Working Paper Series, N.8, May 2005

Compatibility of children and work preferences: two European cases

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Keywords: Fertility, Female labor force participation, role compatibility

Final Version (2005-05-01)

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1. Introduction

One of the major consequences of transformations brought about by the Second Demographic Transition is the passage from traditional to modern family forms. In particular, the ancient division of roles between members of the couple is often replaced by a more or less equal sharing of roles (both members participate in the labor market and in housework). In this new context, fertility choices have to be re-discussed, and the factors affecting fertility acquire new meanings. Female wages and salaries, for example, do not have a clear impact on fertility outcomes: on the one hand an higher income makes it easier to face the high costs of caring for children, but on the other hand working women have a reduced time for looking after children. This situation makes fertility and job choices highly competing with each other, and therefore endogenous as suggested also by Hotz et al. (1997): women with a high commitment to children will invest less time in the labor market thus limiting their earning potential and vice versa. Family policies can mitigate such a “competition” between job and family roles, making conciliation between them easier.

This clearly emerges if we consider two countries which are highly different as far as family policies are concerned: France and Italy. The French welfare regime is, in fact, a paragon in Europe for supporting parenthood, strongly encouraging childbearing and ensuring a widespread and accessible childcare service. Italy, instead, offers a very poor support to families' fertility aspirations and access to the childcare system is quite limited. The result of these different situations is quite evident at the macro level: in France fertility rate reaches the highest levels among European countries and female employment rate is relatively high. Italy, instead, shares with Spain the lowest TFR in Europe (1.25) and female employment rate is rather low.

In this work we want to investigate the determinants of this pattern at the micro level. Fertility is jointly modelled with labor force participation with possibly correlated unobserved heterogeneities. The paper is organized as follows. The next section gives an overview of empirical literature on competition between family and job career. Section 3 compares French and Italian welfare state, with particular attention to family policies. Section 4 describes the European Community Household Panel (ECHP) and the sub-sample used in our analysis, whereas section 5 outlines the statistical model of fertility and labor force participation. In section 6 we discuss empirical results and in section 7 we provide some concluding remarks.

2. Fertility and female labor participation

The relationship between fertility choices and female participation in the labor market is not that clear. In last decades many countries experienced a rapid growth in female employment rates as well as a decrease in fertility rates, but this trend is not uniform in all developed countries. In fact the countries with an higher level of female labor participation are the ones which maintain relatively high fertility rates (Ahn and Mira, 1999; Brewster and Rindfuss, 2000; Engelhardt and Prskawetz, 2002).

Possible explanations of the declining of fertility when women participate in the labor market are given by the theory. In last decades deep transformation in the family structure and organization have been produced by a change in value orientations, also holding changes in demographic behaviour. For instance, the emergence of individualisation, post-materialist values, symmetric gender roles and female emancipation (see for example Lesthaeghe and Meekers, 1986) corresponded in economic terms to a shift from the aim of maximising the household utility to maximising individual needs. While in traditional societies individuals had to maximise household utility as a whole and specialisation of task and division of roles (women rearing children and husband working) was the optimal strategy, in modern societies this does not hold anymore. Individualisation, symmetric gender roles and female emancipation lead to redefine internal roles and to shift from the maximisation of an household utility function to the negotiation between members acting on the base of distinct utility functions (Ott, 1995; Berhman, 1997). In this

framework, the bargaining power of each partner becomes crucial: each individual has to try to improve his/her position within the couple depending on his/her alternatives outside the family: who is in the best position outside the family has a better insurance against the split of the couple, and therefore gains more power in the negotiation process.

The consequences of this new perspective on fertility decision and female participation in the labor market are straightforward: on the one hand, for a woman having a job or investing in human capital accumulation becomes crucial for increasing her bargaining power. On the other hand, fertility decision becomes more difficult: since none of the bargainers would agree to an outcome that is lower than his/her payoff, disagreement may result in continuing current situation without any change. For instance, this may be the case in fertility decision. Indeed, while in general having children would increase household utility, as a secondary effect it would decrease the female utility of becoming single again (in case of split the female position would get worse on average), causing a drop in her bargaining power.

In this new context, having a child requires a careful evaluation of individual opportunity and costs, which may be particularly severe for women, since most of them have to leave paid work for some period of time around birth (Brewster and Rindfuss, 2000). The human capital model (Becker, 1993) measures female costs for having children as forgone earnings due to childbirth (for the mothers). Those can be disjointed in *forgone earnings while caring for a child*, since the woman has to spend some time out of the labor market, *forgone returns to work experience*, which corresponds to the fact that while taking care of children the working experience does not improve, and even *forgone earnings due to a de-evaluation of human capital*, because when a mother re-entries in the labor force will receive a lower wage than she received before quitting the job, and moreover often, if interruption occurred, proceeding in the career is harder (Gustaffson, 1999). Regards to foregone earnings, Joshi (2002) found that highly educated women experience the smallest relative loss of earnings at motherhood, probably due to the fact that they had the best chance in choosing a suitable job, allowing its conciliation with fertility and may even afford the costs of unsubsidised private child care service. This is compatible with Brewster and Rindfuss (2000) findings assessing that in most countries women who are highly educated or hold jobs that require long training periods are less likely to leave paid work, and whenever this happens they return more quickly. Nevertheless, their delay in motherhood is very strong.

