

Dipartimento di Economia e Finanza

Cattedra Economic Growth and Development

**ITALIAN REGIONS INEQUALITY APPLIED TO THE
KUZNETS HYPOTHESIS**

RELATORE

Prof. Joseph Zeira

CANDIDATA

Carolina Marsiglia

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Introduction

In the field of economics, inequality studies have always been a prominent query. Since the recent crisis, the inequality topic has returned at the heart of the economic and political debate, both in national and international settings. Many economists indeed have blamed the increase in inequality as a leading cause of the crisis and questioned the effectiveness of public policies. The distribution of income is a sensitive issue especially in the Italian experience, where its history of regional income disparities is renowned all around the world.

In this thesis, I will focus mainly on the evolution of inequality within Italian regions and on the soundness of their application to the Kuznets Hypothesis. Simon Kuznets, who gives his name to the theory, made an argument according to which as an economy grows, inequality first rises and then decreases. This hypothesis took the name of the inverted-U curve. Although Kuznets did not present it as a universally true hypothesis but rather as a wishful speculation, in the years next to its publication in *Economic Growth and Income Inequality* (1955), the Kuznets curve has started to be thought of as an “unavoidable law”. Eventually, after a renewed increase in inequality trend from the 80’s, many criticisms arose.

This work aims at the application of the Kuznets model to the inequality trends leading Italian regions. Italy, as a matter of fact, is one of the most unequal European country, whose regions are characterized by strongly uneven distributions of income.

Further on, we shall explore both the assumptions and the claims behind the Kuznets Hypothesis and, most importantly, whether they are aligned with inequality trends of Italian regions.

The first part will provide for an evolution of the dynamics of Italian income inequalities from two different perspectives: the contribution given to total inequality at a national level was broken down into inequality between the macro-areas, assessing the magnitude of income differences from 1871 to nowadays, and inequality within the

single areas. A Gini measure of inequality was adopted over the period between 2003 and 2012. The Gini coefficient is an indicator that ranges from 0 to 1, the former indicating perfect equality and the latter perfect inequality. Inequalities at the macro-area scale are depicted by GDP per capita by region, measured in current prices.

The second part describes the Kuznets hypothesis and provides for the explanations that account for the increasing and decreasing portions of the curve. We will go through Kuznets' point of view, presenting theories of social, political, and economical character. This same chapter will also include theories of other scholars who gave their contribution towards understanding what lies behind the inequality inverted-U trend. Among them, we find Aghion and Bolton, Galor and Tsiddon, Acemoglu and Robison, and even Piketty, Saez, and Alvaredo, who set off to establish the non-existence of the Kuznets curve.

The third part merges and caps the first two chapters, as data are applied to the model: it aims at combining the Italian income inequalities and the household disposable income retrieved from the first section, with a view to assessing whether the Kuznets' argument also holds for the Italian regions case. In particular, we shall consider whether Kuznets' assumptions can be applied on a regional scale, given the regions income level, rather than to the country as a whole. In actual fact, the specific territory features must be taken into account, given that Italy presents in itself a much more fragmented and disomogeneous situation in terms of inequality than other European countries.

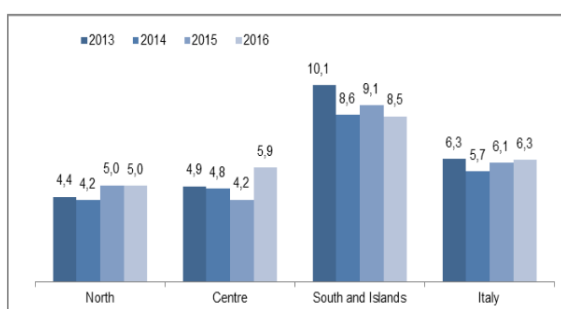
1. DESCRIBING THE DYNAMICS OF ITALIAN INCOME INEQUALITIES

Since the recent crisis, the incidence of income inequalities has returned at the heart of the economic debate. The distribution of income plays a fundamental role in

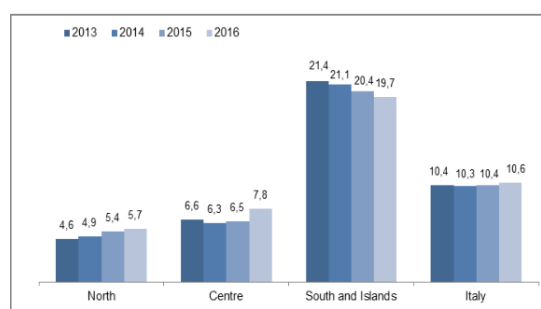
determining the world *economic, political* and *social* dynamics and, for this reason, it has been one of the most prominent concern for policy makers and economists as well.

From a *social* point of view, income inequality is crucial as it is strictly related to poverty. For any given average level of income, as income is distributed more unequally, more and more people will live in poverty. With its dramatic repercussion on society, poverty affects tragically the level of education, of crime, of social mobility and numerous other factors, which are all intricately and deeply connected.

Graph 1 Absolute poverty incidence (households) by geographical area. Years 2013-2016 (percentage values)



Graph 2. Relative poverty (households) by geographical area. Years 2013-2016 (percentage values)



Poverty dynamics are crucial in every country for the magnitude of its effects. In particular, the number of people living in poverty in Italy climbed to its highest level in 2016 despite a modest economic recovery.

Graph 1 and Graph 2 describe the incidence of absolute and relative poverty in the period between 2013 and 2016 (ISTAT, 2016). ISTAT defines absolute poverty as the condition of those who are unable to buy goods and services “essential to avoid grave forms of social exclusion” while persons living in relative poverty as those whose disposable income is less than around half the national average.

As a matter of fact, in Italy, in 2016, the incidence of absolute poverty was 6.3% in terms of residing households and 7.9% in terms of individuals. In 2015 the former was equal to 6.1%, the latter was 7.6%. In 2016, the proportion of poor households in relative terms remained stable (10.6%, it was 10.4% in 2015), whereas the relative poverty intensity increased (from 23.1% to 24.3%), especially in the North and Centre areas (respectively from 19.9 % to 24.7% and from 18.8% to 23.7%). Households in relative poverty were 2 million and 734 thousands and in terms of individuals were 8

million 465 thousands (equal to 14.0%).¹ Data indeed point to an increase in the incidence of poverty between the years of 2015 and 2016.

From an *economic* point of view, income inequality affects the process of economic growth in a variety of ways, and vice versa. As the Kuznets curve suggests, income inequality is considered good for some stages of economic growth and bad for others. Its inverted U-shaped curve indicates that, at the early stages of economic growth, to a low level of income corresponds a low level of inequality. Eventually, as the income level increases, so does it the inequality until it reaches its maximum point at a median level of income. After this point, the inequality starts to shrink as the income level increases. However, it is also true that rich people tends to save more, as they do not consume all that they earn. Therefore, total consumer spending decreases and unemployment goes up, that in their turn affect negatively economic growth and government tax revenues. We will analyse the channels through which income inequality affects economic growth later on in the second part.

Finally, from a *political* point of view, equalizing the distribution of income is one of the cornerstones of the government economic policies. Governments try to achieve, at the same time, a more equal income distribution and a higher economic growth using many different approaches, such as progressive taxation or the provision of public education to support accumulation of human capital.

Italy is among the countries with the highest level of income inequalities in the European Union. For this reason, an attentive analysis of such inequalities not only at a national level, but also at a regional one, is required.

1.1 Regional Inequalities in terms of GDP per capita from 1871 to 2015

Measuring the distribution correctly, therefore, is critical to determining the magnitude of its effects. GDP per capita is one of the indicators that best interpret regional inequalities as it offers a way to compare different realities in the same country.

¹ Istat (2017, 13 July), *Poverty in Italy* from https://www.istat.it/en/files/2017/07/Poverty-in-Italy_2016.pdf?title=Poverty+in+Italy++13+Jul+2017++Full+text.pdf

Italian income disparities are widely known throughout the world as they have continued to deepen significantly since the early stages of economic growth.

We shall now proceed to analyse GDP per capita trends in order to get a clearer picture of the regional disparities over the period from 1871 to 2015.

The figure to the left provides a spatial representation of regional inequalities relative to Italy's GDP per head (Italy=1) at four different points in time (1871, 1911, 1951 and 2001).

