Italy: From Economic Decline to the Current crisis.
A comparison with France and Germany*

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Abstract

The objective of this paper is to show that the current global economic crisis, in which also Italy fell in 2008, represents just the last step of a long declining path for the Italian economy which began in the nineties, or to be more precise in 1992and 1993. In particular, I argue the reasons which explain the long Italian decline, and partly also the deeper recession today, as well as the lack of recovery from the current crisis, can be found in the past reforms of the labour market. In particular the labour flexibility introduced in the last 15 years, which had, along with other policies introduced in parallel, cumulative negative consequences on the inequality, on the consumption, on the aggregate demand, on the labour productivity and on the GDP dynamics. In this context a comparative analysis will also be put forward, which will compare Italy with France and Germany in particular.

Key words: Labour market, labour policies, income distribution, productivity, wage, crisis
JEL: J010; J080; E250; O470; J300; H120

1. The political background of the economic decline

At the beginning of the 1990s the Italian economy incurred in a very important structural and institutional change. Such a change was pushed by several factors which include both politics and economics. Italy experienced an important recession of GDP in 1992 due to "Tangentopoli", the corruption scandal which dominated most Italian political parties running the country since the post-second world war. The recession came immediately after a period of marked financial turbulence (Miniaci and Weber 1999) and in September of 1992, the Italian Lira, strongly devaluated, was forced out of the European Exchange Rate Mechanism (ERM). A few months after, two important events occurred: most Italian politicians involved in the corruption scandals were

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condemned in the famous courts of "Mani pulite" (clean hand) and, from an economic point of view, Italy signed the Maastricht Treaty which would have resulted in the country joining the Eurozone at the beginning in 2002. These are two important institutional changes which called for economic changes and new regulations and policies. We will focus on the economic aspects of this change, which can be characterised by the following five stylised facts or empirical evidences.

1. Firstly, after the recession of 1992, Italy began a strong de-regulation process, with less involvement of the State in the economy. Corruption scandals, recalled above, convinced many people that State owned and controlled companies would favour corruption. Following this assumption, a minimum-state involvement in the economy was required and a process of liberalization and privatization started. Both processes however were carried out in a very unstable way which lacked efficiency, in particular the process of liberalization. As a result, the partial liberalization of the market coupled with the privatization process resulted in the creation of private monopolies (CNEL, 2007).
2. Inflation was considered a major problem. Moreover, the main contributor to inflation was considered to be the strong power of trade unions and the mechanism of wage collective bargaining. Hence, in July 1993, with a Tripartite agreement (Government-Business Organization-Trade unions), the Government limited the use of this mechanism and introduced a decentralised mechanism for wage bargaining which had a clear objective of wage moderation. At the same time, firms accepted, as an exchange, to increase investment in innovation in order to compensate for the possible increase of profit due to wage moderation. This "pact of exchange" was never actually respected, and investments in innovation did not fully take place (Tronti, 2005) This had negative consequences on the productivity dynamics, as we will see.
3. The withdraw of the State from the economy meant the starting of a strong privatization process. Many State owned (or controlled) companies were sold and assets were divided. This process caused a further squeeze of the Italian economy and in particular the reduction of the industrial sector, where large State owned companies were very active. The withdraw of the State from the economy was not in fact substituted by private investments and by new private firms. The empty space left in the manufacturing sector has simply never recovered and this meant a further reduction of the Italian industrial share in Europe and globally. Large and important firms disappeared as testified by a key book in this filed written by Gallino (2003).
4. The convergence towards the Maastricht criteria meant in particular the reduction of public expenditure in order to cut deficit and public debt. This had an immediate consequence of

reducing what we can call the indirect wage. Public expenditure in social dimensions and welfare declined, such as education, health, subsidies, etc. which had a negative effect on the purchasing power of workers and middle class in particular. In the end, one can say that the Tripartite agreement and the Maastricht criteria had conflicting interests and objectives. From one side the Tripartite agreement would require increasing the welfare state expenditure in order to let trade unions and workers accept the wage moderation: this was stated in the Agreement as part of an exchange between the three parts involved; On the other side, however, the Maastricht criteria required a reduction in public expenditure (Fitoussi, 2005).

5. The Tripartite agreement was the starting point of a much deeper reform of the labour market which took place between the end of 1990's and the beginning of the 2000's with the introduction of labour flexibility, the massive creation of atypical forms of work, the surge of temporary work and the privatization of the job allocation service in the labour market (Tronti and Ceccato 2005). This point will be explored more deeply in the following session.

To sum up, I will argue that there are a number of factors which make the Italian economy weaker. These factors represent both direct and indirect consequences of policies implemented mainly in the nineties and the beginning of 2000s, listed in the 5 points above. These policies, which tried mainly to introduce a very market-oriented economic model, following the so called Washington Consensus approach (Williamson 1990, Rodrik, 2004), ended up producing negative consequences on economic performances and social problems such as (Levrero and Stirati 2005; Rodrik, 2008): high income inequality, job precariousness, declining wage share over GDP, low wage and low consumption levels and a strong profit soar; along with low education and training on the job place, low competitiveness and low labour productivity, low innovation and low R&D. All of these consequences, coupled with the historical problems of the Italian economy are the real causes of the Italian decline and the persistency of the current crisis. Such as low labour force participation, labour segmentation, regional dualism, bad transition from Schools to job markets, biased politics, inefficient institutions, and bad governance.

Hence, I claim, on the basis of the deteriorating income distribution, and more in general on the basis of the Italian economic decline, that there is a negative institutional change introduced mainly by law. In fact, the factors listed above are consequences of the bad policies, institutions and changes introduced in the last two decades. These factors weaken the aggregate demand, with negative results on the GDP dynamics, and enlarge the "productivity spread" between Italy and most of other EU countries. Therefore the way out from the decline and towards a recovery after the

crisis is to invert the economic policies and the economic model which is on the basis of those factors listed above and which was pursued in the last 15-20 years. The real cause of the current crisis does not appear to be the sovereign debt issue, therefore the austerity measures implemented in Italy and in the rest of Europe in the last 2-3 years, will not guarantee the recovery from the crisis.

2. The recent evolution of the Italian Labour Market

In the last fifteen years, as we mentioned above, the Italian labour market has undergone a profound change from the legislative point of view and also from a structural and social perspective. The origin of this change can be traced back to what has happened in Italy since 1993, i.e. since the country, after the economic recession of 1992 and the signature of the Treaty of Maastricht made a decision to enter the Economic and Monetary Union (EMU). This meant first of all to respect the Maastricht criteria, first and foremost, the reduction in the inflation rate, which in Italy was particularly problematic. The Agreement of July 1993 mainly wanted by then Premier of the Government, Carlo Azeglio Ciampi, , had explicitly aimed at the reduction of the inflationary spiral through wage moderation and other interventions such as income policies, the growth of innovative investments, and the increase of productivity. However, as many economists have shown, most of the expected results of this agreement were largely unreached. On the contrary the policy of wage moderation and thus the disinflation has been successful (Boeri, 2000; Rossi and Sestito 2000; Lilla, 2005).

Upon completion of this process of change more labour flexibility was introduced into the Italian labour market through the so called "Pacchetto Treu" (a Law n. 196 in 1997) and the Law n. 30 of 2003 (known as the "Legge Biagi") that introduced radical innovations in contractual labour forms and in the labour market in general. These reforms were born under the European Employment Strategy in 1997 which led to the more complex Lisbon Strategy in March 2000 which established at the EU level, the guidelines and objectives for the reform of the labour market in order to make Europe "the most competitive and dynamic economy in the world based on knowledge." This strategy was then repeated and replaced by the "Europe 2020 Strategy". However, in Europe, the trend is to reach a social balance through a model that is commonly called "flexicurity" which is able to ensure and combine security elements with the labour flexibility that firms require.

In Italy, there is a well known gap between the dimension of flexibility, now widely introduced, and the dimension of social security, as the current system of unemployment benefits is

complex, fragmented and disorganized and not able to cover and protect all the unemployed. Such a situation was not actually solved by the recent reform and the introduction by the Labour Ministry Prof. Fornero of a new social tool called "Aspi" (a new unemployment benefit) with the Law n. 92 of June 2012. Indeed, the latter has not expanded the audience of those entitled to unemployment benefits, who remain linked to the condition that one must have held a job placement for the previous two years hold before the year of unemployment. Moreover, this unemployment benefit has a limited length (eight months compared to four years in Denmark or two years on average in the EU-15) and does not cover all independent workers (the so called CO.CO.CO. or CO.CO.PRO.) who have terminated a job for a certain project, collaborators, atypical and unstable workers, who indeed constitute a big portion of new jobs, especially among young people. Finally, the Italian system of unemployment benefits is not connected, in general, to active policies, such as programs of integration into the labour market, job search and training programs that would facilitate the entry into the market of the unemployed. In essence, it seems we can say that in Italy, the implementation of a "flexicurity model" should lead to improve unemployment benefits, and to increase the security elements, such as the social protection and employability. To worsen the situation, the current financial and economic crisis has led to a considerable increase in the unemployment rates and to a greater demand for income protection.

To sum up, the Italian employment security system is therefore, still obsolete and inadequate compared to the changes occurred in the last decade in the contractual forms and in the structural composition. It would therefore be necessary to fully adjust the social safety nets and protections in order to avoid the problem that flexible labour relations can result in precarious jobs and become a source of social exclusion and lack of income, with negative effects on consumption and aggregate demand. Moreover, in a period of economic recession like the present one, extensive social benefits and automatic unemployment subsidies are necessary in order to avoid a recessionary spiral, a weakening of the purchasing power of workers, and a further fall in consumption and in the aggregate demand. On the contrary, the recent austerity policies reduce aggregate demand further, directly and indirectly weakening the purchasing power of workers, when the indirect wages (i.e., the public expenditure on services, health, education etc) is cut and when wage in public sector is reduced.

3. The model: from labour flexibility to economic decline

The labour market reforms recalled above were coupled, in the 1990s, with an uncompleted and unfair liberalization and privatization process, which favoured both the increase of rents and the

worsening of income distribution. In fact privatization was introduced without a full liberalization of the goods market. Therefore, in the sectors where former public assets operated (such as: telecommunication, energy, infrastructures, public utilities, railways etc) mark-up and rents increased and private monopoly firms were created. Those reforms, caused on one side a strong pressure on wages and labour (as we will see in this session), and on the other side a lower productivity performance (as we will see in the next session).

In regards to the first aspect, the labour market reforms, we may say that the July Agreement of 1993 in the end contributed to the stagnation of wage at national level. After that, and under the pressure of the two main laws introduced in the labour market mentioned above, labour flexibility, in particular "in entrance" increased consistently, temporary work, unstable jobs and all the atypical forms of job surged (Tronti, 2005; Lilla, 2005; Torrini, 2005; Rossi and Sestito 2000). The process was recently completed under the law of June 2012 which introduced some forms of labour flexibility "in exit". However, the flexibilization in the labour market was not coupled with a higher level of public expenditure for social dimension, employability and for general labour policies (as is often the case in countries which introduced a so called flexicurity model, like Denmark or Sweden). In fact quite the opposite, indirect wages, also decreased. Income inequality increased and the purchasing power of workers decreased. The wage share over the GDP fell drastically with a consequent negative impact on the level of consumption which declined drastically as well as the aggregate demand.

