



Project no. CIT3-CT-2005-006193

WORKS

Work organisation and restructuring in the Knowledge Society

Integrated project

Priority 7: 'Citizens and governance in a knowledge-based society'

Deliverable 15.2.6
The transformation of work?
A quantitative evaluation of change in work in Italy

Due date of deliverable: May 2008

Actual submission date: May 2008

Start date of project: 01/06/2005

Duration: 48 months

Lead contractor:
HIVA-K.U.Leuven

Final report

Project co-funded by the European Commission within the Sixth Framework Programme (2002-		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission	
CO	Confidential, only for members of the consortium (including the Commission Services)	



The transformation of work?

WP15 – A quantitative evaluation of changes in work in Italy

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works
CHANGES IN WORK



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Project number: CIT3-CT-2005-006193

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1 Introduction

As a result of a severe monetary and fiscal policies crisis, in the early nineties Italian labour market experienced a deep recession. Between 1991 and 1995, nearly 1,500 thousands out of 21,000 thousands of jobs were lost, and the unemployment rate, especially in Southern regions and among women, by far overcame two-digit figures. Despite a robust and steady growth in employment from 1995 onwards, only in 2001 overall employment has reached again the peak of 1991. This down- and up-swing of the economy has generated a deep change in the structure of employment and, in general, of Italian economy.

1. In terms of sectoral change, between 1993 and 2005, employment in services grew by 22.0 *per cent*, whereas manufacturing lost about 5 *per cent* of job places.
2. In the same period male employment grew by 323 thousands unit, while the number of employed women grew by 1,756. The proportion of women among employed grew from 34.5 *per cent* to 39.1 *per cent*.
3. Flexible contracts widespread, especially among youngsters: the proportion of part-time workers on total employment grew from 5.5 *per cent* to 12.7 *per cent*,¹ the share of temporary workers on total employees grew from 6.2 *per cent* to 11.8 *per cent*.

Alongside this change, Italian State progressively liberalized crucial activities in utilities industries, such as telecommunications, energy distributions, railways, until then under the control of the State. Also local services were involved in this process, since a series of Parliament acts further decentralised the decision-making process, which, among other things, gave *Regioni* (=NUTS), *Province* (=NUTS3) and municipalities more powers in governing local economies and labour market. On the whole, both political decisions and external pressures (*e.g.* international competition, European budget constraints, *etc.*) fostered competition in the goods market. Globalisation challenge was addressed through many measures. Also before 1992, many Italian currency devaluations took place, in order to increase export and keep under control balance of payments deficit. After the entry in the Eurozone, and the consequent stability pacts, Italian Governments moved from monetary to economic policy.

As far as labour market is concerned, between 1992 and 1993, wage bargaining setting was deeply revised, abolishing the former automatic indexing scheme (which linked wage growth to inflation rate) and strengthening decentralised bargaining. Beside, with the so-called *July '93 Agreement*, Social Parts agreed to a period of wage growth restraint, in order to hold down labour cost and increase competitiveness of Italian goods.

¹ Italian LFS series suffered from a structural break in 2004. As a consequence, between 2003 and 2004, part-time employment considerably grew from 8.5 *per cent* to 12.7 *per cent* of total employment.

Among the goals of Italian labour market policies, meeting Lisbon Strategy Employment targets became of foremost importance, since the gaps in many of the indicators was very large. According to many national and international Institutions, labour market rigidities were the major source of poor performances, therefore many measure were introduced to make job more flexible and to relax strictness of employment legislation, especially relaxing clauses on fixed-term contracts.

Figure 1.1 Employment in Italy, 1983-2006 (.000)

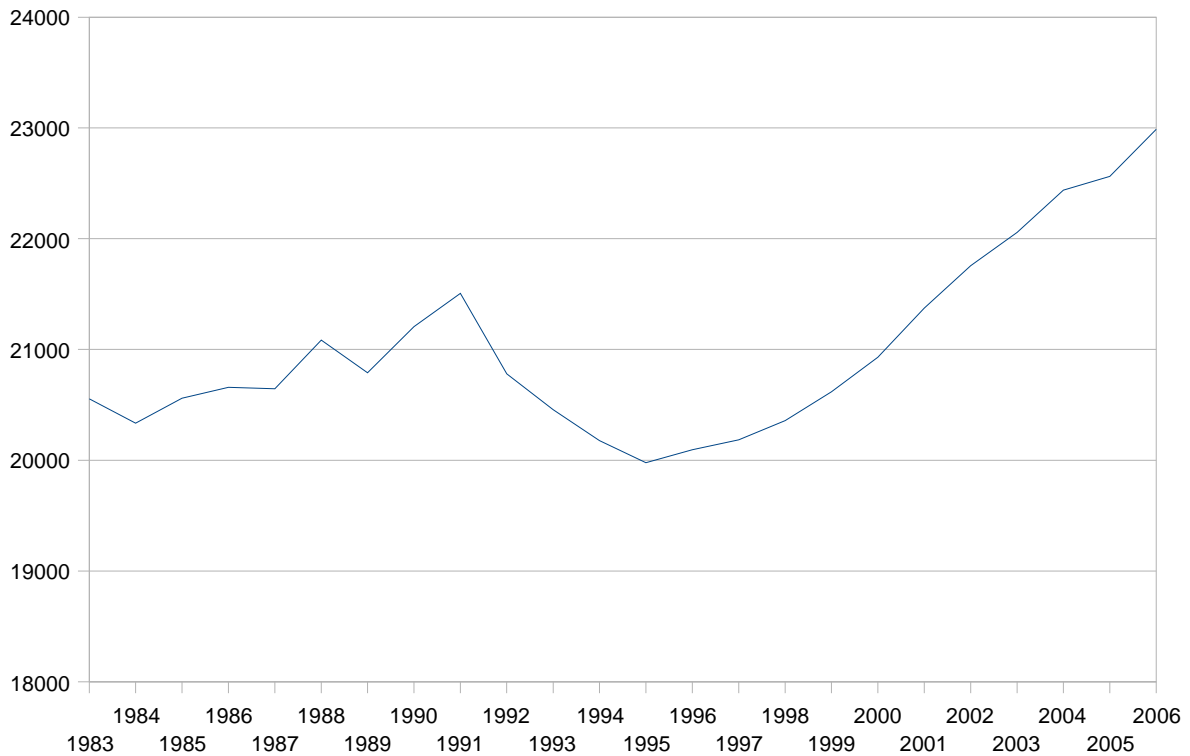


Table 1.1 Part-time workers in *per cent* of total employment and percentage of employees with temporary contracts in Italy, 1993-2005

Time	Part-time workers in per cent of total employment			Percentage of employees with temporary contracts		
	Total	Males	Females	Total	Males	Females
1993	5.5	2.5	11.2	6.2	5.0	8.2
1994	5.9	2.7	12.0	6.8	5.7	8.7
1995	6.3	2.9	12.7	7.4	6.2	9.3
1996	6.5	3.0	12.9	7.4	6.5	8.8
1997	6.8	3.1	13.4	7.9	6.9	9.4
1998	7.3	3.4	14.3	8.6	7.5	10.3
1999	7.9	3.5	15.6	9.5	8.2	11.5
2000	8.4	3.7	16.5	10.1	8.7	12.2
2001	8.4	3.5	16.6	9.8	8.3	11.9
2002	8.6	3.5	16.9	9.9	8.4	12.0
2003	8.5	3.2	17.3	9.9	8.2	12.2
2004	12.7 ^b	4.8 ^b	25.0 ^b	11.8 ^b	9.9 ^b	14.5 ^b
2005	12.8	4.6	25.6	12.3	10.5	14.7

▪ b: break in series.