According to this idea of evaluation of opportunity costs, several empirical papers find a positive effect on fertility of male incomes and negative effects of female wages (see for example Devaney, 1983; Heckman and Walker, 1990): for this reason female wages are seen to have both an income and substitution effect on fertility, while male wages only exert an income effect. In details, the *income effect* implies that when income increases, even the demand for goods increases, as well as the demand for children; the *substitution effect* refers more directly to the opportunity costs,

predicting that if female wages increase, it is more expensive to rear children (because mothers need to quit job at least for a short time period), thus dampening fertility.

In fact, we have to underline that this problem of conciliating childcare and economically productive work (known in the literature as *maternal role incompatibility hypothesis*, Stycos and Weller, 1967), rose with industrialisation. While in developing countries the organisation of both production and childcare, especially the availability of inexpensive and reliable parental surrogates, determined a low level of conflict between working and mothering (Mason and Palan, 1981; Castro Martin, 1985), in developed countries this is no longer true. Labor, in the industrial organisation of production, is organised to favour the interests of employers more than the interests of households; women have to work in factory, office or store where children are not welcome and time schedule is rarely flexible. Since it has become more difficult to have children with one single income (Murphy, 1992, underlines reviewing some recent empirical finding for Sweden, Poland, U.S.S.R.) the incompatibility become a serious problem.

Availability of more flexible time schedules (as for instance part-time jobs), a functional child care support, and economic support to families who want to have a child, can make this conflict less sharp, increasing compatibility between parental role and working career. These are probably among the reason why, at the macro level the relationship between fertility and female employment rates in developed countries is changing, turning from negative to positive (Ahn and Mira, 1999; Brewster and Rindfuss, 2000; Engelhardt and Prskawetz, 2002): in a high female participation regime, working conditions are more favourable to women, allowing higher chances to conciliate family and job. As a result, nowadays the fertility rate is more likely to be positively associated with the participation rate.

But the presence in the labor market of intensive part-time supply could induces gender segregation due to higher degree of availability of part-time works only in certain occupation and sectors while being rare in others (Ichino, Sanz de Galdeano, 2003) and does not necessarily lead to a widespread conciliation between roles. While for instance in Britain changes toward flexibility occurred in the labor market have actually limited the adaptations British women have needed to make to their long-term fertility aspirations (Joshi, 2002), Retherford et al. (1996) found that in Japan, despite an intensive part-time supply, women (especially highly educated) anyway prefer to leave the job after marriage. In this case, both the unattractive nature and low wages of much part-time jobs, and the fact that tax and benefit system disincentive female full-time participation to the labor market, discourage conciliation between roles, favouring instead the traditional role of women. As a consequence, in Japan many women with higher education do not work at all, devoting instead their full energies to domestic duties. Part-time job is only useful to earn money to pay expenses related to children's education, but cannot be associated to self-fulfilment aspirations.

This set of theories sketched the common factors of changes occurred in fertility rates and in female participation in the labor market. Nowadays, the main problem women have to overcome is conciliation between parenthood and working participation, which may be better solved with specific policies implemented by the welfare state (as, for instance, availability of childcare services, flexible jobs and economic support to families wanting to have children). At the same time, we have shown how it may happen that those policies have unexpected consequences (as in the case of Japan): the impact of ideational change and economic reasoning depends on institutional and other cultural factors, which both contribute to generate diverse social and demographic outcomes (Billari and Wilson, 2001).

As a consequence we generally expect that female labor force participation directly discourages fertility, and vice versa. At the same time, this effect can be mitigate or even reversed in national contexts allowing the simultaneous double presence of the woman in the family and in the labor market. Moreover, we also think that there exists an indirect effect of role incompatibility, acting through individual preferences (which gained a central role with modern changes in value orientation). In a highly incompatible framework, indeed, women have to choose between the two roles, and therefore their preferences toward the family or the working career pushes them in one direction or the other (Hakim, 2000, for instance, recognised the existence of three different categories of women: work-centred, family-centred or adaptive). On the contrary, whenever the two activities are not seen anymore as pure alternatives, personal preferences may play a different role (for instance, it is possible that more dynamic women are more active in both aspects of life).

