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Abstract

Literature about the consequences of economic crisis on people's well-being has highlighted some statistical connections. In particular, researchers agree on the fact that economic crises bring an increase in suicides, states of psychological depression, and abuse of alcohol along with them. This work deals with the issue of human impact of economic crisis, and, through a panel of data concerning Italian population, it searches for any possible connection with less critical but anyway significant phenomena, such as the general state of well-being and subjectively perceived health.

Keywords: health, well-being, economic crisis.

1. Introduction

«Suicides for economic reasons» is the wording used by Italian police to define a considerable number of suicides that marked the first half of 2012. Observers and experts warn mass media and politicians in order to avoid the so-called «suicidal contamination» effect, and they encourage to be careful in attributing the cause of suicides to economic conditions and giving prominence to such an interpretation of this phenomenon in the press.

These are certainly forms of caution, exhortations to downsizing interpretative short circuits, appeals for a greater sense of reality which are undoubtedly justified. Nevertheless, the fact remains that economic conditions affect people's well-being. This impact is worth to be investigated also through the contribution of empirical data concerning the specific Italian case. This is what will be carried out in this study, that will wonder about the possible impact of crisis on opinions and subjective perception of well-being states by individuals, leaving out the most humanly tragic consequences of economic crisis (such as suicides).

For this purpose, the second paragraph proposes a review of literature about this topic, and it advances some hypotheses of research. The third paragraph, on the other hand, aims at giving information about time and modes that have characterized Italian crisis, in order to contextualize data of the empirical survey. The fourth paragraph presents the analysis of data provided by the panel of the Italian «Observatory on families' consumption strategies». The fifth paragraph proposes a concise discussion of the research's results and some final remarks.

2. Review of literature

There is an extensive literature about psycho-social factors that influence people's well-being. As far as subjective perception of well-being is concerned, researchers basically agree on applying a multidimensional perspective¹. Among the several factors that affect subjective well-being, there are: *i*) biological features, such as age; *ii*) psychological features, such as structure of personality

¹ In this regard, it is worth mentioning some of the recent contributes of Ed Diener (2009a; 2009b); Italian observers as well deal with the issue of subjectively perceived well-being from a multidimensional point of view: for instance, cf. works of Donati (2003); Secondulfo, (2011); Stanzani (2007); Cicognani (1999; 2005).

and cognitive processes; iii) social features, such as social support, satisfaction deriving from a positive social exchange, chance of achieving one's goals and playing the desired social roles; and, finally, iv) cultural features, such as the possibility of interiorizing, socially sharing and putting a series of values considered significant into action.

As demonstrated by a number of empirical researches (Diener & Oishi 2000; Diener & Seligman 2004; Viinamaki et. al. 1995; Fitch et al. 2009), among the factors influencing subjectively perceived well-being, economical aspects play a prominent role, and trends of crisis of the economic system doubtless have an important impact. Investigations upon psycho-sanitary consequences of economic crises date back even to the early twentieth century and they focus on the role of employment status on subjective perception of well-being. In 1938, while commenting on one of their studies, Eisenberg and Lazarsfeld stated: «Just having a job itself is not as important as having a feeling of economic security. Those who are economically insecure, employed or unemployed, have a low morale» (1938: 361).

Through their remarks, both social scientists pointed out an important feature in scientific debate about this issue, the ambivalence of the effect produced by economic crisis and the possible consequent unemployment upon people's psychological health. In addition, they highlighted that employment brings about a series of beneficial non-pecuniary effects on workers, such as the imposition of a time structure in daily life and many other aspects around which a significant theoretical and empirical literature was developed. In particular, Mary Jahoda (1981; 1982; 1988), a social psychologist very close to Paul Lazarsfeld, carried out a theory of the functions of professional employment, drawing a distinction between manifest and latent functions. Manifest function of employment is that of ensuring an income to the worker, but, according to the Austrian social psychologist, there are other fundamental psychological-cultural functions that she defines as latent. It is about the above mentioned possibility of structuring time experience and of sharing experiences, the chance to keep up a regular relationship with unfamiliar people, the possibility of pursuing one's aims and action objectives that go beyond the mere personal purposes, the definition of the status and identity of the worker. These are all features on which a rather large corpus of empirical research was developed. Such studies examined the relation between employment and well-being also from the lay-off point of view, and they reflected upon the effects of *latent deprivation* to which unemployed people are subjected after dismissal (Cole 2007; Paul, Geithner & Moser 2007).

Empirical research activity, as usual, has not identified any univocal connection among the variables at stake². Nevertheless, it can be assumed that it is just the previous mentioned psychological-cultural aspects of perception of one's job that may explain the little consistency among empirical research data concerning the impact of economic crises (and the possible worsening of economical conditions of individuals) on the subjective image of well-being and health. There is, in fact, a tradition of research that shows how the spreading of unemployment during periods of economic crisis sometimes carries negative consequences on the perception of well-being by employed rather than unemployed people (Clark et al., 2010). In a period of crisis, actually, employed themselves live in a state of uncertainty, and they are afraid for their own employment status. In such cases, uncertainty or job loss may bring about uncertainties in other spheres of life. They can reduce working satisfaction, undermine psychological well-being (Jahoda, 1988), and create problems within familiar relationships with negative effects on couple (McKee e Bell, 1986; Jones e Fletcher, 1993; Almeida et al., 1999) or parental relationships (McLoyd, 1989; Reading e Reynolds, 2001; Solantaus et al., 2004). Some of research studies even assert that it seems just the state of uncertainty, and, thus, psychological rather than mere economical dimension, that leads to a worsening in subjective perception of well-being. For instance, Dekker and Schaufeli (1995) pointed out that, during periods of business crisis, workers who suffer uncertainty resulting from the risk of losing their job, once they have been informed of their dismissal, they showed an increase in their well-being.

Meanwhile, other studies concerning unemployed people demonstrate the existence of a positive «social-norm effect» on the consequences of unemployment. Clark, in one of his works of 2003 on

² A work providing a topical and surely interesting analysis of the influence exerted by a series of variables that affect the relation between job loss and increase in depressive symptoms was carried out by Leonard Pearlin and his collaborators (1981); cf. also Pearlin (1989).

data referring to English population, reflects on the buffering role that the spread of unemployment produces in perception of well-being by unemployed. In some territories, in fact, as the unemployment rate increases, it can be noticed a higher level of perceived well-being by unemployed in comparison with the one perceived by unemployed living in territories with lower unemployment rates. This would mean that, if plight is shared with others, the common condition acts as a reassuring factor, because it develops a sort of «social normality» of the plight itself. Similar results are pointed out also by Shields and his colleagues (2009) in Australia³. This proves that, when the condition of economic and professional difficulty derives from a collective phenomenon - such as economic crisis - and not from a personal fault of the single individual, the concrete economic and daily ménage plight has a lower negative psychological impact on perception of well-being.

