Impact of cultural and structural factors on labour force participation of mothers, Italy and Norway

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Abstract

In this study we address the question concerning the circumstances under which motherhood and employment are compatible. Comparing two countries, Italy and Norway, we analyse impact of macro and individual characteristics on employment decisions of first- and second-time mothers. In addition, we compare the opportunities and constrains to reconcile family and work and describe the development of female labour force participation and fertility in both countries. Results of the study show that motherhood and employment are not necessary conflicting careers. In a society, which supports labour force participation of women, not only mothers' employment is higher but also more children are born. Although the general level of opportunity costs of childbearing differs between countries, mother's individual characteristics have similar effect on employment entries. Opportunity costs of childbearing are the lowest among women with high stock of human capital - well educated, with long work experience.

1 Introduction

Work and family formation are conflicting careers in life because they both require investments from the same supply of time of an individual (Willekens, 1991). Mainly women are responsible for household duties, also in dual-earner couples (Kalleberg and Rosenfeld, 1990; Presser, 1994) and so the problem of reconciliation of family and job is a problem which mainly affects women. As a result, two basic questions concerning causal relationship arise: Does labour force participation of women influence fertility decisions negatively? Does the need to provide care for a child affect negatively female employment?

These two problems have been already approached in previous studies, both on micro and macro level, and the results are not consistent, depending mostly on the level of the analyses and implemented methods. Although several recent studies on macro level reported that the correlation between fertility and female employment has changed from negative until the early 1980 to a positive value today (Ahn and Mira, 2002; Brewster and Rindfuss, 2000), the relationship on the individual level remains negative (de Laat and Sanz, 2003).

The positive relation on the macro level has been explained by cross-country differences in opportunities and constraints for women to combine their roles, which result from two sets of factors - Social-Structural and Ideational (de Laat and Sanz, 2003). Social-Structural factors are, for example, labour market regulations and availability of institutional child-care. Gender roles and division of household duties between man and woman are defined as ideational factors. On individual level these factors are claimed to induce mother's employment "by removing a barrier to labour force entry and by reducing the incompatibility between work and children" (Willekens, 1991, p. 27).

This study attempts to answer the question concerning the circumstances under which motherhood and employment are compatible. Comparing two countries, Italy and Norway, we would like to asses the level of opportunity costs of childbearing in different social-structural and ideational contexts, when controlled for individual characteristics of a mother which are likely to influence the job retention. The opportunity costs of childbearing in this study are defined as the time a woman spends out of employment after giving birth to a child. Together with the macro analysis of the development of female labour market participation and fertility we would like to show that

motherhood and employment are not necessary conflicting careers and under certain circumstances women don't resign from any of them.

Models measuring time a woman stays out of employment since childbirth were calculated for Italian and Norwegian first- and second-time mothers. In order to ensure comparability, the same variables describing individual characteristics of a woman were included in the models for both countries. We chose Italy and Norway to our study due to their extreme differences as far as opportunities and constraints to reconcile work and family are concerned, but also the development of female labour force participation and fertility trends.

Mothers' return to work after childbirth has been the topic of many previous studies (for example, Dankmeyer, 1996; Dex, Joshi, Macran, and McCulloch, 1998; Drobnic, Blossfeld, and Rohwer, 1999; Greenstein, 1989; Gustafsson, Wetzels, Vlasblom, and Dex, 1996; Macran, Joshi, and Dex, 1996; Pylkkanen and Smith, 2003; Ronsen and Sundstrom, 2002; Stadtner, 2003) but the results of the studies have rarely been discussed in the broad concept of the relationship between family and work including the effect of the macro context. Our study is based on the economic theory of employment decisions (Even, 1987; Mincer and Ofek, 1982; Mincer and Polachek, 1974). This study differs from previous ones that the influence of social-structural and ideational factors on mothers' employment is broadly discussed in the theoretical background.

Apart from the extended theoretical background the difference of this study from most of the previous ones is the specification of empirical analyses. It is similar to the one proposed by Ronsen and Sundstrom (2002) to investigate impact of family policies on after-birth employment of mothers. The process is analysed separately after first and second birth, although most of the studies concentrated on the process after first birth (for example, Bender et al., 2003; Desai and Waite, 1991; Dex et al., 1998) or after first and higher birth orders together (for example, Adam, 1996; Joesch, 1994). The reason for calculating separate models for the employment entries after first and second childbirth is that the conflict between family and work is much greater with two children than with only one and as a result the speed women enter employment is expected to be different (Ronsen and Sundstrom, 2002). In addition most of the past research scoped on the transition to a job and did not distinguish between full- and part-time employment. These studies assumed that part-time and full-time employment are of similar character. Although part-time work prevents depreciation of human capital (Drobnic,

Blossfeld, and Rohwer, 1999) and makes a source an independent source of income, a woman who works part-time is still dependent on the income of her partner and plays a role of supplementary worker (Bernhardt, 1993). In addition part-time employment is claimed to be of different character in European countries (Sier, Lewin-Epstein, and Braun, 2001; Tijdens, 2002). In this study we would examine not only the prevalence of part-time employment among mothers in both countries but also character of this work arrangement.