3. Family policies in Italy and France

Family policies as well as labor market structure are in Italy and France very different. In Italy, the rigidities which are present in the institutional structure do not facilitate the conciliation between motherhood and labor force participation (Del Boca, 1999). On the one hand, part-time employment is extremely rare, and it is often characterized by low profile engagements: women need therefore to choose between full-time jobs or no job at all, knowing that after quitting the job it is generally difficult to return (Bettio and Villa, 1998). This is an important factor leading to the particularly low employment rates of women (as reported by Eurostat, 2002, at the end of 2000, the employment rate for females is about 40% and 53% for women aged 25-49). On the other hand, the child care system provides poor assistance to working mothers, in terms of number of children who can benefit of child care services and weekly hours available, only compatible with part-time jobs. In fact, the child care system is highly subsidized but the local availability and the number of supplied daily hours are quite limited in contrast with the need of mothers, especially those in full-time employment (Chiuri, 2000). Del Boca et al. (2004) show that the lack of childcare alternatives is

particularly severe for children under 3, where the proportion of those children using formal child care arrangements is only about 6%.

In France, conversely, the welfare system is well-known for giving great economic support to large families and to allow the double presence of women in both family and labor market (in 2000, female employment rate is 70% for women aged 25-49). Firstly, French mothers receive an important support from the childcare system and many households can use different forms of childcare services (Guillot, 2002). Those offer a wide variety of care arrangement: nursery schools are open for 35 hours a week, free of charge, except for the lunches and care out of school hours. The result is that, by the age of two, 36% children attend nursery schools and the figure is nearly 99% for children aged three to six (Letabelier, 2003). Secondly, a complex system of family benefits, which can be in cash or in kind are offered by the welfare state. Family allowances are paid to families with at least two children, up to the age of 16, there are also housing allowances, and childcare allowances (Letabelier, 2003). The latter are addressed only to families where both parents (or the lone parent) are economically active, to cover costs of childcare at home. Non-working mothers receive also support from the welfare state which allocates relevant benefits for families with two children or more where the mother is not working or working only part-time (Afsa, 1998). This measure is called APE (*Allocation parentale d'éducation*) and it suspected of having a negative impact on female labor force participation (see Del Boca et al, 2004b).

Finally, part-time job is widespread and about 30% of working women are employed part-time (Eurostat 2002; Bourreau-Dubois, 2001).

Differences between the two countries become clear looking at Table 1, where household income has been broken down by source and number of present children: in France large families receive an higher economical support from the welfare state than they do in Italy. For instance, the 17% of households income of families with three or more children comes from "family related allowances" while the same figure for Italy is 2,5%. Also housing allowances have more weight in French households budgets.

At the macro level, those institutional dissimilarities correspond to high differences as far as the fertility behaviour is concerned. Italy shares with Spain the lowest fertility level (the TFR is around 1.25 in 2000, see Eurostat, 2002), becoming the paradigm of lowest-low fertility countries (Kohler et al. 2001) whereas French TFR reaches the highest level (1.89) among the European Community countries (see Figure 1). Moreover, Italian fertility is mostly marital whereas in France the proportion of out-of-wedlock childbirths reached the value of 40% (Eurostat, 2002).

The general impression is that in France conciliation between roles is far easier than in Italy, but at the same time specific policies may allow women with many children to leave the labor market, supported by welfare benefits. Letabelier, 2003, reported that special allowances to large families made the activity rate of mothers with two children fall. In Italy, instead, working women

have to cope with a lack of childcare service and part-time opportunities whereas not working women receive a poor economic support from the welfare state.

Table 1: Household income shares by source and number of present children, Italy and France, 2000. Source: ECHP, own elaborations.

FRANCE

Children	Income from work	Private transfer	Unemployment benefits	Family related allowances	Housing allowances	Old age benefits	Other income sources
0	81,5	3,1	3,9	2,6	2,5	4,4	4,2
1	86,3	1,1	4,4	3,5	2,9	1,7	2,5
2	85,7	1,1	2,7	6,6	2,5	0,7	3,0
3+	70,5	1,3	2,1	17,3	5,1	1,1	3,0
TOT	82,1	1,9	3,5	5,8	3,0	2,5	3,3

ITALY

Children	Income from work	Private transfer	Unemployment benefits	Family related allowances	Housing allowances	Old age benefits	Other income sources
0	73,8	2,0	1,3	0,4	0,1	18,0	1,8
1	88,8	1,7	0,8	0,9	0,0	5,4	1,2
2	88,9	1,9	1,6	1,2	0,1	3,6	1,3
3+	84,7	1,7	2,1	2,5	0,1	5,3	1,4
TOT	81,2	1,9	1,3	0,9	0,1	11,1	1,6

According to the theories of paragraph 2 and to the empirical evidence we have just outlined we can draw three major hypotheses concerning the link between female choices in fertility and job position in the two countries:

1. On the impact of labor participation on fertility

We expect that in Italy working women should have a lower propensity of having an additional child than non working women. On the contrary, in France, due to the high level of support given by the welfare state, we expect this effect to be weakened or even reversed.