Source Eurostat

2 General economic and labour market background

Between 1993 and 2005 business cycle in Italy showed an erratic pattern. In Table 2.1 and Figure 2.1 real GDP growth rates are depicted. Roughly speaking, year 2000 splits the period 1995-2005 into two distinct sub-periods. Between 1995 and 2000 GDP growth was quite robust, yet labour market reaction was somewhat sluggish: while GDP started growing since 1994, employment growth became positive only in 1996. After 2000, and especially between 2002 and 2005, despite very poor performances in terms of GDP, employment kept increasing well above GDP growth rate. While in the '80s, when GDP grew and employment remained stable, some analysts talked about a *jobless growth*, some economists depicted the situation of Italy in the early '00s as *growth less job*. However, to assess real labour input into Italian economy in the 00's, it should be noticed that the ratio between the figures for standard labour units (full-time equivalent) and the figures for employment individuals consistently declined. This latter used to be well above the unit until 2000 (*i.e.* every employed individual in the economy worked on average more hours than a standard full-time worker in his/her main job), and fell under 1:1 ratio after 2004. Many factors have generated this phenomenon. Firstly, working hours in growing sectors (Services) are generally lower than traditional sectors. Therefore, on average, working hours in the economy has declined. Secondly, as a consequence of female employment growth, percentage of part-time workers increased. Thirdly, the percentage of workers having a second job has declined.

Employment trends of male and female has been characterised by similar patterns (Figure 2.1 and Table 2.2). However, female employment grew at higher rates all over the period considered. Male employment rates in 2005 were three percentage point higher than in 1995 (but less than a point above 1993 rates), while female employment rates grew from 35.4 *per cent* to 45.3 *per cent* (Figure 2.2). Since activity rates sharply increased, despite a robust increase in employment, unemployment rates remained very high until 2000, especially among women (Table 2.3 and Figure 2.3).

As a matter of fact, we should conclude that it took about five years to Italian labour market to absorb 1992-1994 shock – Figure 2.4. In addition, labour demand and supply grew at different pace, as the latter sharply increased as a result of the pressure of new economic challenges and of a social and cultural change.

Table 2.1 Real GDP and employment growth rate in Italy, 1993-2006

	Real GDP growth rate	Employment growth
1993	-0.9	-2.7
1994	2.2	-1.6
1995	2.8	-0.2
1996	0.7	0.6
1997	1.9	0.3
1998	1.4	1.0
1999	1.9	1.1
2000	3.6	1.9
2001	1.8	2.0
2002	0.3	1.7
2003	0.0	1.5
2004	1.2	0.4
2005	0.1	0.3
2006	1.9	1.7

Source: Eurostat Structural Indicators

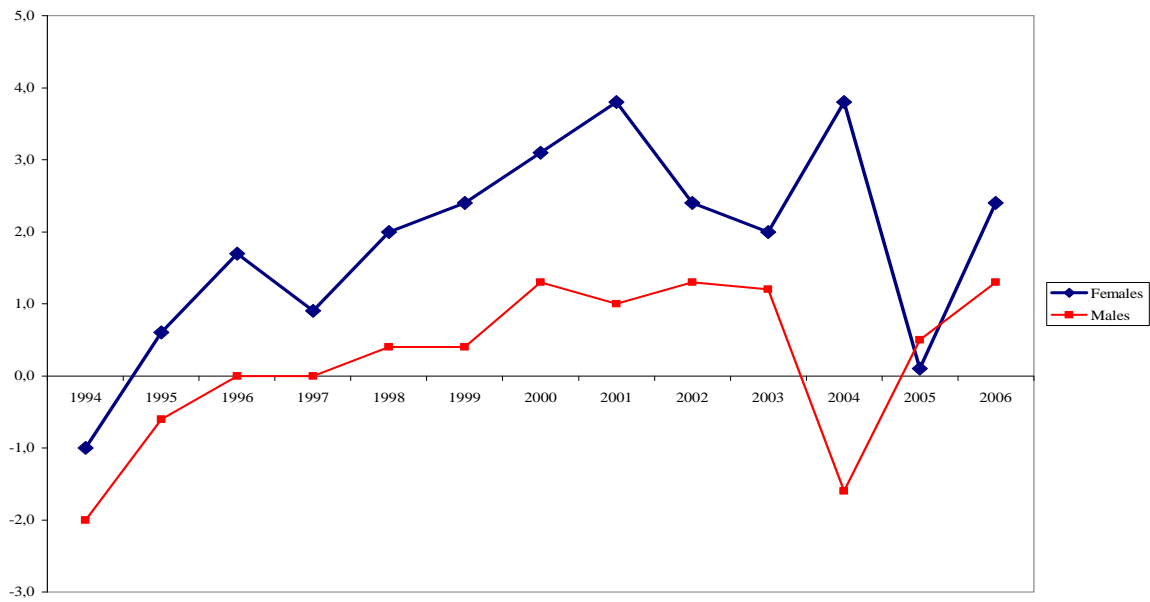
Figure 2.1 Real GDP and employment growth rate in Italy, 1993-2006

Table 2.2 Employment growth rate in Italy according to sex, 1993-2005

	Total	Females	Males
1993	-2.7	:	:
1994	-1.6	-1.0	-2.0
1995	-0.2	0.6	-0.6
1996	0.6	1.7	0.0
1997	0.3	0.9	0.0
1998	1.0	2.0	0.4
1999	1.1	2.4	0.4
2000	1.9	3.1	1.3
2001	2.0	3.8	1.0
2002	1.7	2.4	1.3
2003	1.5	2.0	1.2
2004	0.4	3.8	-1.6
2005	0.3	0.1	0.5