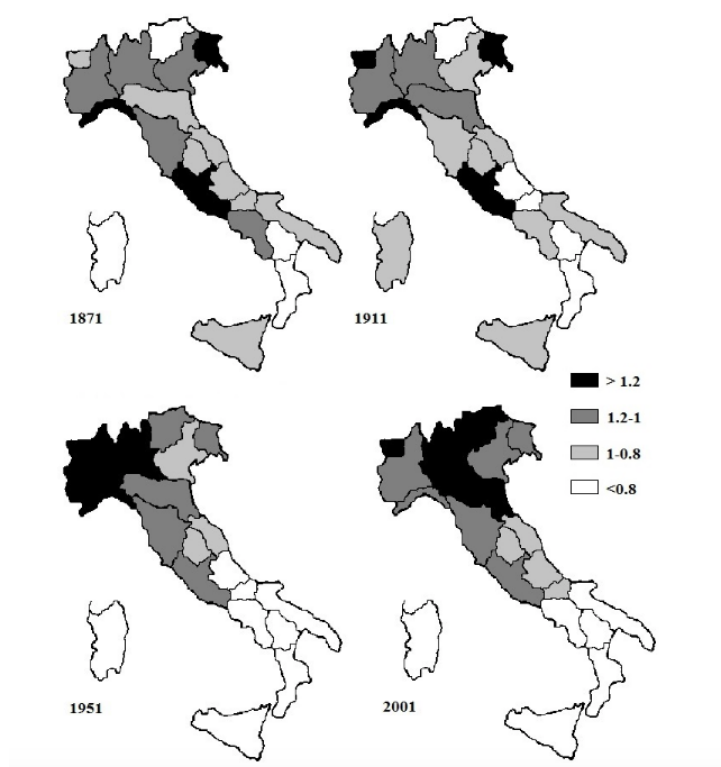


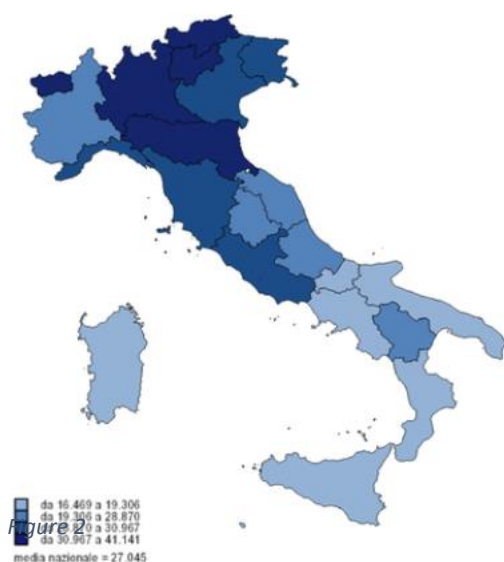
Figure 1

In 1871, a decade after the Unification, there was still no clear divergence between North and South in terms of GDP per capita. In fact, the southern territory included some of the most important regions at the time, such as Campania, which hosted the capital of the Kingdom of the two Sicilies, Naples. Even Sicily and Apulia managed to stand above average thanks to their diversified agriculture products. Within the centre-north, the regions which

distinguish themselves are Liguria and Latium, the latter hosting the new capital, Rome. By 1911, regional inequalities were rising, but the clear distinction between the three macro-areas (north-west, north-east, centre and south) was not as defined as in 1951. Actually, Campania was only a few points below the Italian average level, and Latium continued to be richer than the north-west regions. The period between 1922 and 1943, the twenty years of Mussolini's dictatorship, are historically considered as the period in which the North-South gap further widened. After WWII, there was an apparent

convergence of these three macro-areas into the so-called industrial triangle – consisting of Liguria, Piedmont, and Lombardy –, which set in and started to grow significantly with respect to the rest of the country. In the 1950’s Italy was characterized by the “miracolo economico italiano”, an economic boom that lasted until the end of the 60’s. This was a period of strong economic growth and technological development after the “Ricostruzione” period, but also a time in which the macro-areas gap widened: the south was defined by a low level of urbanization and its tertiary sector was not able to catch up with the north levels. By 2001, Italy was mainly divided into two large areas, the north-centre and the south, of which the latter fell behind as the former grew richer and richer.

From 2001 on, regional inequalities are depicted by regional GDP per capita in Table 1. The availability of data over the period made it possible to draw a more precise quantitative analysis. The statistics used in this work are derived from ISTAT: they provide an excellent insight into the actual Italian regional disparities, before bringing into focus the within-region income inequalities, which are the core subject of this thesis. They are measured in Euro and referred to current prices. The data relate to all regions, including those with a special status, over the years 2001, 2003, 2007, 2011, 2014, and 2015.



In 2015, the GDP per capita was 33.4 thousand euros in the North-west, 32.3 thousand euros in the north-east and 29.3 thousand euros in the centre. The Mezzogiorno gap from the other macro-areas is wider: the GDP per capita level is 17.8 thousand euros, that is 44.2% less compared to the north-centre.

A comparison between 2011 and 2015 can be useful to depict the Italian situation in terms of GDP per capita inequality over time.

The North-West is the geographic area with the highest GDP per capita. The data show that it was 33,4 thousand euros in 2015: a level not very different from that of 2011 (33,6 thousand euros). The North-East follows, with 32,3 thousand euros (31,9 thousand euros in 2011) and finally the Centre, with 29,3 thousand euros (30,4 thousand euros in 2011). The Mezzogiorno, with 17,8 thousand euros (resulting slightly higher than half the North-West GDP per capita), remains below the 2011 level (18,1 thousand euros). The province of Bolzano has the highest GDP per capita, equal to 41,1 thousand euros, followed by Lombardy, the province of Trento and D'Aosta Valley. Latium is the first region in the Centre in terms of GDP per capita (31 thousand euros in 2015, down by 2,6 thousand euros relative to 2011) but, together with Molise (down to 18,9 thousand euros of GDP per capita in 2015 from 20,6 thousand in 2011), it presents the worst performance in the period considered. Among the Mezzogiorno regions, the first for GDP per capita is Abruzzo (24 thousand euros). Umbria follows and drops to 23,7 thousand euros, due to the bad economic results achieved in the period between 2012 and 2014. Calabria ranks last, with 16,5 thousand euros, below the 2011 level (16,9 thousand), but on the rebound from 2014 (16,1 thousand euros).

Table 1, GDP per capita by region, year 2015, current prices. Source: ISTAT.

Regions and Territory	2001	2003	2007	2011	2014	2015
Italy	22795.62558	24223.07253	27379.17923	27263.7852	26655.78352	27044.74866
Centro-nord	27005.37983	28673.88634	32231.36343	32121.41338	31452.51918	31859.8738
Nord	27590.00827	29192.09523	32717.33981	32843.72936	32495.92379	32964.21098
Nord-ovest	28035.65674	29860.80814	33175.99062	33558.44283	32944.04551	33419.41513
Piemonte	24868.92523	26490.87996	29757.51369	29010.01624	28358.07189	28869.86728
Valle d'Aosta / Vallée d'Aoste	29635.13087	32295.49335	35354.18441	36002.70395	34218.78294	34300.90581
Liguria	24958.14063	26338.31878	30381.31206	30023.44861	29950.89376	30438.47075
Lombardia	30032.13237	32001.41935	35177.64969	36154.80217	35437.69957	35885.32504
Nord-est	26963.76396	28259.20128	32081.7924	31857.11597	31875.70629	32334.29132
Trentino Alto Adige / Südtirol	30030.12218	31293.32152	35125.94076	36281.47648	37441.59672	37812.8755
Provincia Autonoma Bolzano / Bozen	30421.41405	31689.24769	36278.71972	38667.06922	40437.40738	41140.77535
Provincia Autonoma Trento	29650.01949	30910.54118	34016.95833	33991.30745	34555.72918	34596.97823
Veneto	25999.09289	27436.82729	30859.06511	30608.49018	30420.50295	30842.95568
Friuli-Venezia Giulia	24798.84255	25629.30047	29719.54717	29136.88422	28873.42781	29146.66584
Emilia-Romagna	27978.65282	29250.02586	33423.48924	32965.61832	32997.81409	33558.78676
Centro (I)	25634.67396	27455.76697	31089.17089	30436.21613	29052.12201	29320.35174