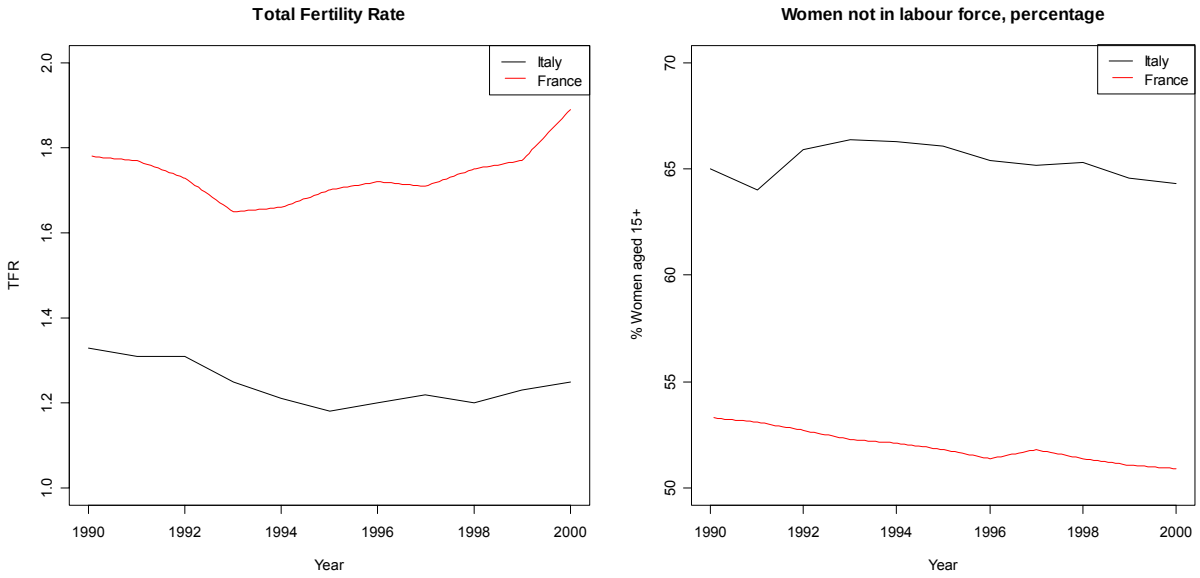
2. On the impact of having children on female participation

Having had a child is expected to bring stronger consequences on female participation in Italy than in France.

3. On female preferences for children and labor participation

Concerning unobserved components, we expect a negative correlation in Italy (since the society is still very traditional, and we expect unobserved represent individual propensity to work and to family life) and a positive correlation in France (where heterogeneity may be viewed as a proxy of the dynamism of the women in respect to every life domain).

Figure 1: TFR and percentage of women not in the labor force in France and Italy. Source: Eurostat, 2002.



4. The data

The data we use come from the European Community Household Panel (ECHP), a longitudinal survey designed and coordinated by the Statistical Office of the European Community (EUROSTAT). This panel survey started in 1994 collecting yearly information for many European countries. Up to now we dispose of the first seven waves (from 1994 to 2000) of ECHP. A great advantage of ECHP is the scope for comparability among the participating countries. Besides, it provides up to date information on income, employment status, housing situation, education, health status, and personal satisfaction. One of its pitfall, instead, is the lack of retrospective information.

Using those data we focus our attention on married or cohabiting women who already had the first child. We exclude from our investigation the birth of first child since it is generally acknowledged that the process leading to the first child widely differs than higher order childbirths. Moreover, we emphasize the main difference between French and Italian fertility, *i.e.* the proportion of women having at least two children is much higher in France with respect to Italy. As in Italy fertility is almost exclusively marital and in France out-of-wedlock childbirths are instead much more frequent, we consider only married women in Italy and married or cohabiting women in France. We restrict our attention to women aged 16 to 45.

Table 2 shows the main characteristics of our sub-sample. The differences between the two countries are consistent with our expectations: although the Italian sample is older, the percentage of women with 3 or more children is half with respect to France. On the other hand, participation in the labor force is higher in France, and French working women have on average higher salaries than Italians. Besides, the percentage of graduated women is considerably lower in Italy, where about 1

out of 10 has a degree. Finally, the number of childbirths occurred in the considered time span (1994-2000) is higher for Italy, but this is due to an higher sample size.

Table 2: Description of the sample.