Source: Eurostat Structural Indicators

Figure 2.2 Employment rates in Italy, 1993-2006

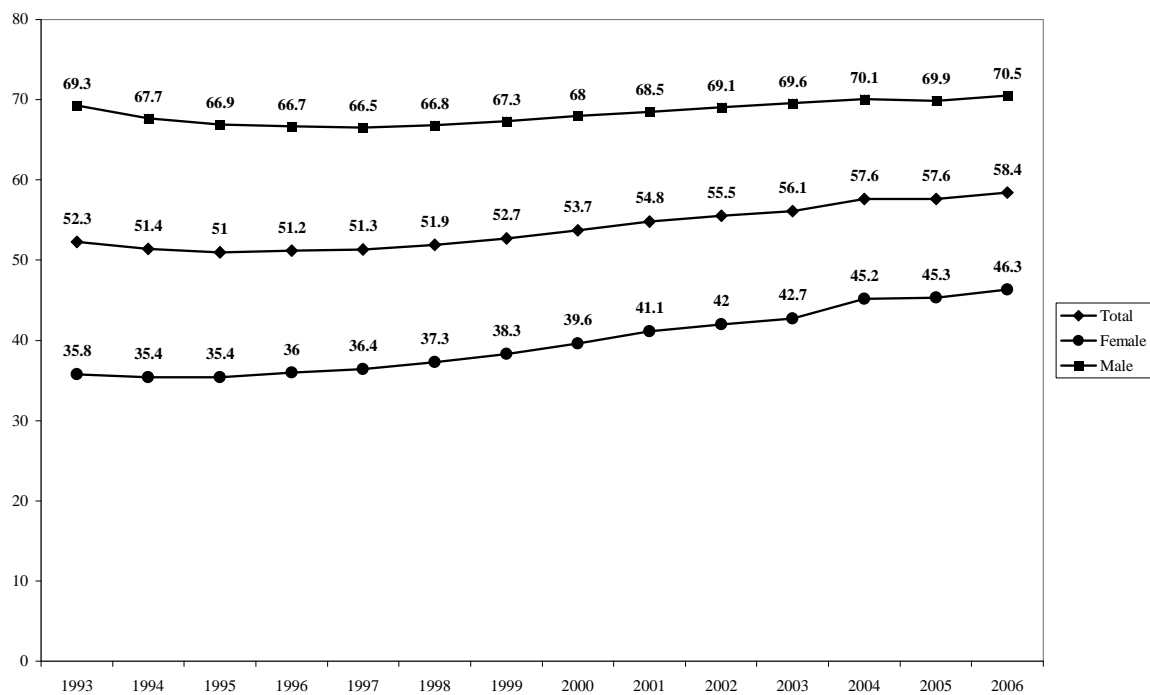


Table 2.3 Unemployment rates in Italy, 1993-2006

	Total	Females	Males
1993	9.8	13.9	7.4
1994	10.6	14.6	8.3
1995	11.2	15.4	8.6
1996	11.2	15.2	8.7
1997	11.3	15.3	8.7
1998	11.3	15.4	8.8
1999	10.9	14.8	8.4
2000	10.1	13.6	7.8
2001	9.1	12.2	7.1
2002	8.6	11.5	6.7
2003	8.4	11.3	6.5
2004	8	10.5	6.4
2005	7.7	10.1	6.2
2006	6.8	8.8	5.4

Source: Eurostat Structural Indicators

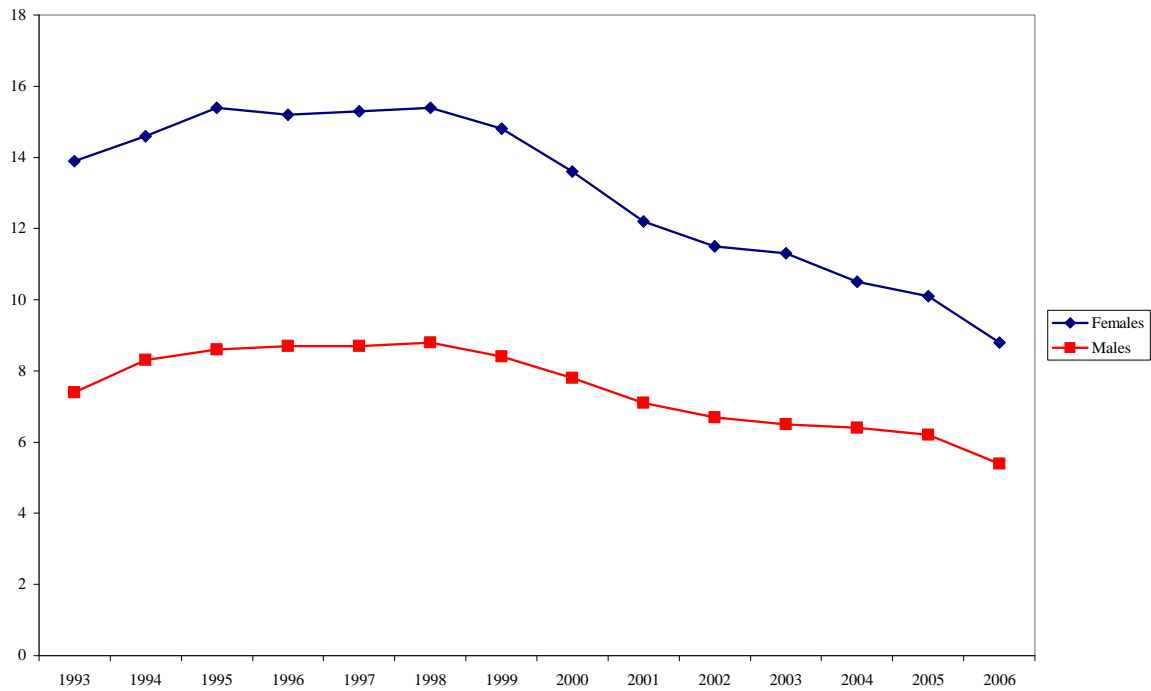
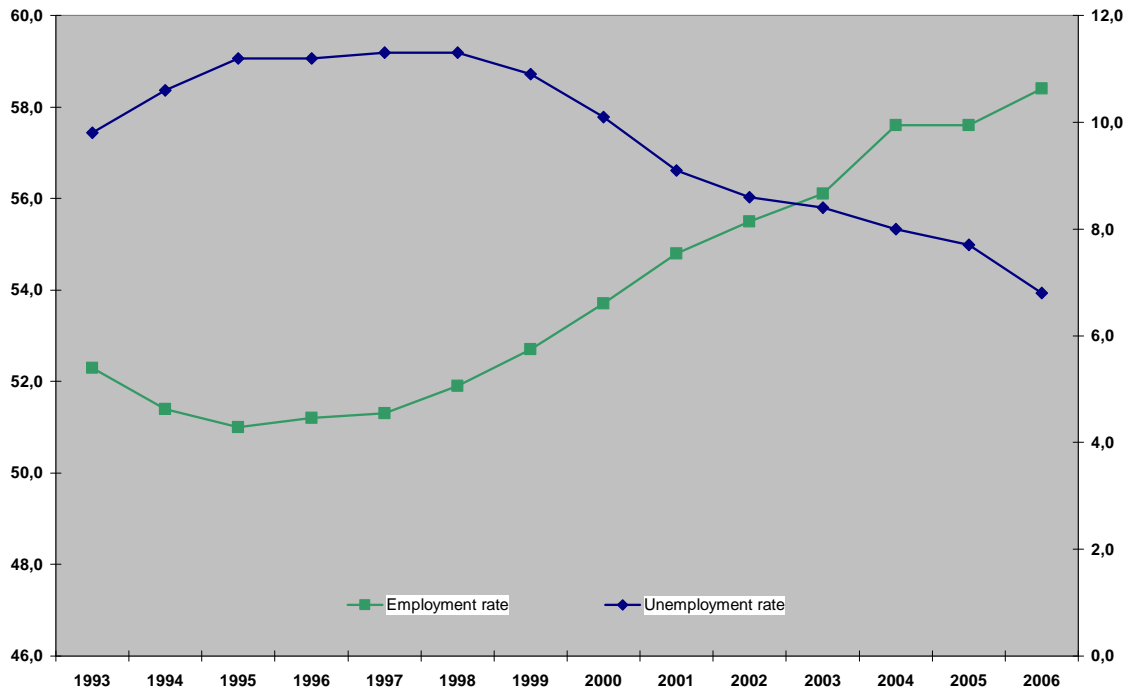
Figure 2.3 Unemployment rates in Italy, 1993-2006