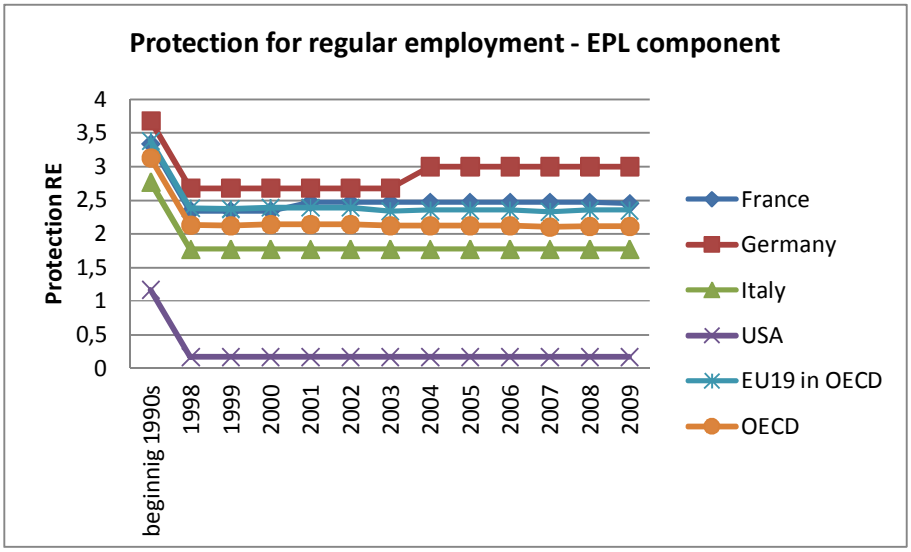
An examination of the relevant data for the Italian economy in comparison with its main EU and Eurozone partners such as France and Germany (and sometimes in comparison with OECD and UE member states) confirms the strong correlation between all the relevant variables discussed above. It seems clear that there is a deeper decline in the Italian aggregate demand (AD) caused by a deeper shrinking in the consumption (C) which in turn is caused by the deeper reduction of wage share (WS), the more marked decline of indirect wage (IW), i.e. the public expenditure (G) in particular in social dimensions (SD), the higher increase of inequality (Ineq) and the pressure on labour employment (L) and wage (W) caused by a stronger labour flexibility (LF) and by its correlated creation of unstable jobs (IJ). The decline in the aggregate demand is the main cause for the lower dynamics of GDP and for its deeper decline. In brief and in symbols, the mechanism goes in the following direction:

$$\uparrow LF \rightarrow \uparrow IJ \rightarrow \downarrow W \rightarrow \uparrow Ineq \rightarrow \downarrow WS\ (+\downarrow IW) \rightarrow \downarrow C \rightarrow \downarrow AD \rightarrow \downarrow GDP \qquad (1)$$

All the data reported below confirm this mechanism, starting with labour flexibility, which is measured as protection for regular and temporary employment, as components of the Employment protection legislation index (EPL) from OECD. This indicator shows the level of protection offered by national legislation to workers. In other words, how regulated the employer's freedom to fire and hire workers is. Traditionally, European economies maintain higher levels of EPL in comparison with Anglo-Saxon economies and in comparison to USA in particular (Nickell, 1997).

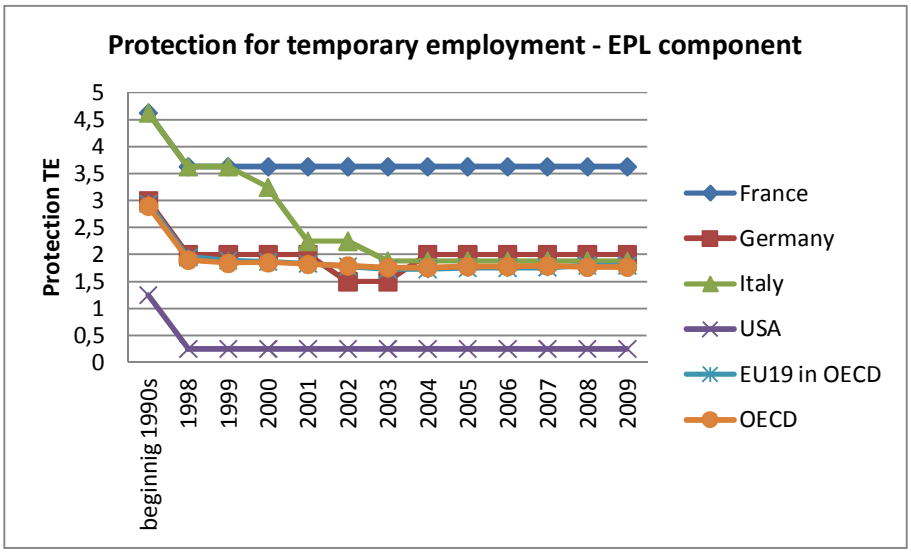
In the Italian case this indicator under the pressure of the flexibilization of the labour market fell drastically as we can see below.

Figure 1 – Labour flexibility of regular employees



Source: own elaboration on OECD (2012)

Figure 2 – Labour flexibility of temporary employees

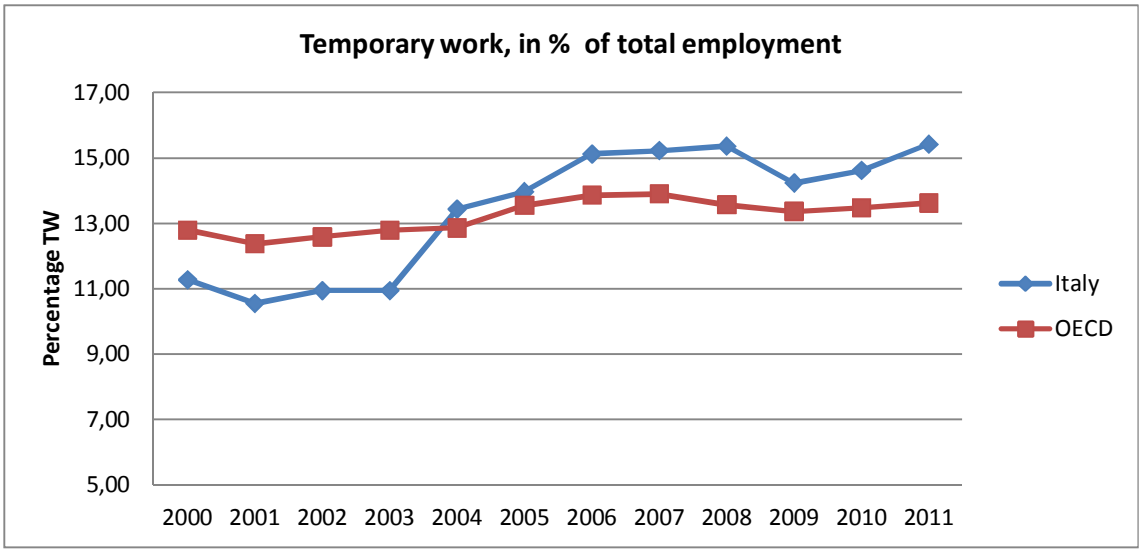


Source: own elaboration on OECD (2012)

Although labour flexibility is increasing everywhere, in Europe the policy agenda is moving toward a so called "flexicurity" which would promote some type of job security while accounting for the need for flexibility on the part of firms (Kok 2004; Boyer 2009; Tridico 2009). The Italian levels are below the Germany and France ones, and as well as below most of the OECD and UE countries, as the averages values for both show.

Flexibility goes hand in hand with Temporary work which increased consistently in Italy in the last 15 years as the figure below shows, above the values of the main EU partners and above the OECD average, in particular after 2003, when the Law 30 mentioned above was introduced in the Italian labour market.

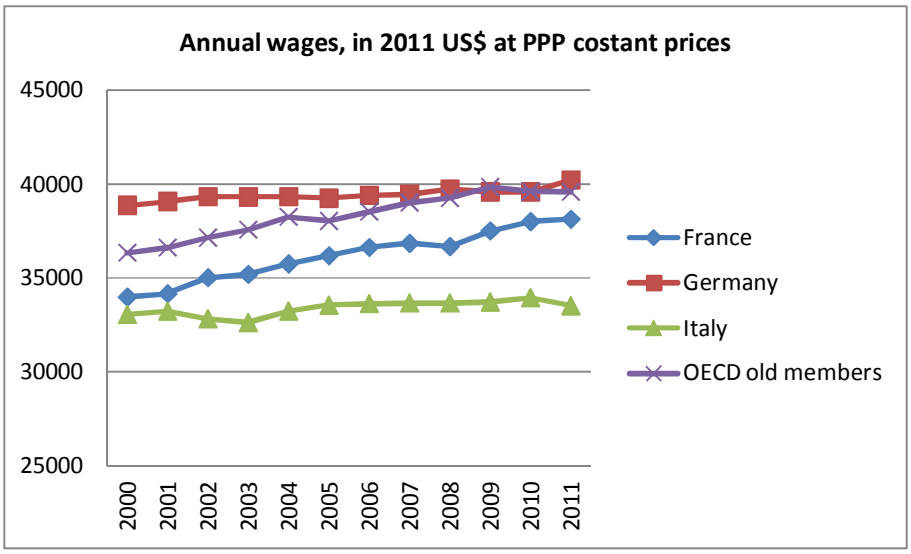
Figure 3 – Labour flexibility - temporary work



Source: own elaboration on OECD (2012)

In this context, real wages were pressed, because labour flexibility operated mainly in the direction to reduce costs, at least in the case of Italy. Average annual wages today in Italy are at the same level of the ones of the end of 1990s, as the Bank of Italy several times reported (Draghi, 2007; Banca d'Italia, 2012). Even in Germany, despite the so called "internal devaluation" which allowed for a wage moderation in the 2000s as a consequence of an agreement between Trade Unions, Industrial Organizations and Government, and despite an higher initial level, the wage increased more than in Italy (3.5% against 1.4%), and in France even more (12.2%), while in the rest of the OECD old members states (i.e. Australia, Austria, Belgium, Canada, Denmark, Finland, Greece, Ireland, USA, UK), the increase was around 9%, since 2000.

Figure 4 – Italian stagnant wages



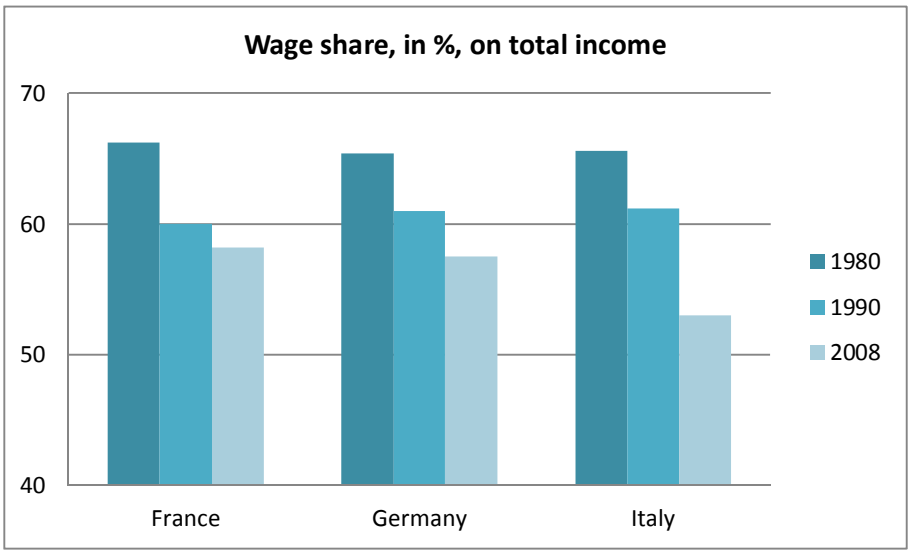
Source: own elaboration on OECD (2012)

As a consequence of such a pressure on Labour, the wage share declined, and of course this decline was more marked in Italy, where labour flexibility and wage stagnation were more incisive, in comparison with Germany and France and many other EU countries (see also Levrero and Stirati 2005).

