0.75	0.54	0.56	0.34	0.54	0.46	0.32	0.53
Austria	0.67	0.94	0.13	0.67	0.64	0.39	0.24	0.45	0.52
Czech Republic	0.59	0.67	0.19	1.00	0.27	0.46	0.46	0.45	0.51
Slovakia	0.67	0.83	0.04	0.52	0.26	0.49	0.46	0.45	0.47
Ireland	0.55	0.94	0.14	0.59	0.18	0.51	0.13	0.45	0.44
Italy	0.40	0.61	0.38	0.67	0.14	0.54	0.37	0.21	0.41
Spain	0.41	0.48	0.18	0.33	0.69	0.52	0.10	0.28	0.37
Malta	0.02	0.78	0.19	0.56	0.09	0.09	0.46	0.45	0.33
Cyprus	0.49	0.79	0.08	0.04	0.25	0.04	0.46	0.45	0.32
Greece	0.31	0.08	0.16	0.48	0.18	0.38	0.02	0.45	0.26

Source: Plantenga *et al.* (2009)

Table A4

The Work dimension in the Italian regions - 2005 (1)

Region	Absolute employment gap	Standardized employment gap	Absolute unemployment gap widened	Standardized unemployment gap	Standardized work dimension (1)
Piedmont	19.11	0.47	9.89	0.53	0.50
Valle d'Aosta	16.48	0.54	8.84	0.58	0.56
Lombardy	20.51	0.43	11.11	0.47	0.45
Liguria	21.26	0.40	14.23	0.32	0.36
P.A. Bolzano	19.93	0.44	10.65	0.49	0.47
P.A. Trento	20.51	0.43	10.65	0.49	0.46
Veneto	22.80	0.36	13.18	0.37	0.37
Friuli VG	18.03	0.50	8.96	0.57	0.53
Emilia-Romagna	16.53	0.54	9.50	0.55	0.54
Tuscany	19.41	0.46	11.44	0.45	0.45
Umbria	21.10	0.41	11.06	0.47	0.44
Marche	20.26	0.43	11.04	0.47	0.45
Lazio	21.22	0.41	12.76	0.39	0.40
Abruzzo	25.16	0.30	15.17	0.27	0.29
Molise	28.48	0.20	15.14	0.28	0.24
Campania	32.70	0.08	20.25	0.03	0.06
Puglia	35.72	0.00	20.92	0.00	0.00
Basilicata	29.29	0.18	17.54	0.16	0.17
Calabria	27.66	0.23	15.60	0.25	0.24
Sicily	32.33	0.09	19.13	0.09	0.09
Sardinia	28.62	0.20	16.80	0.20	0.20
Italy	23.67	0.34	13.52	0.35	0.35

Source: authors' computations based on Istat *Labour Force Survey* data..

(1) Values in bold are below the national average.

Table A5

The Decision making power dimension in the Italian regions - 2005 (1)

Region	Absolute gap in regional councils	Standardized gap in regional councils	Absolute gap in regional governments	Standardized gap in regional governments	Standardized political power	Gap in ISCO1	Standardized gap in ISCO1	Standardized political power dimension
Piedmont	77.42	0.23	33.33	0.67	0.45	0.54	0.15	0.30
Valle d'Aosta	76.47	0.24	100.00	0.00	0.12	0.54	0.15	0.13
Lombardy	72.50	0.28	88.24	0.12	0.20	0.58	0.09	0.14
Liguria	80.00	0.20	69.23	0.31	0.25	0.45	0.29	0.27
P.A. Bolzano	42.86	0.57	66.67	0.33	0.45	0.51	0.20	0.32
P.A. Trento	88.57	0.11	50.00	0.50	0.31	0.51	0.20	0.25
Veneto	80.00	0.20	69.23	0.31	0.25	0.50	0.21	0.23
Friuli VG	73.33	0.27	81.82	0.18	0.22	0.57	0.10	0.16
Emilia-Romagna	76.00	0.24	69.23	0.31	0.27	0.49	0.23	0.25
Tuscany	50.77	0.49	57.14	0.43	0.46	0.54	0.15	0.30
Umbria	66.67	0.33	55.56	0.44	0.39	0.48	0.25	0.32
Marche	70.00	0.30	81.82	0.18	0.24	0.50	0.21	0.22
Lazio	75.00	0.25	50.00	0.50	0.38	0.48	0.24	0.31
Abruzzo	69.23	0.31	63.64	0.36	0.34	0.52	0.18	0.26
Molise	86.67	0.13	100.00	0.00	0.07	0.43	0.32	0.19
Campania	83.33	0.17	53.85	0.46	0.31	0.63	0.01	0.16
Puglia	94.20	0.06	46.67	0.53	0.30	0.53	0.16	0.23
Basilicata	80.00	0.20	100.00	0.00	0.10	0.57	0.10	0.10
Calabria	95.00	0.05	83.33	0.17	0.11	0.61	0.04	0.07
Sicily	93.10	0.07	53.85	0.46	0.27	0.44	0.30	0.28
Sardinia	80.95	0.19	27.27	0.73	0.46	0.60	0.06	0.26
Italy	76.77	0.23	66.71	0.33	0.28	0.53	0.17	0.23