Figure 2.4 Employment rate and unemployment rate in Italy, 1993-2006



3 Change in sectoral composition of employment

After two years of strong decline, since 1995 overall employment in Italy steadily grew until 2006, despite the unfavourable business cycle between 2001 and 2005. Employment growth has been driven by Service sectors, among which the number of employed grew by 2,737 thousands between 1995 and 2005. The share of employment in Services on total employment grew from 59.8 *per cent* to 65.0 *per cent*, while Industry share declined from 33.7 *per cent* to 30.8 *per cent* – Table 3.1. Looking into details at NACE 1-digit branches, it's worth noting that more than half of the total growth in employment occurred between 1995 and 2005 can be explained by the surge of employment in *Real estate, renting and business activities*. In such sector employment grew from 982 thousands to 2,376 thousands (+1,395 thousands – Table 3.2), and its share on total employment grew from 4.9 *per cent* to 10.5 *per cent*. Employment growth was also relevant in *Hotels and restaurants* (+64.3 *per cent*), *Health and social work* (+28.8 *per cent*), *Community, social, personal services* (+33.0 *per cent*). In Figure 3.1 and Table 3.3 the contribution of each sector² to overall employment growth are depicted. A considerable impulse to growth is due to *Real estate, renting and business activities* (7.0 *per cent* out of 12.9 *per cent*); considerable contribution came also from *Hotels and restaurants* (2.1 *per cent*), *Construction* (1.9 *per cent*) and *Health and social work* (1.7 *per cent*).

² The contribution of each sector is calculated as the ratio between the absolute variation of employment in sectors between 1995 and 2005 and total employment in 1995.

Table 3.1 Employment in Italy according to sector of activity, absolute values and *per cent* of total employment

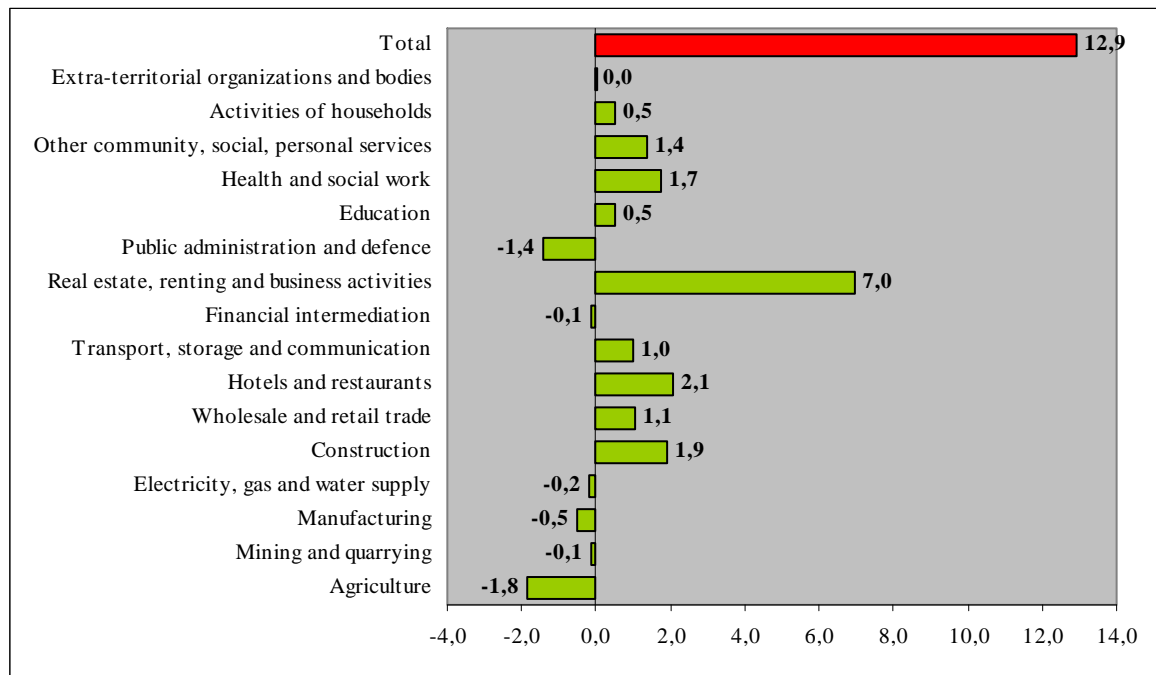
Sector of activity	1995		2000		2005	
	Abs. Val. (,000)	<i>Per cent</i> of employ- ed	Abs. Val. (,000)	<i>Per cent</i> of employ- ed	Abs. Val. (,000)	<i>Per cent</i> of employ- ed
<i>a_b</i> Agriculture, hunting, forestry and fishing	1,315	6.6	1,095	5.2	947	4.2
c Mining and quarry- ing	67	0.3	66	0.3	40	0.2
d Manufacturing	4,928	24.7	4,825	23.1	4,825	21.4
e Electricity, gas and water supply	199	1.0	167	0.8	163	0.7
f Construction	1,530	7.7	1,596	7.6	1,913	8.5
<i>c_f</i> Industry	6,725	33.7	6,653	31.8	6,940	30.8
g Wholesale and retail trade	3,203	16.0	3,351	16.0	3,416	15.1
h Hotels and restau- rants	645	3.2	773	3.7	1,060	4.7
i Transport, storage and communication	1,040	5.2	1,172	5.6	1,239	5.5
j Financial interme- diation	667	3.3	669	3.2	640	2.8
k Real estate, renting and business activi- ties	982	4.9	1,480	7.1	2,376	10.5
l Public administra- tion and defence	1,719	8.6	1,838	8.8	1,440	6.4
m Education	1,439	7.2	1,511	7.2	1,541	6.8
n Health and social work	1,203	6.0	1,277	6.1	1,549	6.9
o Other community, social, personal ser- vice activities	821	4.1	895	4.3	1,093	4.8
p Activities of house- holds	205	1.0	196	0.9	304	1.3
q Extra-territorial organisations and bodies	16	0.1	19	0.1	17	0.1
<i>g_q</i> Services	11,938	59.8	13,182	63.0	14,676	65.0
Total	19,978	100.0	20,930	100.0	22,563	100.0

Source: Eurostat

Table 3.2 Employment growth in Italy according to sector of activity, absolute values and percentage growth rate

Sector of activity	1995-2000		2000-2005		1995-2005	
	Abs. Var. (.000)	Per cent growth	Abs. Var. (.000)	Per cent growth	Abs. Var. (.000)	Per cent growth
<i>a_b</i> Agriculture, hunting, forestry and fishing	-220	-16.7	-148	-13.5	-367	-27.9
<i>c</i> Mining and quarry- ing	-1	-1.0	-26	-39.5	-27	-40.1
<i>d</i> Manufacturing	-104	-2.1	0	0.0	-104	-2.1
<i>e</i> Electricity, gas and water supply	-33	-16.4	-4	-2.1	-36	-18.2
<i>f</i> Construction	66	4.3	317	19.8	382	25.0
<i>c_f</i> Industry	-71	-1.1	287	4.3	216	3.2
<i>g</i> Wholesale and retail trade	148	4.6	66	2.0	214	6.7
<i>h</i> Hotels and restau- rants	128	19.9	287	37.1	415	64.3
<i>i</i> Transport, storage and communication	132	12.7	67	5.7	199	19.1
<i>j</i> Financial intermedia- tion	3	0.4	-29	-4.3	-26	-3.9
<i>k</i> Real estate, renting and business activi- ties	498	50.7	897	60.6	1,395	142.0
<i>l</i> Public administration and defence	119	6.9	-399	-21.7	-279	-16.2
<i>m</i> Education	73	5.0	30	2.0	102	7.1
<i>n</i> Health and social work	75	6.2	272	21.3	347	28.8
<i>o</i> Other community, social, personal ser- vice activities	74	9.0	198	22.1	271	33.0
<i>p</i> Activities of house- holds	-9	-4.3	108	54.8	99	48.1
<i>q</i> Extra-territorial orga- nisations and bodies	4	23.1	-2	-9.4	2	11.5
<i>g_q</i> Services	1,244	10.4	1,494	11.3	2,737	22.9
Total	953	4.8	1,633	7.8	2,585	12.9