Toscana	24269.97218	25821.77684	28961.22172	28957.53908	28968.44132	29446.38835
Umbria	22282.90062	23237.84664	26051.30973	24679.60725	23058.5281	23735.37815
Marche	22022.73644	23619.09584	27103.9036	25994.76145	25683.95704	25970.76554
Lazio	28137.36063	30349.78413	34473.67572	33571.55002	30907.18883	30966.71665
Mezzogiorno	15284.65527	16199.46199	18385.11957	18054.33631	17444.87171	17787.10886
Sud	15363.45677	16201.74593	18351.59781	18026.10459	17538.88054	17867.38322
Abruzzo	19924.29271	20532.11503	23080.90395	23978.75691	23284.54756	24159.99143
Molise	17324.86479	18138.36511	21669.0165	20644.73416	18536.88586	18890.97259
Campania	15190.28362	16142.36019	18177.56972	17456.01115	17053.45615	17187.41059
Puglia	14760.50867	15527.30516	17405.45792	17090.27262	16810.89489	17166.10116
Basilicata	16248.65674	16735.26929	19505.44031	18993.65631	18733.21806	19472.87071
Calabria	13625.00248	14505.44997	16808.74857	16938.92206	16105.56008	16468.61045
Isole	15118.56535	16194.64195	18455.79788	18113.69482	17247.886	17618.91228
Sicilia	14736.14369	15782.12658	17961.63681	17475.92564	16578.83242	17067.87521
Sardegna	16283.49317	17450.39917	19958.78358	20063.70712	19296.34983	19305.56951

However, it is noteworthy that these measures of Gross Domestic Product are calculated in current prices and hence are not adjusted for the effects of inflation.

1.2 Within-Region Inequalities

A better understanding of disparities among Italian regions necessarily requires taking a closer look at inequalities within each single region.

The analysis of inequalities is performed by the Gini index, calculated on the Net Household Income. The Gini index is the most frequently used statistical measure of distribution and shows the level of income inequality within any country or region. It allows us to compare income inequalities or examine inequality trends in one country over time. For a perfectly equal income distribution, the Gini coefficient will be equal to 0; for a perfectly unequal distribution of income (as would happen if one individual retained all the wealth in the region and the others none) the Gini coefficient will be equal to 1. For 2014, the Gini index for Italy, measured on the net disposable income, amounted to 0.326.

The aforementioned index allows us to break down the contribution given to total inequality at a national level into inequality within the single areas (*within* inequality) on the one hand, and inequality between the areas (*between* inequality). Two

main points emerge from the breakdown. In the first place, we can easily see that inequality in Italy is pushed up especially from the Mezzogiorno: in this area reside 30% of the taxpayers, and its internal inequality contributes to about 34% to the national one. Secondly, disparity between the regions explains just a marginal part (about 2%) of the total inequality.²

Table 2 provides the Gini coefficients, calculated from the net household income of the Italian regions, excluding the imputed rents, for the years from 2003 to

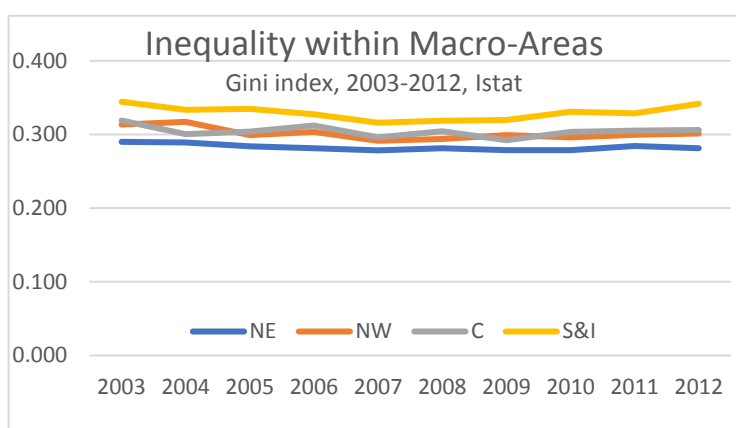


Figure 3

2012 and gives a powerful insight into the regional income disparities.

As the graph shows in Figure 3, the South and the Islands (yellow line) achieved the highest inequality, maintaining their level

substantially above the other areas over the whole period, touching its maximum point of 0.344 in 2003. The Centre followed (the grey line, down to 0.306 in 2012 from 0.319 in 2003), except for the year 2009, in which the North-West (orange line) achieved the second worst performance (a Gini index of 0.299). While the best in terms of income equality is the North-East (blue line) which, starting from a 2003 level of 0.290, fell steadily over the next years, touching its lowest point in 2007. In 2012 it reached 0.281.

² Paolo Acciari and Sauro Mocetti (October 2013), *Una mappa della disuguaglianza del reddito in Italia*.

Table 2

Income distribution inequality by region

Years 2003-2012 (Gini coefficient on net household income excluding imputed rent)

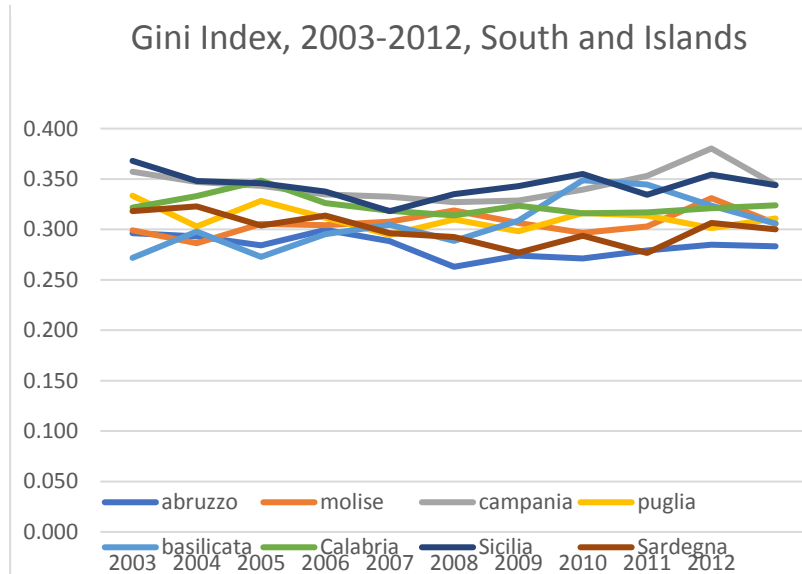
REGIONS GEOGRAPHICAL AREAS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Piemonte	0.309	0.309	0.290	0.284	0.291	0.291	0.301	0.306	0.303	0.292
Valle d'Aosta/Vallée d'Aoste	0.298	0.296	0.256	0.287	0.270	0.310	0.289	0.276	0.282	0.278
Liguria	0.299	0.314	0.292	0.288	0.292	0.290	0.283	0.292	0.341	0.337
Lombardia	0.317	0.320	0.304	0.313	0.291	0.295	0.301	0.292	0.291	0.299
Trentino-Alto Adige/Südtirol	0.287	0.285	0.260	0.266	0.259	0.289	0.263	0.272	0.268	0.270
Bozano/Bozen	0.288	0.298	0.267	0.282	0.271	0.298	0.269	0.272	0.256	0.244
Trento	0.285	0.271	0.253	0.244	0.244	0.280	0.255	0.272	0.274	0.290
Veneto	0.283	0.281	0.271	0.277	0.263	0.266	0.257	0.267	0.276	0.273
Friuli-Venezia Giulia	0.283	0.273	0.262	0.262	0.261	0.265	0.271	0.277	0.301	0.264
Emilia-Romagna	0.295	0.299	0.304	0.291	0.301	0.297	0.301	0.286	0.289	0.292
Toscana	0.291	0.268	0.281	0.279	0.275	0.283	0.276	0.287	0.283	0.280
Umbria	0.288	0.286	0.301	0.305	0.284	0.280	0.271	0.269	0.278	0.268
Marche	0.271	0.280	0.278	0.292	0.281	0.289	0.274	0.286	0.284	0.278
Lazio	0.354	0.328	0.326	0.339	0.315	0.324	0.312	0.323	0.328	0.334
Abruzzo	0.296	0.293	0.284	0.300	0.288	0.263	0.274	0.271	0.279	0.285
Molise	0.299	0.286	0.305	0.304	0.308	0.319	0.307	0.297	0.303	0.331
Campania	0.357	0.347	0.343	0.335	0.332	0.327	0.329	0.339	0.353	0.380
Puglia	0.333	0.303	0.328	0.311	0.295	0.310	0.298	0.316	0.314	0.301
Basilicata	0.272	0.298	0.273	0.295	0.305	0.289	0.309	0.349	0.344	0.324
Calabria	0.322	0.333	0.348	0.326	0.318	0.314	0.324	0.316	0.317	0.321
Sicilia	0.368	0.348	0.346	0.338	0.318	0.335	0.343	0.355	0.334	0.354
Sardegna	0.318	0.323	0.304	0.314	0.296	0.292	0.277	0.294	0.277	0.306
North-west	0.314	0.317	0.299	0.304	0.291	0.294	0.299	0.296	0.300	0.301
North-east	0.290	0.289	0.284	0.281	0.278	0.281	0.279	0.279	0.284	0.281
Centre	0.319	0.300	0.304	0.312	0.296	0.304	0.292	0.303	0.305	0.306
Centre and North	0.309	0.305	0.297	0.300	0.289	0.294	0.293	0.294	0.297	0.298
South and Islands	0.344	0.334	0.335	0.327	0.316	0.319	0.319	0.331	0.329	0.342
Italy	0.332	0.328	0.321	0.322	0.310	0.314	0.312	0.319	0.319	0.324

