UNIVERSIA' CATTOLICA DEL SACRO CUORE
MILANO

Dottorato di ricerca in politica economica
ciclo XXVI
S.S.D: SECS P/01, SECS P/02

From Urban Poverty to Intergenerational Equity: an analysis of youth condition in Italy

Tesi di Dottorato di Federica Roccisano
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Acknowledgements

This thesis is the result of a very passionate learning experience started in the Catholic University of Piacenza and developed in Milan, in the offices of Fondaziona Welfare Ambrosiano and in Calabria at the University for foreigners "Dante Alighieri" of Reggio Calabria.

I'm sure I was a lucky girl to have the opportunity to work with Prof. Enrica Chiappero Martinetti during these years, and I really want to thank her for their teachings.

As a beneficiary of a specific scholarship from Fondazione Welfare Ambrosiano and Fondazione Bracco, I had the opportunity to improve my ability of young researcher cooperating with Fondazione Bracco and with Fondazione Welfare Ambrosiano of Milan. That's why I want to express my gratitude to Romano Guerinoni and Licia Rastelli, that hosted me in the office of Fondazione Welfare Ambrosiano, and to Diana Bracco, Gaela Bernini and Cecilia Soldano for the opportunity to participate in the activities of Fondazione Bracco. I want also to thank the Municipality of Milan for the availability of their office each time that I needed some data.

Thanks to my friends Katia Foti and Sara Lazzaroni that during these years had tolerated my panic and my stress. Thanks to my mentors Massimiliano Ferrara and Roberto Mavilia for their trust.

Finally, I want to thank my family: my sister Mariarosaria and his husband Luca for hosting me during this experience in Milan, my husband Massimo for tolerating me in the ups and down of my experience, my father Luigi for his contribution and the strength of their support and the person that now lives only in my heart, my mother Esperia who believed in me until her last breath.

To my family and especially to
My mother… with her hand always in my hand

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INTRODUCTION

The aim of the present research is to study the youth condition in Italy in the first decade of 2000 and to suggest some regulatory policy on this situation. The decision to investigate on urban poverty and deprivation in the first chapter, and to analyze intergenerational equity and mobility in the second and in the third chapters, is strictly related to the willingness of the writer to identify new policy instruments that can intervene in favor of young's opportunities and equity. On the basis of this research there is the perception that the particular economic situation of today makes difficult for young people to have the same opportunities of their parents, to realize themselves, to find a job or simply to gain the independence. In fact, there are many young that remain completely dependent on their families or that aren't able to change the lifestyle of their family.

With this research, and particularly in the first chapter, we wont to underline how it is important to prevent social exclusion for young people just at the starting time of their life, at the school and in their spare time, granting them an equal distribution of public facilities. In the following chapters we analyze the situation considering no more the lifestyle of young, but the comparison with their life with which one of their parents. The reason to measure the intergenerational equity and the intergenerational mobility between parents and son, is to give a practical evidence of the life's worsening of the present young generation. We believe that the intergenerational equity should be placed at the heart of future reforms in order to obtain the same opportunities between present and future generations and between elderly and young people, while now the possibility of a generational

conflict or of a strong dependence of young to their parents could aggravate the situation.

As we have said before, this research is articulated into three papers collected here as three chapters. In the first paper, we deepen the condition of young people in the Italian city of Milan. Particularly, we talk about urban deprivation, including several forms of social deprivation that can disturb young people in a big city like Milan: access to public education, to recreational and cultural activities dedicated to young people. For this kind of research we have considered, first of all, the literature review about the relations between social and educational context and the life cycle of young. By this kind of research it was able for us to select the aspects to consider as "influencing factor" not only of the present life of a young but also of his future life. So, to analyze youth condition in urban areas, we have studied similar researches investigating the effects of the district of residence (the so-called neighborhood effects) and the effect of institutions on youth in European urban areas. In all the studies considered, we can put in evidence a strong correlation between the neighborhood effect, the level of social deprivation and the educational environment for the present life and also on professional future possibilities of young people.

After the reading of the mainly research on this topic, we had to choose the reference area. Among the Italian cities we decided to analyze Milan because the economic and demographic dimension is similar to those of the European cities analyzed in the literature review. Milan is the second largest Municipality by population in Italy (1,324,110), after Rome. It is also the center of the biggest metropolitan area in Italy, and one of the biggest in Europe and it is considered as the economic and financial capital of Italy. As well as the principal

cities of Europe, after the economic crisis of 2008 also in Milan there was a negative trend of all the principal economic indicators[1].

For the realization of our research, we referred to some of the data processed by the writer on the basis of data from the last Census of population and households conducted by ISTAT in 2011 and on data provided by the Statistical Office of the Municipality of Milan. From the first kind of data we have made a demographic analysis of the city in the last ten years, and particularly the demographic balance of the population, the trend of population by age and generation for each of the nine areas of Milan, and finally, the impact of the foreign population. By this analysis we have put in evidence a migratory movement of people who belong to the age group 30 - 39 in 2001 and that today would have to be part of the 40 -49 age out of the city. We needed to examine the reasons of these movements and to do this we have considered the differences existing between the areas of Milan.

The municipal open data were useful to study the spatial distribution of schools by level and of facilities and public spaces for young people in the nine areas of Milan: the number of structures will be compared with the number of young people from school age cohorts (0-14, 15-19) living nearby. The purpose of these calculations was to verify quality of life of young and to examine the relationship between what we have called "leaks" by young people from some areas and the offer of available services. In fact, after a creation of the indicators to assess the endowment benchmarks for school, cultural structure, Young Meeting Centers, sports centers, health centers specialized for young people, we have detected a connection between the services furnished and the presence of a specific population-based cohort.

The conclusion of the first chapter suggests an experimentation of the generational mainstreaming and then the testing of innovative tools for measuring disparities in service delivery and evaluation of the

[1] Costa, Sabatinelli, 2012

actions taken to protect the rights of youngest population and protection for future generations.

The second and the third chapters are in a similar field of research of the first, the analysis of the young's condition, but in these two researches, we investigate the intergenerational equity and intergenerational mobility between father and son considering job position, labor income and disposable income.

If in the second chapter, we develop a literature review of the primary researches on intergenerational transmission of poverty and intergenerational mobility with the aim to analyze the most appropriate and recognized methodology to measure this data in Italy, in the third paper, we have searched for some innovative approach to intergenerational mobility (the Great Gatsby Curve created by Corack Miles in 2013[2]). It is important to emphasize how the digression on intergenerational transmission of poverty made in the second chapter was useful for use in a first moment, to investigate on the relationship between parents' social and economic condition and sons' condition; after this, awaiting at the EU-SILC module on intergenerational transmission of poverty of 2005, we were able to study the Italian conditions compared to the shape of the other European nations.

In both chapters, the methodology employed to evaluate the mobility and so the elasticity between fathers' and sons' income is which one suggest by the traditional equation of Solon that consider the elasticity of income related to some other variables like age, educational level, job position, geographical area, etc.[3].

About the data, in the second chapter, we have used data from the Bank of Italy Survey of Household Income and Wealth (SHIW) and particular survey from 1986 to 1991 for fathers' sample and from 2004 to 2010 for the creation of sons sample. By this elaboration we found a

[2] Corack M., 2013
[3] Solon, 1992

level of the intergenerational mobility (ß=0,57) that is lower than which one of the principal developed countries of Europe.

About the calculation of the value of intergenerational equity, we use the *two-sample two-stage least squares estimator* (TS2SLS), as an accredited way to overcome the lack of a panel complete with the corresponding information of fathers and sons[4]. By this estimator is it possible to work with two separate samples, one with the information on sons' condition and one with the information on fathers' condition coming from retrospective questions.

In the third chapter, we decide to calculate the level of intergenerational mobility considering survey from the Bank of Italy SHIW of 1989 and 1991 for fathers' sample and from 2010 and 2012. But in this case the object of our research it was not only the resulting level of intergenerational mobility, but also the disparities of the data considering, for both fathers and sons, some important factors: 1) the educational level (measured in years of education), 2) the job title, 3) the job sector, 4) the geographical area (North, Centre, South). Hence, with the aim of exploring the role of the market and of the government in the rate of intergenerational mobility, we have decided to consider the elasticity of labor income between father and son, and also the elasticity of disposable income between father and son.

The resulting level of intergenerational mobility, in both cases, was bigger than which one calculated in the second chapter. In fact, in the third chapter, we are able to include in a better way the negative influence of the recent economic crisis: the possibilities to work on two survey realized after 2008 – the considered starting year of the crisis – permit us to have a measure of this negative impact.

With the aim to study in deep the effect of the increasing of the intergenerational mobility level, we have decided to make a comparison between the distribution of disposable income by age class.

[4] Ermisch and Nicoletti, 2007

By this we found a significant disparity in twenty years in the redistribution of income in our class of age, demonstrating the increase of inequality.

Finally, to have evidence of the evolution of intergenerational inequality linked to intergenerational mobility and to apply the innovative Corak's Great Gatsby Curve, we have decided to make a comparison between Italy's condition in different years and, to have a comparison of the Italian position in the international context. Also by this experimentation we could underline hoe Italy has a very rigid structure in which the future of sons is strongly related to the past of parents.

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Chapter 1 - Urban Poverty and deprivation: a focus on youth condition in Milan[5]

Abstract

The aim of the paper is to investigate the linkage between poverty and the access to public structures and places for young people. In this paper, we will focus on the Italian city of Milan.

The paper is divided into three sections. In the first part we will make an analysis of the demographic changes registered by the Municipality of Milan in the last ten years. In this section, we observed the distribution of the population in the nine areas of Milan referring to demographic data as well as further investigations already conducted on the territory that describe some qualitative aspects of different areas.

In the second part we will deal structures for young people in Milan and how they are distributed between areas. In this part, as well as highlighting the differences between the central and peripheral areas, we will also help to identify a relationship between the joints of the cohorts of younger generations from some areas of Milan and the endowment, or under-provision of school facilities or recreational activities.

In the third part we will make a suggestion on the instrument of generational budget as an instrument of policy for the City of Milan to improve the effectiveness and efficiency of interventions for young people, and intervene in counteracting social exclusion and to be able to decrease the flow of people out of Milan.

Keywords: *urban poverty, education, equity, generational accountability*.

[5] This chapter has been accepted to the XIV April international academic conference on economic and social development hosted by the National Research University Higher School of Economics (HSE) of Moscow with support of the World Bank and the International Monetary Fund (2-5 april 2013). On 13th December 2013, this chapter wins the "Best Social Research" of the contest "Statistica, Open Data e Società", promoted by Catholic University of Milan and Municipality of Milan.

1.1 Summary

Changes in the economic, cultural, social and environmental issues in recent years have meant that the current globalized society has changed significantly the idea of well-being and satisfaction of the individual. Therefore, it has become difficult to define the level of income that a person needs to not perceive himself as a poor, because the idea of well-being is not only related to the material aspects but to a whole range of needs and desires material and not material. Throughout this article we are mainly concerned with urban poverty and all the typical characteristics of poverty and deprivation that can affect citizen.

A city can be a source of social events and opportunities or, on the contrary, be an obstacle to their realization, or even result in the exclusion of the individual from a "normal social life." Some forms of poverty, moreover, can be the consequence of myopic urban processes perpetrated in time and which the individual did not participate[6]. In this sense also the active participation of the citizen or the citizen's cooperation on the policies of their city, becomes a good political action to combat poverty: even those who live in a state of discomfort, in fact, could be able to express their thoughts. In this way, on the one hand the citizen participant will avoid to be marginalized, on the other by making a contribution citizen participates in the improvement of the area where he lives[7].

The decision to investigate the urban poverty and deprivation is closely related to the goal of the writer to identify new policy instruments and citizen participation that can support poor people deprived of their opportunities and gets them out of situations of stigma. To achieve this goal, it becomes necessary to investigate different dimensions of poverty: the dimension of infrastructure, like

[6] Pieretti, 1991
[7] Duncan, 2009

the level of private and public services, the socioeconomic dimension, or the level of opportunities available, the size of the population and, finally, the economic dimension[8].

The decision to expand the horizon of economic deprivation and thus to overcome the aspect of measuring income, depends on the critical issues related to the concept of poverty exclusively monetary. Different theories over the years have shown that the income cannot be a sufficient indicator for the measurement of the resources available to an individual. From half of the 900 onwards economists and sociologist have been proposed several alternatives to provide a broader idea of deprivation. The turning point occurs in the work of Townsend with his idea that poverty is objectively defined only in terms of relative deprivation[9]. However, the contribution that more has been taken away from the purely monetary theories is that of the basic needs of Amartya Sen, who, while recognizing the role of income as an indicator of deprivation, focuses its attention on the quality of life and the freedom of life of an individual[10].

In addition to theoretical issues, there are several statistical reasons for the exclusive use of the indicator income and these become even more relevant if we consider the urban dimension. First, it becomes problematic to find or partially find reliable information regarding income: it is difficult to get the details of income earners in a municipal dimension, if we choose the method of finding data by questionnaire, there may be measurement errors generated by information asymmetries, so the individual can more or less intentional declare incomplete information. Another problem is the inability of income to measure the degree of satisfaction of the individual with respect to a certain living standard and that may also be related to disposable income coming from long-term processes such

[8] Chiappero-Martinetti, Nuvolati, 2011
[9] Townsend, 1979
[10] Sen, 2006

as inheritance, capital income, life savings, and resources from informal economy[11].

The paper is divided into three sections. In the first part we will make an analysis of the demographic changes registered by the Municipality of Milan in the last ten years. In this section, we observed the distribution of the population in the nine areas of Milan referring to demographic data as well as further investigations already conducted on the territory that describe some qualitative aspects of different areas.

In the second part we will deal structures for young people in Milan and how they are distributed between areas. In this part, as well as highlighting the differences between the central and peripheral areas, we will also help to identify a relationship between the joints of the cohorts of younger generations from some areas of Milan and the endowment, or under-provision of school facilities or recreational activities.

In the third part we will make a suggestion on the instrument of generational budget as an instrument of policy for the City of Milan to improve the effectiveness and efficiency of interventions for young people, intervene in counteracting social exclusion and to be able to decrease the flow of people out of Milan.

1.1.1 Poverty and risk of poverty of young people

In order to identify a particular type of person in difficulty, we decided to focus the analysis on a particular category of people who live in the city: younger age groups.

Young people today are considered a particularly sensitive, especially in so-called developed countries where public debt, an aging population, and scarcity of jobs have reached such pathological

[11] Bozzon, Degasperi, Marzadro, Podestà, 2007

conditions as to say that, for the first time since the post-industrial, today's young people live in worse conditions than their parents[12]. So it is important to have a generational point of view of poverty by considering both the intra-generational inequality, which means that there are different conditions of income and wealth among individuals of the same generation, both the intergenerational inequality, so that the young people of today seem to be on average less wealthy youth of yesterday[13].

We define urban youth, the youth living in cities and that perceive changes and inequalities so more than their peers who live in rural areas. The urban area affects and is in turn influenced by social change: is the place where the society can weaken or strengthen depending on the interaction, and it can be a source of opportunities and restrictions for people living there[14]. Hence the idea that urban space can affect the young person today to the kind of adult who will be tomorrow[15]. The presence or absence of functional structures such as schools, youth centers, libraries, sports facilities and even medical facilities, can affect the growth of young and turn him (or not) into a successful adult, responsible and involved in the development of its urban context.

Within the city itself, there are completely different ways of life: life in the suburbs is almost always stigmatizing and tends to reproduce the status of young people in poverty and exclusion typical of the area, while those who were lucky enough to be born and live in central areas has a better chance to access and benefit from social and economic opportunities. Those who come from wealthy families to experience the city can participate in educational activities or just leisure without foreclosure, favoring private spaces. The most

[12] Ambrosi, Rosina, 2009
[13] Roccisano, 2011
[14] Nuvolati, 2011
[15] Jones, Wallace 1992

vulnerable are forced instead to settle for what the city offers them for free. If the services were poor, both in terms of quantity and especially from the qualitative point of view the effects on young people may be different: a lack of integration of young, poor or deprived, often pushing them towards negative behaviors (crime, school dropout)[16].

The city, therefore, does not produce for youth living standards and equal opportunity, but rather it is the place where in recent years social mobility has reached very low levels[17]. The starting point, therefore, play an essential role since they determine not only the opportunities, but also the individual's level of relationship that can establish with the inhabitants of other areas. Who's from a deprived neighborhood can become an outcast from opportunity and positive relationships only because they live in that particular neighborhood.

From the sociological point of view, this kind of analysis refers to the methodology of the Chicago School of the early 900 that is based on the existence of so-called "natural areas" or habitats of different types of people in the city. Emblematic in this regard is the classic example of Shaw on the possibilities and perceptions of young people in urban slums who observe the different opportunities of the most affluent, including their lack of access to the same opportunities, and feel compelled to commit to this negative action - sometimes delinquent - in order to improve their social position[18].

Years later, Wilson introduces the term "neighborhood effects" to highlight how living in a disadvantaged background can certainly increase the risk of poverty of the individual: social norms, family environment and the quality of the neighborhood where you live can affect negatively the standard of living of the people living there[19].

[16] Andreson Moore, 2009
[17] Foroohar, 2011
[18] Shaw, 1930
[19] Wilson, 1987

1.1.2 Neighborhood effect and education: a focus on the European situation

The idea that the district of residence has an effect on the growth of young people over the years is supported by numerous studies that analyze the effects of institutions in the neighborhood and interacting with young: the presence or absence of adequate schools, parks, libraries, places socialization, etc[20]. But if this sort of studies is well-established in the United States, we can say that in Europe this is an area of research still very young and that has affected mainly the Northern countries. Garner and Raudenbush analyzed the neighborhood effect considering the level of social deprivation in educational institutions and education of 2,500 young people in Scotland: also in familiar contexts, not particularly disadvantaged situations of spatial deprivation in education/school negatively affect learning and then employment opportunities in the future[21]. Similarly Andersson studying the condition of adolescents in Sweden showed the presence of different types of neighborhood effects associated with the educational environment and intended to be reflected in future in professional contexts[22]. Kaupinenn regarding the case of Helsinki is a step further and concludes that the educational environment is certainly one of the means by which the effect occurs so as to influence the young in the completion or abandonment of the secondary school[23].

About the connection between educational level and poverty, there are two important researches to be mentioned. The first is which one of Hammer and Julkunen, that in 2002 have underlined how an efficient education system increases the possibility for young to live better and reduces the portion of young and/or young adults in

[20] Galster et al, 2007
[21] Garner, Raudenbush, 1991
[22] Andresson, 2004
[23] Kauppinen, 2008

condition of social exclusion and marginalization[24].

Secondarily, we want to refer to recent studies conducted by Raffo at the University of Manchester: he has underlined how poverty can affect the "education of a young and as a special education systems are able, in turn, to have an impact on poverty of the individual"[25]. This study demonstrates on the one hand as the young, the same way as ethnic minorities, have become subjects, particularly vulnerable to poverty, on the other hand how these poverty occurs through the access to particular types of education and thus reducing opportunity access to particular resources or professional levels.