Source: Eurostat

Figure 3.1 Contribution of each sector to total employment growth, Italy 1995-2005**Table 3.3** Contribution of each sector to total employment growth, Italy 1995-2005

Sector of activity		1995-2000	2000-2005	1995-2005
<i>a_b</i>	<i>Agriculture, hunting, forestry and fishing</i>	-1.1	-0.7	-1.8
<i>c</i>	Mining and quarrying	0.0	-0.1	-0.1
<i>d</i>	Manufacturing	-0.5	0.0	-0.5
<i>e</i>	Electricity, gas and water supply	-0.2	0.0	-0.2
<i>f</i>	Construction	0.3	1.5	1.9
<i>c_f</i>	<i>Industry</i>	-0.4	1.4	1.1
<i>g</i>	Wholesale and retail trade	0.7	0.3	1.1
<i>h</i>	Hotels and restaurants	0.6	1.4	2.1
<i>i</i>	Transport, storage and communication	0.7	0.3	1.0
<i>j</i>	Financial intermediation	0.0	-0.1	-0.1
<i>k</i>	Real estate, renting and business activities	2.5	4.3	7.0
<i>l</i>	Public administration and defence	0.6	-1.9	-1.4
<i>m</i>	Education	0.4	0.1	0.5
<i>n</i>	Health and social work	0.4	1.3	1.7
<i>o</i>	Other community, social, personal service activities	0.4	0.9	1.4
<i>p</i>	Activities of households	0.0	0.5	0.5
<i>q</i>	Extra-territorial organisations and bodies	0.0	0.0	0.0
<i>g_q</i>	<i>Services</i>	6.2	7.1	13.7
	Total	4.8	7.8	12.9

Source: Eurostat

Trends and changes composition had several impacts both on economic performance and employment composition. Broadly speaking, since employment grew in labour intensive activities such as Construction and Services, the aggregate result of the shift in favour of such branches was a decline in general labour productivity – Table 3.4. Part-time expansion and sectoral shifts were at the origin of a drop in total average working hours –

Table 3.4 Labour productivity in Italy

	Labour productivity per employed (EU-25=100)	Labour productivity per hour (EU-15=100)
1993	:	96.3
1994	:	97.4
1995	130.5	104.3
1996	129.5	102.6
1997	128.8	102.4
1998	130.0	102.6
1999	127.4	101.2
2000	126.0	100.3
2001	125.5	101.0
2002	117.7	95.0
2003	115.6	93.5
2004	112.1	91.2
2005	111.0	90.7
2006	109.1	89.9

Source: Eurostat Structural Indicators

Table 3.5 Average working hours according to activity sector, Italy 1995-2005

		Total	1995 Full- time	Part- time	Total	2000 Full- time	Part- time	Total	2005 Full- time	Part- time
<i>a_b</i>	<i>Agriculture, hunting, forestry and fishing</i>	41.3	43.4	26.3	42.0	44.3	27.3	42.2	44.5	20.2
<i>c</i>	Mining and quarrying	41.0	41.5	:	40.8	40.8	:	40.7	41.4	:
<i>d</i>	Manufacturing	40.6	41.3	24.1	40.5	41.3	24.5	39.8	41.1	22.1
<i>e</i>	Electricity, gas and water supply	39.1	39.2	:	38.8	39.2	29.2	39.2	39.5	:
<i>f</i>	Construction	41.2	41.7	29.5	41.3	41.9	28.7	39.9	41.0	20.7
<i>c_f</i>	<i>Industry</i>	40.7	41.3	25.4	40.7	41.4	25.5	39.8	41.0	21.7
<i>g</i>	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	42.8	44.1	24.5	42.5	44.3	24.2	41.0	43.9	22.2
<i>h</i>	Hotels and restaurants	44.0	46.0	25.2	42.4	45.5	24.0	41.5	47.9	20.9
<i>i</i>	Transport, storage and communication	39.9	40.4	25.7	40.0	40.7	24.3	40.2	41.4	22.9
<i>j</i>	Financial intermediation	39.0	39.7	23.9	38.9	39.8	25.3	38.2	39.8	23.4
<i>k</i>	Real estate, renting and business activities	39.5	41.6	22.0	39.3	42.3	22.3	37.0	41.5	20.5
<i>g_k</i>	<i>Services (excl. public administration)</i>	41.6	42.9	24.1	41.1	43.0	23.6	39.7	43.0	21.4
<i>l</i>	Public administration and defence; compulsory social security	37.0	37.3	23.7	35.9	37.0	22.2	36.2	37.3	22.0
<i>m</i>	Education	26.9	27.3	18.4	27.8	28.6	18.9	26.8	28.1	15.8
<i>n</i>	Health and social work	37.0	38.1	21.5	36.4	38.0	22.6	34.7	37.6	21.3
<i>o</i>	Other community, social, personal service activities	38.9	41.1	20.9	38.0	40.9	21.9	35.2	40.5	18.8
<i>p</i>	Activities of households	31.0	41.5	18.4	31.8	41.4	19.4	27.6	40.4	18.2
<i>q</i>	Extra-territorial organisations and bodies	40.7	40.8	:	39.1	39.6	:	38.5	39.7	:
<i>m_q</i>	<i>Other services</i>	33.1	34.5	19.8	33.2	34.9	20.9	31.7	34.9	18.9
<i>g_q</i>	<i>Services</i>	38.3	39.5	22.3	38.0	39.8	22.5	37.0	40.1	20.5
Total		39.3	40.3	23.4	39.1	40.6	23.4	38.1	40.6	20.7

Source: Eurostat

4 Changes in labour demand and supply: new patterns in work organisation

4.1 Flexibility

When analysing Italian labour market evolution, it should be kept in mind that many transformation affected also labour supply. Firstly, as already noticed, female participation rates sharply increased. As work and life balance often requires women to work part-time, labour demand had to adapt to growing part-time jobs supply. Despite a considerable growth of part-time employment, its percentage on total employment in Italy remains quite low in comparison to many other European countries, even among females. Between 1995 and 2005, percentage of part-time workers on total employment has risen from 6.5 per cent to 12.8 per cent (25.6 per cent among employed women), and has spread particularly in Services branches such as *Activities of household* (58.2 per cent – Table 4.1), *Community, social, personal service activities* (24.7 per cent), *Hotels and Restaurants* (24.3 per cent). On the contrary, part-time is still limited in traditional sectors, also because it does not fit to assembly lines and shift works.