Source: Istat, Indagine sul reddito e condizioni di vita (Eu-Sic)

An analysis of the within-region inequality is also important to assess the magnitude of total overall inequality at a national level. We will analyse the regional trends over the period between 2003 and 2012.

The *South* and the *Islands* performed poorly as a macro-area compared to the others, presenting also the worst Italian result in their within-region level of inequality. In average terms, Campania and Sicily perform equally with a 3.44 Gini index. However, they differ

Figure 4



substantially in their 2012 value: Campania's index only in that year rose sharply from

0.353 (2011) to 0.380, the highest value ever achieved over the whole period, while Sicily inequality level increased from 0.334 to 0.354. Abruzzo's inequality trend was steady during the years taken into consideration around an average Gini index of 0.283. Its lowest point (0.263) was reached in 2008 while the highest level attained was 0.300 in 2006. Abruzzo is the only southern region characterized by a low inequality level with respect to the others: in point of fact, Abruzzo reached the 0.300 threshold only once, while all the other regions, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, and Sardinia, exceeded the threshold in their average measures of inequality. Molise and Sardinia managed to achieve values just above and equal to the threshold, respectively 0.306 and 0.300. Basilicata trend rose gently to 0.349 in 2010 and dropped to 0.324 in 2012, notwithstanding its average level was 0.306 as its climbing to 2010 was fluttered and slow. Puglia and Calabria's patterns were similar, meaning that they remained constant with minor fluctuations around their respective averages, 0.311 and 0.324.

The regions of the *Centre* have shown a rather homogeneous performance over the whole period in average terms: Toscana shows a 0.280, Umbria a 0.283 and Marche displays a 0.281 value, except for Lazio whose inequality level was considerably higher than the others' (0.328). In fact, Lazio starts in 2003 with a Gini coefficient of 0.354,

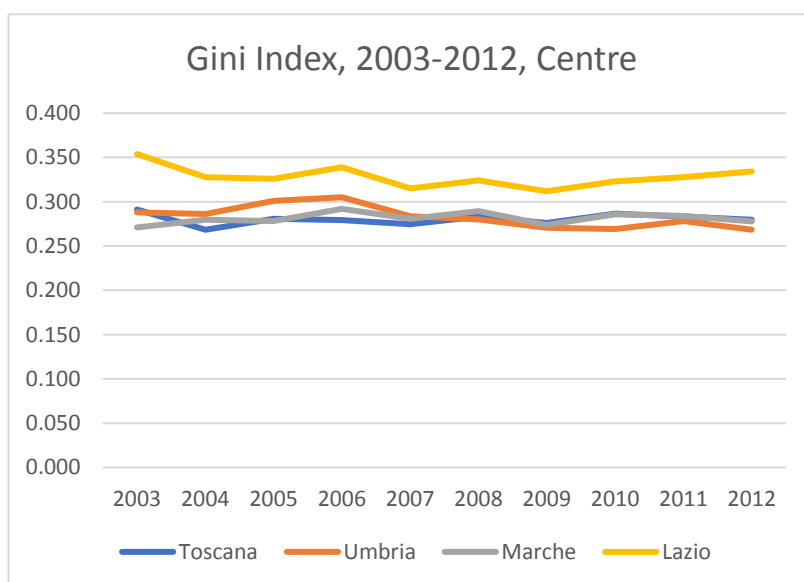


Figure 6

touching its lowest point (0.312) in 2009 and reaching 0.334 in 2012, while Toscana, the best performer as to average quantities, remained stable with a 2003 value of 0.291 and a final 2012 value of 0.280. Umbria and Marche performed similarly with starting

values of 0.288 and 0.271 respectively and reaching 0.265 and 0.278 in 2012, plumping

to their lowest point in 2012 and in 2003. It is noteworthy that Lazio inequality level is the third higher Italian Gini coefficient after Campania and Sicilia.

In the *North-West* Valle d'Aosta achieved the best result for equality, managing to achieve a 0.284 level in average terms. Piemonte follows, only 0.014 points apart (0.284 and 0.298 respectively). The worst performer was Liguria with 0.303, followed by Lombardia 0.302. Trentino-Alto Adige kept the inequality index below the 0.300 threshold for the

whole period and rose to only 0.289, its highest value, in 2008. In the north-west, inequality levels remained stable for every region without significant fluctuations, except for Liguria, which from a 2010 level of 0.292 jumped to 0.341 in 2011.

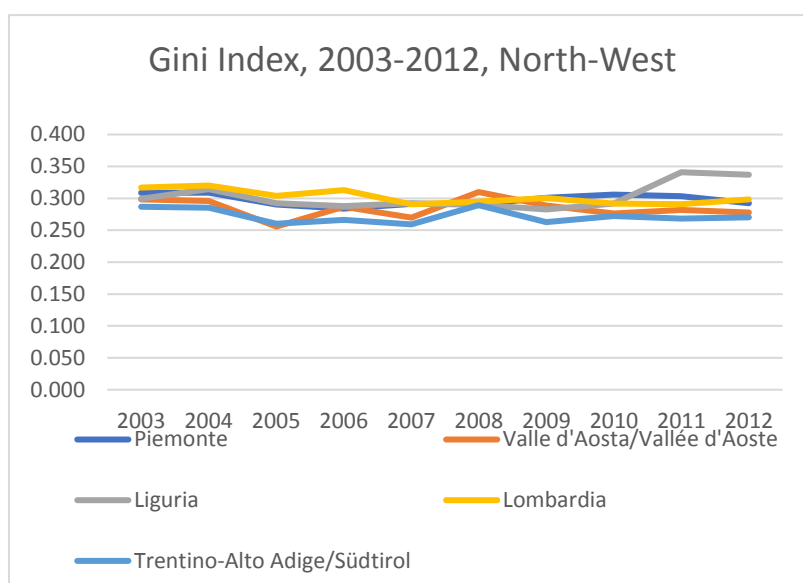


Figure 7

North-East is the leading macro-area in terms of inequality, both at a within-region and at a between-region level. In fact, it attained the lowest results in each year as compared to the other regions. The table shows that the Gini indexes never exceeded the 0.300, except for Emilia-Romagna in 2005, 2007 and 2009 and for Friuli-Venezia Giulia in 2011. The areas also include the Autonomous Province of Trento and Bolzano, which together make up the region Trentino-Alto Adige; for the sake of simplicity we will, therefore, take into consideration for analysis the individual provinces. All the regions in the Northeast Italy, Veneto, Friuli-Venezia Giulia and Emilia-Romagna, including the autonomous provinces of Trento e Bolzano, achieved

an average inequality coefficient below the 0.300 level (respectively, 0.271, 0.272, 0.296 and 0.267, 0.274). Emilia-Romagna, which is the region in the group lying further south, followed the same