The situation, again, is more serious for young people who live in cities: episodes of social exclusion related to the earning power of the family of origin may lead to delinquent behavior and school performance is also low[26]. Studies by Sibley show that even in English city poverty and social exclusion of young people is determined not only by the place where you live, but also to the neighborhood where they're attending the school[27]. Even Bauder described similar phenomena with the term "cultural exception" to demonstrate how the weight of the reputation of a particular school can affect the life of a young reducing their future life chances[28].

Throughout this article we will look at the forms of "social deprivation" that can affect young people today in the urban context and that particularly affect access to education, recreation and cultural areas as well as health dedicated to them. The reference area identified is the City of Milan.

[24] Hammer, Junken, 2002
[25] Raffo, Dyson, Gunter, Hall, Jones, Kalambouka, 2009
[26] Cauce, A., Stewart, A., Rodriguez, M., Cochrane, B. & Ginzler, J. , 2003
[27] Sibley, 1995
[28] Bauder, 2002

1.2 The case of Milan: new indicators of Poverty's distribution

Among the Italian cities we decided to analyze the case of the city of Milan because we considered particularly interesting for many different players who live there and because the economic and demographic dimension is similar to those European cities mentioned in the introductory part. Even in urban areas of Milan, young people are in a position of disadvantage and are often forced to turn to the third sector to ask for food or other types of financial support. If we consider the work of Caritas, one of the most important social organizations in Italy, we will see that those who require the services of Caritas in Milan is predominantly young: one third of the total (36.8%) under 35 years, one-third (the 29.1%) between 35 and 44 years. The percentage of people over 65 was 2.9%[29]

For the realization of this paper, we will refer to some of the data processed by the writer on the basis of data from the last Census of population and households conducted by ISTAT in 2011 and on data provided by the Statistical Office of the Municipality of Milan. In addition, reference was made to the surveys conducted by questionnaire in research "The Social Distance in some urban areas in Italy", with specific reference to the case of Milan[30], the processing of the database AMERICA in research "Spaces of poverty" [31] and research "STAY - Restructuring Large-Scale Housing Estate in European Cities: Good Practices and New Vision for Sustainable Neighborhoods and Cities" in 2002[32]. The results of these studies have been helpful in strengthening multi-level considerations for areas of Milan, with particular mention to housing in the neighborhood, to

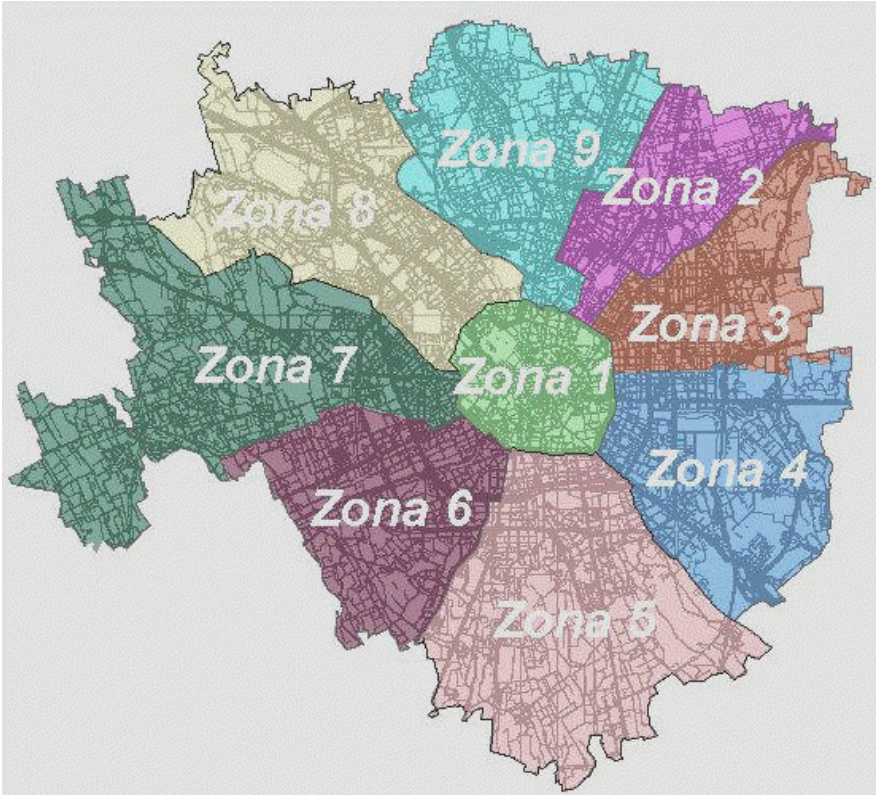
[29] Caritas Ambrosiana, 2011
[30] Tacchi, 2010
[31] Chiappero-Martinetti, Moroni, Nuvolati, 2011
[32] Borlini, Memo, Mugnami, Zajczyk, 2005

subjective perceptions, social differences, and finally the distribution of income and the inequalities associated with it.

About our processing of data relating to the Census was conducted a small study of demographic change occurred in the city of Milan in the last 10 years. In particular, we analyzed the demographic balance of the population, the trend of population by age and generation in the area, and finally, the impact of the foreign population. These data were then compared with those provided by the Office of Statistics' municipal services provided by the City. This comparison will allow us to highlight the spatial distribution of schools by level in the several areas in Milan.

In addition to the number of schools, it will also analyze the number of facilities and public spaces for young people. To perform this analysis we have created a separate census for the area of municipal sporting facilities (including those run by associations and cooperatives), the youth community centers, public libraries and archives, family counselling and public medical facilities for young people. In this case the number of structures will be compared with the number of young people from school age cohorts (0-14, 15-19) living near the centres surveyed.

Figure 1: The city of Milan



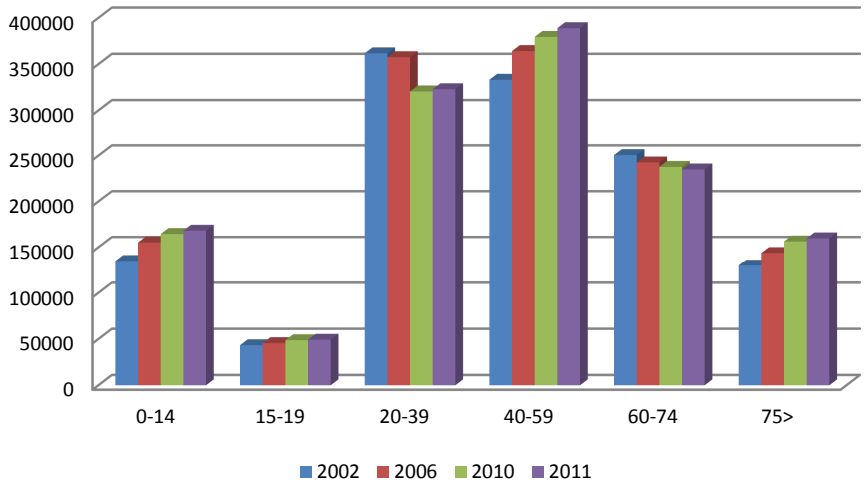
The purpose of these calculations is to verify the quality of life of young individuals in a given area and to examine whether or not the relationship between what we have called "leaks" by young people from some areas and the offer of available services. The resulting data from surveys related to social distance and the quality of life of the Milanese population will, finally, provide a picture of the socioeconomic and symbolic dimension of the various areas of Milan that influence population movements (inbound or outbound from 'area) and that, following the idea suggested by Bauder about the effects of access to education in the lives of young people, can generate social exclusion, stigma and negative consequences in the future life of young[33].

[33] Bauder, 2002

1.2.1 Running from Milan?

The first notation that can be done by looking at the data about the demographic changes in the area concerned, as the graph 1 shows, the composition of the population of Milan. We can say that this is significantly changed with an increased incidence of the elderly with more than 75 years and cohorts of younger population (0-14 and 15-19).

Figure 2: The city of Milan
(Source: our elaboration on Demo.istat)

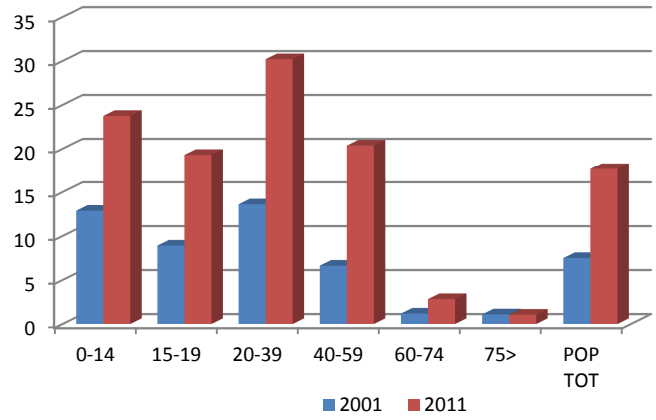


But if for the first segment of the population affected by the change we have outside influences in addition to the physiological aging of the population and the improvement in life expectancy, the increase of the second group, the youngest, it should be noted the weight of the foreign population. As shown in Figure 2, if we look at the percentage of foreign population cohorts belonging to very young (0-14) and young (15-19), we can say that the impact of the foreign population in the last 10 years has grown considerably and in some cases has doubled. If the youngsters belonging to the first age group rose from 12.87% in 2001 to 23.74% in 2011, members of the age group 15-19 showed a movement from 8, 91% in 2001 to 19.29% in 2011.

While the changes are not very significant in the foreign population in old age, it is interesting to note that even the foreign population in adulthood (40-59), and then in the middle of working age has sharply increased in 2011 coming to be 20.36% of the total population.

However, the most significant portion of the foreign population is composed of the 20-39 age groups where the percentage increased from 13.6% to 30.2%. This fact becomes even more important if we consider the demographic balance of the Milanese population that shows changes in entry but also outgoing direction.

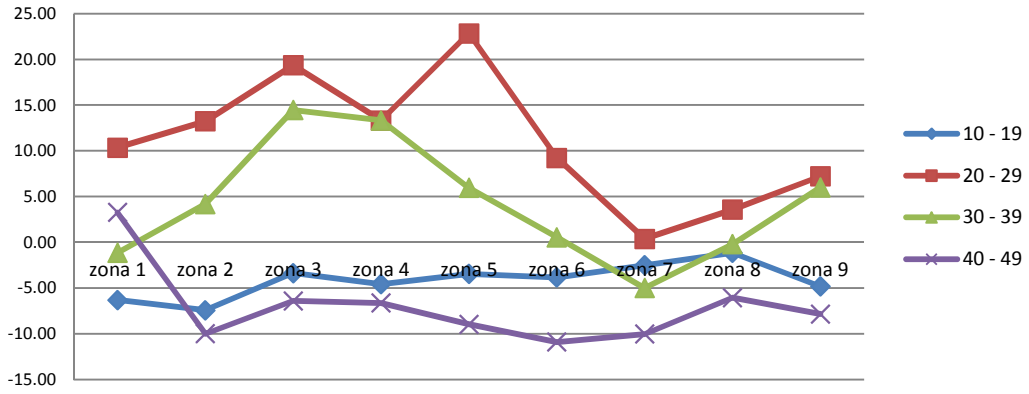
Figure 3: % Incidence of stranger population by age
(Source: our elaboration on Demo.istat)



Looking at Table 2, we can highlight the migratory movements of the Milanese population divided by age decades between 2001 and 2011. The decision to consider the classification by decades of age is related to the possibility of observing the same groups of people from one decade to another. We assume that the person who had been counted in 2001 in the age group 10-19 in 2011 should result in counting the next age group (20-29) and so on for the other age groups. The balance and the calculation of the percentage are thus intended to highlight the presence of anomalies cannot be linked with mortality rates recorded in Italy and that younger age classes are always less than 0.1%.

Not all areas are affected by the same depopulate: figure 3 it shows us the percentage of movements into zones for different cohorts of generation, and underlined that young people is moving to the central and southeastern part of the city. Looking at the net migration of the Milanese population by age groups in the range from 2001 to 2011 in fact, we can highlight the behavior of an almost individual who decides to change residence: persons changing residence is mainly those who belong to the age group 30 - 39 in 2001 and that today would have to be part of the 40 -49 age group. It is no coincidence, then, we can highlight a trend for a better match for the age group 10-19: This fact supports our hypothesis of migration family.

Figure 4: % movements from area by decades
(Our Elaboration from Open Data – Municipality of Milan)



Tab. 1: Net Migration between areas by decades
(Our Elaboration from Open Data – Municipality of Milan)

Area 1					Area 4					Area 7				
	2001	**2011**	Δ	**%**		**2001**	**2011**	Δ	**%**		**2001**	**2011**	Δ	**%**
0 - 9	7929	8175			**0 - 9**	9510	10428			**0 - 9**	11794	11497		
10 - 19	6612	7429	-500	-6,31	**10 - 19**	8779	9074	-436	-4,58	**10 - 19**	11058	11288	-506	-4,29
20 - 29	10195	7296	684	10,34	**20 - 29**	14578	9949	1170	13,33	**20 - 29**	17608	11099	41	0,37
30 - 39	15272	10078	-117	-1,15	**30 - 39**	22429	16555	1977	13,56	**30 - 39**	25476	16727	-881	-5,00
40 - 49	14635	15772	500	3,27	**40 - 49**	17723	20940	-1489	-6,64	**40 - 49**	20344	22921	-2555	-10,03
50 - 59	13981	11081	-3554	-24,28	**50 - 59**	18692	16163	-1560	-8,80	**50 - 59**	22143	18540	1804	-8,87
60 - 69	11881	11152	-2829	-20,23	**60 - 69**	20829	16098	-2594	-13,88	**60 - 69**	23614	19129	-3014	-13,61
70 - 79	8885	8939	-2942	-24,76	**70 - 79**	17433	16614	-4215	-20,24	**70 - 79**	17165	19148	-4466	-18,91

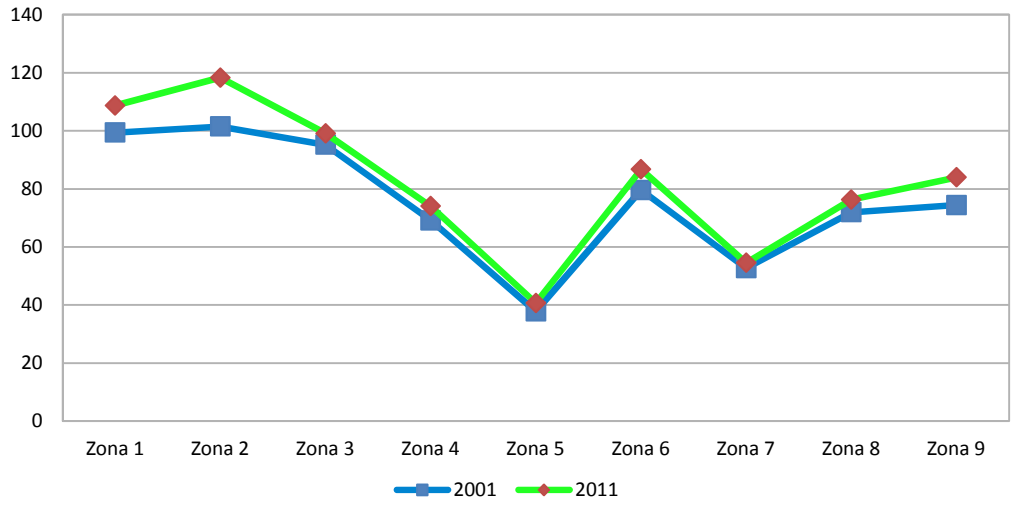
Area 2					Area 5					Area 8				
	2001	**2011**	Δ	**%**		**2001**	**2011**	Δ	**%**		**2001**	**2011**	Δ	**%**
0 - 9	8435	8446			**0 - 9**	7633	8172			**0 - 9**	11522	12058		
10 - 19	7879	7808	-627	-7,43	**10 - 19**	7590	7369	-264	-3,46	**10 - 19**	10983	11389	-133	-1,15
20 - 29	14136	8922	1043	13,24	**20 - 29**	12787	9324	1734	22,85	**20 - 29**	17726	11376	393	3,58
30 - 39	19912	14729	593	4,19	**30 - 39**	18069	13549	762	5,96	**30 - 39**	25588	17689	-37	-0,21
40 - 49	16135	17921	-1991	-10,00	**40 - 49**	14123	16447	-1622	-8,98	**40 - 49**	21149	24037	-1551	-6,06
50 - 59	17267	14589	-1546	-9,58	**50 - 59**	15356	12911	-1212	-8,58	**50 - 59**	22734	19591	-1558	-7,37
60 - 69	17283	14667	-2600	-15,06	**60 - 69**	16834	13228	-2128	-13,86	**60 - 69**	25622	19779	-2955	-13,00
70 - 79	13173	13727	-3556	-20,58	**70 - 79**	11243	13529	-3305	-19,63	**70 - 79**	20037	20809	-4813	-18,78

Area 3					Area 6					Area 9				
	2001	**2011**	Δ	**%**		**2001**	**2011**	Δ	**%**		**2001**	**2011**	Δ	**%**
0 - 9	8961	9891			**0 - 9**	9552	9747			**0 - 9**	10550	10965		
10 - 19	8194	8659	-302	-3,37	**10 - 19**	9282	9185	-367	-3,84	**10 - 19**	10428	10041	-509	-4,82
20 - 29	13677	9780	1586	19,36	**20 - 29**	15503	10139	857	9,23	**20 - 29**	17420	11181	753	7,22
30 - 39	20795	15656	1979	14,47	**30 - 39**	22290	15589	86	0,55	**30 - 39**	24488	18464	1044	5,99
40 - 49	17246	19463	-1332	-6,41	**40 - 49**	17930	19856	-2434	-10,92	**40 - 49**	20060	22564	-1924	-7,86
50 - 59	18706	15646	-1600	-9,28	**50 - 59**	19877	16139	-1791	-9,99	**50 - 59**	21175	18703	-1357	-6,76
60 - 69	18186	15839	-2867	-15,33	**60 - 69**	22009	17037	-2840	-14,29	**60 - 69**	21522	18402	-2773	-13,10
70 - 79	14820	14456	-3730	-20,51	**70 - 79**	16155	17721	-4288	-19,48	**70 - 79**	16611	17426	-4096	-19,03

We try therefore to investigate what may be the reasons for these movements. Before evaluating the strengths and weaknesses that may make it more or less attractive than one zone to another, we observe the trend of the density of the population present in the area, in order to make possible the more objective comparison between the amenities in various areas.

Figure 4 shows how the evolution of the density over the past decade has been basically similar. It is also easy to see how the zone 5 and zone 7 is more limited and less populated areas with lower density, while areas with a higher density are the most historic areas of the city or the zone 1, zone 2 and zone 3.

Figure 5: Performance Density Population
(Our Elaboration from Open Data – Municipality of Milan)



Undoubtedly, the change in the demographic composition Milan cannot be dictated by individual choices to migrate from one area to another or from one city to another only for the sake of social opportunities. In recent years, Milan like most European cities have absorbed inside most of the hinterland that has changed the structure of the city, reducing the distance of what was once intended to be the periphery without this was in fact included in the center.