The issue of the declining wage share in advanced economies was already raised by several heterodox contributors such as Barba and Pivetti (2009), Stockhammer (2013), Fitoussi and Saraceno (2010), Fitoussi and Stiglitz (2009), Brancaccio and Fontana, (2011), who identify structural problems in the economic systems of advanced economies. These structural problems are the deep causes of the recession and of the global disorder. They refer to the income distribution

bias and to the inequality that weakened consumption and the effective demand in the economies. The decline of the wage, is at the same time in strong correlation with the process of financialization which took place some 30 years ago in USA and in Europe (Tridico, 2012a). In brief, the argument is that the aggregate demand, which was not sustained by appropriate wages, and by productive investments, used the channels of financialization and credit to sustain consumption. This consumption resulted in the end to be unstable and not able to guarantee long term support to the aggregate demand, in particular after the burst of the bubble in 2007 and the financial sector squeezed the credit for both investments and consumption.

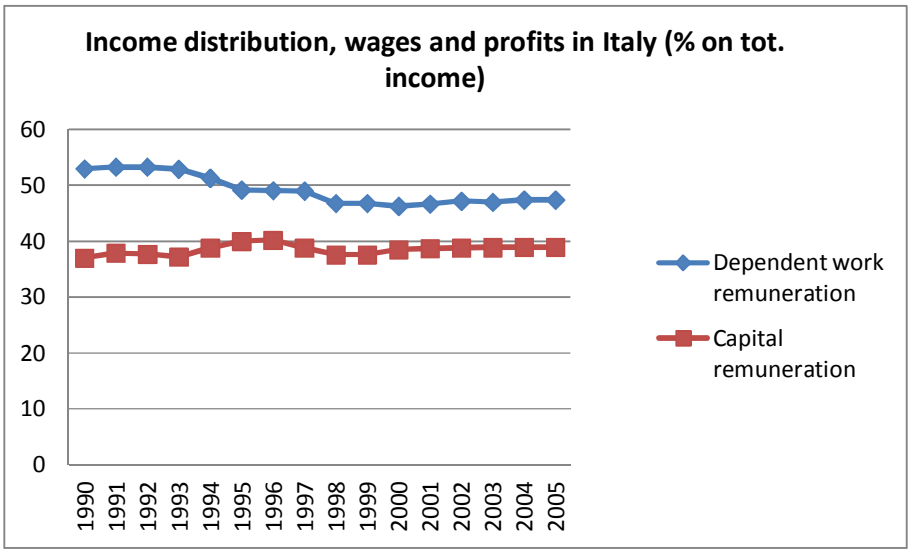
Figure 5 – The declining of wage shares in the economy



Source: OECD (2008 – Employment outlook), ILO (2011 Report)

The figure above includes agriculture, housing costs for families and some limited forms of independent work. It is therefore an inclusive measure for wage share. Despite that, data is clearly showing a decreasing trend, and the figure for Italy is even more dramatic. When we include only dependent work remunerations, the results are even worse.

Figure 6 - Labour and Capital in Italy 1990-2005



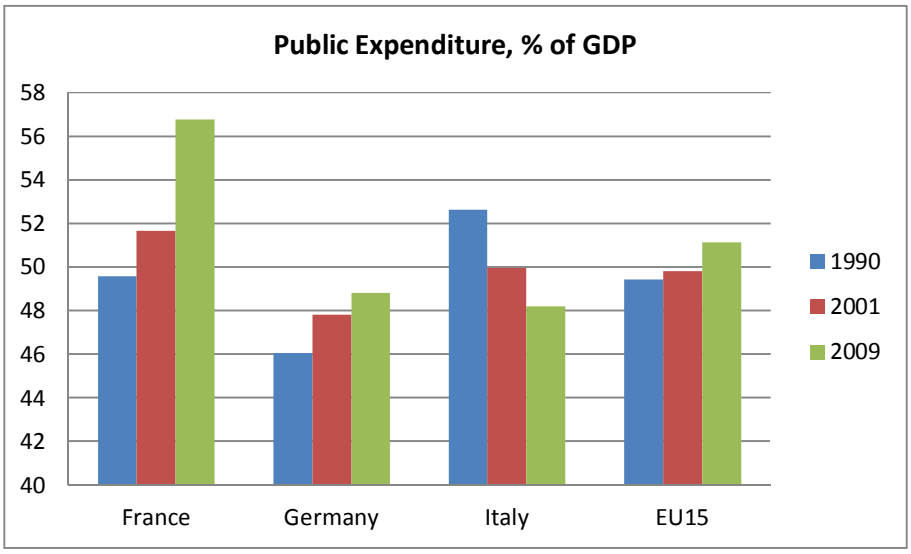
Source: Istat, 2010

Note: The sum of the factors of production labour and capital will give 100 considering also indirect taxes (between 10-15%) and capital gains from abroad (around +/-2%). The "capital remuneration" is here the net operating surplus and indicates the percentage remunerating the capital.

The figure above shows data for income from dependent work and from capital. A clear drop in the wages occurred during the 1990s, the time of the main labour market reforms (1993 and 1997), from 53% to 46%. During the 2000s wages were more or less stable. During the same period, and until the middle of the 2000s, i.e. before the current crisis, profits increased much more, hence income distribution worsened. Profits, coherently with our assumptions concerning the impact of the 1993 agreement and of the introduction of labour flexibility which compressed wages, increased in particular in the second half of the 1990s from 37% to above 40%, and after remained more or less stable.

Besides, the aggregate demand was also weakened by the decreasing of the public expenditure in the economy, in Italy, more than in other European countries: while in Germany and in France, the other two biggest Eurozone economies, public expenditure increased in the last 20 years, in Italy Public Expenditure decreased as the figure below shows.

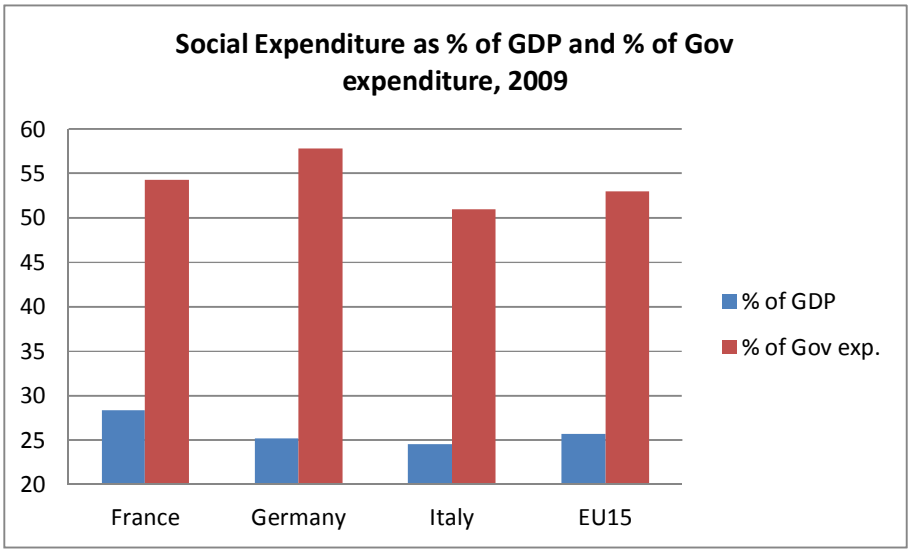
Figure 7 – Indirect wage, total public expenditure



Source: International Monetary Fund, World Economic Outlook Database, October 2012

Such a decrease affected in particular the social expenditure. Moreover, its level was already lower than EU partners such as France and Germany (not to mention Scandinavian countries which have traditionally higher level of welfare), where social expenditure is around 55% (on total government expenditure) or around 25% of GDP, while in Italy the corresponding figures are approximately 50% and 23%. Such a reduction meant a decrease in the indirect wages, and a further weakening of the purchasing power of workers and middle class who live mainly off direct and indirect wages.

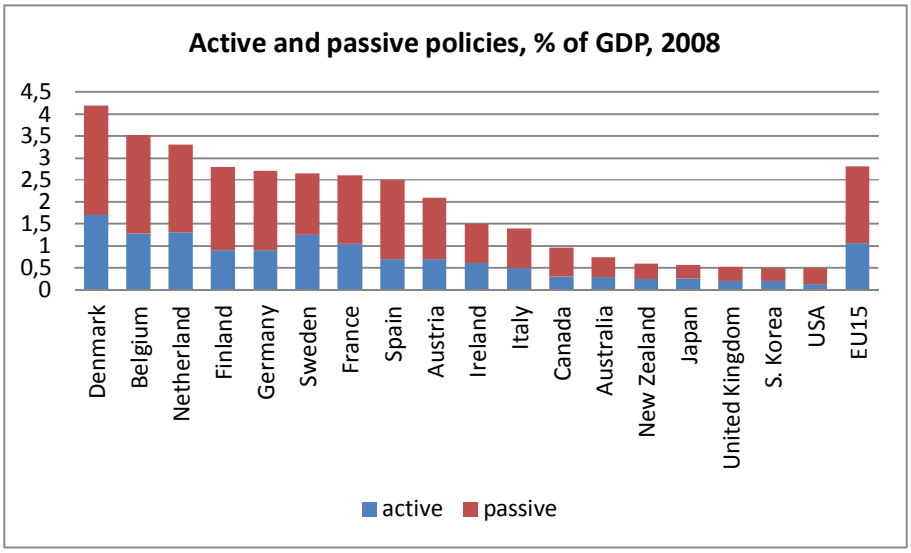
Figure 8 – Indirect wage, social expenditure



Source: own elaboration on OECD (2012)

Beside that, active and passive labour policies, i.e., job search programs and subsidies to the unemployed, are notably lower in Italy than in other European countries. Such a situation affects negatively both the employment rates (because the unemployed are not adequately supported in finding a job and in matching the labour supply) and the consumption level, since people without an income cannot consume, and stabilizer mechanisms, in particular in recession time, cannot operate.

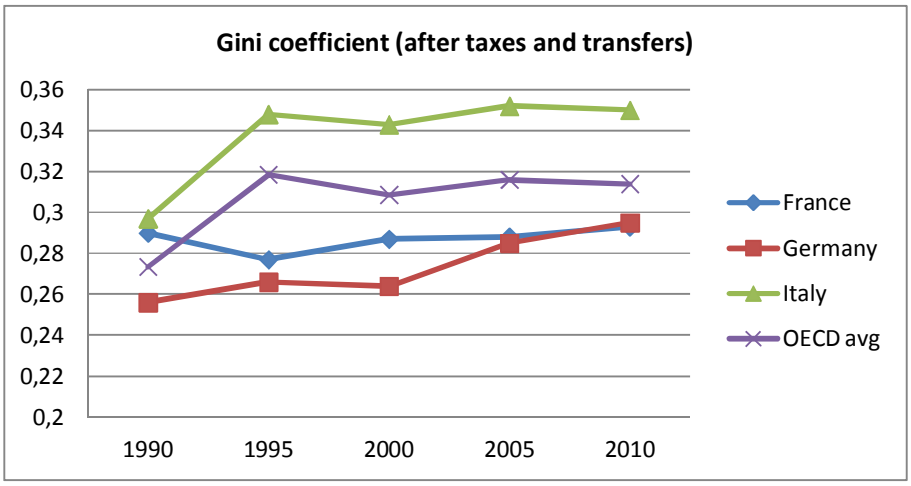
Figure 9 – Labour Policies and unemployment subsidies



Source: own elaboration on OECD (2012)

All of this data has a direct consequence on the worsening of the income distribution which in Italy has taken a very bad path in the past 20 years (Lilla, 2005). The income Gini coefficient has in fact increased tremendously in Italy from around 29% in 1990 to more than 35% in 2009, being dangerously higher than Germany, France and many other EU and OECD countries.