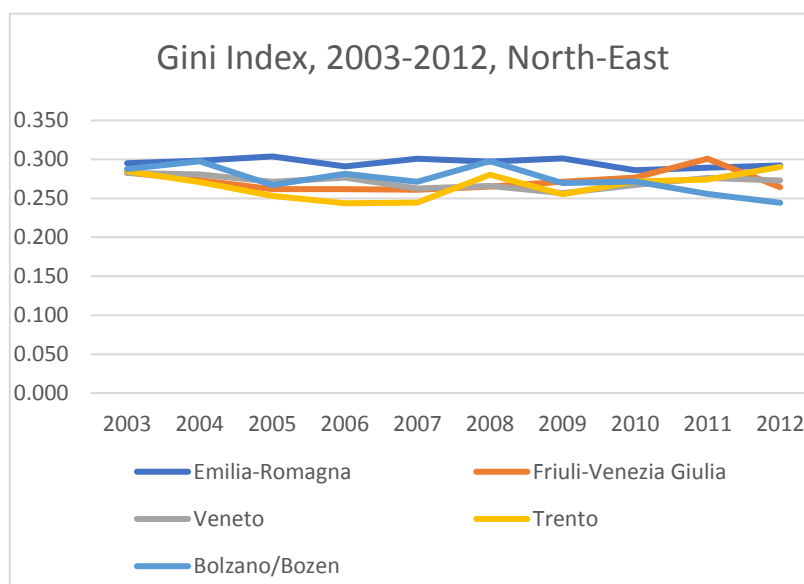


Figure 8

trend of the Centre areas: it attained an average measure of 0.296, and for the whole period it remained stable around the average. The Autonomous Province of Trento achieved the lowest Gini level in average terms (0.264), had a decreasing trend until 2007 reaching 0.244 and then started to rise until it peaked in 2012 with a 0.290 value. The other province, Bolzano, followed an opposite pattern: it fluctuated until 2008 and plummeted to its lowest point, 0.244, in 2012. Finally, Veneto and Friuli-Venezia Giulia remained quite stable around their means, 0.271 and 0.272 for the whole period.

1.3 Concluding Remarks

From the inequality analysis of the Italian inequalities two significant facts have emerged.

Firstly, the poorest regions are also the most unequal. The southern area, where the poorest regions are concentrated, is characterized by the highest levels of Gini index over the whole period of years analysed. This result fits perfectly the prediction of Simon Kuznets, a hypothesis that we will further discuss in the next section.

Secondly, in the period observed, the Great Recession, which started in 2008 and intensified in 2010, hit the country. The crisis tended to exacerbate income inequality, in fact, income reduction intensified mainly at the lowest bands of income

distribution and, therefore, was concentrated in the lower-income areas (South and Centre). However, this effect does not extend to all regions. The northern regions were able to better endure the economic downturn and its consequences (increase in unemployment and inequality). The regions whose inequality index suffered to a greater extent after the crisis are Campania, Liguria, Lazio, Molise and Sardinia, which are also the regions hit more severely by the recession (except for Lazio, that has been one of the most resistant to the crisis) as observed in Table 1 and Table 2³.

In the next section we will further explore this income-inequality relation, presenting one of the most influential arguments in the history of economics, the Kuznets Curve.

2. INEQUALITY AND THE KUZNETS CURVE

Since the early phase of economic development, many studies about inequality have been carried out, viewing it as correlated with many factors influencing standards of living. We will consider why a certain degree of inequality is both beneficial and hurtful for society and we shall explore the underlying reasons. Inequality is good as it promotes merit and work effort, while it is bad because it shows a positive relation to crime and corruption levels and it is considered a factor of inefficiency. Subsequently we will discuss one of the main arguments ever made on inequality, the Kuznets Curve.

In this paper, we will focus on the evolution of within-region income inequality between households and their relative level of income. However, some preliminary considerations are required before addressing the core issue.

Inequality has always been considered fundamentally a drawback for society, even though perfect equality is not optimal either. In actual fact, a hypothetical perfect distribution of income is thought of as a significant disadvantage for one's work

³ Lagravinese, Raffaele (2015), *Economic Crisis and Rising Gaps North-South: Evidence from the Italian Regions*

activity. The working environment has a hierarchical structure: a hierarchy implies a pyramid of roles, on the top of which we find the top managers, directors, executives, and supervisors. These are positions of power and the bulk of the decision-making process. These roles carry a greater responsibility together with higher risk, and the people behind them must be capable of managing the working environment successfully. For this reason, such jobs are usually more remunerated, since the higher money is meant to compensate for the additional time, energy, effort, responsibility and risk usually involved in them. A perfectly equal working environment lacks the incentive needed to attract workers and make them take on such positions, which are indeed crucial to the successful functioning of a business activity. With an equal income, people would not be motivated to work hard and well. “Higher pay is the necessary incentive to get enough qualified people to do certain jobs”⁴. A perfect equal working environment also discourages the investment in human capital: young people invest years in higher education mainly with a view to earning a better salary (besides achieving self-realisation, social approval, etc...) in their future working life. Some degree of inequality, on the other hand, fosters economic growth (stemming from human capital), and is therefore necessary so as to reward effort, talent and innovation. In other words, a degree of inequality is required if merit is to be rewarded: people who work harder or cover positions of greater importance in sensitive sectors deserve to be paid far better than people who perform ordinary jobs in a perfunctory way.

“However, there are instances where income inequality reaches excessive levels, in that it represents a danger to social stability while also going against economic efficiency considerations”⁵. Income inequality is a motive for “crimes, riots and other disruptive activities”⁶. These activities lead to economic efficiency, in that they waste precious resources. On the one hand, criminals’ potential is lost, as they waste their time in criminal activities instead of productive goals. On the other hand, governments waste resources in public security programs, as they have to protect citizens from

⁴ Norman R (2001), *Criteria of Justice: Desert, Needs and Equality*

⁵ World of Work Report (2008), *Income Inequalities in the Age of Financial Globalization*

⁶ Barro (2000), *Inequality and Growth in a Panel of Countries*

criminal assault or fraud. Income inequality and crime rates, then, have been demonstrated to have a positive relationship. As a proxy for crime rates, we took into consideration the 2014 homicide rates of Italian regions retrieved from OECD statistics. The regions with the highest rates are Sicily, Campania and Calabria. From the previous section, we saw that these were exactly the worst average inequality performances, Campania and Sicily attaining both an average inequality index of 0.344, and Calabria following with a Gini coefficient of 0.324.

Moreover, income inequality is considered to cause economic inefficiency according to the diminishing marginal utility consideration. In fact, an extra dollar given to a poor individual is worth much more than an extra dollar given to a rich individual. Thus, the total utility in a society is not maximized. This is one of the main arguments for income redistribution, often used as a touchstone for many economists' studies.

Income inequality, therefore, is beneficial to economic growth as far as it boosts productive activities through an unequal remuneration, therefore through work effort and the formation of human capital. It follows then, that another significant relation with income inequality is that of income per capita itself. This relation is described by the Kuznets curve.

2.1 The Kuznets Curve

Simon Smith Kuznets was the first to suggest the existence of a general relationship between income inequality and the income per capita. His hypothesis is developed in *Economic Growth and Income Inequality* (1955) and states that income inequality initially rises with economic development and, after reaching its maximum, it subsequently falls in advanced stages of economic development. He used both cross-countries and time series data for the United States, England, and Germany and found out a historical relation between the two variables.

“One might thus assume a long swing in the inequality characterizing the secular income structure: widening in the early phases of economic growth when the

transition from the pre-industrial to the industrial civilization was most rapid; becoming stabilized for a while; and then narrowing in the later phases”⁷

The curve, then, takes the shape of an inverted U, having on the X axis incomes per capita and on the Y axis the inequality values as in Figure 9 to the right. Usually the measure used to quantify inequality is the Gini Coefficient, even though many other indexes can be employed such as the Theil index, the Palma ratio or income quantiles.