As the above bibliographic review demonstrates, many studies on the socio-sanitary consequences of economic crises have focused on a specific variable – that is usually a «natural» consequence of economic crises – such as unemployment. Nevertheless, unemployment is not the only negative effect of economic crises on people's lives, and, as we observed, its impact is not univocal, since it is influenced by the intervention of psychological, social and cultural variables. There are, however, other studies that prove the tragic effects of negative economic trends. These are often studies on ecological data, that is to say, carried out on aggregate national data basis, which should be less affected by the influence of subjective interpretation on factors determining the impact of economic system on people's health and well-being. There are a number of works along these lines⁴. They point the finger at the most tragic consequences of crisis from the individual well-being perspective. Some European research data, in fact, reveal a connection between unemployment and growth of death rate (Economou and Nikolau, 2008). Actually, economic crises, while «producing» negative effects on the individuals' sense of security, they cause anxiety and stress that may lead to such results as: a) appearance of depressive pathology, and/or b) self-injuring behaviour, such as consumption of dangerous substances like alcohol, up to c) stimulation of suicides. Although, even in this case, there is no lack of ambivalent interpretations of the effects of economic crisis on citizens' well-being and health⁵, observers sufficiently agree on some generalizations. That is to say, there is a positive correlation between, on the one hand, economic crises and the respective growth of unemployment, and, on the other hand, an increase in suicides (Lewis and Sloggett, 1998), depressive pathologies (Dooley et al., 1994; Askitas and Zimmerman, 2011) and consumption of alcohol (Dee, 2001).

While keeping such more established linkages among economic crises, unemployment and human impact on people's health and well-being on the background, this paper aims at carrying out an explorative survey, in order to investigate if and how much other features of crisis besides unemployment come to influence subjective perception of well-being and health. The scope of research is the Italian case, which will be studied on the basis of data provided by the Observatory on families' consumption strategies. By taking Jahoda's latent deprivation theory as a reference, this study will observe whether jobless people, who are not unemployed in the strict sense of the word, such as housewives, retirees, and students, are subjected to a negative influence deriving from not enjoying the latent functions performed by work. It can be assumed that an effect of latent deprivation can be identified also for these categories. At the same time, leaving out the variable of unemployment, the paper will explore the possible influence that, broadly speaking, economic crisis exerts on subjectively perceived well-being. The underlying hypothesis is that the potential effects of crisis on subjectively perceived well-being exceeds the mere employment variable.

Finally, this work is aimed at an explicative analysis of the relation between the impact of economic crisis and other interviewees' profiling variables, in order to understand which further variables concur in influencing the level of well-being. Before proceeding any further, it needs to provide some context information about the modalities of penetration of economic crisis in Italy.

³ Cf. also Powdthavee (2007), and Shields and Weathley Price (2005).

⁴ For a wider remark Feather (1990), important empirical research studies are those of Blanchflower (2007); Di Tella et al. (2001), who showed a connection between subjectively perceived well-being and economic variables such as unemployment and inflation. See also, for instance, Bambra and Eikemo (2009).

⁵ There are, in fact, research studies that controvert any connection between increase in unemployment and increase in death causes (Stukler et al., 2009).

3. Socio-economic impact of crisis in Italy

The economic crisis that is afflicting global economies with a large-scale impact has been characterized by several forms and power of penetration into economies and social life of the various western countries. At the same time, micro subjective perception of such change in the economic and social life has also followed non-standardized paths. In the case of Italy, at a macro level, we can analyse the methods of penetration of crisis into the economic, political, and social sphere.

3.1. Politics

On the political horizon, it can be affirmed that the crisis has followed broadly two stages. Firstly – from the second half of 2008 till June 2011 – government faces the crisis without settling interventions and radical reforms, also in order to avoid the spread of a climate of distrust and uncertainty. When, however, in the second half of 2011, the spread between Italian and German government stocks rapidly increases, and international rating agencies downgrade Italy's reliability, the second phase of crisis begins. In this period, also due to political pressures by some foreign governments, and the evidence of serious social effects produced by the crisis of public debt on social life of countries such as Greece and Spain, Italian government changes its action strategy in the economic sphere. In particular, Italy pursues policies aimed at reducing national debt through a considerable tax burden. Beyond the impact on citizens' finances, such actions go along with a great deal of comment on press and mass media, which make the straitened circumstances in which the country find itself even more evident and «tangible». It is just in this period, exactly between the late 2011 and the early 2012, that media draw attention on recurring suicides of entrepreneurs and dealers, who, stifled by creditors' claims, including inland revenue, and little supported by banks (very reluctant to grant loans) perform desperate acts, contributing to spread a cultural climate of unease and disquiet caused by the whole economic situation.

3.2 The economic system

If the above described climate is the one that has established within political sphere, what is the trend of indicators of the productive economic system? Statistical data found in the data-base of Istat (Italian Statistical Institute) provide enough evidence of the current economic crisis. Firstly, it can be noticed that the most critical year for the productive economic system was 2009. It is in that year, in fact, that GDP presents a concentration, in absolute value (fig. 1), as well as a marked increase in unemployment (fig. 5) and a respective stagnation of consumer expenditures (fig. 3, 2008-2009 interval).

On the other hand, it should be stressed the current apparently most significant fact, that is the ratio between debt and GDP: after several years of downward trend, with a drop to a minimum in 2007, this ratio has soared beginning from 2008 and it shows no signs of stopping its growth. Finally, another fact that provides evidence of the crisis and plight of families is that concerning the durable goods expenditure which, since 2007, has constantly dropped, pointing out a reduction of families' fluid assets: while their non-durable goods expenditures increase, available funds to buy basically more expensive goods, such as durable ones, probably decrease.