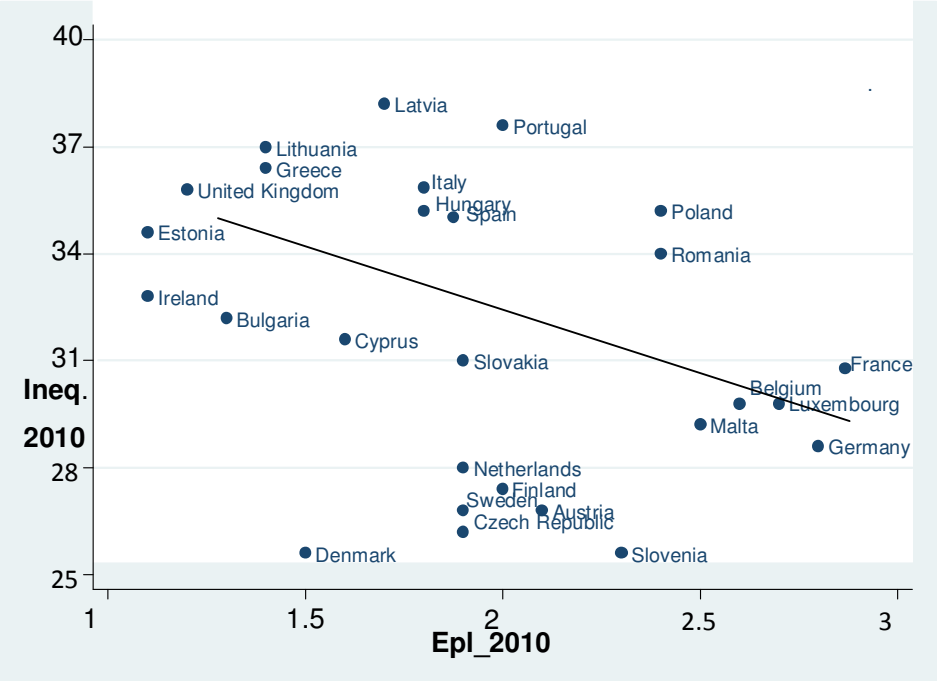
Figure 10 – Income inequality



Source: own elaboration on OECD (2012)

The correlation between inequality and flexibility is clear. In the last two decades inequality has increased along with labour flexibility as the graph below shows. See also the trend of EPL data for all countries in the last two decades in Appendix (table A1). In particular, Italy is collocated among the countries with higher inequality and lower EPL (higher labour flexibility), along with Anglo-Saxon, Baltic and Mediterranean countries, which we can define as liberal competitive market economies or hybrid market economy (in the case of the Mediterranean countries). In contrast, Continental and Scandinavian countries, which represent more of a European Social model, coordinated and oriented towards a social market (Tridico, 2012; Amoroso 2012) have lower levels of inequality and higher levels of EPL (lower labour flexibility). The two poles here are Germany and UK, and Italy appears clearly in the UK quadrant.

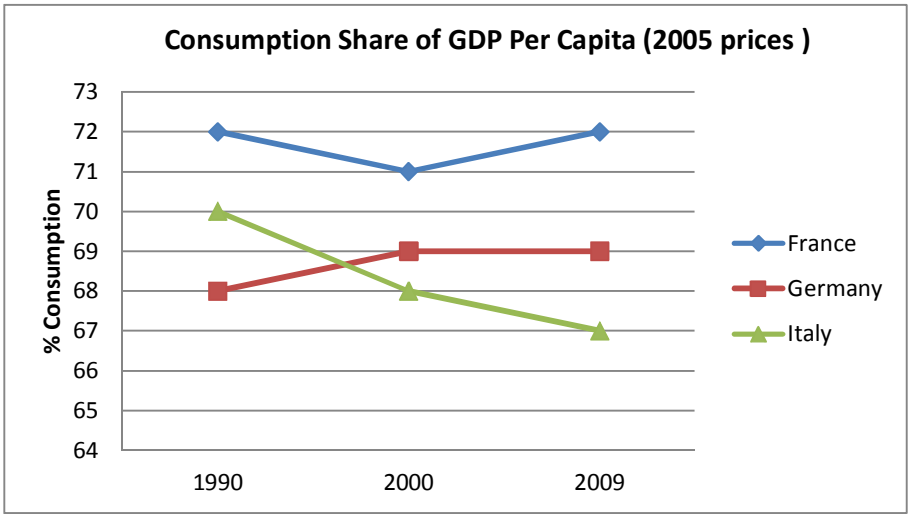
Figure 11 - Correlation scatter Inequality and EPL



Source: own elaboration on OECD data

In such a situation, inevitably, consumption levels fell sharply. Today, the level of Italian consumption is similar to its own level from more than 30 years ago, in 1979. It decreased continuously from 1990, in parallel with the *flexibilization* of the labour market, the decline in the wage share, the decline of the direct and indirect wages and the increase of inequality. It is today one of the lower among the EU15 and far below the one of France and Germany.

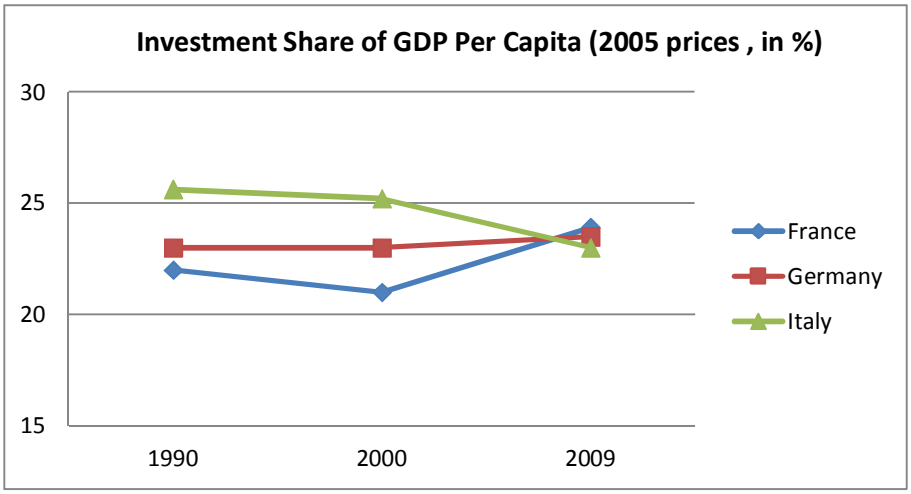
Figure 12 – The decline in the consumption level



Source: Penn World Table 7.1

A further weakening of the aggregate demand occurred in Italy with the reduction of the investment level, which fell below, in the last 10 years, the one of France and Germany. Today, in recession time, with scarce and exogenous investments, credit restrictions and rationing policies implemented by banks, after the financial crisis of 2007-09, the situation worsened further: firms cannot finance their investments, innovation will continue to lack, productivity will continue not to grow, and aggregate demand will be further depressed.

Figure 13 – The decline in the investment level



Source: Penn World Table 7.1

If we go more in the details of the national accounts, the elaboration of the data (source OECD) reveals something very interesting. Italy more than France and in particular more than Germany lost 1 decade (2000-10) in terms of development and was stagnating in the previous one. Data from Italy concerning the growth dynamics of the main components of the GDP, are systematically below the ones of its main partners. In particular the contribution to growth of Consumption (C) – a crucial element of the aggregate demand – was only 0.3% in the last decade, the lowest not only among the three countries but among OECD countries, and one of the lowest performance since the Second World War. A similar story concerns the Investment (I) contribution to growth and the Public expenditure (G) contribution to growth. The scarce growth dynamics of the main components of the GDP may confirm (or at least is not contrasting) our hypothesis: the fall in the demand is a consequence of a fall in the Consumption and in the Investment. The biggest role among the GDP components, in terms of contribution to growth is played by the Exports (E) whose cumulative contribution during the whole period 1990-2011 was higher than other components, but still inferior to the one of France and Germany. This result is not surprising in our approach and it is consistent with the idea that internal demand is declining. The economic policy in the last 15-20

was not supporting internal demand, and international competitiveness was aimed only by devaluating labour costs through labour flexibility and pressure on wages which were stagnating. In the end however, exports were no longer enough to carry out aggregate demand and support a positive GDP dynamics. Labour productivity was also not increasing because capital intensive investment were lacking. It is worth to compare these data with data from a supply side perspective concerning the contribution to growth of labour productivity and of total factor productivity (see table A2 in appendix).

Table 1 - National accounts: contribution to growth

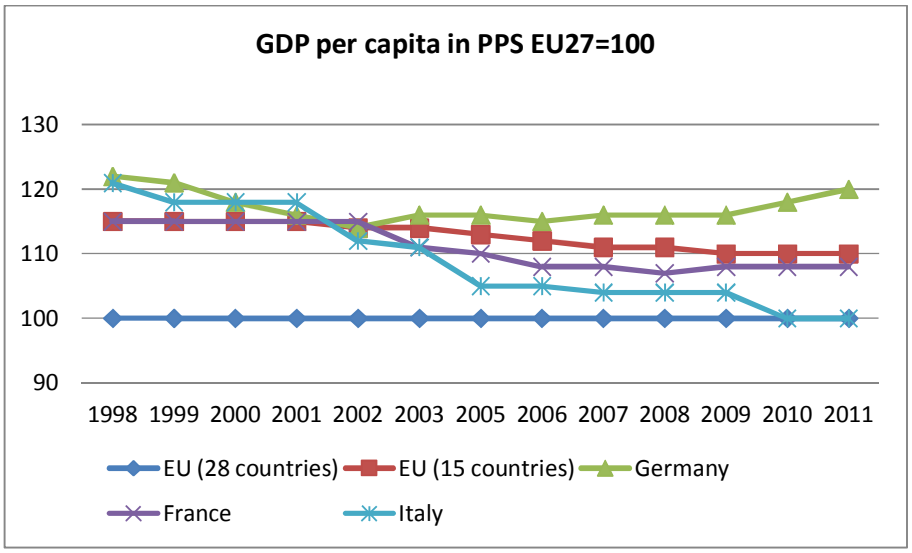
		1990-95	1996-2000	2001-2011	Average 1990-2011	Cumulative growth 1990-2011
France	C	0,7	1,4	0,9	1,0	3,0
Germany	C	1,5	0,9	0,3	0,9	2,7
Italy	C	0,6	1,5	0,3	0,8	2,4
France	I	0,0	0,8	0,2	0,3	1,0
Germany	I	0,7	0,5	0,0	0,4	1,2
Italy	I	0,0	0,7	0,0	0,2	0,6
France	G	0,5	0,3	0,4	0,4	1,1
Germany	G	0,5	0,3	0,2	0,3	1,0
Italy	G	0,0	0,2	0,2	0,1	0,4
France	Exports	1,2	2,1	0,5	1,2	3,7
Germany	Exports	1,2	2,4	2,3	2,0	5,9
Italy	Export	1,4	1,0	0,4	0,9	2,8
France	Imports	-0,8	-2,0	-0,7	-1,2	-3,5
Germany	Imports	-1,3	-2,2	-1,6	-1,7	-5,1
Italy	Imports	-0,8	-1,4	-0,5	-0,9	-2,6

Source: own elaboration on OECD data

As a result of this, the GDP dynamics in Italy over the last 15 years is stagnating, and, when the recession hit Italy in 2009, it was deeper, and consequentially, the recovery will be more difficult to occur in the given situation. In fact, it does not appear that policies implemented during the recession time, in the last 3-4 years, were inverting the above recalled dynamics. Quite the opposite: the labour market was further liberalized with a new Law introduced by the Ministry of Labour in June 2012 mentioned above (L. n. 92/2012). The austerity measures introduced by the Monti Government and before by the Berlusconi Government decreased the public expenditure and targeted exclusively to balance the budget, with an obvious consequence of reducing further the national expenditure without remarkable results in terms of growth, recovery and not even in terms of Debt/GDP reduction. In fact the measures targeting the reduction of Debt were basically reducing the national revenues and the GDP, thus worsening further the ratio Debt/GDP.