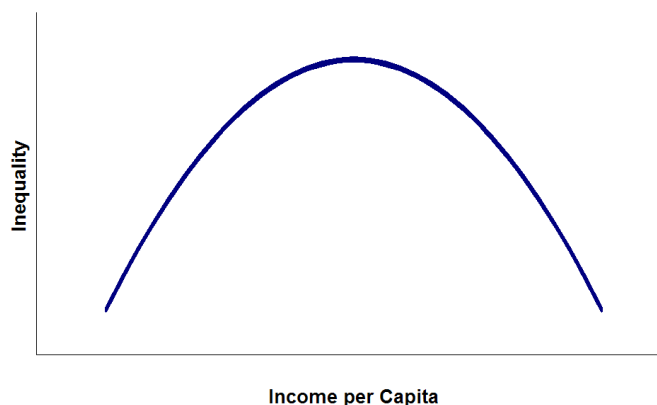


Figure 9

The evidence of this phenomenon, on which Kuznets based his hypothesis was detected, as I said before, in the US, England and Germany. He claims that income inequality in England widened steadily between the years 1780 and 1850, and it has been decreasing ever since from 1875. In the same way, the increasing phase for US and Germany started in 1840 and lasted until 1890, while the decreasing phase began with the First World War.⁸

Since Kuznets pioneered this hypothesis in 1955, many economists have studied the topic and put out many theories to explain the dynamics of the curve.

2.2 The explanations

Kuznets claimed that there are at least two groups of forces that make for *increasing* inequality in the distribution of income. On the one hand, “the concentration of savings in the upper-income bracket”, on the other hand the “shift from agricultural

⁷ Kuznets, Simon (1955), *Economic Growth and Income Inequality*, *American Economic Review*

⁸ Kuznets, Simon (1955), *Economic Growth and Income Inequality*, *American Economic Review*

to non-agricultural sector”⁹, a process usually referred to as industrialization and urbanization. Kuznets gives other explanations that make for the *decreasing* part of the curve, as the increasing political power of the lower-income groups, the migrants, and the introduction of public and social policies.

2.2.1 The Concentration of Savings in the upper-income bracket and its counter-factors

According to his studies on the apportionment of income between consumption and savings, only the upper-income groups were able to save. “The total savings of groups below the top decile are fairly close to zero. For example, the top 5 per cent of units in the United States appear to account for almost two-thirds of individuals’ savings; and the top decile comes close to accounting for all of it”. If savings are concentrated only in the hands of a few, they will induce an increasing proportion of income-yielding assets in the hands of the said upper-income groups over time. This phenomenon has a cumulative effect: their heirs will accrue wealth and inequalities will then rise. This effect is considered to explain the increasing part of the Kuznets curve.

However, there are some counter-factors that slow down and eventually revert the trend, explaining the downward part of the curve.

Kuznets mentions a demographic reason. The cumulative effect of the concentration of savings was diminishing because of the difference between the fertility rates of the poor and the rich. The fertility rate is defined as the average number of children a woman is expected to have during her lifetime. “Family control” hit rich people first. This motive is also explored by Dahan and Tsiddon (1998) in a publication under the title of *Demographic Transition, Income Distribution and Economic Growth*. They claimed that in an environment characterized by imperfection of capital markets, investment in human capital and demographic transition, fertility rate played a major role in determining the inequality level. “In the first stage fertility increases and income

⁹ Kuznets, Simon (1955), *Economic Growth and Income Inequality*, *American Economic Review*

inequality widens, whereas in the second stage fertility declines, income becomes more equally distributed, and growth of income per capita takes off”.¹⁰

Secondly, immigration was a phenomenon strongly characterizing those times; however, migrants were obviously poor and did not classify in the upper-income group. In other words, immigration reduces inequality in the sending country but increases it in the receiving country. Therefore, “the cumulative effect of savings may be to raise the relative income of a progressively diminishing top proportion of total population, their effect on the relative share of a fixed top proportion of the population is much reduced”¹¹.

Another effect that Kuznets highlighted was the increasing competitiveness and the increasing innovation that describe a developing country. For the upper-income individuals it was hard to remain on top, as they had to compete with new entrants and had to keep up with innovations. He claimed that this force “resides in the very nature of a dynamic economy with relative freedom of individual opportunity”. Standing the pace with technological advance in fact, was quite a difficult task for sons of entrepreneurs.

However, since these counter-factors effect may not be sufficient to revert the trend of the curve, Kuznets provides another important explanation for both the increasing and decreasing part of the inverted U-shape.

2.2.2 The shift from agriculture to non-agriculture sector

This second explanation has at its heart the process of industrialization and urbanization. The years that followed the industrial revolution were characterized by an extensive re-organisation of the economy for purposes other than agriculture. The new body of society required a shift from the agricultural to the industrial sector. The new expansion stage of the industrial sector changed profoundly the location of

¹⁰ Dahan, Momi and Daniel Tsiddon (1998), *Demographic Transition, Income Distribution and Economic Growth*

¹¹ Kuznets, Simon (1955), *Economic Growth and Income Inequality, American Economic Review*

production and caused areas of intense industrial production to develop rapidly. Thanks to network externalities, proximity of know-how and easier transportation motives, the urbanization process set in. It was then that income distribution became a combination of income apportionment of the rural areas and urban areas. Kuznets pointed out two important observations: on the one hand, the average per capita income of the rural population is usually lower than that of the urban population; on the other hand, inequality in the percentage shares within the distribution for the rural population is somewhat narrower than that for the urban population. In other words, both inequality and income per capita are higher in the industrial sector. Increasing income inequality may have been driven by the widening in the income differential between these sectors as industrialization developed, also characterized by a higher per capita industrial productivity.

Ultimately, the reasoning behind the increasing and decreasing part of the Kuznets curve is that, at the early stages of economic development, when people migrated from agriculture to industrial sector, total income inequality within society increased. At the beginning, the dominant effect is an increase in the size of the small and relatively wealthy group of people in the urban sector. As long as people continued to migrate to the industrial sector, after some time, income inequality started to decline. In fact, as the size of the agriculture sector decreases, the wages in that sector are driven up. Furthermore, many workers who started out at the bottom rungs of the new sector tend to move up with respect to the richest workers.¹² As we have learnt from historical evidence, from the middle of the 19th century the agricultural (at that time the leading sector) sector started to shrink and nowadays (2015) the primary sector accounts for only 2.25% of GDP.¹³

¹² Barro, Robert J. (2000), *Inequality and Growth in a Panel of Countries*

¹³ World Bank, *Distribution of gross domestic product (GDP) across economic sectors from 2005 to 2015*, retrieved from <https://www.statista.com/statistics/270481/distribution-of-gross-domestic-product-gdp-across-economic-sectors-in-italy/>, 2017

2.2.3 Behind the decreasing part of the Kuznets Curve

Apart from the counter-effects of the concentration of savings, other factors may have contributed to the declining trend of the Kuznets curve. He claims in fact that the political power of the lower-income groups increased subsequently to the early stage of industrialization. As a matter of fact, cities were populated by more and more “natives, born in cities rather than in the rural areas, and hence more able to take advantage of the possibilities of city life in preparation for the economic struggle, meant a better chance for organization and adaptation, a better basis for securing greater income shares than was possible for the newly "immigrant" population coming from the countryside or from abroad”¹⁴. Then, as their political power grew, they were more able to organize themselves in order to protect their rights from the effects of industrialization. In developed countries, many people from these lower-income groups managed to get protective and supportive legislations.¹⁵

Public and social policy also played a major role in the falling part of the curve through direct taxes and government benefits. The introduction of progressive taxation, still weak at the time of the publication of Kuznet’s study (1955), was a clear sign of the growing political power of the lower-income group and ultimately helped to reduce inequality thanks to the redistribution of incomes by the state. Therefore, political factors must also be considered for the evolution of inequality over time.

Other than Kuznet’s theories behind the curve trend, other economists tried to give their contributes to this hypothesis.

2.3 Alternative explanations

Other scholars have investigated the income-inequality relation and provided

¹⁴ Kuznets, Simon (1955), *Economic Growth and Income Inequality*, *American Economic Review*

¹⁵ Kuznets, Simon (1955), *Economic Growth and Income Inequality*, *American Economic Review*

for additional theories. The first theory presented in this paper is by Aghion and Bolton (1997): it looks at capital markets and at the differences in investment opportunities between individuals having different level of income (merely, the rich and the poor). The second theory was elaborated by Galor and Tsiddon in 1997 and indicates investments in human capital as the cause for the inverted-U shape of inequality. The following hypothesis questions a shift in the production function that requires the employment of skilled workers, which drives inequalities up. Finally, the last theory presented is by Acemoglu and Robinson and is based on the idea that inequality contains the seeds of its own destruction: it first rises through institutions, as political power is concentrated in the hand of few, and then, as urbanization spreads out, fearing political unrest and revolutions, inequality falls thanks to fiscal and social redistributive policies.