	France		Italy	
	1994	***2000***	***1994***	***2000***
Number of women	1731	1350	1997	1700
Mean age	34.91	36.05	35.73	36.43
% Married	86.1	81.6	100	100
% with exactly 1 child	28.3	30.0	34.7	39.7
% with exactly 2 children	44.4	44.4	48.5	46.3
% with 3 or more children	27.2	25.6	16.8	14.1
% working 15 hours per week or more	60.0	63.3	45.6	46.6
% economically inactive	36.6	29.8	40.0	41.9
Working hours per week	35.7	34.5	34.9	34.3
Mean salary of workers (monthly, equalised in terms of purchasing power)	978	1079	824	785
Mean household income (equivalent, equalized in terms of purchasing power)	13096	13330	9206	9491
% Graduated or equivalent	22.47	31.75	7.26	10.35
Number of childbirths (1994-2000)	959		1056	

5. Statistical modeling

As previously stated, fertility and employment status are possibly endogenous variables: the decision on having or not a child and to quit or not the labor market are taken, reasonably, simultaneously. Therefore, we try to model simultaneously fertility and labor participation; we consider fertility as a function of both household income and female working participation, and we suppose the existence of some unobserved characteristic which influence both fertility choices and the presence of the woman in the labor market.

5.1. The model

The econometric specification is therefore a simultaneous equation model (Lillard, 1993) where childbearing is simultaneously modelled with labor force participation decision. Childbirths are repeatable events, but each birth occurs within a complex decision-making strategy. The decision-making model used here hypothesizes that women act rationally to realize a plan of desired family size (Becker, 1981). Since different strategies can be compatible with the same number of children, women can choose to act in different ways (Yamaguchi and Ferguson, 1995; Rosina, 2000).

Therefore, when describing fertility, information concerning the past needs to be considered in order to predict future behaviour.

Concerning fertility process, the basic event of interest is a conception (of order 2 or higher) between time *t* and *t*+1, and therefore we model the probability of having an additional conception as follows:

$$P(Y_{it+1} = 1 \mid X_1, Z, W) = \Phi(\beta_1 X_{1it} + \beta_2 Z_{it} + \beta_3 W_{it}) + \varepsilon_{it+1},$$

while concerning women participation in the labor market, we model the probability of working at time *t*+1:

$$P(Z_{it+1} = 1 \mid X_2, Y, W) = \Phi(\gamma_1 X_{2it} + \gamma_2 Y_{it} + \gamma_3 W_{it}) + \zeta_{it+1},$$

where $\Phi(\cdot)$ is the probit function. It is important to underline that, as shown in Table 3, in each equation there are some predictors specific of the process under study (X_{1it} for fertility and X_{2it} for working), some predictors common to both equations (W_{it}) and finally some predictors which refer to the other process causing endogeneity (in Italic in the table): in the fertility equation indeed we control for the working position of the women at time *t*, while in the female participation equation we consider both current parity and time to last birth.

Among the variables included in both equations we have some *proxy* variables for human capital such educational level and work experience (years since first job, vocational courses), representing in the fertility equation the costs opportunity of having children (*i.e.* the higher the human capital, the higher the costs the woman has to pay for childbirth), and in the labor participation equation the opportunity costs of working (*i.e.* the higher the human capital, the better chances women have in the labor market).

Another source of endogeneity comes from the specification of the error terms, consisting in a transitory part and an individual specific time invariant component (*i.e.* $\varepsilon_{it} = u_i + \tau_{it}$ and $\zeta_{it} = v_i + \xi_{it}$), where we allow correlation across unobserved individual specific components to differ from 0 (*i.e.*, it may happen that cov(u_i , v_i)≠0).

The significance and the magnitude of the heterogeneity inform us on the unobserved preferences underlying the two processes. A negative correlation would confirm the existence of the traditional contraposition between family oriented and career oriented women (Hakim, 2000). We expect this negative correlation in Italy, since the incompatibility of maternal and job roles is very strong, and therefore women need to choose between parenthood and work. On the contrary, a positive correlation would represent a new preference model, where more dynamic women are opposed to less dynamic women, dynamism affecting each dimension of life. Whenever incompatibility is not very strong (as for instance in France) the choice of having a child does not

compromise female participation in the labor market, and therefore it may happen that the ability of the individual of reaching his/her goals becomes of major importance, as a sort of individualistic ability in succeeding in each life dimension.

We also expect a positive impact of receiving social benefits on the probability of childbearing, controlling for participation to labor market. This effect is likely to appear in France but not in Italy as the social benefits provided by the welfare state seem too poor for having any impact.

Table 3: List of the variables included in the two equations.

	Fertility	Labor participation
Current age of the woman	X	X
Number of children	X	X
Being married*	X	X
Presence of other people in the household	X	X
Presence of people looking after children	X	X
Length of current birth interval (i.e. age of the youngest child, in months)	X	X
Length of interval between previous births	X	
Dwelling own by the household	X	X
Education	X	X
Being working	X	
Years since first job	X	X
Having worked previously		X
Household income	X	
Partner income		X
Benefits	X	X
Regional unemployment rate		X
Having attended vocational course	X	X
Bad health	X	X
Being a foreigner	X	X
Geographical area	X	X
Personal satisfaction	X	X

* for France only.