1.2.3 Distances social: problems and strengths in the areas of Milan for a young person

For now, several scholars have dealt with the social dimension of the area in Milan, identifying some areas with with a high level of attractiveness- such as former industrial zone 9 (e.g. Pirelli-Bicocca, Comasina, etc..) or zone 3 (e.g. Via Rubattino Innocenti ex-Maserati) where both private and local actors have intervened to improve the area – and some others with descendant attractive, in which an improvement of mobility opportunities and proximity to the center has not paid an equal improvement of living conditions. This is the case in some areas of zone 7 (e.g. San Siro) or section 8 (e.g. Fourth Oggiaro) where the poor quality of housing and the presence of different types of marginalized social groups (abusive, illegal) disrupt the heavily 'image data from[34].

It has been shown in research on social distance to which we have already referred, that culture, ideals and policies are considered among the most important reasons that may affect the choice of acquaintances and especially the choice of those who exclude from their friends, while the imaginary interviewee's social position and area of residence are factors able to influence others to exclude it from their friends. In fact, the same research shows that the Milanese citizens perceive the presence of real social and cultural barriers related to inequalities in terms of income and in terms of membership and thus a spatial area of Milan where he lives[35].

In this section we will investigate what are the differences that exist between areas of Milan in particular with respect to certain specific aspects. A first group of issues, the economy and income of families and the safety aspect and hence the distribution of crimes in various areas of Milan, cover the entire city population, a second group

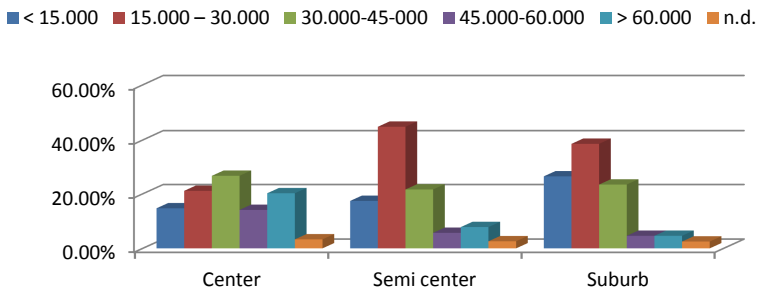
[34] Borlini, Memo, Mugnano, Zaiczyk, 2005
[35] Ivi

will instead specific reference to the young population and will cover the spatial distribution of both schools and other infrastructural facilities dedicated to its young people.

From the economic point of view, the only data we have today are the surveys conducted by the Chamber of Commerce of Milan on household consumption in Milan. From a reading of these data, it follows easily that there is an unequal distribution of income among the various parts of the city. Let's highlight, however, that there is significant economic diversity within the same area.

In fact, while in the central area the six income groups are almost equally represented, with a larger number of families belonging to the class of income between € 30,000 and € 45,000, in other areas there is a considerable number of families belonging to the class average, with an income between € 15,000 and then € 30,000 and different percentages of families belonging to other groups: in the suburbs will be more families receiving less than € 15,000 while in the ring of semi centre there are more families that exceed € 30,000.

Figure 6: Percentage of households by income for local "rings"
(Our elaboration. Source Italian Chamber of Commerce 2012)

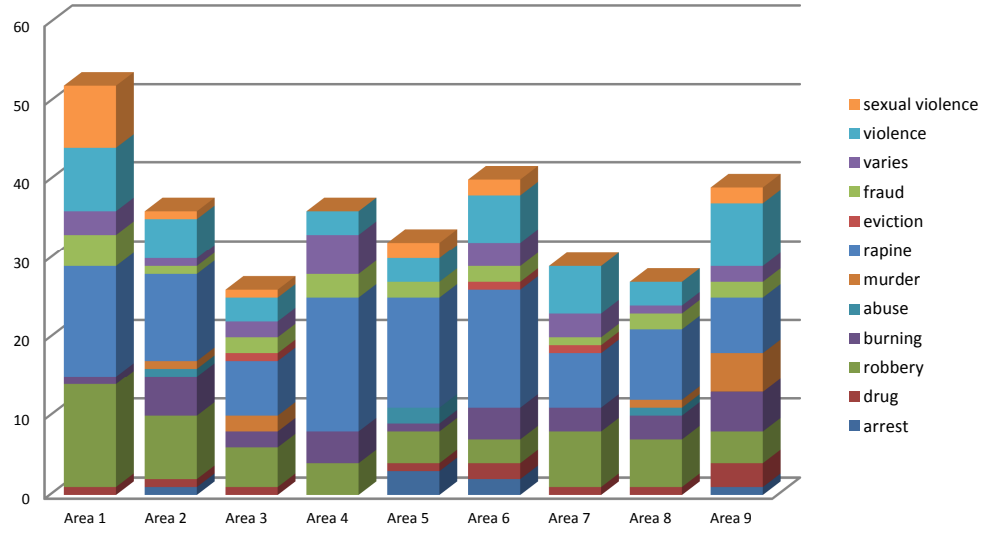


With regard to the safety aspect we can use the data of the "Map of the crime of Milan"[36] for the crimes committed in 2012. From

[36] The map of the crime is an experimental geolocation crimes conducted by journalist Daniel Bellerio in Milan and recording locally automatically all the crimes perpetrated in Milan. Each event shown on the map is cataloged according to different criteria, including date and type of crime (theft, robbery;, fire, drugs, murder, violence, sexual violence, abuse, and various -

this map we can see that there is a large discrepancy between the central and the peripheral areas on common crimes: robbery, theft and fraud occur almost without difference in the Milan, but occur to a greater degree in central areas. On the contrary, we can see a remarkable diversity instead observing the recording of the murders, which occurred mostly in zone 9 and episodes of abuse and violence, the frequency of which is more common in the suburbs.

Figure 7: Distribution by tipe of crime by area – 2012
(our elaboration from Map of the crime of Milan, 2012)



1.3 The condition of young in Milan

1.3.1 A distribution of facilities for young

Turning now to the second area, we try to analyse the differences with respect to the distribution of schools in the territory of

including vandalism and small riots). Entries concerning classification geographic variables are three: place (i.e. the road and, when possible, the corresponding number), area (one of nine municipal districts of Milan) and circle (for central means by a circle of sticks, including avenues surround the area, near the center of the circle means between the ramparts and the outer ring road, including the same streets that surround the area, for device means beyond the outer ring road to the border town). Belleri, 2012

Milan. Looking at the graph we can see that compared to primary schools not experience any major differences between the nine areas of Milan, while observing the situation in secondary schools we can found small differences between areas mainly based on the type and addresses: high schools are more present in zone 1, and vocational schools are mainly in the area 8.

If we look at the same chart with the addition of private schools we can see a significant change in zone 1. Here 86% of the total is private schools, while private schools in the outlying areas do not exceed an average of 30%.

Figure 8: public school distribution by area
(Our Elaboration from Open Data 2011 – Municipality of Milan)

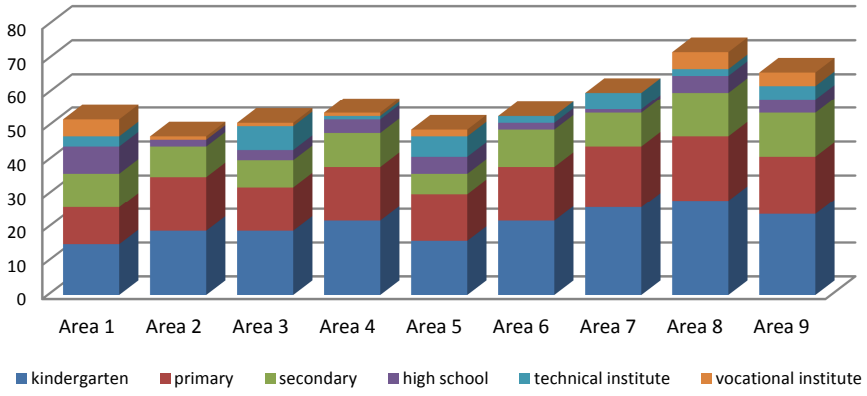
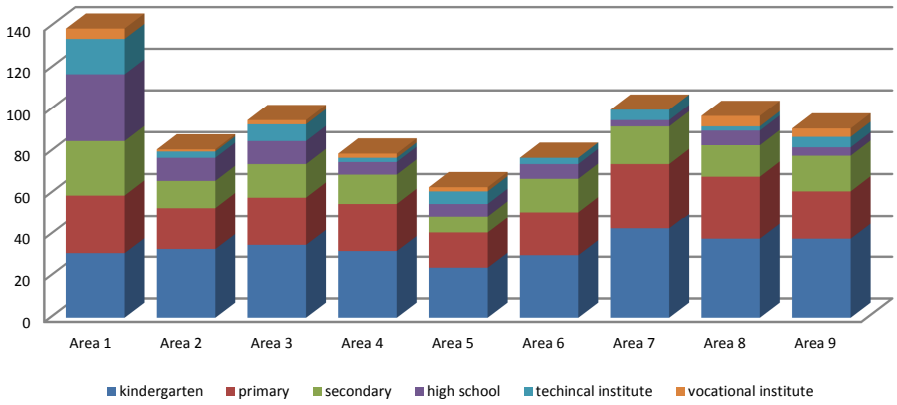
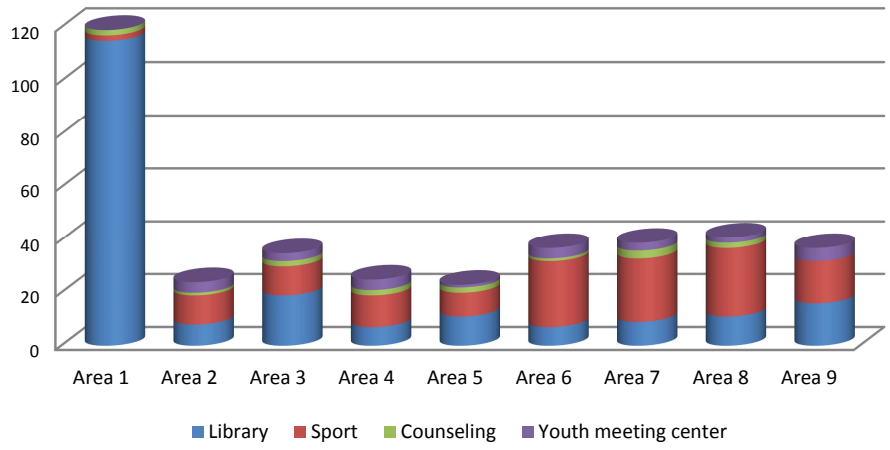


Figure 9: public and private school distribution by area
(Our Elaboration from Open Data 2011 – Municipality of Milan)



Finally, with respect to the distribution of equipment for young, from a survey conducted on the basis of data provided by the Statistical Municipality of Milan, we highlight a great disparity between the nine areas of Milan. The level of disparity most substantial is that relating to the culture. Among the 204 informative sites (libraries, documentation centres, archives, etc. ...) than 115 are located in Area 1. By contrast, the more peripheral areas have a greater allocation in the health sector and in the area of group.

Figure 10: distribution of equipment for young per area
(Our Elaboration from Open Data – Municipality of Milan)



To be able to really compare the structural equipment between the various areas of Milan with the migratory movement that we have highlighted in the previous section, we decided to create an index of structural equipment for young people. The inspiration of this index was the fuzzy logic applied to the refined functioning, but instead to verify the achievement of a function, we wont to have an evidence of the best equipped zone of Milan according to the presence of the addressees[37].

[37] Tiraferri, 2007

We surveyed the number of public schools compulsory in all areas. We distinguish the two cohorts of users: the cohort between 0 and 14 years will be the cohort of reference for students who attend nursery schools, primary schools and secondary schools, while individuals of the cohort 15-19 are the group of high school and the other kind of institute students.

Consider:

• The density of the first cohort (the ratio between the populations of the cohort 0-14) and the surface area in km2

• The density of the second cohort (the ratio between population cohorts 15-19) / km2 in surface area

• The number of schools dedicated to the first cohort

• The number of schools devoted to the second cohort

To build our index says:

1. Sk = groups of individuals per area (area S1 = 1, S2 = zone 2, etc.)

2. mk = MaxK = maximum value of the relationship. This value will serve as reference data in order to proceed with normalization.

3. ψ (Sk) = mk / m = ratio of the density of the population of the cohort and number of schools normalized to the maximum value

Since we do not have values at the individual level we consider the relationship created according to the density of the population cohort and the number of schools for the various areas of Milan. We construct an index improved based on the maximum value of the distribution: we impose normalization to the maximum value of 1. From Table 4 we show how the differences between the areas of Milan vary if we consider only the public or if one includes private schools.

Tab. 1: Index for public schools

			0-14			15-19		
S_k	a Density 0-14	b Density 15-19	c N°school (kindergarten, primary, secondary)	d = c/a	$\psi(S_k) = m_k/m$	e =N°high school and other institute	f =e/b	$\psi(S_k) = m_k/m$
Area 1	13,43	3,94	36	2,68	**0,35**	16	4,06	**0,46**
Area 2	14,87	4,33	44	2,96	**0,39**	3	0,69	**0,08**
Area 3	12,07	3,44	40	3,31	**0,44**	11	3,20	**0,36**
Area 4	9,30	2,65	48	5,16	**0,68**	6	2,26	**0,26**
Area 5	5,10	1,48	36	7,06	**0,93**	13	8,78	**1,00**
Area 6	9,99	3,07	49	4,90	**0,65**	4	1,30	**0,15**
Area 7	7,13	2,16	54	7,57	**1,00**	6	2,78	**0,32**
Area 8	9,85	2,89	60	6,09	**0,80**	12	4,15	**0,47**
Area 9	10,88	3,08	54	4,96	**0,66**	12	3,90	**0,44**

If in the first case, the maximum index was in the area 7 for the schools and the first band in the area 5 for the schools of the second age group, the presence of private schools for the first age group the maximum index remains in the area 7, but if we look at the high school the maximum index occurs in the area 1. The lowest endowment of schools varies and is always represented by Zone 2.

For now have a better idea of large-scale equipment for young we construct a table in which we give a comparison of all the indexes created following the same methodology but not only considering school, but all of the facilities distinguished by area: area school , area culture (libraries, documentation centres, Young Meeting Centres, sports centres, health centres with doors for young people).

Tab. 2: Index for public and private schools

S_k	a Density 0-14	b Density 15-19	0-14			15-19		
			c N°school (kindergarten, primary, secondary)	d = c/a				c N°school (kindergarten, primary, secondary)
Area 1	13,43	3,94	85	6,33	0,49	54	13,71	1,00
Area 2	14,87	4,33	66	4,44	0,34	15	3,46	0,25
Area 3	12,07	3,44	74	6,13	0,48	21	6,10	0,45
Area 4	9,30	2,65	69	7,42	0,58	10	3,77	0,28
Area 5	5,10	1,48	49	9,61	0,74	14	9,46	0,69
Area 6	9,99	3,07	69	6,91	0,54	10	3,26	0,24
Area 7	7,13	2,16	92	12,90	1,00	8	3,70	0,27
Area 8	9,85	2,89	83	8,43	0,65	14	4,84	0,35
Area 9	10,88	3,08	78	7,17	0,56	13	4,22	0,31

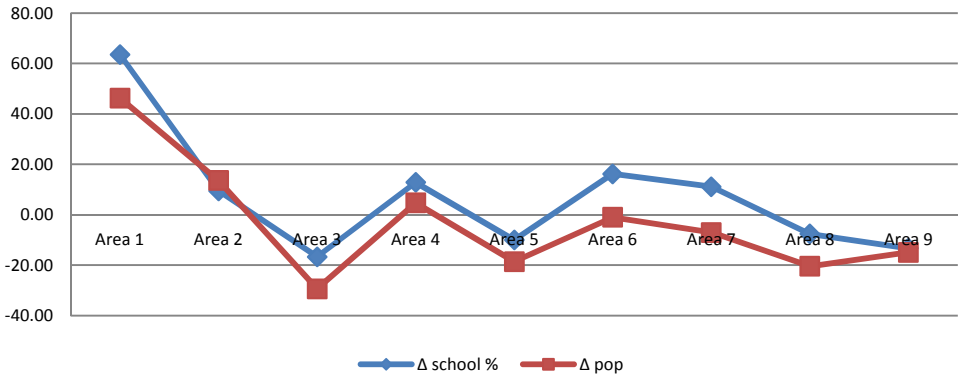
Compared to what was said earlier on perceptions of quality of life of the various areas of Milan, we can observe that the zone 1, which is the central area is the best equipped in the field of education and cultural area, while it is poorly equipped with sporting facilities public and youth centres. But we know that in zone 1 reside mainly medium and high-income households, for which young people can certainly access the facilities of the private type. The situation is more complicated if we look at the low or very low values of zone 3, zone 6 as the area 8 e 9 in almost all indicators: in this case the situation could be more serious because it would mean exclusion from infrastructure for young people and then maladjustment and social exclusion.

Tab. 3: edowment benchmarks between areas

Groups S_k	School Index	Cultural Index	Sport Index	YMC Index	Counselling Index
S_1 = Area 1	***1,00***	***1,00***	*0,04*	*0,045*	*0,357*
S_2 = Area 2	*0,39*	*0,06*	*0,22*	*0,222*	*0,161*
S_3 = Area 3	*0,61*	*0,19*	*0,27*	*0,275*	*0,399*
S_4 = Area 4	*0,56*	*0,09*	*0,39*	*0,389*	*0,518*
S_5 = Area 5	*0,95*	*0,25*	*0,53*	*0,529*	*0,941*
S_6 = Area 6	*0,51*	*0,08*	*0,74*	*0,741*	*0,237*
S_7 = Area 7	*0,83*	*0,14*	***1,00***	***1,000***	***1,000***
S_8 = Area 8	*0,66*	*0,13*	*0,79*	*0,790*	*0,486*
S_9 = Area 9	*0,57*	*0,18*	*0,44*	*0,444*	*0,000*

To check whether there is a relationship between the equipment and the demographic shifts that were found previously, let's look at the change in the number of schools in 2001 and 2011 and compare graphically the variation of the population that we have seen to be the most prone to escape, or the people belonging to the 20-39 cohort, we can see that the trend is almost the same: where the change has a negative sign on the number of schools we can highlight the same sign for the change in the population of our cohort of reference.

Figure 11: % change of Number of schools and population
(Our Elaboration from Open Data – Municipality of Milan)



This leads us to think that there is a relationship between the services provided and the presence of a specific population-based cohort. One might wonder about at this point because at lower service equipment intended for younger cohorts, corresponds to a migration of families, especially on the effects of differences highlighted on the lives of young people in Milan. It would then try to figure out if the deprivation generates the same levels of poverty and social exclusion identified by the research conducted in European cities such as Helsinki and London.

To verify the presence of influences between the changes in income, the indexes of supply of facilities for young people and the state of the school age population we thought to relate data in our

possession and which has been said so far. We have to specify the data on the trend of earnings. This is the change in income recorded as Milanese families between the years 2004 and 2000 on the basis of data provided by the database AMERICA: even if we do not have data for 2011, we decided to use it because it provided indications income families for different areas of Milan. For what concerns the level of equipment, it was decided to make an average of the five indices presented in Table 5. While the trend of the population, we have considered the variation of the population of school-age subjects and present in class 10-19.