In short, structural data concerning Italian economic system and families' consumptions show the dimensions of crisis impact, that tightens the bit especially in 2009, producing, at a macro level, a drop of GDP, and, at a micro level, an increase in unemployment and a decrease in durable goods consumption. At the present time, economic data regarding the ratio between debt and GDP is particularly significant: this element weights as a threat on national system, causing anyway a common distrust, even though some economic data about consumptions and enacted recovery policies give positive signs.

Fig. 1 – GDP trend in Italy
(data by Istat – absolute values⁶)

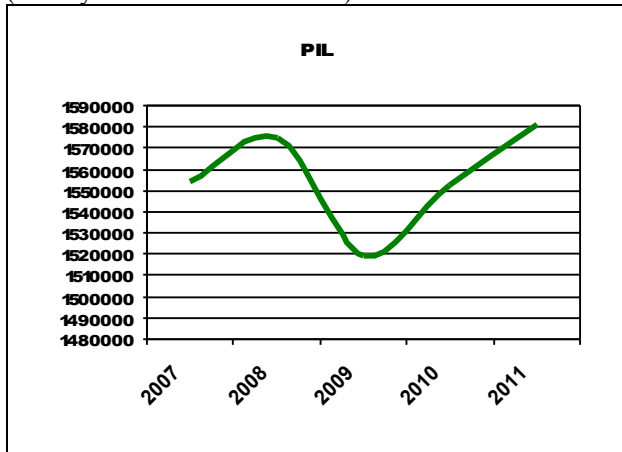


Fig. 2 – Ratio debt/GDP in Italy
(data by Istat – percentage values)

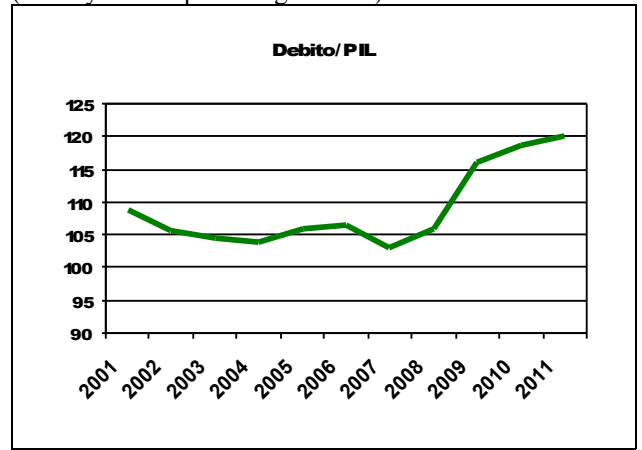


Fig. 3 – Trend of consumption in Italy
(data by Istat – absolute values)

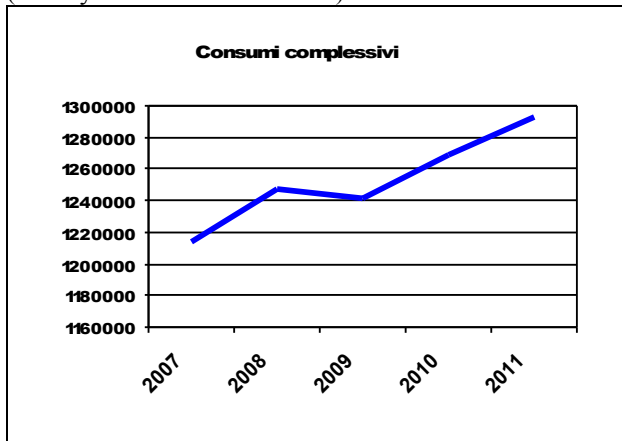


Fig. 4 – Trend of durable goods expenditure
(data by Istat – absolute values)

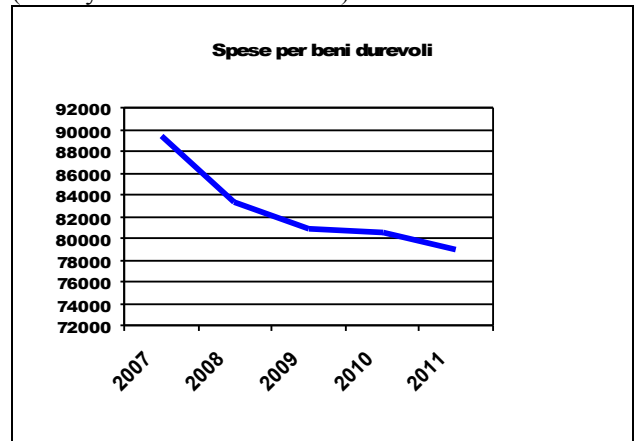


Fig. 5 – Trend of unemployment in Italy
(data by Istat – percentage values)

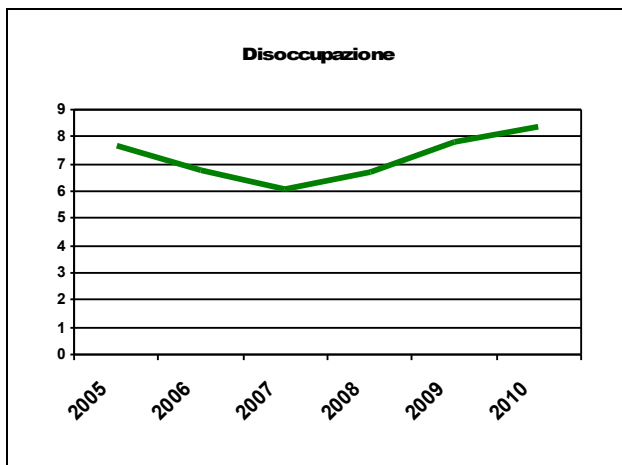
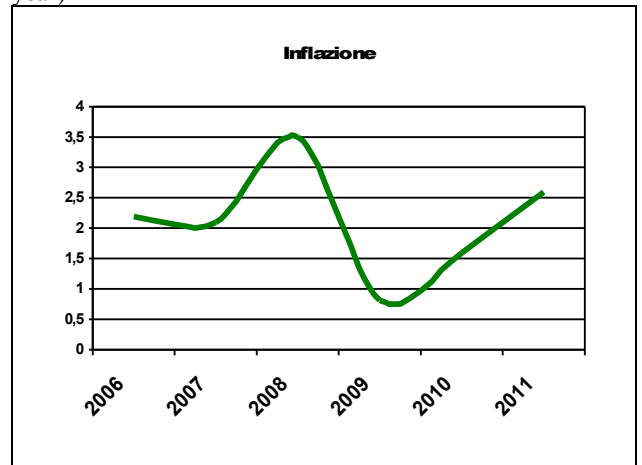


Fig. 6 – Trend of inflation in Italy
(data by Istat – variations in comparison with the previous year)



⁶ Data in absolute value are denominated in millions of Euros.