Source: Ministry of Interior– Website Regione Puglia – Website Regione Tuscany – Website Regione Sardinia - Website of the “Conferenza dei Presidenti delle Assemblee legislative delle Regioni e delle Province autonome”; authors’ computations based on Istat. *Labour Force Survey* data

(1) Values in bold are below the national average.

Table A6

The Time dimension in the Italian regions - 2002/2003(1)

Region	Absolute gap in time spent in children care	Standardized gap in time spent in children care	Absolute gap in leisure	Standardized gap in leisure	Standardized time dimension
Piedmont	60.48	0.74	30.86	0.21	0.47
Valle d'Aosta	60.48	0.74	30.86	0.21	0.47
Lombardy	88.51	0.62	29.83	0.23	0.43
Liguria	123.31	0.47	29.82	0.23	0.35
P.A. Bolzano	135.35	0.42	23.97	0.38	0.40
P.A. Trento	135.35	0.42	23.97	0.38	0.40
Veneto	104.91	0.55	29.11	0.25	0.40
Friuli VG	97.87	0.58	30.57	0.21	0.40
Emilia-Romagna	87.98	0.62	32.60	0.16	0.39
Tuscany	108.47	0.53	33.01	0.15	0.34
Umbria	80.79	0.65	38.89	0.00	0.33
Marche	71.92	0.69	34.24	0.12	0.41
Lazio	112.43	0.52	26.86	0.31	0.41
Abruzzo	105.41	0.55	36.58	0.06	0.30
Molise	140.75	0.40	31.05	0.20	0.30
Campania	157.43	0.32	33.66	0.13	0.23
Puglia	150.72	0.35	33.11	0.15	0.25
Basilicata	170.78	0.27	33.90	0.13	0.20
Calabria	111.74	0.52	31.57	0.19	0.35
Sicily	152.20	0.35	32.05	0.18	0.26
Sardinia	169.47	0.27	27.27	0.30	0.29
Italy	115.54	0.50	31.13	0.20	0.35

Source: authors' computations based on Istat *Time use survey* data.

(1) Values in bold are below the national average.

Table A7

The Gender equality index for the Italian regions - 2005 (1)

Region	Standardized work dimension	Standardized income dimension	Standardized decision making power dimension	Standardized time dimension	The overall index
Piedmont	0.50	0.37	0.30	0.47	0.41
Umbria	0.44	0.52	0.32	0.33	0.40
Lazio	0.40	0.42	0.31	0.41	0.39
Tuscany	0.45	0.44	0.30	0.34	0.38
Valle d'Aosta	0.56	0.37	0.13	0.47	0.38
Marche	0.45	0.40	0.22	0.41	0.37
Emilia-Romagna	0.54	0.27	0.25	0.39	0.36
Provincia Autonoma Bolzano	0.47	0.18	0.32	0.40	0.34
Friuli-Venezia Giulia	0.53	0.27	0.16	0.40	0.34
Lombardy	0.45	0.31	0.14	0.43	0.33
Veneto	0.37	0.32	0.23	0.40	0.33
Liguria	0.36	0.32	0.27	0.35	0.33
Provincia Autonoma Trento	0.46	0.18	0.25	0.40	0.32
ITALY	0.35	0.29	0.23	0.35	0.30
Sicily	0.09	0.44	0.28	0.26	0.27
Sardinia	0.20	0.27	0.26	0.29	0.25
Abruzzo	0.29	0.12	0.26	0.30	0.24
Molise	0.24	0.22	0.19	0.30	0.24
Calabria	0.24	0.09	0.07	0.35	0.19
Basilicata	0.17	0.24	0.10	0.20	0.18
Campania	0.06	0.25	0.16	0.23	0.18
Puglia	0.00	0.00	0.23	0.25	0.12
<i>North West</i>	<i>0.47</i>	<i>0.34</i>	<i>0.21</i>	<i>0.43</i>	<i>0.36</i>
<i>North East</i>	<i>0.47</i>	<i>0.24</i>	<i>0.24</i>	<i>0.40</i>	<i>0.34</i>
<i>Centre</i>	<i>0.44</i>	<i>0.45</i>	<i>0.29</i>	<i>0.37</i>	<i>0.39</i>
<i>South and Island</i>	0.16	0.20	0.20	0.27	0.21

(1) Values in bold are below the national average.