The Italian decline appears clearly in the graph below: in almost 15 years Italy lost, in comparison with the EU, 20 percentage points of GDP. Italy used to be a richer country, with an average GDP above the UE15 (the richest club), and today it is far below this average level. Its GDP equals the average GDP of the UE at 27 countries. The comparison with Germany highlights the two different paths since 2002: while Germany is sloping upwards, Italy continues to decline. Furthermore, while the UE15 including France are still keeping their relative wealth, Italy has already lost it. This decline appears even more dramatic when one looks at the great jump ahead that Italy experienced in economic development during the so called "economic miracle" (see table A3 in Appendix).

Figure 14 - The Italian decline



Source: Eurostat (2012)

In brief and in symbols, all that can be expressed simply in the following textbook equation:

$$AD\ (C+I+G)\downarrow \rightarrow GDP\downarrow \qquad (2)$$

It is not trivial to state that the lack of expansion of aggregate demand causes a further decline in the productivity, following the well known Sylos Labini model that we will explore further in the next session.

When we test a simple model comprised by the relevant variables whose data were listed above, we obtain the expected results. The model which was tested, among the 27 Member States of the European Union, considers a so called Performance Index (I) as a dependent variable, which is nothing more than an algebric sum of GDP growth (g) in 2007-12, employment change (n) for the same period and unemployment level (u) (see data in Appendix table A4). The independent variables are inequality, (gini coefficient), temporary work (share over the total employment) and

the EPL. Both the OLS model with 27 observations (which include average values of the relevant variables for the period 2007-2012), and the GLS model of a Panel (with 162 observations), build with the series of each year from 2007 to 2011 (which are the most relevant year of crisis in Europe) gave very interesting and consistent results which confirm our model.[1]

$$PI\ (g+n-u) = a+b1EPL-b2TW-b3Ineq+e$$

Table 2 – Regression table, Cross-Country

OLS Model **Dep Var. : PI (2007-12)**		
Variable	Coeff. (stand errors)	P-values
EPL_2008	8. 147022 (1.95968)	*
Temporary work 2008	-.1638903 (.1295744)	**
Inequality 2008	-.696365 (.2433367)	***
Constant	-4.865248 (9.95968)	
R-squared = 0. 6413 **Adj R-squared =0.** 5945		
Prob > F = 0.0000		
Number of obs = 27		

Note: Significance level: *: within 1% ; **within 5%; ***within 10%;

In the appendix (table A5) we report also data of a GLS panel model, with 162 observations.

Source: own elaboration.

4. From lack of competition to productivity decline

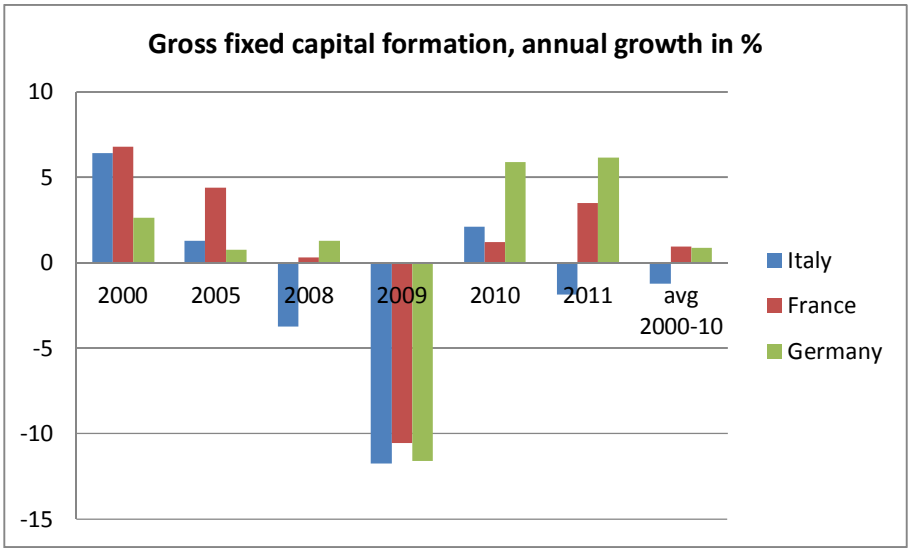
Besides the issues explained above, the other problem that emerges in Italy is the presence of strong rigidity, and a lack of competition and protection in the goods market. This seems to be the main cause of low productivity dynamics that characterizes the Italian economy for more than a decade as firms prefer a labour intensive investment strategy rather than a strategy of technological innovation and investments expansions, in contradiction with what it was agreed with the July 1993 agreement (Fadda, 2009; Nardozzi, 2004). This is because of the relatively cheaper real wages (in

[1] A Similar work was done, for a panel, and for the 27 EU members all together during the period 2007-2011 by Tridico (2012b). That model included also control variables and produced similar results. This exercise was also repeated here and reported in the appendix to this paper (table A4).

fact guaranteed by the downward pressure of labour flexibility), and protections they may enjoy in the goods market, scarcely competitive.

An interpretation of this is offered by the Sylos Labini model and several contributions which follow his approach (Sylos Labini 1993; Tarantelli, 1995; Sylos Labini, 1999; Blanchard and Giavazzi, 2004; Tronti, 2005) and in some way refer to classical or Keynesian schemes. This approach explains that the lack of competition in the goods market is the main cause for the low dynamics of labour productivity. Basically, what happens is that a highly flexible labour market, which reduces labour costs through wage pressure, accompanied by a protected goods market and scarcely competitive as the Italian one, encourages firms not to innovate and not to invest, but to still enjoy competitive advantages and increasing profits through wage moderation (Torrini, 2005). Contrary to what had been established with the agreement of July 1993 where, through a "political exchange" trade-unions accepted a wage moderation in exchange for an incomes policy (i.e., more welfare) and for a strong strategy of productive investments in advanced sectors. This exchange did not take place and productive investments have not grown as the figure below show (Tronti, 2005).

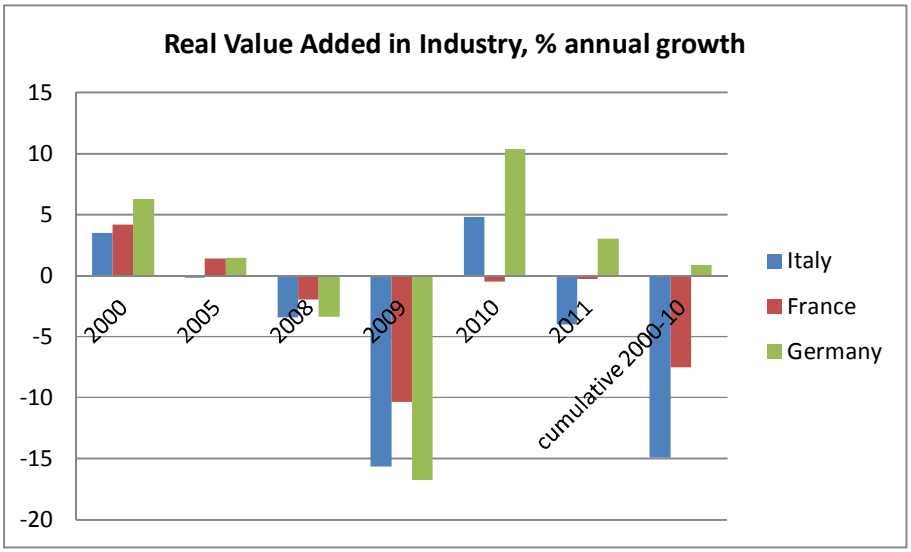
Figure 15 – The decline in investment changes



Source: own elaboration on OECD (2012)

In contrast, wage moderation and a lack of competition in the goods market has led to the growth of rents, dominant positions and profits for firms, which were able to maintain thus through the pressure on labour, at least temporarily, international competitive positions (Fadda, 2012).

Figure 16 - The industrial decline



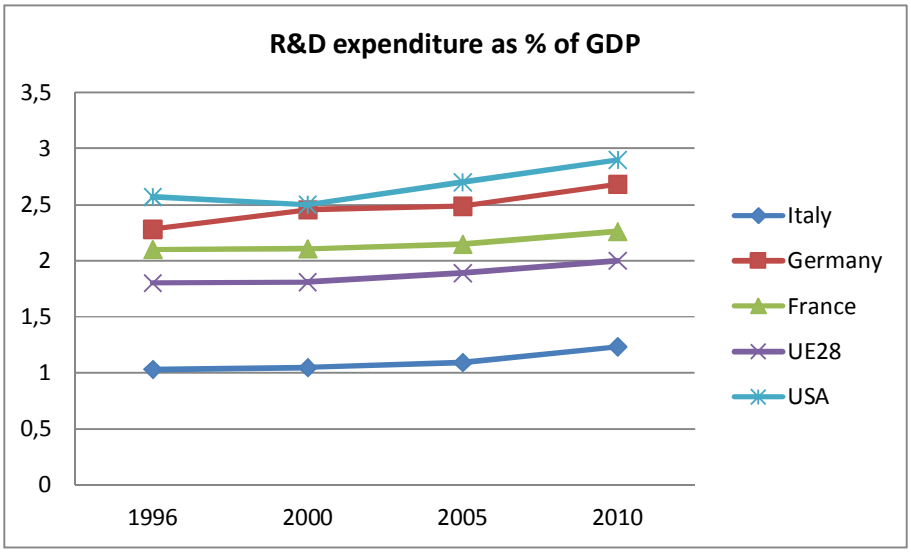
Source: own elaboration on OECD data

However, de-industrialization is not a determining phenomenon in advanced economies, as the case of Germany shows clearly. In Germany (and other EU partners), the share of the industrial sector grew in the last decade, from 25% to 26 % while in Italy it declined from 24% to 19% which corresponds to a fall of around 15% in the value added of the whole industrial sector as the figure above shows.