Table 4.1 Part time workers in per cent of total employment according to activity sector, Italy 1995-2005

	1995	2000	2005	
a_b	Agriculture, hunting, forestry and fishing	13.4	14.7	9.8
c	Mining and quarrying	..	..	..
d	Manufacturing	4.2	5.0	6.8
e	Electricity, gas and water supply	..	4.4	..
f	Construction	4.2	4.4	5.5
g	Wholesale and retail trade	7.2	9.3	13.8
h	Hotels and restaurants	10.1	14.1	24.3
i	Transport, storage and communication	3.1	4.3	6.4
j	Financial intermediation	4.7	6.5	10.0
k	Real estate, renting and business activities	10.9	15.1	21.6
l	Public administration and defence; compulsory social security	2.3	7.9	6.8
m	Education	5.3	8.2	10.3
n	Health and social work	6.6	10.3	17.9
o	Other community, social, personal service activities	11.6	16.1	24.7
p	Activities of households	46.2	43.9	58.2
q	Extra-territorial organisations and bodies	..	..	..
Total		6.5	8.8	12.8

Source: Eurostat

Italian firms reacted to competitive pressure raising the level of internal and numerical flexibility. Apart from many seasonal activities, which require firms to hire temporary workers for a limited span of time (*e.g.* food industry but also motorcycle production), firms began using temporary work to meet transitory demand shocks. Between 1995 and 2005, the percentage of temporary employees on total employees increased by five points, rising from 7.2 *per cent* to 12.3 *per cent*. Looking into detail to economic activities, it's worth noting that the share of temporary employees dropped only in *Activities of household* (from 16.0 *per cent* to 8.2 *per cent* – Table 4.2), and is below 10.0 *per cent* also in *Health and social work* (8.4 *per cent*), *Financial intermediation* (5.3 *per cent*), *Transport, storage and communication* (7.4 *per cent*), *Electricity, gas and water supply* (5.2 *per cent*), *Manufacturing* 7.8 *per cent*).

Table 4.2 Temporary employees as *per cent* of total employees according to activity sector, Italy 1995-2005

		1995	2000	2005
a_b	Agriculture, hunting, forestry and fishing	36.3	36.7	53.0
c	Mining and quarrying	..	..	13.4
d	Manufacturing	4.5	6.4	7.8
e	Electricity, gas and water supply	2.0	3.9	5.2
f	Construction	10.7	14.4	13.6
g	Wholesale and retail trade	7.0	10.0	11.4
h	Hotels and restaurants	18.0	15.9	24.4
i	Transport, storage and communication	3.2	6.6	7.4
j	Financial intermediation	2.9	4.8	5.3
k	Real estate, renting and business activities	8.8	13.5	13.6
l	Public administration and defence; compulsory social security	4.0	9.5	8.0
m	Education	8.1	12.4	18.2
n	Health and social work	4.6	6.8	8.4
o	Other community, social, personal service activities	9.9	15.8	17.8
p	Activities of households	16.0	14.4	8.2
q	Extra-territorial organisations and bodies	25.2	..	..
Total		7.2	10.1	12.3

Source: Eurostat

When analysing Italian situation, it should be kept in mind that self-employment is particularly widespread. Letting aside analysing in depth the motivations which led to such a Italian labour market peculiarity, we will focus on some aspects which have consequences on firms' behaviour. Moreover, a specific type of contract in Italy is quite widespread which is an intermediate form between dependant workers (employees) and 'true' self-employed workers (like professionals and individuals that run their own small firms): the so-called '*lavoratori parasubordinati*' (we can translate this term 'independent contract workers' or 'quasi(semi)-subordinated'), that is characterized by lower social contribution fees and protection compared to the dependant (employee) work. Under some circumstances, firms are free to hire workers using such contracts, which have two unambiguous advantages: they reduce labour costs and have no firing costs. Despite a stricter regulation on the use of *parasubordinati* workers have been approved in 2003, they still represent about 2.5 *per cent* of total workforce in Italy (Table 4.3). As employment protection on this

kind of work is lower than on temporary employees, we should assume that parasubordinate work represent another tool in the hands of firm to manage numerical and organisational flexibility.

As a matter of fact, in some branches as *Real estate, renting and business activities* and *Community, social and personal services* 'parasubordinati' workers are quite spread, representing respectively 5.8 *per cent* and 4.5 *per cent* of total workforce.

Table 4.3 Employed according to professional status and activity sector (Italian ATECO 2002 classification), Italy 1995-2005

		Em- plo- yees	Parasubor- dinate	Self-em- ployed	Total
a_b	Agriculture, hunting, forestry and fishing	46.1	0.8	53.2	100.0
c+e	Mining and quarrying, electricity, gas and water	96.4	1.1	2.5	100.0
d	Manufacturing	84.6	1.0	14.4	100.0
f	Construction	62.0	0.6	37.4	100.0
c_f	Industry	78.7	0.9	20.4	100.0
g	Wholesale and retail trade	55.0	1.3	43.6	100.0
h	Hotels and restaurants	63.5	1.1	35.4	100.0
i	Transport, storage and Communications	83.9	1.3	14.8	100.0
j	Financial intermediation	77.1	1.9	21.0	100.0
k	Real estate, renting and business activities	56.5	5.8	37.7	100.0
l	Public administration and defence	98.6	1.4	0.0	100.0
m_n	Education, health and social services	89.6	2.8	7.6	100.0
o_q	Other community, social and personal services	69.8	4.5	25.7	100.0
g_q	Services	72.5	2.6	24.9	100.0
Total		73.3	2.0	24.7	100.0

Source: Italian LFS

We should also remark that in many cases also self-employment hides quasi-subordinated flexible workers. It's the case of many business activities office, where each of the professional is formally a self-employed worker, but clearly follows the directives of the office manager. In other circumstances, such as in Construction sector, many handicraftsmen, formally run their own business activity, even if they have as a single customer a (bigger) firm. As a result, from demand perspective, firms' boundaries tend to blur and the distinction between internal and external flexibility becomes frail; from a supply perspective, many workers not only are not entitled to protection schemes of dependant work but are also excluded from training, up-skilling and internal careers.

4.2 Skills and Human Capital

Extensive use of temporary work and quasi-subordinated (formally self-employed) work may lead to a deterioration of human capital, thus hampering long-run performances both at firm and at country level. As a matter of fact, in Italy less than 1 *per cent* of GDP is devoted to R&D investment, and educational premia are the lowest among developed

countries (OECD, 2006). In the last ten years, educational attainment of population significantly increased: the percentage of individuals having tertiary education among 15-64 aged population rose from 6.0 *per cent* in 1995 to 10.7 *per cent* in 2005 – Table 4.4. Even if labour demand reacted to the up-skilling of labour supply, hiring more educated workers the fact that between 1995 and 2005 educational premia has fallen (Naticchioni, Ricci & Rustichelli, 2007), demonstrates that no real skill-biased technological change took place in Italy.

Table 4.4 Working age population and employed according to highest educational attainment, Italy 1995-2005

Isced97	1995		2000		2005	
	Working age popul.	Employed	Working age popul.	Employed	Working age popul.	Employed
Pre-primary, primary and lower secondary education	63.5	54.0	55.2	44.9	50.4	40.3
Upper secondary and post-secondary non-tertiary education	30.5	36.5	36.7	43.0	38.9	45.1
Tertiary education	6.0	9.5	8.1	12.1	10.7	14.6

Source: Eurostat

As Table 4.5 shows, the percentage of higher educated workers rose in almost all sectors, with the exclusion of *Construction*. However, it's worth noting that few branches make extensive use of skilled workers: *Education, health and social work* (42.0 *per cent* of total work force in 2005), *Real Estate, renting and business activities* (31.0 *per cent*) and *Financial intermediation* (23.1 *per cent*).