Tab. 4: Descriptive statistics

	I = Income	**Ix = Average endowment index**	**N= pop variation (10-19)**
Average	0,47	0,39	-4,32
Standard Deviation	1,55	0,15	1,71
Minimum	-2,87	0,17	-7,43
Maximum	2,80	0,61	-1,15
1° Quartile	0,25	0,31	-4,82
Median	0,78	0,32	-4,29
3° Quartile	1,47	0,56	-3,46
Kurtosis	1,35	-1,44	0,67
Asymmetry	-0,91	0,21	-0,11
Covariance (I,Ix)	0,029981481		
Correlation (I,Ix)	0,131019477		
Covariance (I,N)			1,422269136
Correlation (I,N)			0,535252705
Covariance (Ix,N)		0,062114815	
Correlation (Ix;N)		0,246381139	

The data emerging from Table 6 show a positive correlation for all three combinations analysed: change in income and indices, changes in income and population change, indices and population change.

Undoubtedly, considerations of this kind cannot be exhaustive. That is necessary for further analysis on the trend of earnings that are

up to date and to enable us to detect any effects of the current economic crisis.

1.4 Possible policies

With a view to policy making, what has been said in the previous pages must be related with the intragenerational and intergenerational effects of public policy in general and of social policies in particular, since the indicators that may influence the choice to live in an area rather than in the presence of other services such as schools and nursery schools in a particular way, it is undoubtedly a discriminating family.

At national and regional level there are yet several policies that can be implemented to combat the social exclusion of young people that start from the creation of a school system equally distributed and that can provide as much as possible the same opportunities to all students without differences. Rarer are the examples of policies applied in urban areas, as these are the projects "Education Action Zones", "Excellence in Cities initiatives", "Connexions and Full Service Extended Schools" implemented in recent years by some English cities with the aim to evaluate and improve access to education for different population categories[38]. Through these projects the municipalities concerned have been able to observe how the level of education provided by the institutions was not the same among the different areas of the city, as if the spatial distribution affecting the reputation of the distinctive paths also influenced students' lives. Analysis of this type is closely linked to the quality aspects and student achievement. To achieve similar results, we could see the feedback of test INVALSI, and PISA in various educational facilities in the territory of Milan and so investigate the qualitative aspect of the services provided and to

[38] Raffo, Dyson, Gunter, Hall, Jones, Kalambouka, 2009

investigate the effects of the "reputation" of the area on student achievement.

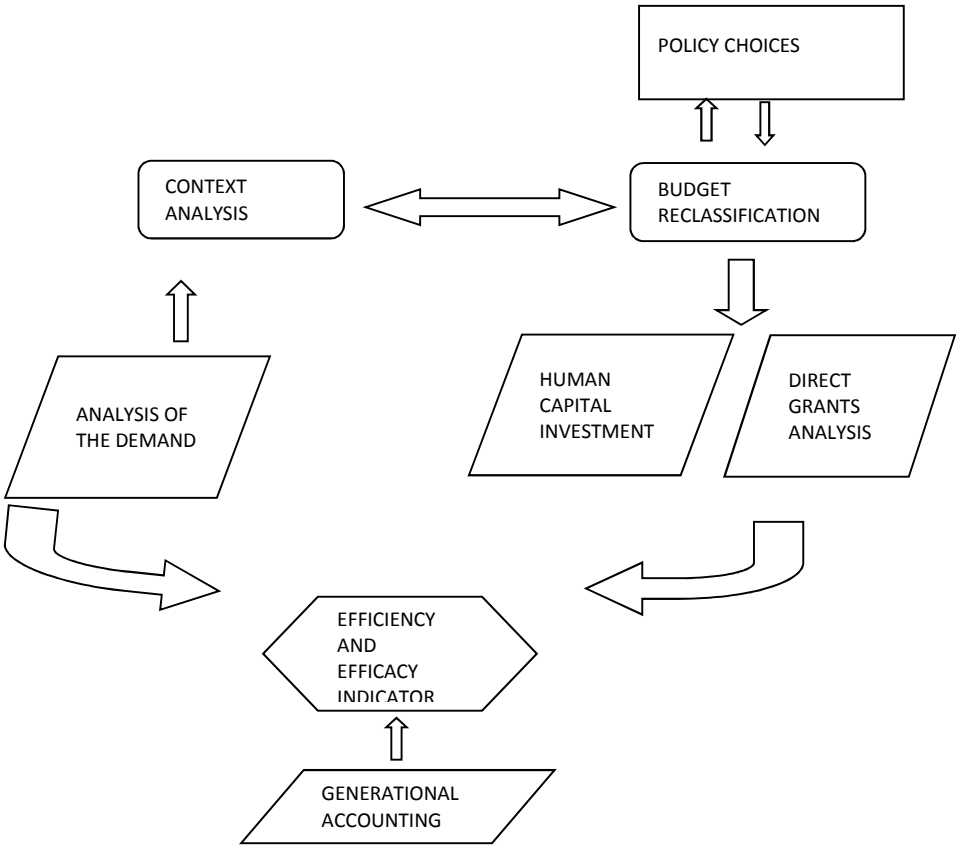
Other policies promoted at various levels are based on the diffusion of participatory practices in counteracting social exclusion. It is active policies, such as those promoted by the project "Tackling Poverty Together - the Role of Young People in Poverty Reduction", which recently have also been suggested by the World Bank and the UN not only to protect the younger population and away poverty, but also to promote the role of young users from policy to policy makers.[39]

Policies of this type can certainly tackle social exclusion, improve the quality of life and decrease the removal of young people from the city. On this line of thought, it was decided to use the generational mainstreaming and then the testing of innovative tools for measuring disparities in service delivery and evaluation of the actions taken to protect the rights of the younger population and protection also for those who will be young after them and then future generations. The tool also allows a massive intervention in favour of the active participation of young people as a necessary path to follow in counteracting social exclusion.

The method used is twofold: on the one hand, the generational accounts, already applied for the operation of state budgets and large organizations such as the IMF, will enable the institution to identify the present fiscal imbalance between the present and future generations, from the other hand there will be an array created on an ad hoc model of the gender budgeting which will also include interventions that will benefit the different cohorts of generation[40].

[39] Swedish International Development Cooperation Agency, 2009
[40] Roccisano , 2011

Figure 12: Generational Mainstreaming's diagram



As for gender budgeting, the attempt of those who decide to apply the generational mainstreaming is to identify the demand for services that can be both present and future generations, the level of provision of the services offered and how this is reflected in the future generations, for example, if interventions are planned for future programming targeted (see Figure 11).

Tab. 5: Generational mainstreaming matrix

	Indirect grants		Direct grants		Human capital Investment	Tot expenditure
COHORTs	Services	Structures	Services	Funding		
k (≤ 15)						
j (15 – 19)						
a (20 – 39)						
m (40 – 59)						
o (60 – 740)						
v (≥ 74)						

The analysis of the context helps us to understand the demographics changes and the basic needs of the various cohorts of generations on the basis of macro-survey areas selected (individual and family area, economic development area, staff area and governance). The analysis of supply of services and of direct grants and services aimed at increasing the human capital, is used in a first time as a methodology for reclassification of the municipal budget and in the end, as an instrument to influence the next budget and, therefore, political choices. The analysis of demand, however, will be done through participatory actions with the public.

To identify the level of fairness we will use the generational accounts and appropriate indicators expense report for the planning and scheduling, analysis of the context and the demand for services for the analysis of the supply of services, for analysis the budget. The numeric data of such indicators, produced at the end of each phase, summarizes the results of the various stages of analysis and directs us toward the end result that we want to obtain.

In this sense, the measurement of sustainability across generations requires the use of different types of data depending on whether you consider "transfers to entities" or "Direct transfers to the beneficiaries". To do that we have created an indicator of generational efficiency[41]. For example, if we want to analyse spending for young generations, or for the cohort of generation between 0 and 15 than for the cohort of older age (74 and over) there will be the indicator of generational efficiency for year t is:

$$GE_{t,k,v} = \sum_{t-1}^{t} \frac{S_k/P_{t,k}}{S_v/P_{t,v}}$$

Where:

[41] Roccisano , 2011

- $GE_{k,v}$ indicates the level of efficiency generational reached at time t to the population of the cohort k compared to spending for the population of cohort v.;
- S_k indicates spending by the interventions for the population of the cohort k
- S_v indicates spending by the interventions for the population of cohort v
- $P_{t,k}$ indicates the large number of individuals in the cohort reported k at time t
- $P_{t,v}$ indicates the large number of individuals in the cohort reported v at time t

As long as the ratio is below 1, the type of policy choices may not be efficient since the per capita expenditure for the generation with less life expectancy is higher than that destined to cohorts whose life expectancy is greater, for which under budget policy choices may vary.

For example, if the indirect grants aimed at creating care facilities for the elderly or the support of voluntary organizations specialized in the field of the elderly exceed the needs of its users in the area, it's possible to divert some of the funds for the creation of nurseries or schools. Similarly, the evaluation of the expenditure on school interventions and facilities for young people by improving the human capital as well as all those actions aimed at environmental protection are useful to identify the sensitivity of policy makers towards policies sustainable and to maintain the rights of young people but also for future generations, protecting the city from any leak of young unhappy.

To give an idea of the operation of the instrument, we realized, in the appendix to the text, a simulation of the generation efficiency calculation on the budget of the city of Milan in 2007 and 2011.

1.5 Conclusions

Policies to combat urban poverty and social exclusion can be different and interest in a particular manner different categories of individuals. In this paper we have dealt mainly with the category of young people as a category on which we must act decisively to limit the damage of policies anti generational perpetrated over time.

The choice to analyse the particular connection between the structures of educational and entertainment was the natural consequence of our decision to take care of the young. In fact, it would be simplistic to stop the economic analysis knowing how much this type of equipment can affect growth and opportunities for future life of a young

In this sense, Milan could be a perfect city / type to be analysed since it has great diversity, social, economic and environmental, between centre and periphery because of cultural mingling with immigrants from other parts of Italy and beyond, and the various redevelopment projects carried out over the years. Finally, the city of Milan turned out to be a positive choice for this study because it has wide demographic evidence in the movement away from urban youth.

Surely the study presented does not provide comprehensive explanations about the demographic changes in the city, since it leaves out important aspects such as the trend in the birth rate or the final destination of those who decide to leave the city. However, it is intended to highlight a possible relationship between the infrastructural facilities for young and so dedicated, directly, to the welfare of families, so as to suggest the deployment of new experimental or traditional policies that perceive the young citizen an actor of change.

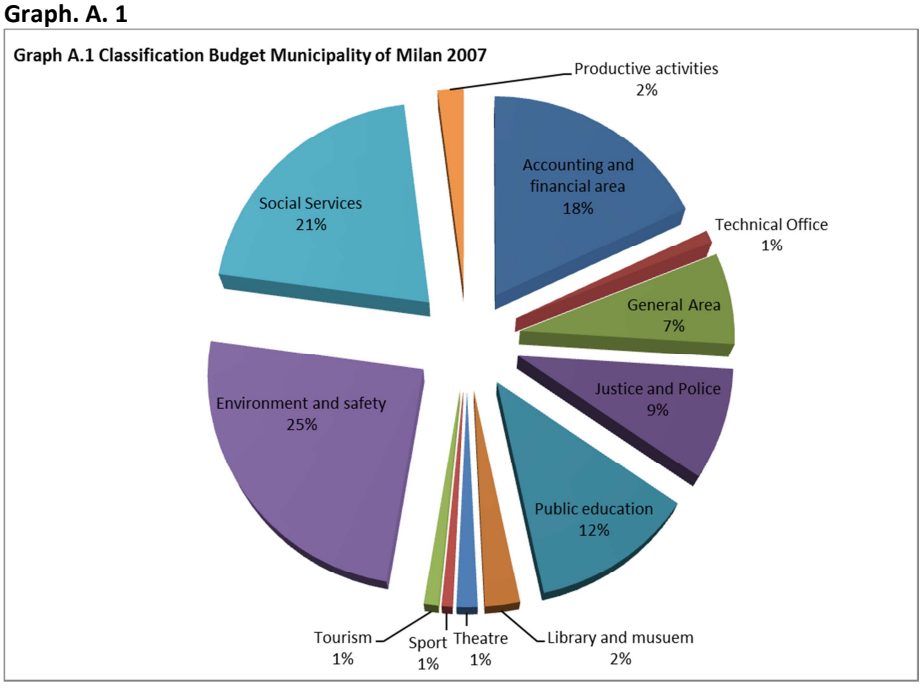
1.6 APPENDIX

Tab. A. 1: Classification Budget Municipality of Milan 2007

TAB A.1 : Classification Budget Municipality of Milan 2007					
		For Young		Others	
	Expenditure	tot	staff cost less	tot	staff cost less
Library and musuem	Library direction	€ -	€ -	€ -	€ -
	Central library	€ 5.582.230,00	€ 1.652.530,00	€ -	€ -
	Local library	€ 8.268.590,00	€ 2.287.520,00	€ -	€ -
	Art collection	€ 6.804.650,00	€ 3.718.330,00	€ -	€ -
	Historical Collections	€ 875.200,00	€ 295.990,00	€ -	€ -
	Natural History Museum	€ 1.981.830,00	€ 878.570,00	€ -	€ -
	Civic Aquarium	€ 861.350,00	€ 337.360,00	€ -	€ -
	Art collections	€ 936.000,00	€ 231.770,00	€ -	€ -
	Planetary	€ 374.120,00	€ 247.650,00	€ -	€ -
	Archaeological collections	€ 639.180,00	€ 212.620,00	€ -	€ -
	Collections of '800	€ 399.840,00	€ 161.950,00	€ -	€ -
	Historical and artistic buildings	€ 1.350.000,00	€ 548.240,00	€ -	€ -
	Art Exhibitions	€ 4.219.620,00	€ 3.649.150,00	€ -	€ -
	Archival and Restoration	€ 985.630,00	€ 179.590,00	€ -	€ -
	Museum and library direction	€ 11.234.340,00	€ 3.934.330,00	€ -	€ -
	Archaeological library of art	€ 1.059.290,00	€ 313.170,00	€ -	€ -
	Art collection of '900	€ 991.000,00	€ 805.680,00	€ -	€ -
Theatre	Cultural direction	€ 2.897.440,00	€ 1.634.270,00	€ -	€ -
	Municipal Foundation	€ 13.897.450,00	€ 13.897.450,00	€ -	€ -
	Shows	€ 9.565.580,00	€ 8.961.550,00	€ -	€ -
	Cultural activity paid by Municipality	€ -	€ -	€ -	€ -
	Cultural activity paid by Others	€ -	€ -	€ -	€ -
	Administrative Offices	€ -	€ -	€ -	€ -
	Restoration and maintenance of multi-purpose	€ 1.696.180,00	€ 1.696.180,00	€ -	€ -
	Civic Orchestra	€ -	€ -	€ -	€ -
	Sector show direction	€ -	€ -	€ -	€ -
Sport	Public Swimming pools	€ 568.290,00	€ 568.290,00	€ -	€ -
	Municipal stadiums	€ 790.040,00	€ 453.290,00	€ -	€ -
	Sport center	€ 9.563.690,00	€ 8.959.660,00	€ -	€ -
	Sport and leisure management	€ 1.818.310,00	€ 236.700,00	€ -	€ -
	Playgrounds	€ -	€ -	€ -	€ -
	Sport Events	€ 1.446.300,00	€ 1.218.330,00	€ -	€ -
Tourism	Tourist services	€ -	€ -	€ 13.388.100,00	€ 11.493.470,00
	Tourist events	€ -	€ -	€ 5.874.550,00	€ 5.008.190,00
Environment and safety	Roads and traffic	€ -	€ -	€ 49.638.930,00	€ 42.354.340,00
	Public lighting	€ -	€ -	€ 13.806.120,00	€ 13.700.130,00
	Public transport	€ -	€ -	€ 65.455.760,00	€ 62.251.870,00
	Urban planning and land management	€ -	€ -	€ 29.614.840,00	€ 13.941.240,00
	Local public housing	€ -	€ -	€ 41.728.180,00	€ 36.396.420,00
	Civil Protection Service	€ -	€ -	€ 1.052.590,00	€ 517.060,00
	Integrated water service	€ -	€ -	€ 14.604.170,00	€ 14.194.780,00
	waste disposal	€ -	€ -	€ 202.655.900,00	€ 202.655.900,00
	Parks and public green protection	€ -	€ -	€ 29.862.080,00	€ 24.894.770,00

TAB A.1 : Classification Budget Municipality of Milan 2007					
		For Young		Others	
	Expenditure	tot	staff cost less	tot	staff cost less
Social Services	Nursery	€ 60.129.400,00	€ 17.284.130,00	€ -	€ -
	Prevention and support children	€ 23.471.060,00	€ 20.641.090,00	€ -	€ -
	Getsione colonies and vacation rentals	€ 9.031.040,00	€ 5.124.900,00	€ -	€ -
	Assistance minor	€ 35.300.140,00	€ 32.847.990,00	€ -	€ -
	Prevezione and rehabilitation	€ 3.781.950,00	€ 3.180.260,00	€ -	€ -
	Elderly care	€ -	€ -	€ 56.773.410,00	€ 56.086.030,00
	Family, school and social policies	€ 4.204.360,00	€ 2.482.270,00		
	General resources	€ -	€ -	€ 5.011.990,00	€ 3.865.500,00
	Social promotion for young	€ 8.839.070,00	€ 7.632.740,00		
	Support services for elederly	€ -	€ -	€ 29.736.350,00	€ 24.085.340,00
	Support services for families with disable	€ 32.737.090,00	€ 24.445.700,00		
	immigration	€ 7.094.840,00	€ 6.546.920,00		
	Intervention for adults	€ -	€ -	€ 30.738.270,00	€ 29.235.750,00
	Center Civil Service	€ 85.610,00	€ 5.550,00		
	Preventive Services for elederly	€ -	€ -	€ 12.432.760,00	€ 11.175.340,00
	Voluntary activites	€ 873.300,00	€ 384.710,00		
	Intervention against drug and addiction	€ -	€ -	€ -	€ -
	Intervention for mentally ill	€ -	€ -	€ -	€ -
	Secodnary services for families with disable	€ 11.564.880,00	€ 10.938.410,00	€ -	€ -
	Public shower	€ -	€ -	€ 344.010,00	
	Social adn health intervention	€ -	€ -	€ 7.368.550,00	€ 6.381.830,00
	Residences	€ -	€ -	€ 27.098.270,00	€ 19.689.620,00
	Poverty	€ -	€ -	€ -	€ -
	Employment policies	€ 10.065.980,00	€ 8.051.700,00	€ -	€ -
	Urban security	€ 1.642.000,00	€ 634.860,00	€ -	€ -
Productive activities	Service necropsy	€ -	€ -	€ 18.477.770,00	€ 9.522.030,00
	Display advertising	€ -	€ -	€ 6.777.550,00	€ 3.316.140,00
	Fairs and markets	€ -	€ -	€ 260.160,00	€ 260.160,00
	Services to industry	€ -	€ -	€ 3.104.250,00	€ 1.583.530,00
	Services for business	€ -	€ -	€ 5.024.990,00	€ 1.401.120,00
	Sercies for crafts	€ -	€ -	€ 1.388.000,00	€ 474.750,00
	Services for agriculture	€ -	€ -	€ 1.370.000,00	€ 456.750,00
	Gas distribution	€ -	€ -	€ 17.440,00	€ 17.440,00
	Central dairy	€ -	€ -	€ 17.740,00	€ 17.740,00
	Electricity distribution	€ -	€ -	€ 73.110,00	€ 73.110,00
	Pharmacies	€ -	€ -	€ 108.290,00	€ 108.290,00
		€ 516.697.940,00	**€ 300.992.440,00**	**€ 1.304.733.260,00**	**€ 901.167.090,00**