2.3.1 Imperfection in capital markets

This first theory was introduced by Philippe Aghion and Patrick Bolton in *A Theory of Trickle Down Growth and Development*, published in 1997. The authors claim that one's access to capital markets is determined by one's level of income. In fact, at the beginning of economic development, only rich people managed to benefit from borrowing and investing, because interest rates were too high for individuals with a low level of income. Therefore, wealthy people had access to investing opportunities that could make them even more rich, while poor people had to live on their earnings and then remain poor. They had no opportunity to exit from their income band (there was no inter-generational mobility) and climb the income pyramid. This clearly resulted in an increase of inequality.

As rich people invest their money and borrow to take advantage of profitable investment opportunities, their wealth grows; poor people instead, not having this opportunity, remain stuck in the income band in which they were born. In this way, both income and inequality increase: this effect corresponds to the increasing part of the Kuznets curve. However, as the rich accumulate wealth, the requirements for risky loans improve. The reasoning behind this hypothesis is that "as more capital is

accumulated in the economy more funds may be available to the poor for investment purposes”¹⁶. At this point, the poor will be able to invest and catch up, allowing their income level to converge with that of the rich. The result would be a decrease in inequality and it would explain the decreasing part of the Kuznets Curve.

2.3.2 Investment in Human Capital

“Adult individuals with unequal endowments of human capital face unequal earning opportunities in innovative activities that reward human capital or skill”¹⁷.

Such is the claim of Galor and Tsiddon (1997) in *The Distribution of Human Capital and Economic Growth*. In their model they assume that a family can find itself in two alternative situations: it is either endowed with a high level of human capital or it is endowed with a low one. One strong assumption they made is that one’s human capital depends on her parents’ human capital. Only individuals with a human capital higher than a basic level can earn a skill premium by engaging in innovative activities. However, only parents having a higher human capital with respect to a certain threshold can afford to pay for schooling in order to build said human capital level.

Therefore, according to this model, only the families with a high level of human capital will borrow capital at the market interest rate so as to increase their investment in human capital. The return from “innovative activities” is higher than the ordinary activities return and therefore income inequality will increase. However, families with a high human capital contribute to increasing the whole society level of human capital and to fostering technological process through accumulated knowledge.

“A more equitable distribution of human capital provides incentives to a higher fraction of population to acquire skills and to conduct innovative activities which [...]

¹⁶ Aghion, Philippe and Bolton, Patrick (1997), *A Theory of Trickle-Down Growth and Development*.

¹⁷ Galor, Oded and Tsiddon, Daniel (1997), *The Distribution of Human Capital and Economic Growth*

foster both equity and growth”¹⁸. In other words, the technological process resulting from the engagement in these activities allows the lower proportion of society to benefit from the accumulated knowledge. Subsequently, it will increase also the return to education leading the families with low human capital to enhance their investment in education. In this way, income inequality decreases.

2.3.3 Shift in demand for Skilled Labour

According to this theory, during the first stage of economic development, there is a shift towards skilled labour. Based on the evidence of Britain in the 19th century, the increasing part of the Kuznets curve is caused by skill-biased technological change. In fact, the early phase of economic growth is fuelled by an increase in the demand of skilled labour. The reason behind this is that the introduction of new technologies and innovations required specific know-how, and hence, it turned out to be complementary with skilled labour. Consequently, the income differential between skilled and unskilled labour increased, leading to a higher income inequality.

However, this skill premium (the difference between unskilled and skilled income) generates an incentive to invest in education. Moreover, the establishment of new technology that substituted human labour played an important role. The result is a mere play between demand and supply of skilled labour: the new technologies decreased the demand for skilled labour, while investment in education increased its supply. Wages in this sector start to decline together with the skill premium and inequality also begins to decline as economic growth continues to rise.

2.3.4 Institutional change

“Capitalist industrialization tends to increase inequality, but this inequality contains the seeds of its own destruction, because it induces a change in the political

¹⁸ Galor, Oded and Tsiddon, Daniel (1997), *The Distribution of Human Capital and Economic Growth*

regime toward a more redistributive system”¹⁹.

This last theory was developed by Acemoglu and Robinson (2002) in *The Political Economy of the Kuznets Curve*. In their view, before the 19th century, political power was concentrated in the hands of few, an elite which used its influence to accrue benefits and special treatment and to protect its economic interests. Hence, most policies were targeted to this end and there was little attention for the redistribution of income. As industrialization set in, inequalities increased. In the meantime, the urbanization process spread out rapidly, with the population starting to concentrate in the urban areas and acquiring the right tools to organize themselves and fight for their rights. The rising political unrest and the threats of upheaval forced the political elite to engage in systematic reforms that favoured the masses towards a more equal distribution of income. These “democratization acts”²⁰ towards redistributive policies decreased income inequalities.

2.4 Questioning the Kuznets Curve

Since its publication in 1955, the Kuznets hypothesis has been one of the most debated topics. The previous section has dealt with the actual realisation of the curve in the last century: the increasing part process starting either in the second half of the 18th century or in the first of the 19th, peaking in the 20’s or 30’s and decreasing after WWI, depending on the country. However, Kuznets himself stated that “this is perhaps 5% empirical information and 95% speculation, some of it tainted by wishful thinking”²¹.

In fact, many economists questioned the validity of data and analytical methods and carried out many empirical studies to prove the soundness of this hypothesis, as a renewed positive relation between income inequality and income per capita has been

¹⁹ Acemoglu, Daron and James A. Robinson (2002), *The Political Economy of the Kuznets Curve*, *Review of Development Economics*

²⁰ Acemoglu, Daron and James A. Robinson (2002), *The Political Economy of the Kuznets Curve*, *Review of Development Economics*

²¹ Kuznets, Simon (1955), *Economic Growth and Income Inequality*, *American Economic Review*

observed since 1980 in many developed countries. Both United States, United Kingdom and France experienced an increase in inequality since the early 80's, whereas in the other countries the increasing process started in the 90's.

The most relevant studies were brought about by Piketty, Saez, and Alvaredo, with the purpose of asserting the non-existence of the Kuznets curve. They argued that the decline in inequality observed by Kuznets in the 20's was simply the result of historical events and market forces. The two World Wars and the Great Depression were indeed the primary drivers of the decreasing part of the curve. Piketty and Alvaredo claim that "for the most part, income inequality dropped because capital owners were hurt by major shocks to their capital holdings (destruction, inflation, bankruptcies, the way of financing war debts)"²² and not for the processes of migration and catching up described by Kuznets. Moreover, the recovery phase after the wars and the depressions was probably hindered by the effects of progressive taxation on capital accumulation.

However, others believe that this renewed increasing trend is only a remake of the previous inverted-U curve: "a new industrial revolution has taken place, thereby leading to rising inequality, and inequality will decline again at some point, as more and more workers benefit from the new innovations"²³.

²² Piketty, Thomas and Facundo Alvaredo (2008), *The Dynamics of Income Concentration over the Twentieth Century: the Case of Advanced Economies*

²³ Piketty, Thomas (2006), *The Kuznets' Curve, Yesterday and Tomorrow*, in: Banarjee, A., Benabou, R. and D. Mookerhee, "Understanding Poverty", Oxford university press.

3. AN ANALYSIS OF REGIONS INEQUALITY COMPARED TO THE KUZNETS CURVE HYPOTHESIS

From the preceding two sections, we arrive to a pair of significant conclusions. Firstly, income inequality between regions reflects the performance within the region, meaning that income divergences move from macro-area to macro-area. The regions in the south show the highest values of the Gini index, and display also the lowest GDP per capita. Abruzzo and Sardinia are the only exceptions. The north-east is the leading macro-area and it displays a more equal distribution of income. The centre and the north-west collocate themselves in the middle, except for Lazio which gains the third place in the inequality ranking.

Secondly, inequality has been the subject of many studies of which “the most enduring and remarkable argument in the history of social sciences”²⁴ is the Kuznets hypothesis. According to the Kuznets theory, in the early stages of economic development, we observe at first an increase of inequality and then, as the economy grows, we see it peak and eventually come down.