At industrial level, the withdraw of the State from economic activities and the privatization process did not bring more industrial investments. This process simply caused a further squeeze of the Italian economy and in particular the reduction of the industrial sector. The empty space left in manufacturing has simply never recovered. This meant a further reduction of the Italian industrial share in Europe and in the world and the disappearance of large and important firms (Gallino, 2003). Obviously this issue has to be analysed in the context of globalization and of the division of labour which occurred in the last two decades. Hence, the uncompleted liberalization and privatization processes left Italy with a smaller industrial share, and with many protected areas, not subject to competition. Such as the retail sector, protected by regulations and legal technicalities in the wholesale distribution, dominated by a few large monopolies; the agricultural sector subsidized through the EU Common Agricultural Policy; the energy sector which is dominated by a few large private companies that enjoy the benefits of being State Owned for a long period of time, and then recently privatized but not fully liberalized therefore still enjoying subsidies, support and protections; very few large private companies operating in strategic sectors, such as transport and communications, less exposed to international competition, subsidized often in an opaque way

through lobbying pressures. Besides that, R&D at national level did not increase substantially, and the gap in comparison with EU and other partners is increasing consistently.

Figure 17 - The gap in R&D



Source: OECD (2012) and Eurostat (2012)

Clearly, all this is at the expense of productivity gains, which are strangled by a lack of expansion of aggregate demand, a price increase in the cost of labour per unit of output, and a lack of investment, especially in technologically advanced sectors. This result is also supported theoretically, if we assume that the productivity depends on the combination of the so-called Smith's effect (expansion of demand, with reorganization and division of labour) and Ricardo effect (investments that replace labour with capital-specific technological change). Through this approach, we can observe a negative relationship between productivity and labour flexibility, as Kleinknecht et. al. empirically demonstrated in several contributions (Kleinknecht et. al., 2005; 2006; 2013). The following equation, taken from Sylos Labini (1999), presents the determinants of labour productivity according to this approach:

$$\Delta\pi = a + b\Delta Y + c(CLUP - P) + d(W - P_{MA}) + e\Delta I \qquad (3)$$

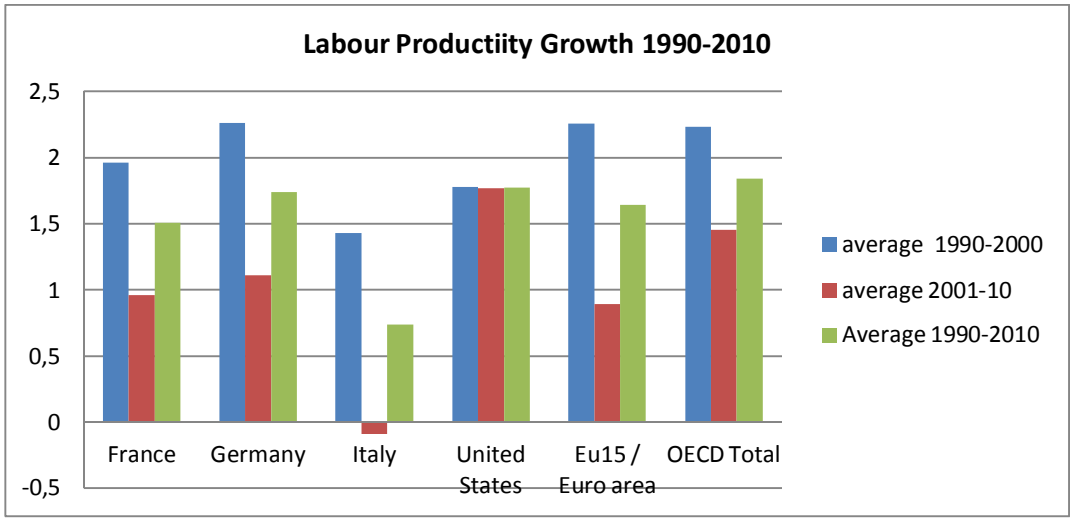
The change in labour productivity ($\Delta\ \pi$) depends positively on changes in the product (ΔY), the change in investment (ΔI) and the differences of the variables in parentheses, where P is the price index, PMA the prices of machines and CLUP is the unit labour costs, that is the cost of labour per unit of output, i.e., the ratio between the change in wages and the rate of productivity growth. If the CLUP grows faster than the consumer price index, companies, having a lower margin of profit, will be forced to save labour, and will do capital intensive investments, or will reorganize the workforce within the company. Thus, if wages rise more than prices of machinery firms will prefer to increase investment labour saving because this is cheaper than the employment of new

workers, hence productivity will increase. Later, this will also bring about higher employment. This indeed also implies that if wages do not grow properly with respect to the price of machinery, investments are not properly stimulated, entrepreneurs will essentially looking for advantageous positions, and the competition will rely primarily on wage moderation. This picture is a good example of what happened in Italy since 1993 (Tronti, 2005; Sylos Labini 2003; Tridico, 2009; Lucidi, 2006), in which beside a modest employment growth and strong wage moderation, there was a negative trend and stagnant productivity. In fact, by definition we have:

GDP =Y= LΠ (L=labour employment and Π= average productivity) → **Δy=Δl+Δπ** (4)

Now, if L (the employment) increases, and the GDP does not grow, the stagnation of GDP is to be found in the poor productivity performance π. However, it could also be the opposite: that because GDP does not grow, productivity is stagnant. In both cases there is a problem of negative interaction between GDP and productivity, related to Smith's effect and to its negative relation with flexibility.

Figure 18 – Labour Productivity



Source: own elaboration on OECD data

Note: Figure A1 in the Appendix specifies data for the whole period, and one can see the bad performance of Italy.

To conclude, if we come back to the equation (2) above, we can add to it another component, the productivity, and we will observe easily that following the Sylos Labini approach, the contraction of the aggregate demand not only reduce the GDP but does not allow for productivity gains with further negative effects on the GDP, as follows:

AD (C+I+G)↓ → GDP ↓ → productivity ↓ → GDP ↓ (5)

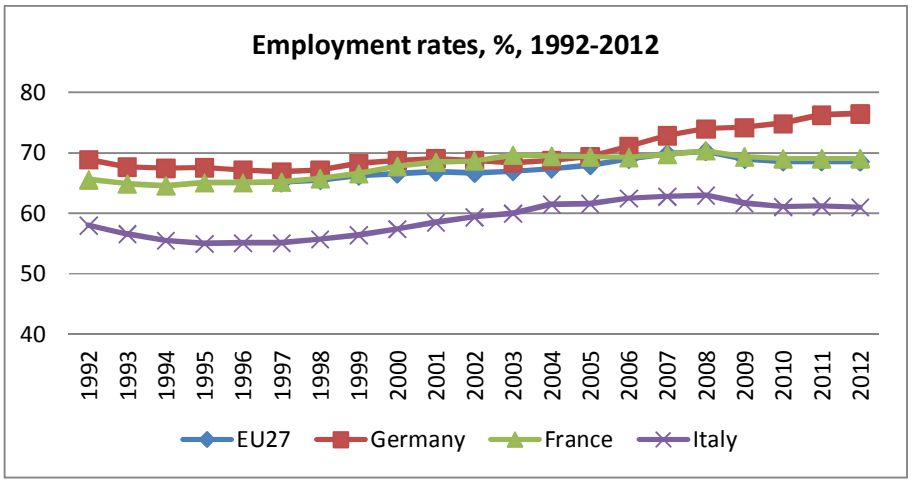
Therefore, the pressure on wages and the labour flexibility ended up to be detrimental twice for the GDP growth: 1) via the reduction of the aggregate demand as we saw in the previous session and 2) via the negative effect on the productivity growth.

5. Discussion

As we saw, during the last decade in almost all the OECD countries, including Italy, labour flexibility, calculated through the reduction of some indices of rigidity of the labour market, increased. One can also observe modest increases in employment rates. These increases in labour flexibility were coupled very often with a reduction in labour costs and therefore also with wage flexibility. As a result, the new jobs created are characterized by dissatisfaction and low working efficiency caused precisely by the pressure on the wages, the low incentives that low-paid workers receive, the instability felt by the worker in the job place, and by the poor social security contributions. This can be interpreted also through the efficiency wage approach, where unstable and low paid jobs push workers to put little effort into their work. Moreover, this does not guarantee that firms and workers invest in training and education in order to improve the quality of human capital, with lower results in terms of productivity, *ceteris pairibus*, by the economic system (Salop, 1979; Shapiro and Stiglitz, 1984).

More specifically, in Italy, until 2007-08, i.e. before the crisis, there was an increase of employment in the tertiary sector, fragmented and disorganized, poorly motivated and low paid. The result was the lower productivity of the Italian economy. In the end, the only factor partially positive is the modest increase of employment which was negatively offset by the negative labour productivity and by the reduction of the wage share in the GDP. This brought about the reduction of the purchasing power of workers and the lack of a positive dynamic in the aggregate demand and therefore in the GDP.

Figure 19 – Employment trends



Source: Eurostat

The lack of sustained economic growth and the current economic crisis resulted in lower levels of employment which contributed to the increase in the unemployment. Until the beginning of the crisis in 2007-08, most new jobs recorded in Italy, which reached a historically low unemployment rate in 2006 of about 6.5%, were low paid jobs, with real wages lower than those needed to maintain purchasing power adequate to price levels. Semi-employment contributed to the increase of employment. Since capital intensive investments were lacking, industrial production was stagnant or declining, advanced technological sector was almost inexistent and therefore the Italian economy lost competitiveness in comparison with the EU partners.

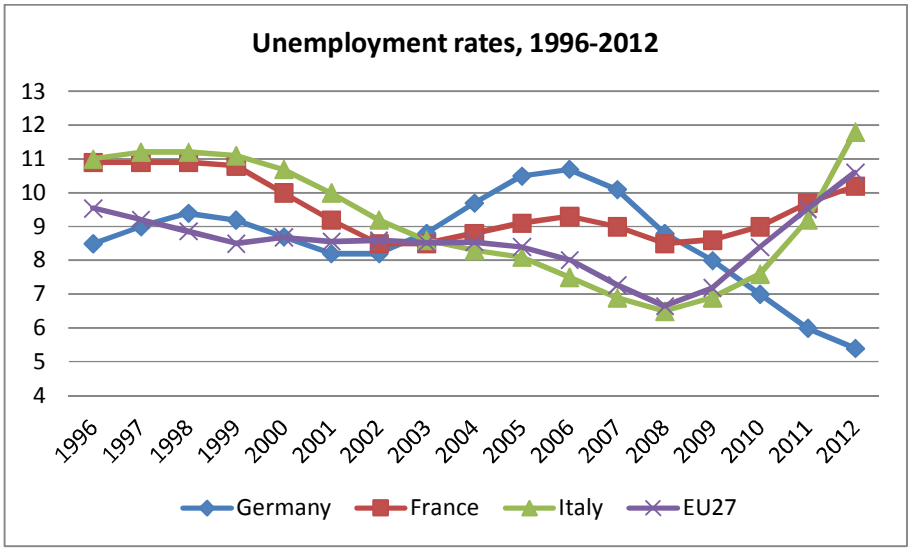
These low wages, often accompanied by insecurity, poor incentives and awards for employees, decreased the efforts and thus the efficiency of workers on the job places. The lower real wages, and thus the minimization of costs, rational behavior on the part of the individual employer, did not lead to an increase in the productivity of the system or to an increased production. It led, on the contrary, to an increase in profits, which often are not converted into new investments, but on the contrary, increased dominant positions of some rent-seeking firms, and increased portfolio movements of speculators and investors. This allowed for accumulation of extra profits by firms, and worsened income distribution. However, the economic system has not had beneficial effects, and accordingly has not realized efficient situations in terms of productivity and economic growth.

The current crisis has only worsened the situation of the labour market and it is the final outcome of an economic decline that originated much earlier at least fifteen years ago, as we originally claimed (see also figure A2 in Appendix, where one can easily see the Italian crisis as a Great Depression, the worst among EU).