Graph. A. 1



If we want to measure the generational efficiency, we remember the equation:

$$GE_{t,k,v} = \sum_{t-1}^{t} \frac{S_k/P_{t,k}}{S_v/P_{t,v}}$$

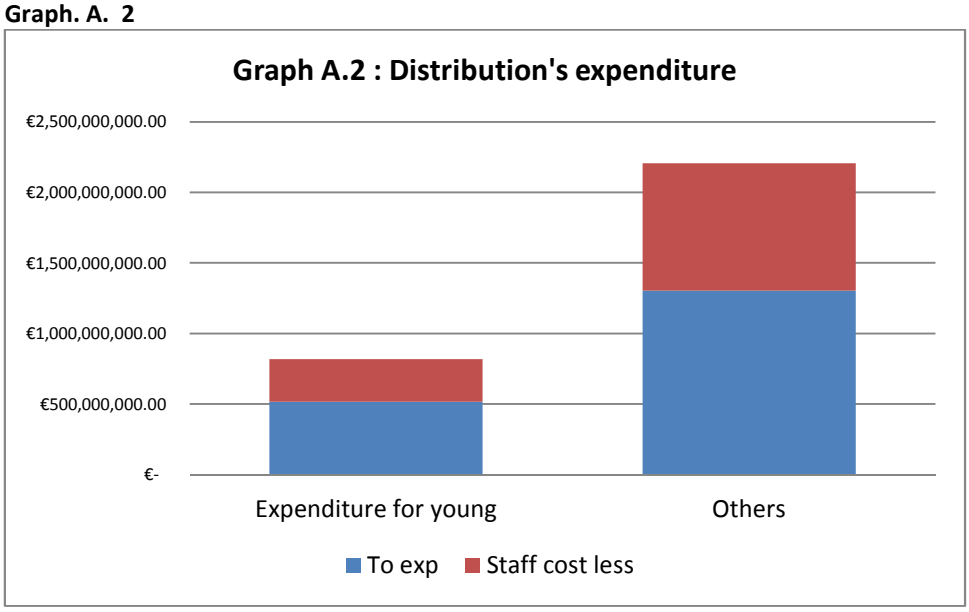
And so:

Tab. A. 2: Generational efficiency

Measure of staff cost less exp. generation efficiency	0,40
Measure of total exp. generation efficiency	0,33

We can say that there is not a generational efficiency in the budget, and from this it could be possible to make a reclassification of the expenditure to solve this gap.

Graph. A. 2



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Chapter 2: On intergenerational mobility in Italy: What a difficult future for young people[42]

Abstract

The objective of this paper is to make a description of the economic perspective of young people in Italy. To do this in the first part we define the characters of our analysis, doing a review of recent research on intergenerational transmission of poverty and intergenerational mobility.

After it, we make a description of young conditions in Italy. This analysis allows us to investigate the intergenerational mobility in Italy and estimate the intergenerational wage elasticity using the TS2SLS estimator methodology. The analysis of the results highlights the particular situation of Italy in which the parental status can strongly influence the economic future of sons.

Keywords: *Intergenerational equity, Inequality; Intergenerational mobility; Public policy*

[42] This chapter has been accepted to the Fifth Workshop organized by the research group "Youth at work" of University of Salerno on the topic: "Youth and their future" (17-18 October 2013, Salerno) and to the Conference organized by Pro Global Science Association on the topic "Shaping Europe 2020: socio – economic challenges" (15-16 November 2013, Bucharest). After this last presentation has been published by Review of Applied Socio- Economic Research Volume 6, Issue 2/ 2013. On April 2014, a summary of this paper has been published by the online review Nel Merito (www.nelmerito.com) .

2.1. Introduction

Today the developed countries, like the members of the European Union, are heavily prejudiced by numerous factors, like the population aging or the slow birth rates. This kind of evidence influences not only the population growth, but also the welfare system of each country and as a consequence the dissemination of poverty in the population.

The Northern European countries have yet started creating policies that intervene on this intergenerational disequilibrium on this matter. In these countries, like Germany, politicians are inclined to explicitly request more solidarity between generations; in fact a lot of reforms of this welfare state require sacrifices from all generations, and especially for older people that have to support child care policies with their money[43].

The objective of this paper is to underline the necessity to intervene with some appropriate policy also in Italy: present young generations are facing much more difficulties than the previous generation. In particular, the work doesn't point the attention on the intra-generational equity, but deals mostly the intergenerational equity, between different generations living at the same time (young and old, father and son).

The so-called intergenerational redistributive policies have two important characterizations: first of all, issuing debt involves the hope of future transfers from yet-unborn generations; secondly, the hope is made without the consent of the future generations that will bear the burden of the redistribution[44]. Particularly, the second characteristic shows that about the case of the economic and redistributive aspect of equity there is a very big problem: the impossibility of creating a negotiation between the generations. The consequences of this

[43] Guerres and Tape, 2010
44 Tabellini, 1991: p. 263

impossibility have to be paid by the future generations because when they are asked to pay the debt has already been contracted.

An important variable in this argument is the propensity to altruism, or solidarity, between the generations. This particular aspect is based upon the assumption according to which as parents take care for their children, so the present generations take care and consider the protection of future generations. This position loses its effectiveness first of all when we consider that the propensity for altruism is variable in the base of the familiar education and it's not linked to economic or normative aspects[45]. Secondly elderly living in accelerating demographic ageing society, will exercise their political power in their favour and not in favour of the younger generations, voting and promoting more generous pro-elderly welfare programs[46].

As we have noted, one of the elements that is recently increasing the significance of intergenerational inequality is the actual rate of aging: in a few years, the next generations shall have to support the increasing of fiscal pressure and pay for the contributions to a portion of a population that is increasing more and more[47]. It is evident that changes in the demographic structure, increasing the ratio of older age groups and classes of working age, can generate generational conflicts, lead to social tensions and undermine the social welfare systems with bad consequences for the life of the European population.

The particular economic situation of today makes also difficult for young people to have the possibilities to gain the independence, so that children remain completely dependent on their families for longer and delay setting up their own households[48].

In this paper we will analyse an important problem linked to this situation: the redistribution of income and the intergenerational

45 Kotlikoff , 2001
46 Goerres and Tape, 2010
47 Folbres, Wolf, 2013
48 Saraceno, 2008

mobility. Our area of study is one of the most problematic countries in Europe: Italy. To examine the evolution of intergenerational mobility in this Country, we will use data from the Bank of Italy Survey of Household Income and Wealth (SHIW). To make a focus on the situation of Italy we will make also an analysis of the intergenerational transmission of poverty, using data from the EU SILC 2005 Module on Intergenerational transmission of poverty and the EU-SILC 2011 Module on Intergenerational Transmission of Disadvantage**.**

2.1. On intergenerational equity

2.1.1 From Intergenerational transmission of poverty…

What emerges today is that the eradication of child and young poverty should be one of the priorities for all the welfare system. If young people live in poor condition with low income, there will be long-term consequences: we will have poor adults who in turn raise poor children. As we have said before, in the last twenty years, inequality increased very rapidly. One of the reasons of this increasing is the remunerations gaps between the highest and lowest paid workers, and as a consequence of this, the massive rise in the proportion of children growing up in poverty: children growing up in low-income households are more likely than others to have poor health, to do badly at school, become teenage mothers or come into early contact with the police, to be unemployed as adults or to earn lower wages[49].

The intergenerational transmission of poverty comes from poor parents to poor children when the living condition, the endowments and the investments in education of parents are not able to get better the socioeconomic status of their son. That is the so called generational bargain based on the idea that families (the working generations) choose to transfer resources (human capital, money, goods) between

[49] Blanden, Machin, Goodman, Gregg, 2002

generations following an un-codified 'rights' and obligations[50]. This bargaining is not linked to personal motivations and it is not a choice that family has to do: it depends on external factors: institutional functioning, social policies, welfare system and, of course, economic conjuncture. So, the impact of the familiar background and of the functioning of generational bargaining, on child poverty and on their lifetime incomes is influenced by the economic context and by socio-cultural policies. And it is always the context that determines the possibility to overcoming negative aspects, like the incapacity to pay school fees and interrupting poverty transmission[51].

From these considerations, we can say that the intergenerational transmission of poverty involves private relations (between parents and sons) and public relations concerning public policies like the investments on the educational system or the norms of entitlement determining access to capital. About the different institutions that can influence the life-cycle of a child, one of the most important study is which one made by Moore: he creates a taxonomy that explain what are the "material" and "immaterial" aspects in the intergenerational transmission of poverty and suggests how these aspects are transmitted. In Table 8 we can see the Moore taxonomy. If for the material aspect we can consider the transmission of land or debt, about the immaterial aspect we consider knowledge or skills, or the position in a community[52].

50 McGregor, Copestake, Wood, 1999
[51] Seeley, 2008
[52] Moore, 2001

Tab. 6: The Moore Approach to Intergenerational Transmission of poverty -

What is transmitted	How is it transmitted	Which factor affect transmission
Financial, Material, Environmental Capital Cash Land Debt Common Property resources	Insurance, pensions Bequests, dispossession Bride wealth Environmental conservation/degradation Labour bondage	Demographic factors: household structure, broader process of fertility transmission Nature of guardian: education and skill level
Human Capital: Educational qualifications, knowledge, skills, coping/ survival strategies Good mental/physical health Disease, impairment Intelligence?	Socialisation Investment of time/capital in care; education/training; health/nutrition Contagion, mother-to-child transmission Genetic inheritance	Social, cultural, legal and governance related factors: norms Economic Factors: labour market
Social, Cultural, Political Capital: Traditions, institutions, norms of entitlement, value systems Position in community Access to key decision-makers, patrons, organisations 'Cultures of poverty'?	Socialisation and education Kinship Locality Genetic inheritance	Nature of living space: stigma, sense of community

Source Moore (2011)

What we can say is that the institutions that concur to influence the intergenerational transmission of poverty are not only the family, but also market, determining the wellbeing of a society, the community (friends, neighbour) defining the positions of different individuals and of course the Political level.

Policy makers have to reckon not simply with the intention of cutting child poverty in the present, but also to capture better the possibilities for future children and for future society. Public expenditures, on the other hand, address family functioning, early childhood and public expenditures, so they deal with long-term investment in children and in their welfare. It's important to focus, for

example, on investment on education, addressing not only early child development, but also the limitation toward the access to quality tertiary education or even to the labour market, due to early tracking or unfair and non-meritocratic selection practices.

Growing inequality and intergenerational transmission of poverty can influence intergenerational mobility: for example the presence of credit constraints can produce persistence of economic status across generations[53]. In the next paragraph we will deepen the definition of intergenerational mobility.

3.1.2 …to Intergenerational Mobility

The pioneering on intergenerational mobility were made by sociologists (Hopper, 1981; Musgrave, 1963; Sorokin, 1956; Stacey, 1967). In their work, they have enquired intergenerational social mobility on the basis of correlations of parents' and children's "socioeconomic status" score, so that the occupational status of a father determines that of his children[54]. While in the last decade, sociologists have deepened mostly the persistence between sons and parents' economic and professional outcomes, considering no more only of the job title, but of the transmission of the same educational level, or the same rate of wage or disposable income[55].

[53] Blanden, Machin, Goodman, Gregg, 2002
[54] Friedman, 2013
[55] Lesser , 2000

Tab. 7: A Taxonomy of the main research on intergenerational mobility in advanced economy

Tab 9: A Taxonomy of the main research on intergenerational mobility						
Authors	**Country and data set**	**Measures of income**	**Sample size**	**Age of sons**	**Estimate of β**	**Comments**
Solon (1992)	US PSID	1) Annual Earnings 2) Hourly Wage 3) Family income	348	25-33	1) TA: 0.41 1) IV: 0.53 2) IV: 0.45 3) IV: 0.53	S. showed that the TA-technique provide a downwards biased estimate and the IV technique an upwards bias.
Zimmerman (1992)	US NLS	1) Wage + salaries 2) Hourly Wage 3) Duncan Index of status	876	29-39	1) TA: 0.54 1) MM: 0.41 2) TA: 0.39 2) MM: 0.38 3) TA: 0.33	The presented estimate are elasticities, which are close to the correlations that are reported in the paper. Z. also presented IV estimates that are close to those obtained by TA and MM techniques.
Corak & Heisz (1999)	Canada , register data	1. Annual earnings 2. Annual market income	≈ 350 000	28–31	1) TA: 0.13 2) 0.19	The estimates are elasticities. Non-linearities implying greater mobility at the lower end of the distribution were found.
Björklund & jäntti (1997)	Sweden, Level of Living Surveys	1. Annual earnings 2. Market income (incl. income of capital)	400 sons, 500 fathers	29–38	1) TSIV: 0.23 2) TSIV: 0.29	The Swedish data set lacks information on fathers' age which is not controlled for in the estimations of neither the Swedish nor the US ρ.
	United States, PSID	Annual earnings	About the same as Solon	28–36	TSIV: 0.33	The method and data set differ slightly from the one used by Solon,but is the same for both countries.
Comi S., (2003)	12 EU Countries European Community Household Panel	1. Father earnings a	15011 pairs By Country:	20-25	OLS	Classical equation about income mobility by Solon The link between father and son earnings is relatively high in Italy, Belgium and Portugal.
	Germany		2263		0.18	
	Denmark		450		0.09	With the aim to understand more about the relation between father and son she considers the intergenerational Educational mobility.
	Netherland		823		0.067	
	Belgium		395		0.21	
	France		797		0.12	
	UK		1169		0.10	
	Ireland		1476		0.03	
	Italy		1788		0.27	
	Greece		723		0.16	
	Spain		1852		0.17	
	Portugal		1924		0.20	
	Austria		1354		0.02	

Bjorklund A., Jantti M (2000) et(2005)	Norway Register data Denmark Register data Sweden Register data Finland Quinquennial census panel	Parental income 1980 and 1986 (average)		34-41 38-44 34-43 35-42	0.14 0.14 0.14 0.15	They consider: - International comparison - Approach in sociology - Class mobility -Mobility of status (rif to Duncan) 1) Classical equation about income mobility by Solon 2) Transition matrix: the information in the matrix would be able to tell us more about the kind and direction of mobility that is occurring. But this method requires long-run incomes of both sons and fathers.
Blanden J. (2005)	UK British Cohort Study 1970 USA Panel Study of Income Dynamics West Germany Socio Economic Panel Canada Intergenerational income data			30 30 37-40 31-28	0.27 0.29 0.17 0.14	Education has been often seen as a route to greater intergenerational mobility. 1) Classical equation about income mobility by Solon 2)Decomposition of the education's role $\beta_j = \phi_j \psi_j + \frac{Cov\left(u_{ij}, \ln Y_{ij}^{parents}\right)}{Var\left(\ln Y_{ij}^{parents}\right)}$ Where ϕ_j is the return to education rate and ψ_j is the relationship between parental income and education.
Piraino (2006)	Italy SHIW	Income from labour	612 fathers-son pairs 231 fathers-son pairs	30-45	TS2SLS: 0,50 PI: 0,37 CR: 0.35	Matters of family background and educational attainents 1) Classical equation about income mobility by Solon TS2SLS Estimator Predicted Income Co-residing 2) Transition Matrix by income classes

Mocetti S. (2007)	Italy SHIW	Earnings	4900 fathers 3200 sons	30-50	1): 0.50 2): 0,61	The degree of intergenerational income mobility in Italy is lower than that observed in other developed countries. Parental education and socioeconomic status appear to be the main determinants of educational choice, and this reinforces intergenerational immobility. 1) Classical equation about income mobility by Solon TS2SLS Estimator 2) Quintile regression can provide a more complete statistical analysis of the intergenerational relationship across the distribution of sons' income. 2SQR Estimator
Nolan (2012)	EU EUSILC	1. Financial Distress 2. Income Poverty 3. Deprivation				He used EU-SILC Intergenerational Module to conduct a comparative analysis of the relationship between current poverty and social exclusion outcomes and parental characteristics and childhood economic circumstances.

List of abbreviation:
TA: time averaging; MM: method of moment estimation; IV: instrumental variable technique; TSIV: Two sample IV; OLS: Ordinary least squares using annual data for fathers

Recently, also many economists have demonstrated the strong presence of intergenerational transmission of economic status. The most reliable reason of this connector is the occupation of the family head, but several researchers, like sociologist or psychologists, have underscored the role of the "cultural inheritance" and also the environmental and genetic connectedness: the so called influence of nature and nurture[56]. Zimmerman in 1992 has demonstrated that regression estimates by the nature and nurture's devotees are not capable of capturing linkage between genetic endowment and economic condition[57]. In table 9 we have reported a synthesis of the principal contributions.

Regarding the methodology to evaluate the extent of intergenerational mobility, the first step was made by Backer and Tomas in 1979: studying on US data, they created a model to analyse the distribution of incomes across families, regions or countries[58]. This first model was based on the utility maximization of parents' household income and on the centrality of endowments: the future wealth of children is related to all endowments determined not only by capitals or education but also by reputation, ability, race and other genetic characteristics of their family.

After this first study, the two most important researchers, Solon and Zimmerman[59], have built the base of the quantitative measurement of the intergenerational mobility as the relationship between the socio-economic status and income of parents and the status and income of their son:

$$y^s = \alpha + y^d\beta + \varepsilon \qquad (1)$$

[56] Solon, 1992
[57] Zimmerman, 1992
[58] Backer and Tomas, 1979
[59] Solon 1992 and Zimmerman 1992

Where y^s is the vector (in log terms) of the father's permanent incomes while y^d is the vector of son's permanent incomes. The rate of the intergenerational elasticity is indicated by the coefficient ß. His value varies between 0 and 1. If we are analysing a mobile society, the resulting ß will be near zero: in this case there is no relation between son's position and his parent's position. On the contrary, if ß is close to 1 we are studying an immobile society where the impact of parental outcomes on children's economic status is very marked[60].

The intergenerational correlation (ρ), or the correlation between the log earnings of the two individuals (father and son), is a common alternative, but it is equal to the elasticity only if the standard deviation σ of log earnings is the same for both generations[61]:

$$\rho = (\sigma_1/\sigma_2)\beta \qquad (2)$$

Also if technically there are not many differences between these two measures, the first one, based on the elasticity, is easier to estimate and to be used, because it is not prejudiced by the classical measurement error on the measures of earnings and by the limit of the standard deviation σ of log earnings.

Finally, it's important to underline that to measure intergenerational mobility with the estimation of the elasticity we need to work on datasets that have information about lifetime earnings for both fathers and sons. The best way to have a representative measure does not consider earnings in just one year for the two generations, but the average of at least 4 or 5 years[62].