Table 4.5 Percentage of employed with tertiary education according to activity sector (Italian ATECO classification), Italy 1995-2005

		1995	2000	2005
a_b	Agriculture, hunting, forestry and fishing	1.4	2.2	2.7
c+e	Mining and quarrying, electricity, gas and water	6.8	7.6	12.7
d	Manufacturing	3.1	4.6	6.1
f	Construction	2.9	3.4	2.2
c_f	Industry	3.2	4.4	5.2
G	Wholesale and retail trade	2.9	4.5	5.8
h	Hotels and restaurants	1.4	2.1	3.6
i	Transport, storage and communication	3.4	5.0	6.6
j	Financial intermediation	15.8	19.2	23.1
k	Real estate, renting and business activities	26.2	30.0	31.0
l	Public administration and defence	11.7	14.7	19.1
m_n	Education, Health and social work	35.6	37.8	42.0
o_q	Other community, social, personal service activities	6.6	9.2	11.1
g_q	Services	14.3	16.7	19.9
Total		9.7	12.0	14.7

Source: Italian LFS

We can summarize the skilling mismatch between labour demand and supply noting that, while in 1995 the percentage of employed graduates working as professionals was 64.6 *per cent*, in 2005 it dropped to 53.4 *per cent*. More and more graduates shifted toward lower-qualified occupations such as Technicians and Clerks.

Table 4.6 Employed with tertiary education according to occupation, Italy 1995-2005

Isco categories	1995		2000		2005	
	<i>Per cent</i> into category	<i>Per cent</i> of gra- duates	<i>Per cent</i> into category	<i>Per cent</i> of gra- duates	<i>Per cent</i> into category	<i>Per cent</i> of gra- duates
Isco1 Legislators, senior officials and managers	25.3	8.4	19.4	7.0	13.1	7.9
Isco2 Professionals	65.9	64.6	70.8	60.8	79.5	53.4
Isco3 Technicians and associate professionals	10.2	15.1	13.4	18.3	18.4	24.6
Isco4 Clerks	4.5	6.4	6.4	7.3	9.2	7.5
Isco5 Service workers and shop and market sales workers	1.8	3.0	2.7	3.5	3.8	2.7
Isco6 Skilled agricultural and fishery workers	0.8	0.4	1.2	0.3	2.1	0.3
Isco7 Craft and related trades workers	0.4	0.8	1.0	1.5	1.1	1.2
Isco8 Plant and machine operators and assemblers	0.4	0.4	0.7	0.6	0.8	0.5
Isco9 Elementary occupations	0.7	0.6	1.1	0.8	1.7	1.1
Isco0 Armed forces	3.3	0.3			8.3	0.6
Total	9.6	100.0	12.0	100.0	14.7	100.0

4.3 Change in occupational compositions of employment

However, looking at occupational trends in the Italian labour market, the percentage of blue collars in the economy declined from 44.2 *per cent* in 1995 to 38.8 *per cent* in 2005. We can attribute most of this decrease to the delocalisation process occurred in heavy industries: in *Mining and quarrying* the percentage of blue collars fell from 52.0 *per cent* to 39.0 *per cent*; in *Manufacturing* it dropped from 70.5 *per cent* to 64.8 *per cent*; in *Transport, storage and communication* it shrank from 56.4 *per cent* to 50.7 *per cent*. In many branches of Services sectors, instead, the percentage of blue collars remained quite stable or even increased, as the share of workers in elementary occupations slightly increased.

Table 4.7 Percentage of blue collars according to economic activity (Italian ATECO classification), 1995-2005

		1995	2000	2005
a_b	Agriculture, hunting, forestry and fishing	93.7	91.1	86.1
c + e	Mining and quarrying, electricity, gas and water	52.0	46.5	39.0
d	Manufacturing	70.5	66.4	64.8
f	Construction	81.3	78.6	81.9
c_f	Industry	72.3	68.7	68.8
g	Wholesale and retail trade	25.4	24.7	22.9
h	Hotels and restaurants	7.7	6.7	10.3
i	Transport, storage and communication	56.4	51.4	50.7
j	Financial intermediation	2.8	2.5	3.0
k	Real estate, renting and business activities	16.0	15.1	19.1
l	Public administration and defence	24.9	24.2	24.0
m_n	Education, Health and social work	11.7	10.3	9.3
o_q	Other community, social, personal service activities	34.2	30.0	39.7
g_q	Services	22.7	21.1	21.6
Total		44.2	40.1	38.8

Source: Italian LFS

As a matter of fact, between 1995 and 2005, the incidence of employed as *Plant and machine operators and assemblers* and in *Elementary occupations* remained unchanged, and the reduction in the proportion of blue collars can entirely be attributed to a decline in the proportion of *Skilled agricultural and fishery workers* and *Craft and related trades workers* – see Table 4.8. A considerable shift was registered in the percentage of *Technicians and associate professionals* which rose from 14.3 *per cent* to 19.8 *per cent*; on the contrary, the incidence of *Service workers and shop and market sales workers* fell from 16.0 *per cent* to 10.6 *per cent*.

Table 4.8 Employed according to occupation, Italy 1995-2005

	1995	2000	2005
Isco1 Legislators, senior officials and managers	3.2	4.3	9.0
Isco2 Professionals	9.5	10.3	10.0
Isco3 Technicians and associate professionals	14.3	16.5	19.8
Isco4 Clerks	13.6	13.8	12.1
Isco5 Service workers and shop and market sales workers	16.0	15.8	10.6
Isco6 Skilled agricultural and fishery workers	4.2	3.2	2.4
Isco7 Craft and related trades workers	20.2	17.8	16.8
Isco8 Plant and machine operators and assemblers	9.5	9.5	9.4
Isco9 Elementary occupations	9.5	8.8	9.9
Total	100.0	100.0	100.0

Source: Eurostat

4.4 Working hours: another tool for internal numerical flexibility

As mentioned above, working hours in Italy slightly decreased. Yet, this fact should entirely be attributed to composition effect (employment shift towards sectors where working hours are lower, part-time employment growth). However internal flexibility within firms can be pursued through many means. During the '90s, thanks to decentralised bargaining, many different practices in working time arrangements have spread. Apart from asocial working hours and overtime work, recurrent working hours schemes were widely adopted (*e.g.* increasing working time during production peaks and lowering it in the rest of the year).

In Tables 4.9 and 4.10, figures shows that shift work and asocial working hours slightly increased in the last decade. On the whole, both the percentages of workers working on shift work and on Saturday are higher than EU-15 average, demonstrating that organisational flexibility is also widespread among Italian firms.