4. The research

Facing such a scene, what is the impact produced by Italian economic crisis on families' life? And, in particular, what consequences did it carry on the degree of well-being perceived by people, on their mood and state of health?

In order to provide a contribution of knowledge of these issues, we use the data bank of the Observatory on families' consumption strategies, edited by the sociological research company SWG and the institute CRiS of the University of Verona. The observatory, directed by Maurizio Pessato (SWG) and Domenico Secondulfo (University of Verona), periodically carries out sample surveys with the CAWI method (Computer Assisted Web Interviewing) on a panel (split panel) of about 2,000 interviewees, a representative sample of the whole Italian population. The sample is stratified according to the interviewees' geographic place of residence (North-West, North-East, Middle, South and Islands), gender, and age. In particular, this study will apply the data of the last available survey at the present time (December 2011), which, in some cases, will be compared with previous surveys.

4.1 Economic impact of crisis

The trend of crisis in the last few years can be observed through the queries of the questionnaire. It is worth reminding that the effects of crisis have been strongly felt in Italy beginning from 2009. Data collected by the observatory generally show a swinging trend, characterized by a worsening of families' economic condition in 2009, a recovery in 2010, and then, a deeper aggravation in 2011. For instance, the analysis of the variable of employment status of the interviewed family members points out that, in 2009, 25.7% of families have experienced a worsening of employment status of at least one of their members, 24.5% in 2010, and 27.4% in 2011. Gaps between one year and another are very slight, however there is a basic continuity of the trend as well as for other variables which measure the impact of crisis on family economies. While in 2009, crisis changed shopping behaviour of 66.7% of families, in 2011 this occurs for 71.0%. Similar rates can be found in the question about the capacity of saving money. In short, crisis prevents two-thirds of Italians from confirming one of the typical features of the Country: the high propensity to save money. Then, there is a rate of 20% (close to that of 25% of families who have experienced a worsening of employment status of at least one of their members), who do not have a sufficient family income to cover all monthly expenditures, and who have been forced to ask for economic aids during the year.

Tab. 1 – Impact of crises on family economies

	Year	2009	2010	2011
In the last year employment status of one of family members worsened	%	25.7	24.5	27.4
	n	(2022)	(2007)	(2008)
In the last year you had to reduce food, clothes, furniture, medicine and technology expenditures	%	76.3	72.6	78.5
	n	(2022)	(2007)	(2008)
Crisis changed your shopping behaviour	%	66.7	65.8	71.0
	n	(2022)	(2007)	(2008)
Monthly income is not enough to cover family expenditures	%	19.2	17.2	20.8
	n	(2022)	(2007)	(2008)
In the last year you happened to ask for economic aids	%	20.8	19.0	19.6
	n	(2022)	(2007)	(2008)
In the last year you did not manage to save money	%	66.3	64.9	69.7
	n	(2022)	(2007)	(2008)

Through the above mentioned questions, a synthetic variable has been created in order to measure the impact of crisis on family economies⁷. This method has developed an index which, standardized, ranges from 0 to 10, and presents an average value of 4.4, with 2.9 of standard

⁷ The following variables have been used to develop the index: monthly income is not enough to cover family expenditures; in the last year you happened to ask for economic aids; in the last year you did not manage to save money; crisis changed your shopping behaviour.

deviation in 2009, while in 2011 the average is 4.6 and standard deviation is 2.8. Through this index it can be noticed (tab. 2) that crisis has a stronger impact on families with children (average 4.8), especially if there is more than one child and if there are both minor and major children (5.7).

Tab. 2 – Characteristics of interviewees and average values of the economic impact of crisis (data 2011)

Independent variables	Average	n
Gender	F. 17.23***	2008
Male	4.4	983
Female	4.9	1025
Age	F. 8.34***	2008
18-34 years old	4.7	294
35-44 years old	4.8	434
45-54 years old	4.9	444
55-64 years old	4.8	393
65 years old	4.0	443
Geographic area	F. 18.03***	2008
North-west	4.2	569
North-east	4.0	386
Middle	4.7	348
South	5.2	461
Islands	5.4	244
Educational qualification	F. 7.50***	2008
Primary school	5.0	57
Middle school	4.7	279
High school	4.9	903
Graduation	4.2	566
Post-graduation	4.0	203
Employment status	F. 13.88***	1698
Worker (employed or self-employed)	4.58	825
Out of employment (retiree, housewife, student)	4.38	702
Atypical worker, redundancy fund beneficiary	5.93	62
In search of first job	4.81	13
Unemployed	6.57	94
Not working because well-to-do person	1.25	2
Children	F. 17.23***	2008
Yes	4.8	1463
No	4.2	545
Type of family	F. 7.61***	1906
One single component (up to 65 years old)	4.8	149
One single component (over 65 years old)	4.5	39
Couple without children (with woman up to 54 years old)	4.3	231
Couple without children (with woman over 54 years old)	3.3	154
Couple with children (with all children up to 18 years old)	4.9	430
Couple with children (children both over and under 18 years old)	5.7	151
Couple with children (all children over 18 years old)	4.4	598
Family with a single parent (all children up to 18 years old)	5.2	26
Family with a single parent (children both over and under 18 years old)	6.5	36
Family with a single parent (all children over 18 years old)	4.4	78
Families without nucleus (excluding alone people)	5.4	14

Legend: F indicates the value of the analysis of variation; this latter is followed by * if $p < 0.05$, ** if $p < 0.01$ or *** if $p < 0.001$.

Moreover, poverty status is aggravated whether family is composed by a single parent (5.2), particularly with more than one child both under and over 18 (6.5). Geographic place of residence, as well, enlarges the economic impact of crisis: as going down from Northern to Southern Italy and Islands, this phenomenon occurs more and more intense. On the other hand, educational

qualification has a mitigating effect on the economic impact of crisis, in the sense that the higher the degree, the lower the average of the index of economic impact of crisis, and maybe the better the job pay conditions. Age is not particularly discriminating.