6. Results

The results of the models are reported in tables 4-7. Firstly, we consider the results arising modelling separately fertility and labor force participation, then we comment the simultaneous

models. For the separate models we briefly present the effect of the explicative variables. For those variables, indeed, the coefficient estimates generally confirm our expectations.

For fertility models, age has a negative effect on fertility with an increasing rate (reflecting a decreasing fecundability, in line with findings of McDonald et al., 2003). Moreover, the time interval since last birth and the length of the interval between last two births have a negative impact on the probability of a new conception (the longer the interval, the lower the probability of conceiving), and the higher the number of children already had, the lower the probability of progressing to an higher parity. All those elements underline the importance of including birth history information for understanding future fertility choices (Yamaguchi and Ferguson, 1995). Another information sheds some additional light on fertility decision: surprisingly, in both Italy and France the fact the children are looked after on a regular basis by someone discourages fertility. Probably this does not reflect the effect of availability of childcare, but the incapacity of the family of directly looking after their own children. Concerning the existence of geographical differentials, in Italy women from the South have a higher propensity to have children. Finally, both in France and in Italy foreigner women show higher fertility rates.

Even the results of participation equation are in line with literature: age has a positive effect but at a declining rate and low education has a negative effect. Besides, the partner's income has a negative effect on participation, probably because it is less necessary (from the economic point of view) for women with a "rich" partner to participate to the labor force. Moreover, having attained a vocational course has a positive effect while regional unemployment rate and bad health status both have a negative impact on participation to the labor force. Notice that if there is an unpaid person looking after children, females are more likely to work (confirming previous interpretation of the real meaning of this variable), and in Italy women living in large families have a higher participation rate. Turning to the perception of personal wellbeing, satisfaction with main activity and with financial situation are positively associated with participation rate, whereas satisfaction with leisure time is negatively associated.

We can now turn to the main interest of this paper, *i.e.* the reciprocal impact of fertility choices on labor participation and vice versa, discussing in detail the results concerning our hypotheses.

1. On the impact of labor participation on fertility

Conversely to expectations, the effect of the working status is positive for Italian women, while in France the impact of female participation on fertility depends on the number of children already had. Working status has a negative effect on childbearing but only for mothers with at least two children.

The model confirms also our expectation that receiving benefits has a positive impact on fertility in France but in the simultaneous model this effect fades away. This suggests that the effect

of benefits on fertility interacts with the working status. In Italy, instead, there is no effect of benefits on fertility (whereas, household income has a positive but weak impact on fertility choices).

2. On the impact of having children on female participation

As expected, the number of children has a negative impact on female participation in the labor market. We hypothesised a stronger effect in Italy than in France, but this is not confirmed by the model, probably because the main difference between Italy and France concerning female participation does not directly depend on the number of children, but on the general level of female participation.

Also the effect of the time span since last birth is high, then mothers are less likely to participate short after the last childbirth.

Finally, even the role of family benefits plays opposite effect in the two countries: having social support has a positive impact for Italy and negative for France. Again, Italian mothers seem to choose to participate to the labor market when the economic situation is critical (support from the welfare state is only given in extremely rare cases).

3. On female preferences for children and labor participation

When we turn to simultaneous models results do not change dramatically as far as it concerns the significance and magnitude of the parameters, apart few exceptions. Moreover, there is significant additional information concerning the correlation between heterogeneities.

In France, for instance, the parameter associated to welfare benefits is not significant anymore in the fertility equation, as well as the simple condition of participating to the labor market (however, the interaction with the number of children is still significant). In other words, the positive effect of receiving benefits is absorbed by the negative effect of working, which have a particular strong impact for women with more than one child. Probably, due to the particular system of family benefits, which addressed special support (APE) to couples where one parent quit his/her job for rearing children.

Moreover, the unobserved heterogeneity components are positively correlated, confirming the existence of a new preference model, where more dynamic women are opposed to less dynamic women, dynamism affecting each dimension of life. In this context, indeed, the choice of having a child does not compromise female participation in the labor market, and therefore the ability of the individual of reaching his/her goals becomes of major importance.

In Italy, instead, we find a negative correlation between unobserved preferences for fertility and job career, whereas the working status has now a positive impact on fertility. The sign of the

correlation across unobservables does not surprise: given the incompatibility between the two careers, women have to choose one of the two roles, and their preferences strongly impact on the outcomes in the two life domain. Instead, more surprising is the positive role of female participation in the labor market on fertility. The reason, however, can easily be understood thinking that we are dealing with Italian mothers, and that probably if they are still working at the time of the interview, they succeeded in solving incompatibility between the two careers. In other words, whenever conciliation is possible, having a job seems to help fertility decision.

Table 4: Results from fertility and labor force participation equations (separate estimates), Italy.