3.1 Data applied to the model

In this section we will attempt to combine these two elements in order to see whether the dynamics described by Kuznets hold for the Italian regions. We will construct the relationship between the inequality level of each Italian region with its level of household disposable income. Data have been retrieved from OECD.stat and are summarized in Table 2. Disposable Household Income is measured in euros and calculated with constant prices (2010 as base year), while the measure chosen to

²⁴ Moran, Timothy Patrick (2005), *Kuznets' U-Curve Hypothesis: the Rise, Demise and Continued Relevance of a Socioeconomic Law*

quantify inequality is again the Gini index. It is calculated with the disposable income, after taxes and transfers. Both regard the year 2013.

The figures are summarized in the graph, Figure 10, having disposable household income on the X-axis and the Gini coefficient level on the Y-axis.

The regional Gini coefficients and the disposable household income display a negative relation: a high Gini coefficient corresponds to a low disposable household income, while a low Gini coefficient is related to a high level of disposable household income.

This result fits well the prediction of Kuznets: this negative relation, in fact, coincides with the decreasing portion of the curve. The lower income regions are characterized by higher inequality, such as Sicily, Campania and Calabria which are shown in the upper-left corner. The north-east and north-west regions, the richest, are concentrated in the lower-right corner. Emilia Romagna and Lombardy are the northern regions characterized by the highest inequality index (0.302 and 0.304). Among the north regions, a significant outlier for inequality is the Aosta valley, which presents a Gini coefficient of 0.245, much below the national value (0.325). Two outliers are Lazio and Liguria which, even though they have a higher disposable income (respectively 16,188 euros and 17,998 euros), they also have a high Gini coefficient (respectively 0.347 and 0.322). Overall, the general picture reflects the strong gap between macro-areas: the southern regions are characterized by low disposable income and high inequality, the northern regions have a high level of disposable income and low inequality, and finally the regions of the centre have Gini coefficients similar to the north-western regions but a much lower disposable income.

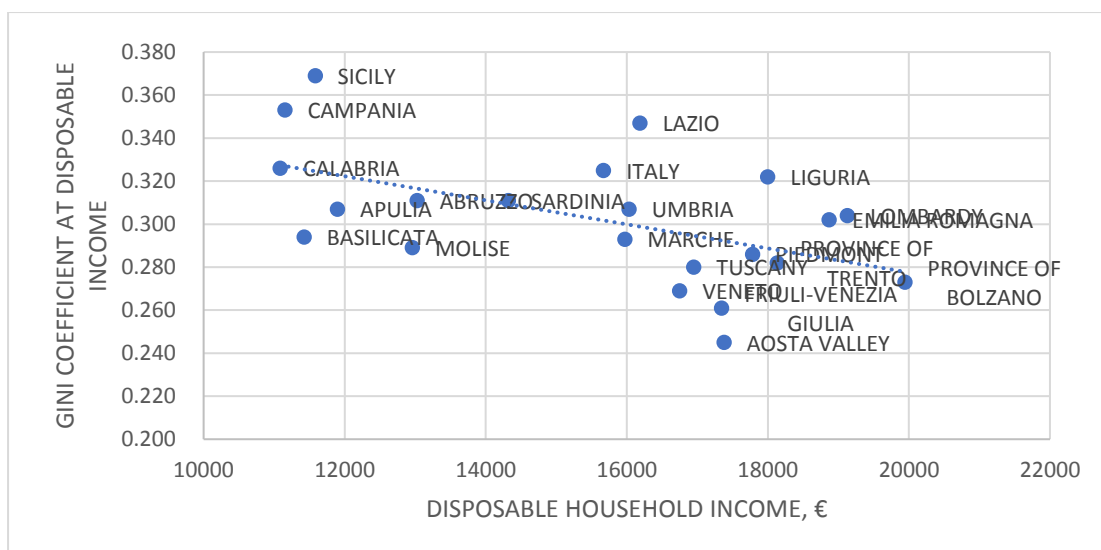


Figure 10

Nowadays, we are witnessing to the realisation of the Kuznets hypothesis also on a narrower extent. The studies made until our days have always concerned whole countries and always looked to overall income inequalities. However, the latter is contributed the most by “within country inequality” (that is, the within region inequality), so it becomes clear why an attentive study of within-regions variables is required. This analysis of the Italian regions has demonstrated how the crucial relation between income per capita and inequality can be established even at the micro-area level, providing for the same over-powering results.

To conclude, the decreasing inequality trend started in the 30’s can be also extended to the single Italian regions depicting the decreasing pattern of Kuznets inverted-U curve. The negative relation between these fundamental variables serves as a further evidence for Kuznets’ argument.

Region	Disposable Household Income	Gini (at disposable income, after taxes and transfers)
Year	2013	0-1 scale
Italy	15671	0.325
Piedmont	17782	0.286
Aosta Valley	17380	0.245
Liguria	17998	0.322
Lombardy	19127	0.304
Abruzzo	14320	0.311
Molise	12958	0.289
Campania	11151	0.353
Apulia	11897	0.307
Basilicata	11425	0.294
Calabria	11086	0.326
Sicily	11584	0.369
Sardinia	13028	0.311
Province of Bolzano-Bozen	19943	0.273
Province of Trento	18135	0.282
Veneto	16751	0.269
Friuli-Venezia Giulia	17343	0.261
Emilia-Romagna	18867	0.302
Tuscany	16949	0.280
Umbria	16030	0.307
Marche	15971	0.293
Lazio	16188	0.347

Table 2

Conclusion

The inequality debate is one of the most prominent and influential of our times. In this paper, I wanted to combine the actual Italian inequality dynamics with one of the most relevant economic debated issues, the Kuznets hypothesis. According to this theory in the early stages of economic development, we observe at first an increase in inequality and then, as the economy grows, we see it peak and eventually decrease. The study that I carried out in the first section about Italian inequality and income levels comes to one fundamental conclusion: the poorest regions are also the most unequal. In other words, in the Italian experience, we observe a negative relation between the regional inequality level and the household disposable income: a high Gini coefficient, the measure used for inequality, corresponds to a low level of household disposable income, while a low Gini coefficient is related to a high level of household disposable income.

Moreover, the first section of this thesis provides an insight into the evolution of the Italian regions inequalities assessing the magnitude of income differences from 1871 to present day between the four macro-areas of North-East, North-West, Centre and South; and within each single area, using a Gini measure of inequality over the period between 2003 and 2012.

The second section of this thesis develops the Kuznets argument. I presented the reasoning behind the trend of the curve together with the phenomena that are thought to account for its increasing and decreasing portions, as the concentration of savings and wealth in the upper-income brackets and its counter-factors, such as the difference between the fertility rates of the poor and the rich, immigration, and the increasing competitiveness and innovation characterizing a developed country after the Industrial Revolution. A second important phenomenon was the shift from agriculture to non-agriculture sector that came from the processes of industrialization and urbanization. Since both inequality and income per capita are higher within the industrial sector than in the agricultural one, the increasing income inequality may have been driven by the widening in income differentials between these sectors as

industrialization developed. Eventually, as people continued to migrate to the industrial sector, income inequality started to decline. Furthermore, the increasing political power of the lower-income groups at the early stages of industrialization ensured a more effective protection of their rights by getting protective and supportive legislations. Finally, public and social policies played an important role for a more equal distribution through progressive taxation and government benefits.

In this paper theories of other scholars are also presented which try to justify Kuznets arguments, such as the imperfection of capital markets (Aghion P. and Bolton P.) which favours rich people in the accumulation of wealth through capital investment, the investment in human capital (Galor and Tsiddon) which allows the engagement in innovative activities - which in their turn foster equity and growth - and finally the shift in demand for skilled labour, driving inequality up because of the income differential between skilled and unskilled labor. All of them present a valid justification for Kuznets claim.

In the third and last section, I attempted to combine the Italian regional inequality and the levels of household disposable income in order to see whether the dynamics described by Kuznets hold for the Italian regions. The two elements display a negative relationship as suggested in the first section from the analysis of the regional data: as income increases, the inequality level decreases. Finally, this result fits perfectly the prediction of Kuznets: this negative relationship is actually reflected in the decreasing portion of the curve. This analysis of the Italian regions has demonstrated how the fundamental relation between income per capita and inequality can be established even at a micro-area level, presenting the same over-powering result: Italian regions are still following the same inequality trend suggested by Kuznets almost 65 years ago.

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