These sources are mainly marked by the attempt to introduce, in the early nineties, a new economic and social model which changes industrial relations, reduces virtuous and automatic mechanisms of income distribution, compresses wages, and encourages firms to save income and to accumulate extra profits and rents rather than to invest in innovation. Furthermore, the State assumes, eventually, the burden of paying the cost of flexibility, as it has to guarantee to firms the freedom of fire and hire as they wish in a labour flexibility regime. This of course will result in an additional burden on the state budget. With the current recession, the first jobs to be cut and lost, were those flexible, that is, those which arrived at maturity of the contract or whose projects which were not renewed, with damage to both employment (with an unemployment rate which has returned to levels the early nineties, that is around 10% and layoffs that will reach a total of 1 billion

working hours lost at the end of 2012), and to income, with consumption levels down to those of 30 years ago.

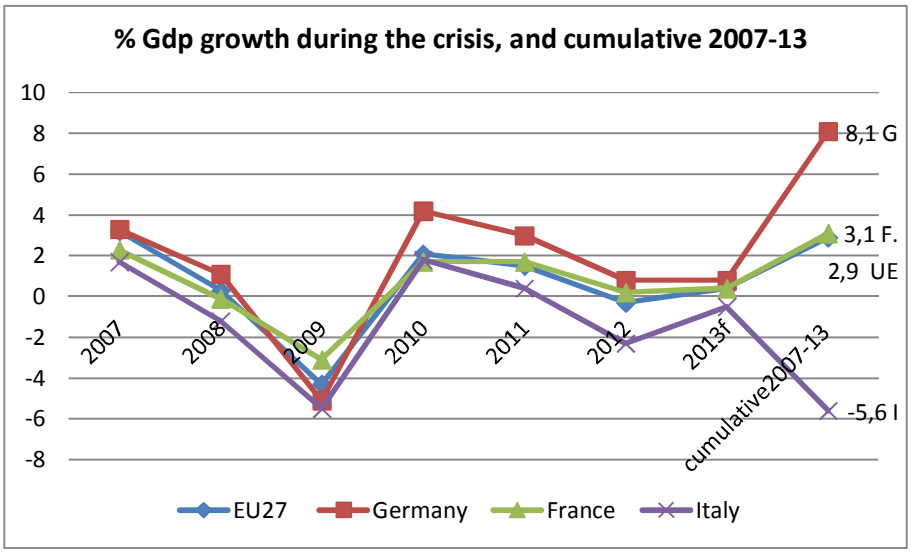
Figure 20 – Unemployment trends



Source: Eurostat

In conclusion, the country seems plagued today by a triple negative combination: 1) low productivity, 2) low employment, and 3) low dynamics of the GDP. That labour flexibility is not the right way to increase productivity and income has been announced several times by many Keynesian economists and beyond. However, the initial modest increase in employment was far more than offset by the low dynamics of labour productivity and by the stagnation of GDP even before the current crisis. Today there is a greater consensus among labour economists in particular that in the past fifteen years labour policies and development policies were mostly neglected, not integrated and not targeting the same objectives, and this has led to an increase in rents from firms that have mainly exploited the low labour costs to remain competitive, rather than make investments and create innovation in order to increase labour productivity, which could then result in a more consistent GDP growth (Fadda, 2005). Firms, with the current crisis, lost even the benefit of cheap labour cost since they are still burdened by a relatively high taxation, and a continued decline in sales. Thus, in the current situation the economic system deals with low net wages (the lowest in the EU-15) and lack of innovation and technology investments: the worst combinations according to one of the largest Italian economists recently passed away, Sylos Labini, whose Keynesian approach would be very useful to Italy today.

Figure 21 – GDP performance during the crisis



Source: Eurostat. Forecast for 2013

6. Conclusion

I have argued, in this paper, that the current crisis is the final step of a much longer decline which started after the recession 1992-93. The decline is a consequence of institutional changes, policies and institutions implemented between the beginning of 1990s and the beginning of 2000s and which involved mainly labour market reforms (i.e., the 1993 July agreement and the introduction of labour flexibility) coupled with a partial privatization process, and an uncompleted and inefficient liberalization process. These policies and changes, which were mainly created in order to follow the Washington Consensus, to implement in Italy a very market-oriented economic model and to meet the Maastricht criteria, caused from one side income inequality, lower consumption, industrial decline and weaker aggregate demand. From another side brought about lower productivity dynamics, since Italian firms implemented mainly labour intensive investments, trying to get advantages from cheaper (and flexible) labour and to reduce costs, without innovative investments. In the end, these two forces brought about economic decline and lower GDP dynamics, with a loss for the Italian GDP of more than 20% in comparison with the average of the EU. Moreover, they cause today deeper recession and slower recovery in the current crisis in comparison to the main European economies.

An econometric exercise, for the period of the crisis (2007-12) confirm the expected results: among the 27 EU Member States, performance in terms of GDP growth and labour market, are negatively affected by variables such as inequality index, labour flexibility (EPL) and temporary work, which are clearly consequences of labour policies and income distribution institutions.

References

Amoroso B., and Jespersen J., (2012), *L'Europa oltre l'Euro. Le ragioni del disastro economico e la ricostruzione del progetto comunitario,* Firenze*:* Castelvecchi.

Banca d'Italia (2012), Bollettino Economico n. 70, October 2012.

Barba A. and Pivetti M., (2009), Rising Household Debt: its Causes and Macroeconomic Implications. Along-Period Analysis, *Cambridge Journal of Economics*, 33(1): 113-137.

Blanchard, O. and F. Giavazzi (2003), Macroeconomic Effects of Regulation and Deregulation in Goods and Labour markets, *Quarterly Journal of Economics*: 118(3): 879-906.

Boyer R., (2009), Come conciliare la solidarietà sociale e l'efficienza economica nell'era della globalizzazione: un punto di vista regolazioni sta, *Argomenti*, 1(gennaio/maggio): 5-31.

Brancaccio E. and Fontana G., (2011), The Global Economic Crisis (Introduction), E., Brancaccio and G., Fontana (Eds) *The Global Economic Crisis. New Perspective on The Critique of Economic Theory and Policy*, Routledge, London.

CNEL (2007), Liberalizzazioni e Privatizzazioni, Roma 2007.

Draghi M. (2007), Relazione annuale della Banca d'Italia, Rome 2007.

Eurostat (2012), Structural Indicators, online database, at URL: http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators

Fadda S. (2009), La riforma della contrattazione. Un rischio e una proposta circa il secondo livello, *Nel Merito.com*, *Relazioni industriali* - 19 giugno 2009.

Fadda S., (2005), Per una integrazione tra politiche del lavoro e politiche di sviluppo, *Argomenti*, 14/2005.

Fadda S., (2012), Salari e produttività: una relazione complessa, *Nel Merito.com, Lavoro* – 2 marzo 2012.

Fitoussi J.P. (2005), Macroeconomic Policies and Institutions, Rivista di Politica Economica, Novembre-Dicembre, 2005. (Settima Lezione "Angelo Costa", 19 Gennaio 2006).

Fitoussi, J.P, and Stiglitz J. (2009), The Ways out of The Crisis and The Building of a More Cohesive World, The Shadow GN, Chair's Summary, LUISS Guido Carli, Rome, May 6-7.

Fitoussi, J.P. and Saraceno, F. (2010), Inequality and Macroeconomic Performance, OFCE /POLHIA N° 2010-13, Paris, 13.

Gallino L., (2003), *La scomparsa dell'Italia industriale***,** Einaiudi: Torino.

ILO (2010), Global Wage Report 2010/11, *Wage Policies in Time of Crisis*, Geneve, 2010

IMF (2012), International Monetary Fund, World Economic Outlook online Database, October 2012, at URL: http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx

Istat, (2010), Conti ed aggregati economici delle Amministrazioni Pubbliche *SEC95* - Anni 1980-2009.

Istat, (2010), Conti ed aggregati economici delle Amministrazioni Pubbliche, 1980-2009.

Kleinknecht A. and Naastepad, C.W.M. (2005). The Netherlands: Failure of a Neo-classical Policy Agenda, *European Planning Studies*, 13(8): 1193-1203.

Kleinknecht A., Naastepad C.W.M. and Storm S., (2013), Labour Market Rigidities Can Be Useful. A Schumpeterian view, in S. Fadda and P. Tridico *Financial Crisis, Labour Market and Institutions,* Routledge: London.

Kleinknecht A., Oostendorp M.N., Pradhan M.P., and Naastepad C. M., (2006), Flexible Labour, Firm Performance and the Dutch Job Creation Miracle, *International Review of Applied Economics*, 20(2): 171–187.

Levrero E. S. and Stirati A., (2005), Distribuzione del reddito e prezzi relativi in Italia 1970-2002 *Politica economica - Rivista di studi e ricerche per la politica economica*, 3/2005, 401-434.

Lilla M., (2005), Disuguaglianze salariali in Italia: nuove evidenze dai microdati SHIW, *Politica economica - Rivista di studi e ricerche per la politica economica*, 1/2005, 71-102.

Lucidi F., (2006), Is there a trade-off between labour flexibility and productivity growth? Preliminary evidence from Italian firms, Università di Roma La Sapienza, mimeo.

Miniaci R., Weber G., (1999), The Italian Recession of 1993: Aggregate Implications of Microeconomic Evidence, *Review of Economics and Statistics*, 81(2): 237-249

Nardozzi. G., (2004), *Miracolo e declino. L'Italia tra concorrenza e protezione,* Laterza, Roma-Bari.

OECD (2008), Employment outlook, Paris

OECD (2012), Economic Outlook, online statistics at URL: http://stats.oecd.org/

Penn World Table 7.1, (2012) database of the Center for International Comparisons of Production, Income and Prices University of Pennsylvania.

Rapporto Kok (2004), Facing the Challenge. The Lisbon Strategy for Employment and Growth, Report from The High Level Group, chaired by Wim Kok, Office for Official Publications of the European Communities, Luxembourg.

Rodrik D., (2004), *Rethinking Growth Policies in the Developing World*. Cambridge, MA: Harvard University Press.

Rodrik D., (2008), *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*, New York and London: W.W. Norton

Rossi, F. and P. Sestito (2000), Contrattazione aziendale, struttura negoziale e determinazione decentrata del salario, *Rivista di Politica Economica*, ottobre-novembre, pp.129-184.

Salop S. (1979), A model of The Natural Rate of Unemployment, *American Economic Review*, 69(1): 117-25.

Stockhammer E., (2013), Financialization, Income Distribution and the Crisis , in S. Fadda and P. Tridico (eds), *Financial Crisis, Labour Market and Institutions*, Routledge, London.

Sylos Labini P., (1993), *Progresso tecnico e sviluppo ciclico*, Bari: Laterza.

Sylos Labini P., (1999), The Employment Issues: Investment, Flexibility and The Competition of Developing Countries *BNL Quarterly Review*, 52(210): 257-280

Sylos Labini, P. (2003), Le prospettive dell'economia mondiale, *Moneta e Credito*, 56(223): 267-95.

Tarantelli E. 1995, La forza delle idee. Scritti di economia e politica, Laterza, Roma-Bari.

Torrini R., (2005), Quota dei profitti e redditività del capitale in Italia: un tentativo di interpretazione, Temi di Discussione, N. 551, Banca d'Italia, Roma

Tridico (2012a), Financial Crisis and Global Imbalance: its Labor Market Origins and the Aftermath, *Cambridge Journal of Economics*. 36(1): 17-42.

Tridico P., (2009), Flessibilità e istituzioni nel mercato del lavoro: dagli economisti classici agli economisti istituzionalisti, *Economia & Lavoro* Anno XLIII, (1): 113-139.