	Fertility equation		Participation equation	
	Coefficient	p-value	Coefficient	p-value
Age	-0,117	0,000	-0,019	0,122
Age (squared)	-0,010	0,000	-0,005	0,000
N° children	-0,691	0,000	-0,226	0,000
Others	-0,155	0,381	0,398	0,007
Span	-0,005	0,000	0,003	0,004
Prespan	-0,009	0,000		
Medium education	-0,052	0,772	-1,074	0,000
Low education	-0,047	0,808	-2,083	0,000
Working	0,168	0,615		
Working*H. income	0,000	0,998		
Working*N° ch.	-0,164	0,455		
Benefits	0,000	0,177	0,074	0,065
Household income	0,020	0,162		
Partner income			-0,032	0,000
Others looking after children	-0,275	0,129	1,257	0,000
Unemployment rate (regional)			-0,008	0,525
Vocational course			1,791	0,000
Foreign	0,486	0,011	-0,311	0,207
Bad health	0,166	0,606	-0,500	0,011
Sat. Main activity			0,860	0,000
Sat. Financ. Sit.	-0,091	0,378	0,425	0,000
Sat. Leisure time	0,047	0,637	-0,794	0,000
Centre	-0,112	0,418	-0,149	0,254
South	0,249	0,044	-0,472	0,116
Household owner of dwelling	0,085	0,382	-0,052	0,553
Years since first job	0,001	0,907	0,097	0,000
Worked previously			-0,903	0,000
Constant	2,513	0,000	2,085	0,000
ρ (rho)	0	(fixed)		

Table 5: Results from fertility and labor force participation equations (separate estimates), France.

	Fertility equation		Participation equation	
	Coefficient	p-value	Coefficient	p-value
Age	-0,161	0,000	0,011	0,368
Age (squared)	-0,012	0,000	-0,005	0,000
N° children	-0,561	0,000	-0,413	0,000
Others	0,727	0,097	0,222	0,452
Married	0,159	0,147	-0,099	0,308
Span	-0,005	0,001	0,004	0,000
Prespan	0,000	0,015		
Medium education	-0,217	0,048	-0,462	0,000
Low education	-0,338	0,017	-0,906	0,000
Working	0,443	0,208		
Working*H. income	0,000	0,582		
Working*N° ch.	-0,371	0,017		
Benefits	0,000	0,094	-0,212	0,000
Household income	0,000	0,857		
Partner income			-0,011	0,002
Others looking after children	-0,325	0,029	0,810	0,000
Unemployment rate (regional)			-0,057	0,000
Vocational course			0,514	0,000
Foreign	0,456	0,003	0,046	0,770
Bad health	-0,150	0,650		
Sat. Main activity			0,525	0,000
Sat. Financ. Sit.	-0,103	0,307	0,335	0,000
Sat. Leisure time	0,091	0,353	-0,673	0,000
Paris	-0,104	0,369	0,105	0,296
Household owner of dwelling	-0,344	0,001	0,446	0,000
Years since first job	0,011	0,360	0,028	0,000
Worked previously			0,075	0,336
Constant	4,006	0,000	1,565	0,000
ρ (rho)	0	(fixed)		

Table 6: Results from fertility and labor force participation equations (simultaneous estimates), Italy.

	Fertility equation		Participation equation	
	Coefficient	p-value	Coefficient	p-value
Age	-0,046	0,000	-0,010	0,171
Age (squared)	-0,003	0,000	-0,003	0,000
N° children	-0,233	0,005	-0,135	0,000
Others	-0,060	0,474	0,226	0,009
Span	-0,003	0,000	0,002	0,004
Prespan	-0,004	0,000		
Medium education	0,087	0,331	-0,625	0,000
Low education	0,173	0,106	-1,218	0,000
Working	0,514	0,018		
Working*H. income	-0,002	0,776		
Working*N° ch.	-0,109	0,262		
Benefits	-0,056	0,120	0,044	0,045
Household income	0,012	0,063		
Partner income			-0,018	0,000
Others looking after children	-0,222	0,015	0,730	0,000
Unemployment rate (regional)			-0,005	0,508
Vocational course			0,992	0,000
Foreign	0,246	0,009	-0,188	0,180
Bad health	0,108	0,458		
Sat. Main activity			0,503	0,000
Sat. Financ. Sit.	-0,093	0,073	0,244	0,000
Sat. Leisure time	0,094	0,056	-0,459	0,000
Centre	-0,005	0,941	-0,096	0,207
South	0,174	0,003	-0,277	0,113
Household owner of dwelling	0,039	0,403	-0,026	0,613
Years since first job	-0,005	0,306	0,056	0,000
Worked previously			-0,510	0,000
Constant	0,218	0,443	1,164	0,000
ρ (rho)	-0,229	0,015		

Table 7: Results from fertility and labor force participation equations (simultaneous estimates), France.