About the resulting value of the intergenerational mobility we have to consider some different positions. Many researchers or politicians thinks that equality of opportunity is a fundamental

[60] Blanden, Gregg, Machin, 2005
[61] Black, Devearux, 2010
[62] Solon , 1992

objective of a developed society, so that poor children should have the same opportunities for success as rich children. People could change their social status just working hard and, believing in their dreams, work hard should be able to succeed, regardless of family background[63].

Initially, researchers like Becker and Tomes, studying the condition of the United States, have estimated that the optimal value of the intergenerational elasticity should be 0,2 or less[64]. But Solon and Zimmerman showed how it is possible to talk about mobile society also if the value of ß is bigger than 0,2: considering the average of income over some years (from 4 to 10) it is possible to have a better estimation of permanent income capacity and the value of intergenerational elasticity could be also 0,4[65]. More recent studies, founded on more recent US data, argue that in the modern society the optimal value of ß is around 0,6[66].

Tab. 8: ***International Comparable Estimates of Intergenerational Mobility: cit. in Blanden et al. (2005)***[67]

Country	Dataset	Sons Born	Sons Earnings Measure	Measure of Parental Status	Value of β
Britain	British Cohort Study	1970	2000 (Age 30)	Parental Income Average 1980-86	0.271
US	Panel Study of Income Dynamics	1954-70	Age 30	Parental income when son were 10-16 (average)	0.289
West Germany	Socio-Economic Panel	1960-73	2000	Parental Income 1984-88 (average)	0.171
Canada	Intergenerational Income Data (from tax register)	1967-70	1998	Parental Income when son aged 16	0.143
Norway	Register Data	1958	1992 and 1999 (average)	Father's earnings 1974	0.139
Denmark	Register Data	1958-60	1998 and 2000	Father's earnings 1980	0.143
Sweden	Register Data	1962	1996 and 1999	Father's earnings 1975	0.143
Finland	Quinquennial Census	1958-60	1995 and 2000 (average)	Father's earnings 1975	0.147

[63] Black, Deveraux ,2010
[64] Becker , Tomes, 1986
[65] Solon, 1992 and Zimmerman, 1992
[66] Mazumder , 2005
[67] Blanden , Gregg , Machin , 2005

In order to comprehend the fluctuation of the value of ß it is important to highlight the fundamental causes or determinants of the intergenerational correlation in earnings: the parental investment in education. So, if we have a zero value of ß we can say that the economic possibilities of parents do not influence the opportunities of the son: there are no returns to human capital investment, and it would be a strange market economy if higher human capital was not rewarded with higher earnings[68].

Most of the analyses conducted on intergenerational mobility concern the United States or Northern Europe, while in the other countries of Europe only recently the interest in this kind of argument is gowned.

Table 10 shows us an evidence of the situation of the US, Canada and some Northern European countries. We can highlight how for all these countries the estimated value of ß is very small and so we can easily talk about mobile society. In the next chapter, we will try to compare the data of Table 3 with data of our Country: Italy.

2.2 An analysis of the Italian case

2.2.1 An overview of the Italian condition

The current situation of Italy is really difficult because of the global financial crisis, the high level of public debt and unemployment and the low level of GDP growth rate. As we have said in the previous page all the institutions (state, market and community) concur to determine the intergenerational transmission of poverty.

To have a proof of this difficult situation, we decide to consider the results of two important questions related to the feeling of young with the economic situation of the family. The first question that we analyse is part of the EU-SILC module on intergenerational

[68] Black, Devereux, 2010

transmission of poverty of 2005 and is about the periodicity of financial problem of teenagers[69].

Tab. 9: ***Teenage in family with financial problems***

Tab. 4 : Teenage in family with financial problems ordered by (*) [70]			
	Mostly Often	**Occasionally**	**(*)Rarely**
1. Denmark	9,6	14,5	75,9
2. Norway	9,3	15,3	75,4
3. Island	9,9	15,6	74,5
21. Italy	41,4	28,1	30,5
22. Slovenia	43,5	29,6	27,9
23. Slovakia	43,3	32,1	24,6

If we consider the answer of this question, we can evidence that Italy is placed at the bottom of the classification with Eastern Countries, while the first positions are occupied by the Northern Countries (Table 11). Five years later a similar question was made in the Survey of EU-SILC Module of Intergenerational transmission of disadvantages of 2011. In this case the interviewer paid more attention not to the periodicity of the problems, but just to an evaluation (moderately bad, bad, very bad) of the financial situation of the family[71] . For the case of the numerosity of the "very bad" situation Italy occupies the nine position, while for the "bad" in seventeenth place and for the "moderately bad" is at seventh place, worse than the Czech Republic and Estonia (Table 12).

[69] For this variable, information is available from 23 countries (all participating in the 2005 survey, apart from DE, EL and PT). A large majority (21) put a question with the same response items as the required standard variable. There are possibly some marginal variations in the exact wording, but some of these may be simply due to language differences or the translation process, for example using phrases like "most of time", "very often", "always" etc. for the top response category. Here are a few examples of question formulation.

[70] Our elaboration from EU-SILC Module 2005

[71] The objective of this variable is to assess the respondent's feeling about the financial situation of the household in which the respondent was living when he/she was around 14 years old.

Tab. 10: ***Teenage in family describing the financial situation of the household.***

Tab. 5: Teenage in family describing the financial situation of the household. **Our elaboration from EU-SILC Module 2011**			
	Italy		**EU 27 (Average)**
	Value	**Ranking**	
Very bad	4,3	9°	3,9
Bad	8,2	17°	8,6
Moderately bad	19,6	7°	16,9

Particularly is important to underline how "the working sector" of the father determine for a son the possibility to be or not to be poor: as Nolan has shown in his study in Italy the poverty rate increase from 9,2% for whom was born in a family with a father working in high qualified sectors to 25,1% for children born in a family with a father working in elementary sector[72].

The reason of this vulnerability is the crucial role of family as the principal agent of the support system and the very weak labour market. This particular relation influence not only the intergenerational transmission of employee, but also intergenerational mobility, especially if we consider fathers working in primary sectors (agriculture or fishing) or having manual jobs[73].

2.2.2 The methodology

To have a measure of the intergenerational mobility we apply the classic equation of Solon. Unfortunately Italy has not a complete panel with all the information for at least two generations, like this one used to study the Countries in table 1. To overcome this obstacle we decided to follow a method already applied by several researchers, like Piraino and Mocetti, who have studied the Italian case. Hence, we will use longitudinal data from the Survey of Household Income and

[72] Nolan, 2012
[73] Jonsson, Grisky, Pollak, Di Carlo and Mood, 2013

Wealth (SHIW) and, since this survey is too much undersized to obtain consistent results, we will create two different samples and proceed following the TS2SLS estimator (*two-sample two-stage least squares*).

Because of the weakness of the results using undersized panel data set, several Italian researchers – Piraino[74], Mocetti[75], Peragine and Serlenga[76]– had experimented with good result the method of TS2SLS to study Italian panel. The most important studies based on this approach are made by Angrist and Krueger[77] and Arelano and Meghir[78]. This kind of estimation has been already applied to study intergenerational mobility, where there were few variables available[79].

We start following the TS2SLS procedure.

We have to construct a sample with the information on our fathers: wage, years of education, job title, job sector and geographical area. On this first sample we run a regression:

$$y_t^d = I\delta + A_t^d\gamma + \upsilon^d + \kappa_t^d \qquad (5)$$

Where y_t^d is the current incomes of our pseudo-fathers that derives from all our information: $I\delta$ is a matrix with the time-invariant determinants (geographical area, study level, occupation, income)[80], $A_t^d\gamma$ contain the time-variant determinants (age), υ^d and κ_t^d are respectively the time –invariant disturbances and the usual disturbances.

The second sample will comprehend the variables set of sons. To match the data from son to father we have to create a sample creating

[74] Piraino , 2007
[75] Mocetti, 2011
[76] Peragine , Serlenga , 2008
[77] Angrist, Krueger, 1992
[78] Arellano, Meghir, 1992
[79] It was the case of Sweden (Björklund, Jäntti, 2007), Canada(Fortin N., Lefebvre S., 1998), Ecuador Nepal, Pakistan and Peru (Grawe N.D., 2004), and France (Lefranc A., Trannoy A., 2005).
[80] It's important to underline that we don't consider gender information because in our model we'll not consider the income of the breadwinner but just the income of fathers.

our pseudo-father using the information provided by sons in the questionnaire (year of birth, year of education, area, job sector, job title) and the information that we have from the first sample. Our regression will be:

$$y_t^s = \alpha + \left(I\hat{\delta}\right)\beta + A_t^s + \kappa_t^d + \beta v^d + \beta I\left(\delta - \hat{\delta}\right) + \varepsilon \qquad (6)$$

Where $\hat{\delta}$ is the result of the first sample that allows us to replace in the second sample missing fathers' incomes with their best linear predictions[81].

We can synthetize all the disturbances and rewrite:

$$y_t^s = \alpha + \left(I\hat{\delta}\right)\beta + A_t^s + \varpi_t \qquad (7)$$

The $\hat{\beta}$ that we'll obtain is our intergenerational income elasticity estimates with TS2SLS.

In both samples the matrix with time-invariant characteristics is very important because we know that the geographical area of life can influence the possibility of earnings as well as incomes vary during a life of an individual. Particularly about this last question Haider and Solon affirmed that the decision of the age to consider for the pseudo-father could generate several measurement errors: the best way to overcome this kind of problem is to consider a mean age of 40 for both pseudo-father (in the first sample) and pseudo-son (in the second sample)[82].

This approach now is usually preferred when researchers have matched information on sons' earnings and fathers' characteristics (such as education and occupation) but no information on fathers' earnings. Fathers' earnings during the child's teenage years are

[81] Mocetti, 2007
[82] Haider , Solon , 2006

predicted using information on the relationship between earnings and education from other data from that period[83].

The last property that we have to respect is related to the nature of variables: we must be sure that the variables are identical and independently distributed for both the two samples. Automatically it is possible to compare the results only with studies adopting the same methodology and same variables. That's what we're going to do in the next chapter.

2.2.3 Empirical results

In this section, we will analyze the trend of intergenerational mobility in Italy. To have a measure of the intergenerational mobility we apply the classic equation of Solon. We know that Italy has not a complete panel with all the information for at least two generations, like the ones used to study the Country in table 13. We use the Survey of Household Income and Wealth (SHIW) and, since this survey is too much short to obtain consistent results, we will create two different samples and proceed following the TS2SLS estimator (*two-sample two-stage least squares*).

To implement the TS2SLS procedure, we proceed creating two samples. For the first sample, that of fathers, we consider all males between the age of 35 and 47 years, so to have the optimal average age of 41, in the temporal range 1986-1991. Recalling equation 1, our independent variables will be: Year of education (Educ), Wage (W), Job Sector (Js) and Job Title (Jt). While, in the second sample, we include all males between the ages of 35 and 47 years from 2004 to 2010.

We start our model with the data analysis doing the first stage regression of our model. We consider the level of study, the year of study, the work sector and the work title of the pseudo-father sample.

[83] Blanden, 2013

After this, we can use the coefficient estimated of pseudo father's income to analyze the relation between this and the economic and professional status of the sons' sample.

Tab. 11: Descriptive statistics for selected fathers and sons

Tab. 6 Descriptive statistics for selected fathers and sons *Our elaborations on SHIW database*		
	Pseudo-Fathers (years 1984-1986)	**Sons' report (years 2008-2010)**
Sample Size	3.224	786
Mean Age	41,99	41,22
Mean LogW	9,78	--
Correlation income/yearofeducation	0.4030	0,3092

We regress the logarithmic value of wage, according to the following equation:

$$\ln(W^d) = \beta_0 + \beta_1 * Ed + \beta_2 * JT + \beta_3 * Js + \beta_4 + \varepsilon \qquad (8)$$

Tab. 12: ***First-stage regression of pseudo-fathers income on four variables***

Tab 7: First-stage regression of pseudo-fathers income on four variables *Our elaborations on SHIW database*[84]			
			N=3203 ***R2=0.1989***
Variables	***coefficient***	***Robust st. error***	***t***
Educ	0.025	0.014	1.72
Job Sector	-0.030	0.004	-7.30
Job Title	0.034	0.004	8.31
Cons	9.387	0.068	138.55

Proceeding to the third stage we have to select the pseudo father of our first sample that has a similar professional condition to real

[84] Education : 1= no school 5= elementary school 8=lower secondary school 13= high school 18= University degree 6=specialization; Job Sector: 1= agriculture 2= industry 3= P.A. 4= commerce, handcraft, services; Job Title: 1= factory worker 2=employee 3=teacher 4=official 5=executive 6= freelancer 7=entrepreneur 8=self-employee 9=unoccupied

father of sample 2. After this selection we can compare the predicted value of our regression and finally have the generational mobility ratio (table 15).

$$\ln(W^s) = \beta_0 + \beta_1 \ln(\widehat{w^d}) + \beta_2 \mathrm{Ag}^s + + \varepsilon \qquad (9)$$

Tab. 13: ***Second-stage regression with instrumental variables (2SLS***

Tab 8: Second-stage regression with instrumental variables (2SLS) : Instrumented variable logwagehatpd Intruments: Educ JobSec JobTitle of both fathers and sons			**N=766 R2= 0,11**
Variables	**coefficient**	**Std. Error**	**t**
Lwhat	**0,57**	2,067	0,27
Cons.	4,125	20,255	0,20

From this elaboration we have our level of intergenerational mobility in Italy is 0,57. As we have said before, also if for the first researchers 0,60 could be considered a good result, if we look at the much more recent data, we can say that this value is pretty higher than which one of the other developed countries: Italy emerges like a Country in which parental status influences very strongly the economic status of young people

2.3 Concluding Remarks

In this paper, we try to describe the situation of young people in Italy, considering in the firsts paragraphs the perception of teenage about the financial situation of their family, while at the core of the paper we deepen the intergenerational mobility.

What emerges is that is not easy to analyze the Italian situation because of the lack of data and the difficulty to work on a survey that includes information from two generations of the same family, like the British Cohort Study or the Panel Study of Income Dynamics of US.

These differences, in fact, make difficult also to compare the intergenerational mobility rate of Italy with which one of other Countries.

With our work and particularly using the TS2SLS estimator we have tried to minimize the lack of data and to give a good description of the Italian case. From our elaboration we can say that Italy is a not mobile society and that occur to intervene to prevent the pauperization of young people.

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Chapter 3: Intergenerational equity and intergenerational mobility in Italy: an analysis from SHIW[85]

Abstract

This paper aims to analyze the trend of intergenerational mobility and intergenerational equity in Italy in the first decade of 2000s. The paper is divided into three sections. In the first part we examine the concept of intergenerational mobility underling how the disparities across generations could create social conflict and young poverty. Then in the second part, after a review of some significant studies on the italian case, we measure the intergenerational mobility in Italy following the traditional elasticity model of Solon and using SHIW database from Bank of Italy. To present an analysis during time of the intergenerational mobility value we will compare our data with data resulting from other similar studies on Italy.

Finally, we consider the trend of the elasticity between fathers' and sons' income (our value of intergenerational mobility) and investigate on his evolution considering the crucial variable of the intergenerational equity: the distribution of income and the Gini index.

Keywords: *Intergenerational mobility, Intergenerational equity, Gini Index*

[85] This chapter benefits from the comments received during Sixth Joint IOS/APB/EACES Summer Academy on Central and Eastern Europe organized by the Institute for East and Southeast European Studies (IOS) in Tutzing (4-6 June 2014) and during the XXXVIII Meeting of the Italian Association for Mathematics Applied to Economic and Social Sciences – AMASES (4-6 September, Reggio Calabria). In May 2015 this paper will be published by Routledge as a chapter of the book titled "*Youth Unemployment and Financial Crisis: Work, Education and Health*".

3.1. Introduction

Equity between generations is considered a central problem in many developed countries because of the weaknesses of a modern welfare state and because the last economic crisis has worsened the economic condition of the population and particularly of young people.

The aim of this paper is to suggest that the idea of intergenerational equity should be placed at the heart of future reforms in order to obtain the same opportunities between present and future generations and between elderly and young people. Particularly, the work aims to analyze the situation of young people in the first decade of the 2000s investigating intergenerational equity, and hence equity among different contemporary generations (young and old people, fathers and sons), and also about intragenerational equity to show how the situation for the same generation is changing.

During the last years, the relevant literature about intergenerational mobility has been growing rapidly. Many studies are currently available that examine the relation between intergenerational equity and intergenerational mobility. In 2009, the OECD noted that a lower degree of equality of the earnings distribution can reduce the incentive for parents to invest more in their children, producing higher levels of intergenerational mobility[86]. In fact, if we consider education it is easier for privileged parents to investing more in the education of their children, while underprivileged parents cannot afford this. In the absence of public intervention this can produce the so-called immobile society where an individual's wage, education or occupation is strongly related to those of his/her parents. Otherwise, targeted public policies can mitigate these effects: public spending on education, policy in favour of job protection or the presence of a minimum wage, influence positively

[86] OECD, 2009

parental investment and by this the level of intergenerational mobility[87].

In the northern countries of Europe, like Norway or Sweden we find evidence of policy interventions that had combined low unemployment with extensive job security and wage equality, leading to very good results in intergenerational mobility. About this evidence researchers like Bratberg, Nilsen and Vaage discovered that a stable earnings distribution can strengthen stability in intergenerational mobility[88]. But the most innovative contribution comes from the USA: in 2012, the debate on intergenerational mobility experienced a dramatic development, and this kind of problem is now considered a crucial point for progressive economists. The result is the creation , by Alan Krueger and with the help of Miles Corak's elaboration, of what is called "*Great Gatsby Curve*"[89].

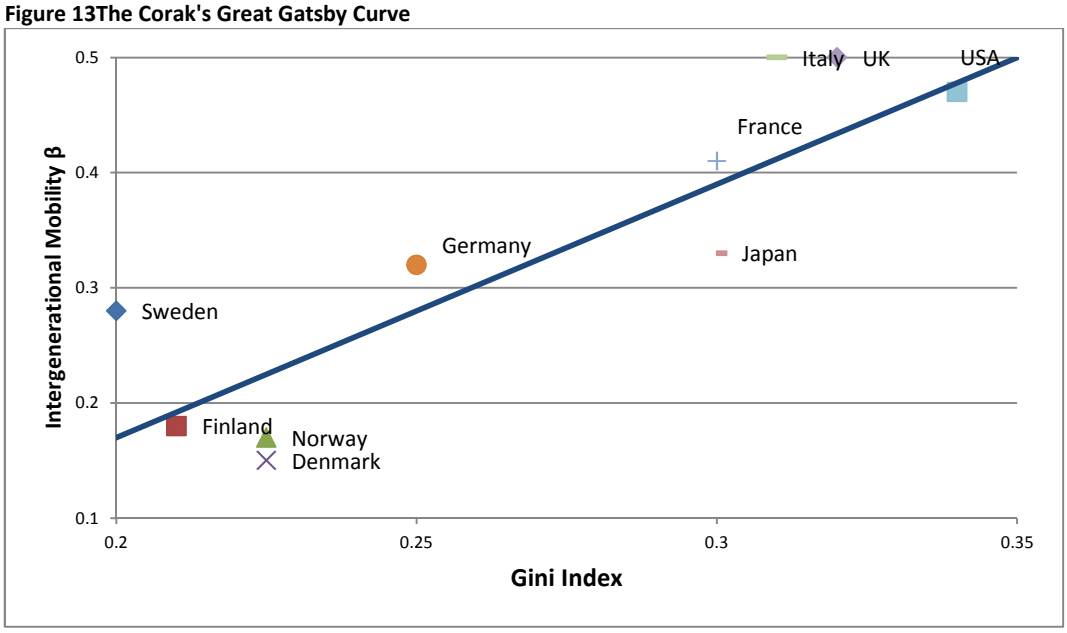
The Great Gatsby Curve (Figure 4) is inspired by "The Great Gatsby", the well-known Fitzgerald's romance about the story of Jay Gatsby – the cynical idealist, who embodies America in all its messy glory – and the American dream at the time of the crisis of '29. It represents the existing relation between inequality of incomes, measured by the Gini Coefficient of household earnings of the population aged 18-65 by the OECD, and a measure of intergenerational mobility[90]. The fundamental idea of this instrument is to evidence how countries with a high rate of income inequality present a high level of transmission of economic status from parents to children.