However, the lowest average values lay at the ends of distribution, that is among young and, above all, elderly people: since they are outside the labour market, they enjoy securer conditions and economic prospects than those of workers, also in accordance with social security protection. As far as employment status is concerned, crisis weights mainly upon unemployed and people who have no standard and secure job, such as atypical workers. Basically, bivariate analysis, which takes into account the interviewees and their families' profile and the impact of economic crisis, confirms some common-sense concepts. However, data point out a piece of information that is often given little consideration by observers and political and social operators: the influence of family structure on citizens' economic welfare. This especially holds true in the case of families with several children and one single parent, who more often than not is known to be the mother⁸.

4.2. Psychological impact of crisis

Some questions of the survey are aimed at pointing out what can be defined as the psychological impact connected with the interviewees' means, or rather, a proxy of the concept. Interviewees were asked to assess their family economic status, distinguishing among: precarious, satisfactory, good and excellent; in addition, they were asked to express their worry about their family economic conditions of the next year. As far as the assessment of family economic status is concerned, following surveys point out that about 35% of interviewees in 2009 considered it as good or excellent. In 2011 this datum slightly drops (-2 percentage points)⁹. The datum concerning the interviewees' psychological attitude towards their family situation is even more significant. In 2009, it shows a considerable amount of interviewed people who are concerned about their future (worried and very worried modalities were selected by around 53% of interviewees), and this number rises up to 66% in 2011.

Tab. 3 – Worry about crisis (% values)

How do you assess the current economic condition of your family?		Precarious	Satisfactory	Good	Excellent	n
	2009	20.5	44.4	27.5	7.6	2002
	2011	22.1	45.2	25.8	7.0	2008
Considering your family economic condition of the next year, do you feel		Not worried at all	Little worried	Worried	Very worried	
	2009	8.0	39.2	42.6	10.2	2002
			37.2		52.8	
	2011	3.9	29.7	49.2	17.2	2008
			33.6		66.4	

Through the two above mentioned variables, an index of psychological impact of crisis has been developed: this index, standardized according to a range from 0 to 10, presents an average value of 5.59, with 2.37 of standard deviation in 2009, while, in 2011, the average value grows up to 6.07, with 2.30 of standard deviation. The analysis of the impact of interviewees' profile traits on the index of psychological impact (tab. 4) points out a basically similar trend to that of economic impact of crisis. This result, along with other data processing, suggests that both indexes measure similar phenomena, if anything, on the one hand, from a structural point of view (economic impact of crisis), and, on the other hand, from a symbolic-cultural point of view (psychological impact of crisis). Anyway, in short, crisis seems to have greater psychological repercussions as going down from Northern to Southern Italy, whether one has children, is in working age, has a low educational

⁸ This may contribute to explain the fact that interviewed women show a higher average value of the impact of crisis than that of men.

⁹ Since it is a spilt panel, the gap can be ascribed to sampling error.

qualification, and lives in an uncertain employment status (unemployed, people in search of first job, atypical workers).

Tab. 4 Interviewees' traits and average values of the index of psychological impact of crisis (data 2011)

Independent variables	Average	N
Gender	F. 50.84***	2008
Male	5.70	983
Female	6.43	1025
Age	F.4 ,79**	2008
18-34 years old	6.15	294
35-44 years old	6.38	434
45-54 years old	6.13	444
55-64 years old	6.02	393
65 years old	5.72	443
Geographic area	F. 14.75***	2008
North-west	5.67	569
North-east	5.76	386
Middle	6.10	348
South	6.44	461
Islands	6.76	244
Educational qualification	F. 9,26***	2008
Primary school	6.82	57
Middle school	6.23	279
High school	6.27	903
Graduation	5.84	566
Post-graduation	5.42	203
Employment status	15.31***	1698
Worker (employed or self-employed)	5.98	825
Out of employment (retiree, housewife, student)	5.96	702
Atypical worker, redundancy fund beneficiary	6.70	62
In search of first job	6.83	13
Unemployed	7.96	94
Not working because well-to-do person	3.40	2
Children	F. 5.94*	2008
Yes	6.15	1463
No	5.87	545

Legend: F indicates the value of the analysis of variation; this latter is followed by * if $p < 0,05$, ** if $p < 0,01$ or *** if $p < 0,001$.

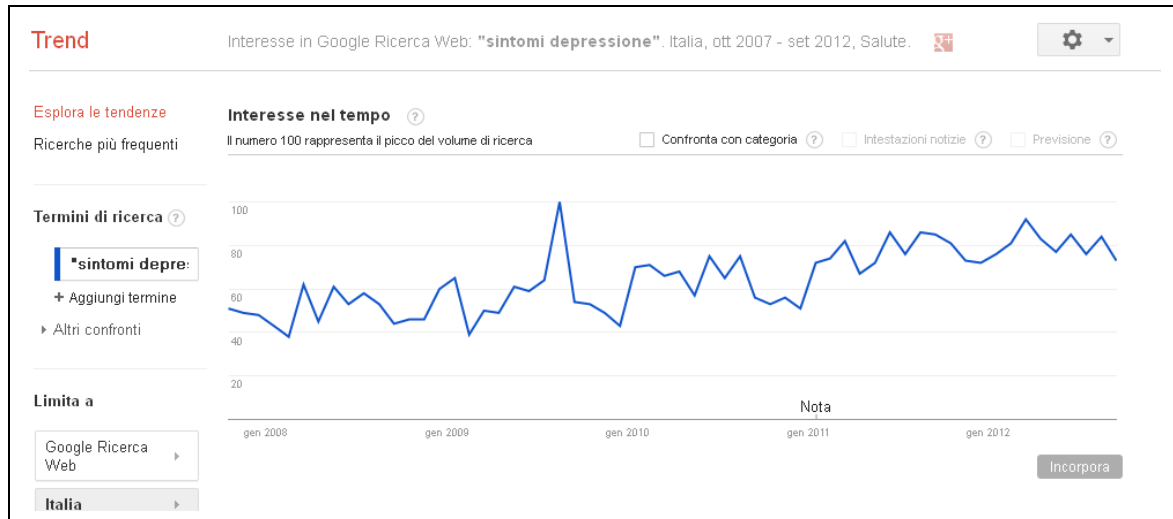
4.3. Impact of crisis and subjective well-being