Table 4.9 Employees working on shift work as a percentage of total employees, EU-15

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AT	16.2	16.3	17.2	16.0	17.0	16.8	19.3	18.4	17.5	18.7	18.0
BE	13.2	13.3	13.7	17.1	8.8	9.0	10.3	9.6	9.6	10.0	8.7
DE	9.3	10.3	10.8	-	-	-	15.0	14.8	15.5	15.2	15.5
DK	6.7	7.5	7.4	8.0	7.3	6.1	6.1	5.0	3.8	5.7	5.0
ES	5.2	5.6	5.8	7.5	-	-	17.4	-	-	17.8	-
FI	23.6	22.4	22.9	24.5	23.1	23.9	23.9	24.4	24.1	23.5	24.1
FR	7.4	7.6	7.8	9.0	9.4	9.7	-	9.6	9.1	8.8	8.4
GR	7.7	8.8	8.0	14.2	14.5	14.4	19.2	19.0	19.6	18.7	18.8
IE	10.1	10.8	10.2	-	-	-	17.7	17.4	17.0	16.5	16.5
IT	14.5	14.5	14.8	19.4	19.7	19.0	21.0	21.8	21.6	18.6	18.3
LU	10.9	9.1	11.1	11.0	-	-	10.7	10.9	9.0	10.8	9.1
NL	7.0	7.3	7.7	9.1	8.5	-	-	-	-	-	-
PT	5.9	5.9	6.3	8.0	7.9	8.1	17.0	17.9	17.6	16.8	17.6
SE	25.3	26.8	25.1	25.7	25.5	24.9	21.8	24.4	22.3	20.6	24.5
UK	14.4	14.7	14.9	16.7	17.0	17.1	19.0	19.1	19.5	19.4	19.0
EU-15	10.7	11.1	11.4	13.7	14.4	14.8	17.4	16.1	16.1	15.8	15.5

Table 4.10 Population in employment working on night, Saturday and Sunday as a percentage of the total employment, 2000-2005

	2000			2005		
	Night	Saturday	Sunday	Night	Saturday	Sunday
AT	10.3	27.4	15.3	7.8	32.6	18.7
BE	5.0	17.6	9.3	4.6	20.1	10.8
DE	-	-	-	-	-	-
DK	7.1	25.4	19.5	7.4	22.5	18.0
ES	-	-	-	-	-	-
FI	8.4	25.2	17.6	9.1	23.3	16.1
FR	4.6	24.8	9.2	7.1	31.3	14.0
GR	4.2	42.4	14.7	4.4	39.6	13.0
IE	-	-	-	6.7	23.2	13.9
IT	5.3	36.2	8.0	8.4	39.7	13.2
LU	-	-	-	6.0	21.4	12.7
NL	-	-	-	-	-	-
PT	8.3	29.7	11.7	7.6	24.8	11.1
SE	7.6	19.9	18.0	5.6	12.7	10.8
UK	12.5	25.9	13.3	11.5	22.5	12.0
EU-15	7.3	27.5	13.6	7.2	26.1	13.7

4.5 Quality of job

We here make reference to Brynin and Longhi study on occupational change, carried out on ECHP data and to the study of Greenan, Kalugina and Walkowiak on ESWC data (WORKS WP9). Brynin and Longhi, show that, on average, Italian workers are quite dissatisfied with many of the dimensions of their working activity (Table 4.11). Moreover, between 1996 and 2001 the percentage of dissatisfied workers strongly increased, whereas in most of EU-15 countries, it has dropped. It's worth noting that dissatisfaction has

grown with respect to many of the flexibility dimensions: job security, type of work, working hours and working time. This in turns probably depends on the dramatic increase of atypical workers among employed.

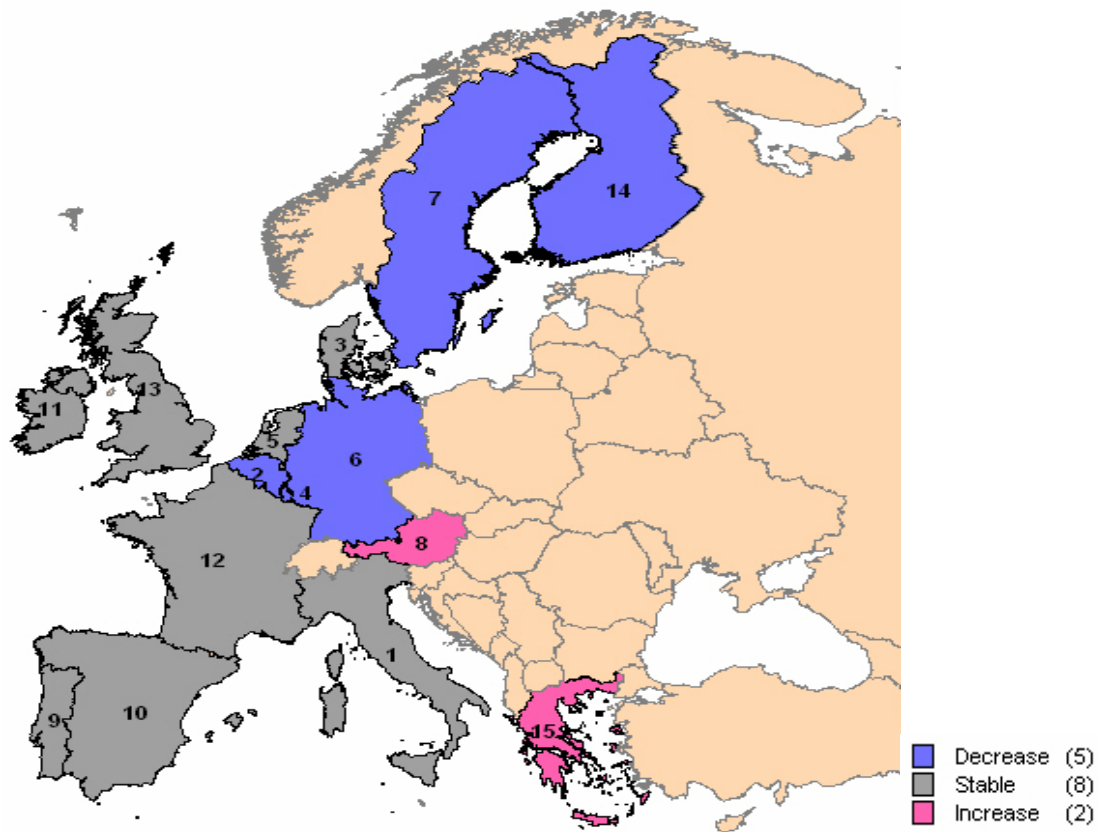
Table 4.11 Percentage of workers dissatisfied with different aspects of their job

Country	Earnings		Job security		Type of work		Hours worked		Working times		Work environment		Overall	
	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001
Denmark	23	23	19	14	10	9	13	12	13	11	14	11	8	7
The Netherlands	19	14	21	11	9	10	14	14	11	10	20	20	7	8
Belgium	30	28	23	18	15	14	17	18	16	16	21	20	17	16
France	47	39	29	21	12	11	25a	22	20	20	22	22	17	14
UK	28	26*	27	20	18	18	27	25					20	18
Ireland	35	23	22	15	12	11	17	11	13	9	13	11	16	13
Italy	53	54	30	33	27	31	31	35	29	33	31	34	33	33
Greece	61	52	40	35	37	32	37	33	35	34	40	33	45	36
Spain	59	51	34	29	26	22	35	35	28	27	27	29	28	25
Portugal	65	54	30	21	20	17	27	21	22	16	18	14	29	21
Austria	23	19	14	10	6	4	12	10	10	7	9	6	7	6
Finland	31	26	26	20	17	14	19	17	16	16	20	17	13	12
Mean	40	34	26	21	17	16	23	21	18	17	20	18	20	17

- 1997

On the contrary, analysing ESWC data, Greenan, Kalugina and Walkowiak finds out that Italy shows better quality of working conditions among EU-15 countries (Figure 4.1). It is important to note that Greenan, Kalugina and Walkowiak use many physical indicators to assess quality of working conditions. Therefore while Brynin and Longhi findings concerns subjective measurement of job quality, Greenan, Kalugina and Walkowiak try to assess an objective measurement of job quality.

Figure 4.1 Change in the quality of working conditions in fifteen European countries between 1995 and 2000



Source: ESWC 1995 and 2000

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