According to this curve, countries like Italy, UK and USA show a rigid economic structure, with rich children predestined to grow up

[87] Smeeding , Erikson , Jantti , 2011
[88] Bratberg , Nilsen, Vaage , 2005
[89] The Great Gatsby Curve was described for the first time by Alan Kruger for a speech to the Center for American Progress in January 12, 2012, and then has been drawn by Miles Corak, according to this relation between Gini Idex from a generation ago (x-axis) and Intergenerational elasticity (y-axis).
[90] Corack , 2013

wealthy, and poor children more likely to remain impoverished in adulthood, while northern countries evidence less influence between son's and parental economic condition.

Figure 13The Corak's Great Gatsby Curve



Note: the value of β indicates the elasticity between paternal earnings and son's adult earnings.
Source: Corak's data.

Finally, this instrument is useful from another viewpoint: while intergenerational mobility elasticity shows the average measure of the degree of mobility, but does not give information about the direction of change, with the Great Gatsby Curve we may highlight differences in the degree of upward cross-country or cross-year mobility in the same country.

In this paper we offer an examination of the evolution of the intergenerational mobility and of the intergenerational equity in Italy. We will use data from the Survey of Household Income and Wealth (SHIW) for both our kinds of analysis: intergenerational mobility and intergenerational equity. We will start from the results of recent study on the Italian case, and particularly from the study realized by Piraino

in 2006[91]. For the investigation of intergenerational mobility, we will use the same method of the Italian researchers (Mocetti and Piraino), but we will try to analyse the causes of the increasing of intergenerational mobility in the last years, pointing our attention to several factors: geographical areas, job title and job sector.

For this purpose, in the final part of the paper, we will consider the Gini Index to observe the income distribution, and the trend of market labour by the analysis of job sector and job title between generations. After it we can highlight how the economic perspective for young people in Italy is worsened.

3.2. The analysis of the problem

3.2.1 Inequality and social conflict

The trend of intergenerational mobility in most developed countries has changed following the evolution of the society during the first half of the 20th Century: before the two world wars grandparents of those born in the 1940s shared many of the same experiences with their children; while for those who were born in 1960s changes in work, employment and politics have produced a lot of benefits[92]. The worst situation regards people born in 1980s and 1990s when workers began to leave their job in increasing numbers and at earlier ages: poverty rates amongst the elder declined while younger households and opportunities rose[93]. That's why many researchers talk about intergenerational crisis or intergenerational conflict to underline how the actual situation is producing a very poor future prospect for young generations[94].

[91] Piraino , 2006
[92] Higgs, Gilleard , 2010
[93] Costa, 1998
[94] Emery , 2012

The economic crisis of the first decade of 2000 has also produced an employment reduction for young people, especially for male. Ireland and Spain show the worst condition among EU countries, with a fall of the employment rate of respectively 24% and 20% between 2007 and 2010[95]. If we consider the Italian situation, the economic crises has produced the biggest fall of employment rates: from 59.1% in 2007, to 57.5% in 2009, and 57.3% in 2010. In Italy the worst situation is that of young people (15-39), both if we consider the employment rates (-4.1%) than if we consider the drop in income (-6.6%)[96].

If young people live in a disadvantaged condition, with low incomes, there will be long-term consequences: we will have poor families who in turn will produce poor children, and then poor adults. This vicious circle is sometimes called the intergenerational transmission of inequality: living condition, endowments and investments on education of parents are unable to better the socio economic status of children[97].

Unfortunately, this transmission is not just due on individual motivations neither on personal propensity to altruism, but it is also subject to the economic conjuncture, to the welfare system and to the economic structure of the country. In fact, in a rigid society, with unequal opportunities, parents have a heavy role in safeguarding their children's careers, while schools may reinforce parents' actions: richest parents can pay the admissions to elite colleges, granting huge opportunities for their children. Conversely, in a more equal society, the process has an inverse direction: the institutions create policies boosting the skills and behaviours of low socioeconomic status children in ways that fully offset the family skill and behaviour[98]. In his recent study Nolan (2012) has analysed this mechanism. Particularly with

[95] Jenkins, Brandolini , Micklewright , Nolan, 2013
[96] Brandolini, D'Amuri , Faiella , 2013
[97] Collard , 1999
[98] Duncan, Bergman, Duckworth, Kokko, Lyyra, Metzger, Pulkkinen, Simonton, 2012

reference to Italy and Southern European Countries the crucial role of family makes the society almost "immobile" and hence children born in a poor family are bound to be poor adults[99].

3.2.2 Determinants and methodology

Intergenerational mobility has been studied by several researchers (economists, sociologists, psychologists) and with several methodologies. In this paper, as was said in the previous chapter, we will use the equation created in 1992 by Solon and Zimmerman that equation measures the intergenerational mobility of the relationship between the socioeconomic status and income of parents and the status and income of their son:

$$y^s = \alpha + y^d\beta + \varepsilon \qquad (1)$$

About the creation of the dataset for this equation, Solon suggests creating two different samples: one for fathers and one for sons. The decision of the age of the individual could generate several measurement errors: the best way to overcome this kind of problem is to consider a mean age of 40[100].

Another choice to make is about the way to measure the status of fathers and sons. We can consider several ways to measure this status: by income, education, occupation or social class. Frequently economic research has focused on two measures: disposable income or labor income. In investigating labor income intergenerational mobility we can look at the market labor system, its accessibility and returns to education in the labor market[101]. Observing the elasticity of disposable income is most indicative of the influence of fathers in the standard of

[99] Nolan , 2012
[100] Haider , Solon , 2006
[101] D'Addio , 2007

living of sons because it considers the different sources of income (e.g. Earnings, assets, welfare)[102].

Both income and wage relations across generations to produce the effect of familiar background on cognitive skills acquired by sons during their educational program. About this relation, recent studies from Blanden, (2008) confirm that there is a direct connection between intergenerational wage mobility and intergenerational educational mobility[103].

Most empirical studies using the equation of Solon are based on the measure of labor income relation across generations; while to measure educational persistence they use the correlation between years of schooling or educational achievement of fathers and their sons[104].

Finally, there is another factor that can influence the intergenerational mobility: the transmission of the job. Recently Hellerstein and Morrill's (2011) work at the level on intergenerational transmission among employees: in recent cohorts, about 30% of sons and 20% of daughters have the same work as their fathers, and this is further evidence of the global immobile society in which we are living[105]. Many other studies examining intergenerational mobility in occupation find the same conclusion and highlight the strong relationship between father and son occupations or job sector[106].

Following this area of research, recent studies like which one of Gregg, P., L. Macmillan and C. Vittori (2014) have tried to measure the intergenerational mobility level considering the lifecycle of an individual. According to their idea the possibility to move their calculation towards lifetime estimates of sons' earnings, permit to them to to consider a very innovative aspect, that they called "the impact of

[102] Lee. and Solon , 2006
[103] Blanden , 2013
[104] Causa and Johansonn , 2009
[105] Hellerstein and Morrill 2011
[106] Carmichael , 2000 and Di Pietro and Urwin, 2003

spells out of work"[107]. Following an individual for the complete lifecycle, infact, they have data both about a working period (with earnings more than zero), that about an out of work period (with earing equal to zero). Unfortunately is it possible to do this kind of analysis across generations only for Country in which there are complete panel with information on lifetime measures in both generations.

Starting from these determinants in the next pages we will analyze the rate of intergenerational mobility in Italy.

3.2.3 A review about intergenerational mobility in Italy

Most of the studies on intergenerational mobility study the situation in North America or Northern Europe use datasets with complete information (wage, income, education) for both fathers and sons like the US Panel Study of Income Dynamics or Swedish Level of Living Survey. Italy does not have a complete panel with all the information for at least two generations, like the ones used in the cited work. Because of this lack, Italian researchers had to use a different method. The first Italian research is the one of Barbagli et al. In 1986: they tried to analyze intergenerational mobility in Italy considering the occupational status: they used a data set built on an adhoc basis in 1985 by a group of sociologists from different Italian universities about the working conditions of 5160 individuals from 18 to 65 years old[108]. The conclusion of this first analysis was a description of Italy as an immobile country where the highest percentage of sons are destined to have the same economic and social status as their fathers.

If this first study considers principally the occupational status, the study done by Checchi and Dardoni of 2003 also considers the

[107] Gregg, Macmillan, Vittori, 2014
[108] Barbagli et al, 1986

disposable income and the educational achievements[109]. To do their analysis they used the Bank of Italy Survey on Household Incomes and Wealth (SHIW) and particularly the surveys conducted in 1993, 1995 and 1998. For each member of the family, they measured information about educational achievement, work status and sector of employment, and the information about educational qualifications, employment status and sector of activity of parents. About this work, it's important to show two kinds of considerations. Firstly, on the research target, these researchers had decided disregard the age of the sons, as is common in this kind of research; they just considered in the sons' sample all individuals who were employed and earned a positive income. In regards to the methodology, we have to underline how Checchi and Dardoni didn't aim to calculate the elasticity of income between fathers and son, but to present an ordinal measure of social position between generations, and a representation of the evolution of occupational income and educational mobility. The presented trend showed a strong decrease in mobility from the baby-boomers generations of their sons, as an evidence of the structural change in economic structure due to the decline of industrialization in Italy.

Two important recent studies on Italy are which ones by Piraino and Mocetti[110], these will be an important starting point for our elaboration. With their studies, they demonstrate how to measure intergenerational mobility without complete datasets like the PSID. They worked with Bank of Italy SHIW data, like Checchi and Dardoni did, but they also calculated the intergenerational mobility and the value of ß. To overcome the lack of complete data across generations, they used the *two-sample two-stage least squares* estimator

[109] Checchi, Dardoni, 2003
[110] Piraino 2006 and Mocetti 2011

(TS2SLS)[111]. According to this approach they created two different samples: one with fathers' information and one with sons' information.

For the explanation of the methodology we consider the work of Piraino (2006). For the first stage he creates a sample with information of SHIW data base from 1977 to 1980 with males aged between 30 and 50; then he regresses the fathers' earnings considering education level, sector of activity, job qualification and geographical area. Before proceeding to the second stage, he creates the second sample including males between 30 and 50 from SHIW data base of 2000, 2002 and 2004. Hence, in the second stage, he uses the coefficient estimated to predict fathers' information. As we can see in the following paragraphs, this research depicts a high level of the value of ß.

In the following part we replicate the same methodology, but we also try to take a further step by investigating the evolution and the macroeconomic causes of the low level of mobility and worsening of youth condition in Italy.

3.3. Case study: the Italian condition

3.3.1 The model: intergenerational mobility in Italy 2012

In this section, we will analyze the trend of intergenerational mobility in Italy. To have a measure of the intergenerational mobility we will apply the equation by Solon that we have described in the previous paragraph:

$$y^s = \alpha + y^d\beta + \varepsilon \qquad (1)$$

[111] The two sample two-stage least squares estimator, (TS2SLS estimator) is commonly used in this field of research to combine two separate samples. This estimator is very similar to IV uses an instrumental variables, but the estimation comprehend two steps from two several samples (Francesconi and Nicoletti, 2006).

We know Italy does not have a complete panel with all the information for at least two generations. We use the Survey of Household Income and Wealth (SHIW) and since this survey is too short to obtain consistent results, we follow the methodology of Piraino (2006) and we create two different samples and proceed following the TS2SLS estimator.

To implement the TS2SLS procedure, we continue to create two samples, one for fathers (from the 1989 and 1991 database) and one for sons (from the 2010 and 2012 database). For the sample of fathers, we consider all males between the ages of 35 and 47 years, so as to have the average age of 41,26 that it's near to the average suggested by Solon and Zimmerman. Our variables will be: Year of education, Job Sector, Job Title, Age, Labor income, Disposable Income.

We run the following regression:

$$y_t^d = I\delta + A_t^d\gamma + v^d + k_t^d \qquad (2)$$

Where Iδ indicates the time-invariant determinants (year of education, labor income, disposable income, work sector, work qualification), and $A_t^d\gamma$ are the time-variant (age). The last two factors $v^d + k_t^d$ are the time-invariant and usual disturbance. It's important to underline two aspects of our research. Firstly, in this paper, we won't consider gender information because in our model we will not consider the income of the breadwinner but just the income of fathers and sons. Secondly, with the aim of investigating the role of the market and of the government in the rate of intergenerational mobility, we have decided to consider the elasticity of labor income between father and son following the traditional method, but also to analyze the elasticity of disposable income between father and son.

Tab 16: Descriptive statistics for selected fathers[112] (Our elaboration from SHIW 1989-91)					
Variable	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
Sample size	2755				
Age (Ag)	2755	41.26		35	47
Education (Ed)	2755	10.66134	4.555118	1	22
Job Title (Jt)	2755			1	8
Job Sector (Js)	2755			1	4
Area (Ar)	2755			1	3
Labor income (Yl)	2755	22740.16	8701.156	2500	87000
Disposable Income (Yd)	2755	28342.52	13368.5	3008.092	139231.7

As we can read from table 16 in regards to the aim of this research, we have decided to consider only the individuals with a positive wage and a positive value of disposable income.

We regress the logarithmic value of labor income and the logarithmic value of disposable income.

$$\ln(Yl^d) = \beta_0 + \beta_1 * Ed + \beta_2 * JT + \beta_3 * Js + \beta_4 * Ar + \varepsilon \qquad (3)$$

Tab 17: First stage regression of pseudo-fathers wage on four variables (Our elaboration from SHIW 1989-91)			
			N°= 2724 **R^2= 0.2777**
Variables	**Coefficient.**	**Robust St. Err.**	**t**
Education (Ed)	0.0217	0.0015	14.26
Job Title (Jt)	0.0496	0.0071	6.91
Job Sector (Js)	0.0781	0.0068	11.39
Area (Ar)	-0.0387	0.0041	-9.37
_cons	9.1297	0.0706	129.22

$$\ln(Yd^d) = \beta_0 + \beta_1 * Ed + \beta_2 * JT + \beta_3 * Js + \beta_4 * Ar + \varepsilon \qquad (4)$$

Tab 18: First stage regression of pseudo-fathers income on four

[112] Legend: Year of Education: 1= no school 5= elementary school 8=lower secondary school 13= high school 18= University degree 22=specialization, Job Title: 1= factory worker 2=employee 3=teacher 4=official 5=executive 6= freelancer 7=entrepreneur 8=self-employee 9=unoccupied, Job Sector: 1= agriculture 2= industry 3= P.A. 4= commerce, handcraft, services

variables (Our elaboration from SHIW 1989-91)			
			N°= 2724 R^2= 0.2845
Variables	**Coefficient.**	**Robust St. Err**	**t**
Education (Ed)	0.0271	0.0017	15.59
Job Title (Jt)	0.0366	0.0083	4.42
Job Sector (Js)	0.1018	0.0079	12.76
_cons	9.698	0.0293	330.62

From these two regressions we can study the influence of our factors in both labor and disposable income. Looking at the summary tables (Tab. 17 and Tab 18) we cannot point out significant differences in the influence of our factors in labor or in disposable income. However, it's important for this research to underline the impact of job title and job sector, both in labor and in disposable income.

Now we can proceed with the second stage of our model using the second sample including the information of sons: male from 35 to 47 years old from the SHIW database of 2012. This sample will show the same variables used for the first sample with son's information: age, area, job title, job sector, labor income, disposable income.

Tab 19: Descriptive statistics for selected sons
(Our elaboration from SHIW 2010-12)

Variable	Obs	Mean	Std. Dev.	Min	Max
Sample size	581				
Age (Ag)	581	39.6747	3.227446	35	47
Area	581	2.759036	1.25001	1	3
EducSon	581	11.41308	3.762533	1	22
JobtitleSon	581	3.170396	2.862399	1	9
JobsectSon	581	2.934596	.9874337	1	5
EducDad	581	7.521515	3.968623	1	22
JobtitleDad	581	2.893287	2.742823	1	9
JobsectDad	577	2.844021	1.148642	1	5
YdSon	581	21140.83	10655.48	112.945	104482
YlSon	581	13851.17	10272.95	0	68600
logYdson	581	9.813799	.6245666	4.726902	11.55677
logYlson	440	9.701277	.5775093	5.010635	11.13605

Our equation will be:

$$y_t^s = \alpha + \left(I\widehat{Y}l^d\right)\beta + A_t^s + \omega_t \qquad (5)$$

Where $I\widehat{Yl}$ is the result of the first sample that allows us to replace in the second sample missing fathers' incomes with their best linear predictions.

Before proceeding with our regression we need to link the values of the son with those of their pseudo-fathers. To do this we consider the information given by sons concerning their real fathers at the time of completing the questionnaire: year of birth, year of education, job title, job sector. Based on this information we create a smaller sample in which we match this real information with our pseudo-information and with our predicted values on wage and on disposable income.

Tab 20: Descriptive statistics for sons and pseudo-father (Our elaboration from SHIW 1989-91 and 2010-12)

Variable	Obs	Mean	Std. Dev.	Min	Max
Sample size	563				
Ageson	563	39.65542	3.22003	35	47
Area	563	2.73357	1.2542	1	3
Educson	563	11.42274	3.766161	1	22
JobtitleSon	563	3.14032	2.841581	1	9
JobsectSon	563	2.928952	.9849021	1	5
EducDad	563	7.559503	3.993045	1	22
JobtitleDad	563	2.722913	2.611491	1	9
JobsectDad	563	2.825933	1.149765	1	5
LogYlson	428	9.707519	.5731185	5.010635	11.13605
LogYdson	563	9.81291	.6305887	4.726902	11.55677
LogYlDadhat	563	9.968175	.1922995	9.50416	10.4536
LogYdDadhat	563	10.15983	.2333743	9.625576	10.73174
LogYlSonhat	563	9.529418	.4163829	8.162046	10.26105
LogYdSonhat	563	9.81291	.2508107	8.989794	10.43169

Now we can proceed with the TS2SLS estimation, considering as our instrumental variables the information on pseudo-father, related to sons' information. So we can make the regression for labor and for disposable income:

$$\ln(Yl^s) = \beta_0 + \beta_1 \ln(\widehat{Yl^d}) + \beta_2 \mathrm{Ag}^s + \beta_3 Ar^s + \varepsilon \qquad (6)$$

If we consider the elasticity between labor income of father and son, the resulting value of ß is 0.63 , while if we consider disposable

income the value of ß becomes 0.68. To understand the reasons for this difference in the following pages we analyze the weight of all the instrumental variables.