After measuring the effect of crisis both at macro levels (economic and political) and micro levels (in terms of impact on Italian families' finances and their image of the future), let's go into the specific subject of this work, that is the potential connection between the crisis condition of political systems and the sense of well-being perceived by single individuals. One of the first data proving information on the presence of a linkage between economic crisis and subjective well-being can be found by analysing the queries of search engines about terms concerning psychological pathologies, in particular depression. Such a sociological survey method has already been used in some international research studies¹⁰, for our object of study it is worth mentioning Askitas and Zimmermann (2011), who proposed a survey on the United States and Germany. We can analyse data concerning Italy. Graph 1 points out the trend of searches in Google of the words «depression symptoms», obviously in Italy, in the period between the end of 2007 and September 2012. This datum measures the level of interest that the term undertook within searches of health-related subjects. As highlighted by the trend of the curve, the search of the term displays some

¹⁰ For further remarks on methodological and technical aspects of such a survey, see Askitas and Zimmermann (2011).

peaks in 2008, and a constant growing trend beginning from 2009 to nowadays. This fact supports the hypothesis according to which there is a link between economic crisis and subjectively perceived uneasiness in Italy. Nevertheless, it needs to apply surveys which should be able, on the one hand, to measure both phenomena (impact of economic crisis and subjectively perceived sense of health) and, on the other hand, to statistically compare them, in order to provide more accurate scientific confirmations of the above mentioned information, and to strongly support those theoretical remarks summarized in the first paragraphs of this work. This is what we will try to do in this paragraph through data provided by the Observatory.

Graph 1 – Surveys on Google as for the term depression (2007-2012)



At first sight to the results of surveys carried out by the Observatory, it seems that Italian people do not show particular changes in subjectively perceived health from 2009 to 2011¹¹. Facing the question «How is generally your health today?», in 2009, the interviewed people answered «very well» and «well» in 46.3% of cases, and «not too bad» in 47.5%. In the last survey, they answered «very well» and «well» in 47.4% of cases, and «not too bad» in 45.4%.

Tab. 5 – Degree of subjectively perceived health

	How is generally your health today?			
	2009		2011	
	n	% valid	n	% valid
Very well	87	8.8	81	8.0
Well	368	37.5	397	39.4
Not too bad	468	47.5	457	45.4
Bad	52	5.3	66	6.6
Very bad	9	0.9	6	0.6
Total	984	100.0	1007	100.0
Missing	1038		1001	
n.	2022		2008	

¹¹ The Observatory submits a question about the degree of interviewees' perceived health. For half of the sample, the question is that proposed by the World Health Organization, which states: «How is generally your health today?: (5) very well; (4) well; (3) not too bad; (2) bad; (1) very bad». This question is used also in Italy by Istat. The other half of the sample is submitted to a very similar question to the abbreviated form of Mos (Medical Outcome Study), which states: «Generally speaking, would you affirm that your health status today is: (5) excellent; (4) very good; (3) good; (2) not bad; (1) bad». For the sake of brevity, this work analyses data provided by the question of Who, which performs a more balanced distribution between positive (well, very well) and negative answers (bad, very bad), even though distribution of frequencies is unbalanced towards positive modality.

Thus, economic crisis apparently did not have a worsening effect on well-being perception over the years. However, the situation is not as rosy as it could seem. A closer examination of data, in fact, points out that all the variables collecting information about interviewees' economic safety show a negative sign connection with the level of subjectively perceived health. Let's consider, first of all, the employment status variable, which confirms the latent deprivation effect of work. The great majority of jobless people (unemployed), in fact, affirm that their health status is negative (9.8%). At the same time, people who do not work because they are out of employment condition (retirees, housewives, students) display higher percentages of negative health self-perception (11.6%). The same holds true for those who have no regular job (10.7%). The other variable of subjectively perceived health (that asks: «Generally speaking, would you affirm that your health status today is ...» – see footnote 11), confirms the same trend. Nevertheless, unemployment is not the only negative effect of economic crisis on people's life; thus, we can take other variables of the research into account.

Tab. 6 – Degree of subjectively perceived health and monthly income (year 2011)

How is generally your health today?	Employment status						Totals
	Worker	Retiree, housewife, student	Atypical worker, redundancy fund beneficiary	In search of first job	Unemployed	Not working because well-to-do person	
Very well/Well	n 251 % 59.2%	103 29.2%	9 32.1%	6 75.0%	21 51.2%	1 100.0%	391 45.7%
Not too bad	n 156 % 36,8%	209 59.2%	16 57,1%	2 25.0%	16 39.0%	0 0%	399 46.7%
Bad/Very bad	n 17 % 4.0%	41 11,6%	3 10.7%	0 0%	4 9.8%	0 0%	65 7.6%
	424 100.0%	353 100.0%	28 100.0%	8 100.0%	41 100.0%	1 100.0%	855 100.0%

Chi-square = 80.67; V of Cramer = 0.22; $p < 0,001$; degrees of freedom 10

First of all, it should be highlighted that the analysis of contingency between subjectively perceived health and geographic place of residence – according to the distribution of economic impact of crisis – shows an upward trend among people who answer bad/vey bad, as moving from North-east (4.7%) to North-west (5.9%), Middle (7.8%), South (8.5%) and Islands (10.7%). These data apparently deny the existence of a buffering effect of «social norm», according to which, the more widespread the unemployment and economic crisis, the lower the negative impact on perceived well-being. If it were so, in fact, there would not be a decrease in well-being in Southern Italy, where unemployment rate is higher¹². Secondly, the analysis of the perceived health degree, according to the question «Is your family monthly income sufficient to cover monthly expenditures?», points out that, among those who answer «no», only 34.5% reply that they feel well or very well, while, among those who answer «yes» and can rely on some available funds, even 50.6% of the interviewees choose well/very well. The examination of psychological attitude towards economic straits is even more significant.

The question «How do you consider the current situation of your family?» is answered precarious by 22.1% (family funds are not enough and we are always forced to sacrifices and cuts in expenditures), not too bad by 45.2% (family funds fulfil the main needs, but sometimes we are forced to sacrifices and cuts in expenditures), good by 25.8% (family funds fulfil all the needs, but we do not manage to save money), and excellent by 7% (family funds fulfil all the needs and we manage to save money).

¹² However, it is worth pointing out that the connection between the two variables proves not to be significant, and caution in generalizing is absolutely required.