	Fertility equation		Participation equation	
	Coefficient	p-value	Coefficient	p-value
Age	-0,068	0,000	0,006	0,380
Age (squared)	-0,005	0,000	-0,003	0,000
N° children	-0,294	0,000	-0,252	0,000
Others	0,441	0,039	0,140	0,405
Married	0,049	0,384	-0,054	0,360
Span	-0,002	0,002	0,002	0,000
Prespan	-0,0003	0,010		
Medium education	-0,173	0,002	-0,270	0,000
Low education	-0,277	0,001	-0,536	0,000
Working	-0,393	0,211		
Working*H. income	0,004	0,508		
Working*N° ch.	-0,156	0,024		
Benefits	-0,005	0,809	-0,118	0,000
Household income	-0,002	0,759		
Partner income			-0,005	0,001
Others looking after children	-0,081	0,338	0,480	0,000
Unemployment rate (regional)			-0,035	0,000
Vocational course			0,290	0,000
Foreign	0,229	0,003	0,029	0,757
Bad health	-0,162	0,314		
Sat. Main activity			0,318	0,000
Sat. Financ. Sit.	-0,010	0,857	0,199	0,000
Sat. Leisure time	-0,018	0,761	-0,401	0,000
Paris	-0,048	0,390	0,069	0,254
Household owner of dwelling	-0,123	0,027	0,265	0,000
Years since first job	0,008	0,153	0,017	0,000
Worked previously			0,041	0,373
Constant	1,934	0,000	0,927	0,000
ρ (rho)	0,370	0,021		

7. Conclusion

Empirical results partially confirm our expectations and, to our view, identify some effect of family policies in France. The most relevant result is the double impact of benefits on French women's decisions on fertility and work: this seems to be the effect of APE which was enhanced in 1994 (exactly at the beginning of our ECHP survey). The effect is indirectly positive on fertility since it passes through the abandonment of labor market by women with at least two children. Therefore there is an indirect effect on gender equity: APE is addressed only to couples where one parent quits his/her job for rearing children and, provided that mothers will quit more than fathers, the final result is a decline in the activity rate of mothers, as also noted by Letabelier (2002) and Del Boca et al (2004b). Thus our analysis suggests that APE has a double effect on fertility (positive) and gender equity (negative).

The Italian situation is even more complicated: activity rate of women is rather low but this is not associated to a high fertility simply because the fertility levels of non-working women is not higher than that of working women. The lack of adequate childcare services puts several time constraints on working women whereas the poor economic support from the welfare state makes one-income families (i.e. where women do not work) budget constrained. As highlighted by our analysis, time constraints are likely to be most important.

It can seem odd that working status has a positive effect where unobserved heterogeneities are negatively correlated (in Italy) and a negative effect where unobservables are positively correlated (in France). This oddity is related to the main limitation of models accounting for unobserved heterogeneities. Usually they are interpreted as a measure of attitudes toward the focal behaviour even though there is no particular reason for not considering them as the results of other unobserved characteristics. For instance, we learn from the *theory of planned behaviour* (Fishbein and Ajzen, 1975) that attitudes toward a behaviour interacts with the *subjective norms* and the *perceived behavioural control* in shaping the individuals' intention regarding the behaviour, which are also unobserved.

In our case, we suggest that in determining the correlation between the unobserved heterogeneities, the *perceived behavioural control* (PBC) has a key role: the PBC is the degree of belief in one's ability to perform the behaviour.

In this case, the different values of correlation between unobservables would reflect a different perception of compatibility between mothering and working in the two countries, with Italian women more prone to believe that conciliating motherhood and labor force participation is a quite difficult task, while French women *perceive* an higher compatibility between the two roles. This different perception probably interacts with different subjective norms regarding performing both the behaviours (childbearing and working).

On the light of this study we suggest some policies implications. First of all, a "family-friendly" approach, like the French one, considerably reduces the level of incompatibility between fertile and job career and gives the opportunity to active women to reach their desired level of fertility. As shown by Del Boca (1999), the provision of childcare services plays an important role on this issue as well as increasing part-time job opportunities. Secondly, we saw that in such a context job and fertility preferences are positively associated, thus policies aiming at increasing female activity rate can indirectly raise fertility level, provided that working women are not time constrained. On the other hand, providing benefits to non-working mothers can have a collateral effect raising both fertility and female inactivity rate. Such a measure is therefore not advisable for Italy where female activity rate is already low. Finally, we suggest that raising compatibility between fertility and female labor force participation seems to be even a cultural issue and not merely an economic one.

Perception of high incompatibility between female work career and family formation can refrain women from exploiting their desired fertility. Changing this perception can have a positive effect on both fertility and female labor force participation.

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Acknowledgements

We are would like to thank Enrico Rettore and Francesco Billari for helpful comments and the participants at the 2003 EURESCO conference in Spa (Belgium) and at the 2004 Annual conference of the Population Association of America in Boston (US).

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