3.3.2 Differences between labor income's elasticity and income's elasticity: the weight of the Italian economic structure on intergenerational mobility

In this part of the paper we deepen the differences within intergenerational mobility considering elasticity of labor income and intergenerational mobility considering elasticity of disposable income.

In table 21 we have reported data of TS2SLS elaboration on fathers and sons labor income. Looking at this table it is possible to highlight how the influence of fathers' background changes if we consider different level of education of sons, with a stronger influence for people having only diploma (0.60), and very low level of influence for sons with university degree (0,08). These data, and most of all the low level of intergenerational mobility for sons with high level of education, show how education is a crucial factor in changing economic status. Concerning the job title it is important to remark on how the higher rate of ß is referred to autonomous workers: in fact the category of self-employed is composed of people who manage familiar activities so our value is influenced by the number of activities transmitted, like medical or lawyer office or business activities .

Considering the job sector, the value of ß for the agriculture sector is the higher value: 0.42. The reason for this value is linked to the propensity of intergenerational transmission by employees in this sector[113].

Finally we have to analyze the differences of intergenerational mobility between geographical areas. In this research we have

[113] Corack 2010

considered the partition of Italy in the classical three regions: North, Center and South. It's important to underline that the economy of Italy is a dualist economy with a most developed North and a poor and underdeveloped South[114].

Table 21: TS2SLS Estimation: The elasticity of labor income between fathers and sons

Instrumental variables	Instruments	Son's condition		β
Labor income of father	*ageson educdad jobtitledad jobsectdad educson jobtitleson jobsectson*			**0.63**
	ageson area educdad educson jobtitledad jobtitleson jobsectdad jobsectson	Education	Elementary education	**0.11**
			High school	**0.60**
			University degree	**0.08**
	Ageson educdad jobtitledad jobsectdad	Job Title	Factory Worker	**0.33**
			Employee	**0.29**
			Teacher	**0.004**
			Official	**0.001**
			Executive	**0.05**
			Freelance professional	**0.002**
			Entrepreneur	**0.008**
			Self-employed	**0.50**
			Unoccupied	**0.005**
	Ageson educdad jobtitledad jobsectdad	Job Sector	Agriculture	**0.42**
			Industry	**0.02**
			P.A.	**0.03**
			Trade	**0.01**
	Area educdad jobtitledad jobsectdad	Geographical Area	North	**0.061**
			Centre	**0.003**
			South	**0.540**

Our elaboration also shows how intergenerational mobility is different by regions, but in this case we have very high rates in the poorest Southern Regions, where the weak market labor produces scarcity of occupational opportunities.

[114] "Italy is a unique European country having at once a per capita income in line with the continental average, together with a huge percentage of population (29%) living in a province where per capita income is less than 75% of EU average, as well as 26% of population residing in a province with a level of per capita income equal to 125% of the average." (Brida, Garrido, Mureddu, 2014)

This considerations show us the rigidity and weakness of the labor market: where the level of education is inferior and in professional sector with education we can say that the economic and working position of a father influences the economic and working position of a son.

Table 22: TS2SLS Estimation: The elasticity of income between fathers and sons

Instrumental variables	**Instruments**	**Son's condition**	**β**	
Disposable income of father	*ageson educdad jobtitledad jobsectdad educson jobtitleson jobsectson*			**0.68**
	ageson area educdad educson jobtitledad jobtitleson jobsectdad jobsectson	Education	Elementary education	**0.04**
			High school	**0.15**
			Bachelor	**0.03**
	Ageson educdad jobtitledad jobsectdad	Job Title	Factory Worker	**0.28**
			Employee	**0.19**
			Teacher	**0.003**
			Official	**0.003**
			Executive	**0.07**
			Freelance professional	**0.003**
			Entrepreneur	**0.05**
			Self-employed	**0.59**
			Unoccupied	**0.006**
	Area educdad jobtitledad jobsectdad	Job Sector	Agriculture	**0.81**
			Industry	**0.22**
			P.A.	**0.003**
			Trade	**0.46**
	Area educdad jobtitledad jobsectdad	Geographical Area	North	**0.255**
			Centre	**0.003**
			South	**0.774**

In table 22 we have reported the results of our TS2SLS elaboration considering the disposable income. By this elaboration we would like to overcome the analysis of the labor market influence and

to observe the transmission of economic status. The value of disposable income includes labor income, pensions but also income from rents and from financial capital or investments.

In the case of disposable income, the value of intergenerational mobility is 0.68, higher than in the case of labor income. Looking at the tables 6 and 7 we can see a similar trend of influence considering job title and job sector, and some difference in educational level and most of all in regional distinction. While in the previous analysis we have observed high alterations of ß for the different level of education, in this case the influence on this category is minimal. On the contrary, in the investigation on geographical area we can also observe how the highest level refers to the South regions where the relations between father and son is much more linked to economic status and the transmission of heritage.

As we have said before the economy of the South of Italy is the weakest of the country. Here unemployment is the highest in the country, and the age of leaving home is the lowest: usually young sons abandon the parental home to change their lives and move to different regions of the country or to marry[115]. In both cases parents help their son by transmitting some of their heritage, land, house or monetary capital. This is the reason for a high rate of ß in this part of Italy.

3.4. The trend of intergenerational inequity and intergenerational mobility

With the aim to analyze the trend of intergenerational mobility we make a comparison between our result and the ones of Piraino. On the other hand, to have an international comparison we also consider the rates of intergenerational mobility in Germany, France and Finland as they are reported in Corak's Great Gatsby Curve (Fig. 1)[116].

[115] Santerelli , Cottone, 2009
[116] Corak , 2013

Since these researchers have used fathers labor income to measure intergenerational mobility, in table 23 we report the value concerning labor income.

Considering the Italian situation and the comparison between our study and Piraino's study, we can say that during a few years, from 2002 and 2012, the rate of ß has experienced an intense increase: from a minimum level of 0.47 to a maximum level of 0.63. We can hypothesize that difference between our estimatation and that of Piraino is linked to the economic crisis and to the worsening of working conditions in Italy.

Tab 23: Comparison on value of β (Our elaborations)

Our elaboration (2013)	Italy	SHIW (2012 – 1989)	$\beta = 0.63$
Piraino (2006)	Italy	SHIW (2002 – 1977)	$\beta = 0.47$
	United Kingdom	Corak's elaborations	$\beta = 0.57$
Corak (2013)	France	Corak's elaborations	$\beta = 0.42$
	Germany	Corak's elaborations	$\beta = 0.32$
	Finland	Corak's elaborations	$\beta = 0.17$

While if we make an international comparison, we can highlight how Italy has the highest value of ß, near the value of UK and very far from the value of Finland. As we have remarked in the previous pages there are many reasons for these disparities: from the different social policies (job protection, minimum wage) to propensity to intergenerational transmission of job and heritage.

To understand the evolution of intergenerational mobility elasticity in Italy, we decide to investigate the years considered by us and the years considered by Piraino, some particular indices that we consider significant to point out that the economic situation of young people is getting worse and how this could increase the value of intergenerational mobility: the average income and the Gini index. By this investigation we would like to obtain some evidence about the intergenerational equity between generations, but also to have a view

of the intragenerational equity or the equity between the same generations in different period.

Several studies on intergenerational mobility make a comparison between the present condition and the past 45/50 years measuring the mobility of the 40 years of age or younger in the early 2000s by their incomes or earnings and their parental income. But, as we noted previously, we have to consider the difference in starting points: parents of young people in 2000 grew up in a period of relative equality and of economic prosperity[117]. While the young generation considered in our sample are facing much more uneven economic conditions, and, especially in 2012 an aggressive economic crisis. Hence in this part we want to highlight the different *starting point* of the two samples.

Finally, we have to highlight that for all the data elaboration we have considered in the SHIW database and the study on intergenerational mobility, we have considered only male people that have answered to the part of the questionnaire related to retribution.

3.4.1 On the distribution of disposable income: the effect of economic crises

First, we look at the distribution of disposable income by age class with the aim to investigate if there is a worsening in the economic equity among the young generations (Figure 5). As we have said before this measure utilizes labor income, pensions but also income from rents and from financial capital or investments. The decision to consider the distribution of disposable income instead of the distribution of disposable is linked to our attention to the dynamics of transmission of capital or investments from father to son.

[117] Smeeding, 2013

Looking at the figure, we can see that if in 1977, the age of Piraino's father sample, the curve was not particularly sloped and there were no sharp peaks in 2012 but in the age of our sons, we have an incremental trend with a peak for the 48-65 people.

The most marked difference is in 1991: In this year, the average income for all age groups was higher than in other years. Considering the age group of our sample (35-47) the average disposable income was € 30.466,92 , while for the same group the disposable income of 2012 is €21.137,79. The reason for this difference is the better economic situation of Italy in that year. A recent study of Campiglio (2013) from the same datasets underlines that between 1991 and 2012 the share of disposable income compared to GDP fell sharply, from 74% at the beginning of the 90s to 66% in 2012. This significant disparity (eight percentage point) in the redistribution of income in twenty years demonstrates the increase of inequality[118].

Figure 5: Income average per class of age:
Our elaboration from SHIW 1977, 1991, 2002, 2012

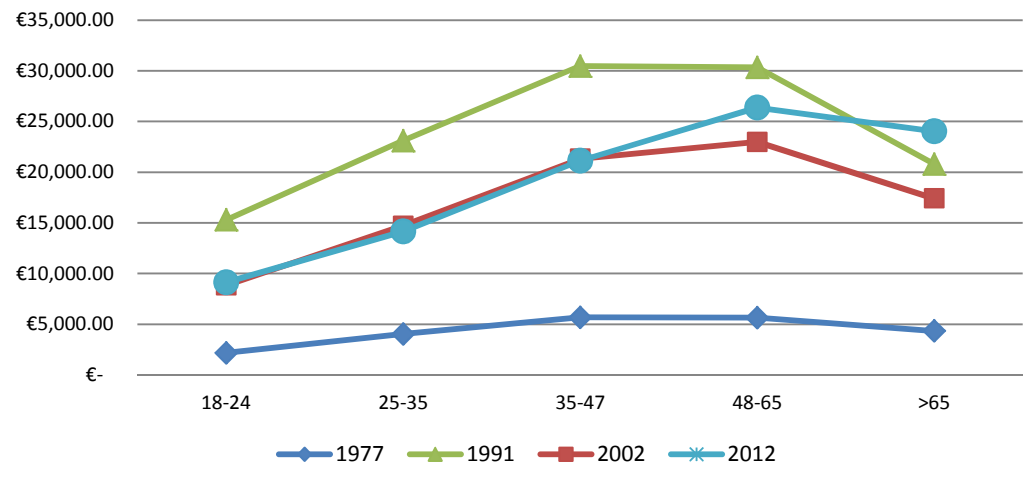


Figure 14: Income average per class of age

Finally it is important to acknowledge that the big distance from disposable income of 1991 and disposable income in 2012 is influenced also by the decreasing of household saving rates . Obviously after the

[118] Campiglio, 2013

economic crises the saving behavior declined from 24% in the early 90s to 8% in 2012. The decline of saving rates significantly influences our analysis and particularly the level of intergenerational mobility: saving behavior generates distribution of wealth across generations, because many families during their lifetime decide to save money for their children[119].

3.4.2 The impact of inequity on intergenerational mobility: from the Gini Index to the Great Gatsby Curve

Intergenerational mobility is one of the determinants of intergenerational equity. As we have said before, the debate on this matter is evolving year by year. To have a perspective of the level of inequality that young people have to face in Italy, in the next pages we will measure the Gini Index and finally we will create the Italian Great Gatsby Curve.

The trend in the Gini Index measured on disposable income for the sample considered allows us to look at the equality level between age groups observed at the same time (intergenerational equity) and between the same age classes observed in different years (intra-generational equity). Particularly in figure 3 we compared Gini Index between our sample (male aged from 35 to 47) and the rest of the working population (18-65)[120].

[119] De Nardi, 2002
[120] The Rest of Working Population is calculated in the following way: total male population aged from 18 to 65 less our sample.

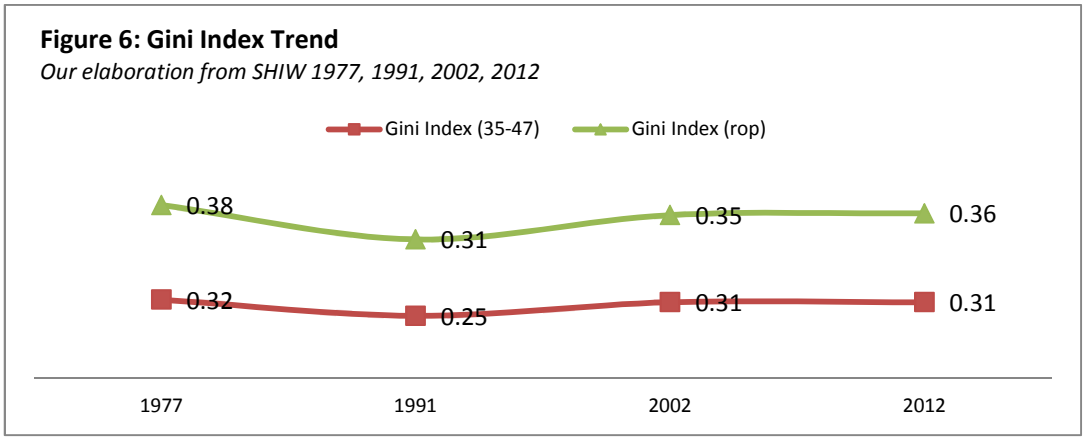


Figure 15: Gini Index Trend

As we can see in Figure 6 both the curves, the one from our sample and the one from the rest of working population, have the same trend with a common distance for 1977 and 1991 of 0,6, the years of fathers sample. The better situation is in 1991 with a very low rate of inequality for our fathers and for the rest of working population too. Considering more recent years we can see how for 2002 the distance of Gini Index was of 0,4 while ten years later was 0,5. So the Gini Index shows no particular disparities from 2002 to 2012.

To have evidence of the evolution of intergenerational inequality linked to intergenerational mobility in Figure 7 we decided to use the Corak's Great Gatsby Curve and make a comparison between Italy's condition in different years and, to have a comparison of the Italian position in the international context, we have decided to put in the curve the data of countries that we have considered in the matching of intergenerational mobility (France, Germany, Finland, Uk).

According to this curve we can say that in 2002 and 2012 income inequality and intergenerational mobility were not perfectly correlated: during these two years in fact there was a rising of intergenerational mobility value from 0,47 to 0,63, while the rate of income inequality has been stable at 0,32. So we can say that in 2012 we have an upward shift because of the increasing of intergenerational mobility: young

people prospects are strongly influenced by parental income, much more than ten years ago and much more than countries like Finland or France.

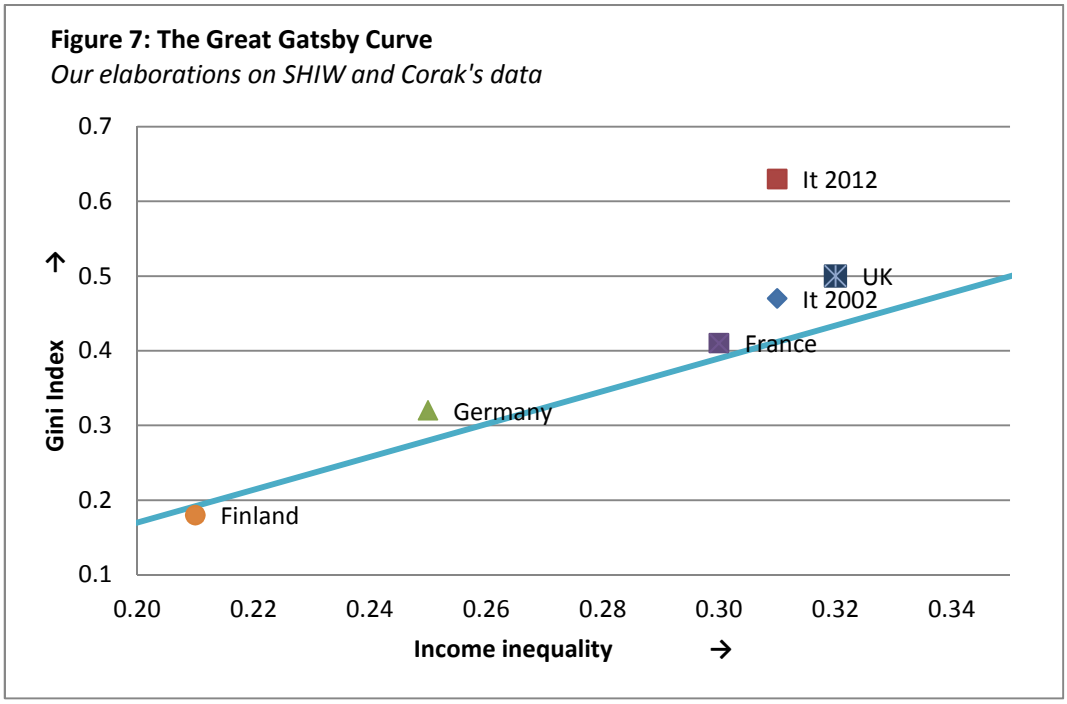


Figure 16: Italian Great Gatsby Curve

Of course this immobile situation is connected to economic crises and as we have remarked from our elaborations, with a weak labor market and particularly with the atypical workers so-called "flexibilisation at the margin"[121]: the difficulty to find a job, the diffusion of temporary contracts and the low wages, create a hostile climate for young people who want to improve their economic condition[122].

[121] Esping-Andersen and Regini 2000
[122] Gini's Country Report for Italy, 2012

3.5 Concluding remarks

Intergenerational equity as well as intergenerational mobility has to conquer a central place in the global economic debate, and one of the principal reasons for this is the emergency situation that is the worsening young people's condition. As is happening in many developed countries including Italy, there is a need to find a new policy to intervene in this situation and as data highlights, Italy can have some inspiration from Northern Countries policies.

In this paper, we have compared the intergenerational mobility in Italy in the last decade starting from the paper of Piraino and ,following their route, from our elaboration. As a result, we can say that the Italian economic system represents a very rigid structure and that young people are paying the biggest part of the bill. Low wage levels, weak job security and the absence of appropriate policies are prejudicing the level of intergenerational equity and of intergenerational mobility, reducing opportunities for young people.

Particularly we have underlined how the disparities between the North and South of Italy have a strong influence on intergenerational mobility in Italy because of the difficulties in finding a job better than parent's job and most of all because of the propensity and the necessity to depend, in the parental home, on the help of family.

Of course it is impossible for us to predict future scenarios but if the economic crisis and the absence of appropriate policies continues, the youth condition will also continue to worsen.

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