Tab. 7 – Degree of subjectively perceived health and monthly income (year 2011)

		Is your family monthly income sufficient to cover monthly expenditures?		
		Yes	No	Totals
How is generally your health today?	Very well/well	n 411 % 50.6%	67 34.5%	478 47.5%
	Not too bad	n 354 % 43.5%	103 53.1%	457 45.4%
	Bad/very bad	n 48 % 5.9%	24 12.4%	72 7.1%
		813 100.0%	194 100.0%	1007 100.0%

Chi-square = 20.77; V of Cramer = 0.144; p < 0,001; degrees of freedom 2

By crossing these data with subjectively perceived health, the analysis proves that: among people who answer precarious, 32.3% state they feel very well or well, among those who replies not too bad, 46.9%, among those who answer good, 54%, and among who say excellent, 67.1%. Thus, there is an extremely strong and important link between the two variables, which confirms the impact of economic status on perceived health.

Tab. 8 – Degree of subjectively perceived health and family’s economic status (year 2011)

		How do you consider the current situation of your family?					Totals
		Precarious: family funds are not enough and we are always forced to sacrifices and cuts in expenditures	Not too bad: family funds fulfil the main needs, but sometimes we are forced to sacrifices and cuts in expenditures	Good: family funds fulfil all the needs, but we do not manage to save money	Excellent: family funds fulfil all the needs and we manage to save money		
How is generally your health today?	Very well/well	n 65 % 32.3%	212 46.9%	150 54.0%	51 67.1%	478 47.5%	
	Not too bad	n 102 % 50.7%	217 48.0%	115 41.4%	23 30.3%	457 45.4%	
	Bad/very bad	n 34 % 16.9%	23 5.1%	13 4.7%	2 2.6%	72 7.1%	
		201 100.0%	452 100.0%	278 100.0%	76 100.0%	1007 100.0%	

Chi-square = 59,18; V of Cramer = 0,171; p < 0,001; degrees of freedom 6

The examined relations could be surely explained in terms of influence of health on economic status, but it is more likely that it is the assessment of one’s economic condition which determines a higher or lower satisfaction for one’s psychophysical well-being. The strength of the linkage between the perception of one’s psychophysical well-being and economic status is also confirmed by crossing other variables, such as « In the last year have you ever happened to ask for economic aids?». Among those who answer «yes», 39.3% state that their health conditions are good or very good; on the other hand, among those who were not forced to ask for economic aids, as many as 49.3% of interviewees enjoy good psychophysical well-being. Similar distributions arise from questions like this « In the last year, did you manage to save money?». People who did it feel better than those who did not. Variables such as improvement or worsening of a family member’s working conditions affect perceived well being as well. Thus, there is undoubtedly a connection

between economic situation and one's perceived health status. This would prove the hypothesis according to which, along with economic crisis, a common pessimistic attitude is spreading, to such an extent that it affects also the sphere of one's psychophysical well-being perception.

To sum up the above description, we are going to use indexes of economic and psychological impact. Table 9 clearly points out the connection between the two variables of economic impact of crisis and subjectively perceived health (well-being) status. Actually, among those who state they feel well or very well¹³, 58.6% were little economically affected by crisis, 43.5% felt it at a medium level, and 35.0% at high level. In short, the higher the economic impact of crisis, the lower the degree of subjectively perceived well-being. Meanwhile, among people who affirm they feel bad or very bad, only 3.8% suffer a low economic impact of crisis, 7.6% feel it at a medium level, and 12.1% at a high level. A similar trend, rather dimensionally more marked, can be noticed by crossing the index of psychological impact of crisis with the degree of perceived health.

Tab. 9 – Degree of perceived health and economic impact of crisis (year 2011)

		Index of economic impact of crisis				
		Low	Medium	High	Totals	
How is generally your health today?	Very well/ well	n	234	160	84	478
		%	58.6%	43.5%	35.0%	47.7%
	Not too bad	n	150	180	127	457
		%	37.3%	48.8%	52.2%	45.5%
	Bad/ Very bad	n	15	28	29	72
		%	3.8%	7.6%	12.1%	7.8%
			399	368	240	1007
			100.0%	100.0%	100.0%	100.0%

Chi-square= 43,64; V of Cramer = 0,147; $p < 0,001$; degrees of freedom 4

Tab. 10 – Degree of perceived health and psychological impact of crisis (year 2011)

		Index of psychological impact of crisis				
		Low	Medium	High	Totals	
How is generally your health today?	Very well/ well	n	137	261	80	478
		%	61.7%	48.1%	33.1%	47.5%
	Not too bad	n	80	252	125	457
		%	36.0%	46.4%	51.7%	45.4%
	Bad/ Very bad	n	5	30	37	72
		%	2.3%	5.5%	15.3%	7.1%
			222	543	242	1007
			100.0%	100.0%	100.0%	100.0%

Chi-square = 58,49; V of Cramer = 0,170; $p < 0,001$; degrees of freedom 4

The above described trend is further confirmed by other kinds of processing, but this is not the occasion for taking them into account. These surveys are enough for proving the necessity to somehow reflect upon psychological-cultural consequences of the economic-political period we are going through, and to wonder about the initiatives that could be put in action in order to face not only structural aspects of crisis, but also psychological-cultural consequences that it carries with it. In order to confirm the «solidity» of the linkage between the two variables, taking into account the influence of other variables on subjective health perception, we are proposing an explanatory analysis through the logistic regression model. At this regard, we are going to use a combination of two questions as dependent variable, in order to measure the subjectively perceived health:

¹³ Actually, this table presents column percentages, but it would be more correct to analyse what happens among those who are little affected by crisis. However, the proposed argumentative style has been used for a better «narrative» effectiveness.

«Generally speaking, would you say that your health today is: excellent (7.1%); very good (28.8%); good (47.4%); not bad (14.3%); bad (2.4%); and « How is generally your health today? Very well (8%), well (39.4%), not too bad (45.4%), bad (6.6%), very bad (0.6%)». As everybody knows, logistic regression investigates the existence of a linkage between the two variables, and it keeps a series of previous or ascriptive variables under control, which may affect the connection we are looking for. For this purpose, it needs to identify a dependent variable, which can be even categorical, but should have a dichotomic form, and which should measure the presence/absence of a given trait. In this case, the dependent variable is the subjectively perceived health by the individual, that, however, should have a dichotomic form: perception of good or bad health, well-being or ill-being. In order to develop a dichotomic variable that includes two opposed but enough broad modalities, the former of these variables has been taken as a reference, and then, cases of the two negatively assessed values have been added (bad/very bad, not too bad/bad), while intermediate variables have been considered missing¹⁴. In the regression model, then, profile information about interviewees have been inserted as independent variables: gender, age, educational qualification, income, and employment status; moreover, the index of economic impact of crisis has been added.