Tridico P., (2012b) The Impact of The Economic Crisis on The EU Labour Larket: a Comparative Perspective, Working Papers n. 153, Department of Economics, University 'Roma Tre', Rome.

Tronti L., (2005), "Protocollo di luglio e crescita economica: l'occasione perduta", *Rivista Internazionale di Scienze Sociali*, n. 2.

Tronti L., e Ceccato F., (2005), Il Lavoro atipico in Italia: caratteristiche, diffusione e dinamica, *Argomenti*, n. 14.

Williamson, J. (1990), What Washington Means by Policy Reform, in J. Williamson (ed.), *Latin American Adjustment: How Much Has Happened?* Washington DC: Institute for International Economics.

APPENDIX

Table A1 - Employment Protection Legislation, OECD, 1980-2010

OECD Countries	Overall EPL, including regular employment, temporary employment and collective dismissal restrictiveness		
	Late 1980s	Late 1990	Late 2000s
Australia	0.9	1.2	1.2
Austria	2.2	2.2	1.9
Belgium	3.2	2.2	2.2
Canada	0.8	0.8	0.8
Czech Rep	..	1.9	1.9
Denmark	2.3	1.4	1.4
Finland	2.3	2.1	2
France	2.7	3	3
Germania	3.2	2.5	2.7
Greece	3.6	3.5	2.8
Hungary	..	1.3	1.5
Ireland	0.9	0.9	1.1
Italy	3.6	2.7	1.9
Japan	2.1	2	1.8
S. Korea	..	2	2
Mexico	..	3.1	3.1
Netherland	2.7	2.1	2.1
New Zealand	..	0.9	1.5
Norway	2.9	2.7	2.6
Poland	..	1.5	1.7
Portugal	4.1	3.7	3.5
Slovak	..	2.4	1.9
Spain	3.8	2.9	2
Sweden	3.5	2.2	2.2
Switzerland	1.1	1.1	1.1
Turkey	..	3.8	3.7
United Kingdom	0.6	0.6	0.7
United States	0.2	0.2	0.2
Average	**2.335**	**2.032**	**1.90**

Source: OECD

Table A2 - Contribution to growth – Labour productivity and Total Factor Productivity

		1990-95	1996-2000	2001-11	Average 1990-2011	Cumulative growth 1990-2011
France	GDPg	1,5	2,7	1,2	1,8	5,4
Germany	GDPg	2,6	1,9	1,2	1,9	5,6
Italy	GDPg	1,4	1,9	0,4	1,2	3,7
France	TFPg	1,2	1,3	-1,5	0,3	1,0
Germany	TFPg	1,3	1,1	-0,6	0,6	1,8
Italy	TFPg	1,2	0,3	-1	0,2	0,5
France	LPg	2,0	2,0	1,0	1,6	4,9
Germany	LPg	2,7	1,8	1,2	1,9	5,6
Italy	LPg	1,9	0,9	0,1	1,0	2,9

Source: own elaboratin on OECD data

Note: GDPg= GDP growth; TFPg: Total Factor Productivity growth; LPg: Labour productivity growth;

Table A3 - Economic development 1950-1989

Countries	GDP– in $		GDP 1950=100
	1950	**1989**	**1990**
Czechoslovakia	3501	8768	250
USSR	2841	7098	250
Poland	2447	5684	232
Hungary	2480	6903	278
Average Socialist countries (4)	2819	7013	239
Austria	3706	16369	442
Belgium	5462	16744	307
Denmark	6943	18261	263
Finland	4253	16946	398
France	5271	17730	336
Ireland	3453	10880	315
Italy	**3502**	**15969**	**456**
Netherland	5996	16695	278
Sweden	6739	17593	261
United Kingdom	6939	16414	237
EU (13)	4688	15519	337

Source: own elaboration on Penn World Table 7.1

Table A4 - GDP and Labour market performance during the crisis

	(g) Gdg growth **2007-2012**	(u) Unemployment rate average **2007-2012**	(n) Employment change	g+n	Performance Index g+n+u	Temporary Work average 2007-12	Inequality Average 2007-12 (Gini)
Austria	1,3	-3,9	0,3	1,6	-2,3	9,9	25,3
Belgium	1,12	-6,7	0	1,12	-5,58	8,0	27,8
Bulgaria	1,9	-11,9	-2	-0,1	-12	5,4	31,2
Cyprus	1,64	-7,8	-1,3	0,34	-7,46	14,1	28,8
Czech Repub.	1,72	-6,6	-1,1	0,62	-5,98	7,8	25,3
Denmark	-0,5	-7,1	-3,7	-4,2	-11,3	8,9	23,7
Estonia	0,4	-12,8	-8,4	-8	-20,8	3,2	33,1
Finland	0,96	-7,8	-2,2	-1,24	-9,04	15,6	25,9
France	0,52	-9,9	-0,5	0,02	-9,88	14	28
Germany	1,18	-5,8	1,7	2,88	-2,92	13,7	26,8
Greece	-1,9	-17,6	-1,8	-3,7	-21,3	12,7	34,3
Hungary	-0,62	-9,9	-1,9	-2,52	-12,42	9,1	33,3
Ireland	-0,82	-14,2	-9,2	-10,02	-24,22	9,3	31,9
Italy	0,52	-8,3	-1,8	-1,28	-9,58	15,6	34.5
Latvia	-1,44	-16,1	-9	-10,44	-26,54	5,5	39,2
Lithuania	1,08	-15,5	-7,1	-6,02	-21,52	3,1	35,0
Luxembourg	1,28	-4,8	1	2,28	-2,52	8,2	27,8
Malta	2,16	-6,6	1,5	3,66	-2,94	5,6	27,3
Netherlands	1,14	-4,5	-1,3	-0,16	-4,66	18,4	26,4
Poland	4,28	-9,4	2,3	6,58	-2,82	27,1	33,3
Portugal	0,12	-12,5	-2,2	-2,08	-14,58	22,0	38
Romania	1,36	-7,5	0	1,36	-6,14	1,0	33
Slovakia	3,72	-13,5	-1,9	1,82	-11,68	4,7	28,1
Slovenia	1	-8	-1,6	-0,6	-8,6	17,4	23,7
Spain	0,26	-22,6	-7	-6,74	-29,34	25,9	32
Sweden	1,42	-7,2	-1,5	-0,08	-7,28	16,1	24,0
United King.	0,1	-8,3	-2	-1,9	-10,2	5,6	34

Note: the unemployment level (u) is reported with the sign minus (-) in order to allow for a consistent algebraic sum of the Performance Index (PI)

Source: Eurostat

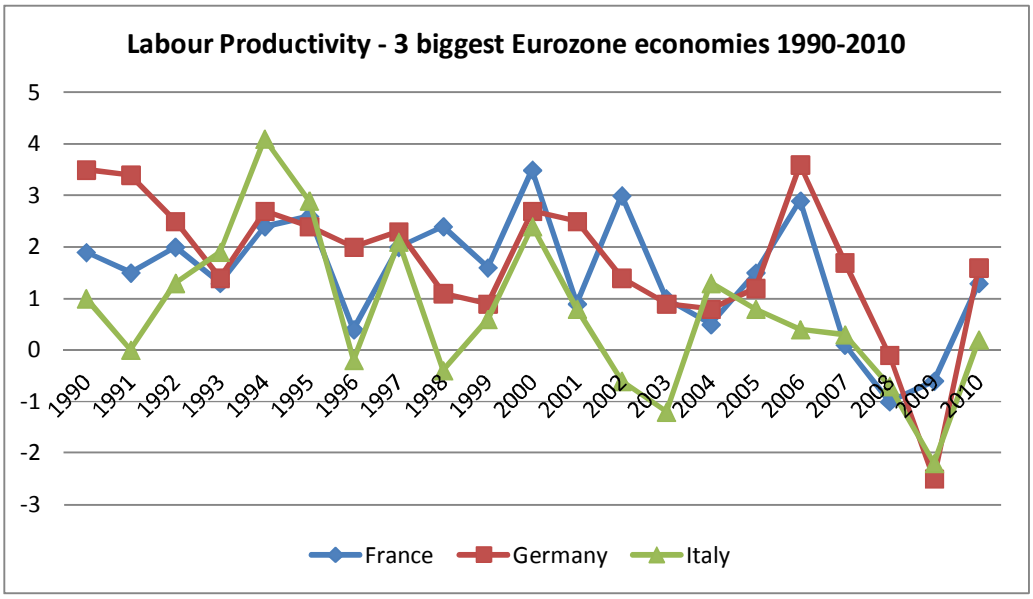
Table A5 – Regression table, Panel data

GLS Model. **Random effetcs** **Dep Var. : PI**		
Variable	Coeff. (stand errors)	P-values
EPL	1.615307 (.7324882)	*
Temporary work	-.1578564 (.0694321)	**
Inequality	-.2716993 (.107862)	*
Constant	4.225772 (3.638554)	
Year 2006	-.5277289 (.9971861)	
Year 2008	-3.037997 (.9973313)	*
Year 2009	-10.86284 (.9978834)	*
Year 2010	-4.382909 (.9970402)	*
Year 2011	-6.065116 (.9974051)	*
Year 2007 dropped because of collinearity		
R-sq: within = 0.5610 **between= 0.2293** **overall = 0.4880**		
Wald chi2(8) =170.93; Prob > chi2=0.0000		
Number of obs = 162. Number of groups = 27 **Panel 2006, 2007, 2008, 2009, 2010, 2011**		
Hausman Test (RE vs FE): Ho: difference in coefficients not systematic chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 20.75 Prob>chi2 = 0.0001 H (alternative) accepted		

Significance level: *: within 1% ; **within 5%;

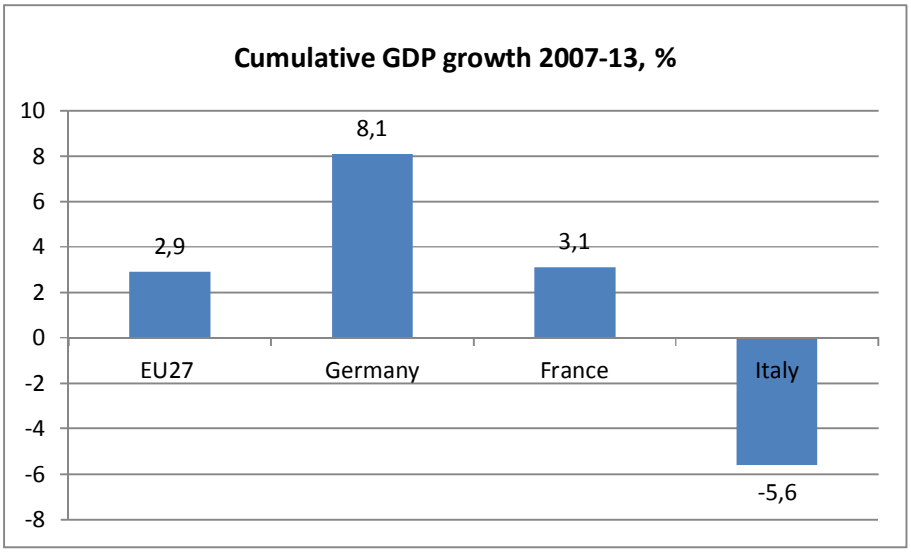
Source: own elaboration

Figure A1 – Labour productivity 1990-2010



Source: own elaboration on OECD data.

Figure A2 – Italy Great depression



Source: Eurostat. Forecast for 2013