As shown by table 11, relating the output of logistic regression, just few variables hold an acceptable significance, which is marked by the asterisks next to the Beta value.

Tab 11 – Logistic regression model. Dependent variable: subjectively perceived health (modalities: bad/very bad; not too bad/bad)

	Beta	Exp(Beta)
Dependent children (reference modality: the child is interviewed)		
Family with children	0.44	1.55
Family without children	0.77	2.17
Male gender		
	0.24	1.27
Age ranges (reference modality: 20-34 years old)		
35-44 years old	0.37	1.45
45-54 years old	0.55	1.73
55-64 years old	1.13**	3.08
over 65 years old	2.02***	7.56
Educational qualification (reference modality: post-graduate)		
Primary school/no qualification	-0.02	0.98
Middle school/professional qualification	-0.25	0.78
High school	-0.12	0.89
Graduation	-0.34	0.71
Employment status (reference modality: unemployed)		
Employed or self-employed worker	-0.86*	0.42
Out of employment (retiree, housewife, student)	0.01	1.01
Income (reference modality: over 4,000 euros)		
under 1,000 euros	0.95	2.58
from 1,000 to 2,000 euros	0.50	1.65
from 2,000 to 4,000 euros	0.33	1.39
Crisis economic impact index (reference modality: low)		
High	-1.67***	0.19
Medium	-0.93***	0.39
Constant	-1.68*	0.19

Significance is marked by asterisks next to Beta value * se $p < 0.05$, ** se $p < 0.01$ or *** se $p < 0.001$.

Total amount of correct predictions 81.2%

Likelihood ratio $-2ll = 611.02$.

Hosmer and Lemeshow test chi-square = 6.93; sig. 0.54.

Thus, as highlighted by column 2, variables such as gender, educational qualification, and number of dependent children, are not significant and have little importance in «predicting» changes in perceived health. On the contrary, variables such as age, employment status (one modality: employed), and crisis economic impact are important. It should be noted that similar outcomes can be achieved if the index of psychological impact is used instead of the economic one.

¹⁴ We are aware that this is a methodologically ticklish process of synthesis, but we consider it worth to proposing, given the explanatory and not predictive nature of our analysis.

In short, from this model it can be inferred that, beyond the influence of other variables, age marks an increase in «perception» of ill-being in the age range 55-64 (in which «probability» of choosing ill-being categories is three times as high as in young age range) and in the elder age range (in which «probability» of choosing ill-being categories is seven times higher). At the same time, a regular job halves (0.42) self-definition of ill-being. But in the case where influence on subjective «perception» of ill-being seems more systematic, this can be related to the economic impact of crisis. In fact, a medium impact of crisis on the individual and his family's economic status decreases the «probability» to define his health in negative terms by a fourth (0.39), while a low index of economic impact reduces it by one twentieth (0.19). Data from the observatory essentially confirm the hypothesis of incidence of economic system crisis on the individual's perceived health. This incidence can be detected not only in extreme behaviours such as alcohol consumption, increase in psychological pathologies, or extreme suicidal behaviours, but also in psycho-social processes of definition of one's own well-being and health status. This incidence is not only caused by unemployment, but also by other economic consequences of crisis (decrease in purchasing power, changes in consumption styles, decrease in saving capacity), which are synthetically measured by the index of economic impact of crisis. It is worth noting that this index explains well-being reduction to a larger degree than the variable of employment status does.

5. Discussion and conclusions

In short, the observatory's panel on family consumptions points out that economic crisis has affected a considerable number of citizens. Above 65% of interviewees in the period from 2009 to 2011 state that they have been forced to change their shopping behaviour, to decrease purchases of some kinds of commodities, and that they have not been able to save money. In addition, about 25% complain of a worsening of a family member's employment condition, and a similar percentage (around 20%) affirm that their monthly income is not enough to cover family expenditures and that they have been forced to ask for economic aids in the last year. Such phenomena are differently distributed throughout the population: they arise in the presence of children and going down from Northern to Southern Italy, while they decrease as the educational qualification or family income increase.

This situation, that afflicts economic system and families' funds, also affects interviewees' attitudes, opinions, and moods. There is now a great deal of data that show connections between economic crisis and psychic pathological phenomena. Nevertheless, data from the observatory point out that crisis produces negative effects not only because it causes a higher degree of depressive states, increase in suicide rates, or greater alcohol consumption. It is rather the psychological cultural climate of the country that changes, so as that it affects not only economically troubled people, who put extreme coping strategies into action (suicide, alcohol use, appearing of psychological or psychiatric pathologies). It is rather the ordinary citizen who is afflicted by crisis and receives a lower sense of well-being and even a definition of his health status as more precarious (independently of real biological or psychological appearances of ill-being).

The study has pointed out, in fact, that the experience of being forced to modify one's own lifestyle, of keeping expenditures under control, of monitoring the settlement of the account at the end of the month, are all features relating with the interviewees' negative perception of their health/well-being status. Rather, the higher the number of events experienced by the individual due to economic crisis, the greater the probability that he defines his health status as negative. The logistic regression model has contributed to support the strength of the linkage between the two variables: it has analysed the connection between the index of economic impact of crisis and subjectively perceived health beyond any possible influence exerted by profile variables of the individual (age, gender, educational qualification, employment status). The link between the two variables has been confirmed, and subjectively perceived health has proved to be affected also by people's elder age and employment status. In particular, being young and employed reduces the subjective definition of ill-being. On the other hand, some profile variables such as gender, educational qualification, and even income level do not show any significant connection with subjectively perceived health in this specific circumstance. However, variables measuring the

economic and psychological impact of crisis are more evidently connected with subjective perception of well-being, also beyond the influence of variables such as interviewees' age and employment status. In short, the research, in line with multidimensional paradigms of subjective well-being analysis, contributes to confirm the idea that economic crises trigger off psychological, relational and cultural factors, which lead people to generalize the situation of economic difficulty, even to more general aspects of life such as health and well-being.

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