The paper is structured as follows. In the next section (Section 2) we give a brief description of social-structural and ideational differences between the countries under study and compare trends in female labour force participation and fertility developments. Theoretical background of the study together with hypotheses concerning the impact of individual and contextual factors on employment entries of mothers are presented in Section 3. This section includes also short description of previous studies. In Section 4 we describe the data and specify the models used in the analysis. Our main findings from the analysis on mothers' entries into employment are presented in Section 5. Section 6 includes discussion which brings together results obtained from description of the countries and micro level analyses. In addition we include in this section a short summary of the results.

2 National context- Italy versus Norway

2.1 Social-Structural Factors

Among many classifications of welfare states (for example classifications proposed by Castles, 2002; Ferrera, 1996; Korpi, 2000, for the review of selected typologies see Arts and Gelissen, 2002) the best known is the typology proposed by Esping-Andersen in 1990. The typology of 18 developed countries according to their welfare-state characteristics was originally based on the concept of 'de-commodification' in social policies. De-commodification is defined as "degree to which individuals, or families, can uphold a socially acceptable standard of living independently of market participation" (Esping-Andersen, 1990, p. 37). In his later works the author introduced the concept of 'de-familiarisation' "to capture policies that lessen individuals' reliance on the family; that maximise individuals' command of economic resources independently of familiar or conjugal reciprocities" (Esping-Andersen, 1999,

p. 45). Three types of welfare states were singled out: social-democratic (Scandinavian countries), liberal (for example UK, US and Australia) and conservative (for example Italy, Germany, France).

Italian 'familialism'

Italian welfare state can be described as a conservative 'Southern' welfare state Ferrera (1996) with its lowest level of social protection, especially for families and children, and the strictest labour market regulations, which make the family to provide essential social services. Income protection is characterised by dualism- generous for those working at the regulated 'institutional' market and low or non-existent for those working in non-institutional or not-regular labour market. The family plays an important role in mediating difficult labour market situation, where at least one member should be protected on his/her work (Ferrera, 1996; Trifiletti, 1999). Italian 'familiarism' supports traditional division of tasks within the family with the male breadwinner model dominant (Esping-Andersen, 1990; Esping-Andersen and Kolberg, 1991). Public child-care possibilities are limited and family policies discourage women to participate in the labour market, especially when the children are young (Sier, Lewin-Epstein, and Braun, 2001). In addition regulations of the labour market make work hardly compatible with family obligations. Possibilities to find a temporary or part-time job are scarce as this kind of employment requires high contributions to social security systems paid by employer (Del Boca and Pasqua, 2003) and also because of underdevelopment of service sector in which this kind of jobs are most popular (Del Boca, 2002). Part-time employment is of permanent nature and concentrated in low paid jobs (Sier, Lewin-Epstein, and Braun, 2001). Support for working mothers is mainly aimed at women working in regulated labour market. From 1971 maternity leave equals 5 months at 80% of the last salary (Della Sala, 2002). There is additional possibility to stay at home with a child at 30% of the salary up to one year. Parental leave for fathers is optional (Bernardi, 2001; Leira, 2002). In addition, the system of public childcare is characterised by scarcely developed opportunities for children below 2 years of age, and particularly of state-run nurseries. In contrast a high percentage of children of kindergarten age attend state run institutions (Del Boca 2002). At the end of the 1980 only 5% of children aged 0-2 were in publicly funded child-care and 88% of children aged 3-5. For the children 3-5 years old the place in public child care is guaranteed by the state (Gornick,

Meyers, and Ross, 1997).

Norwegian 'equality'

Norway belongs to the group of social-democratic welfare states, which promote 'equality of the highest standard'(Esping-Andersen, 1990). Social protection is universal with state responsible for the wellbeing of the citizens. The state ensures gender equality by legislation and by 'implementing measures to ensure that equality exists in practice' (OECD, 1998). Women are free to chose between work and household. Female participation rates are high with women concentrated in the public sector and female-dominated occupations. Part-time employment is a popular way to reconcile family and work and is treated as a transitional stage for mothers who afterwards return to full-time jobs. In addition, employment benefits and union protection for part-time workers are the same as for full-time workers (Sier, Lewin-Epstein, and Braun, 2001). While family policies generously support mothers with small children the benefits for children in pre-school age very limited (Gornick, Meyers, and Ross, 1997). A right to paid leave was granted by National Insurance Act in 1956 with the length of 12 weeks. In 1977 the period of leave was prolonged to 18 weeks and unpaid leave of one year with guaranteed job was introduced. The paid leave was prolonged few more times with the maximum of 52 weeks in 1987. From 1977 fathers are entitled to use part of the leave (Ronsen, 2004). Before 1994 the leave arrangements were not flexible and it could be taken only as one continuous spell (Ronsen and Sundstrom, 2002). The provision of public child-care opportunities is very limited. However, private childminders are very popular among working mothers. In the late 1980 only 12% of children aged 0-2 were in public care institutions and 40% of children 3-5 years old. In addition, place in publicly funded child-care institutions was not guaranteed by the state (Gornick, Meyers, and Ross, 1997).

2.2 Cultural differences

Italian 'traditionality'

In comparison to other European countries gender roles are perceived in traditional way in Italy. This phenomenon is very much on line with 'familialism' as well as traditional religious attitudes (Mellens, 1999). At the same time,

however, both women and men more often support women's involvement in paid employment than their stay at home, but this support is given due to economical reason and rarely because of woman's personal development and self-fulfillment at work (Muszynska, 2004). Younger generations are less often than previous ones against women's employment. However, the ratio of young people against female labour force participation is one of the highest in Europe (Korpi, 2000).

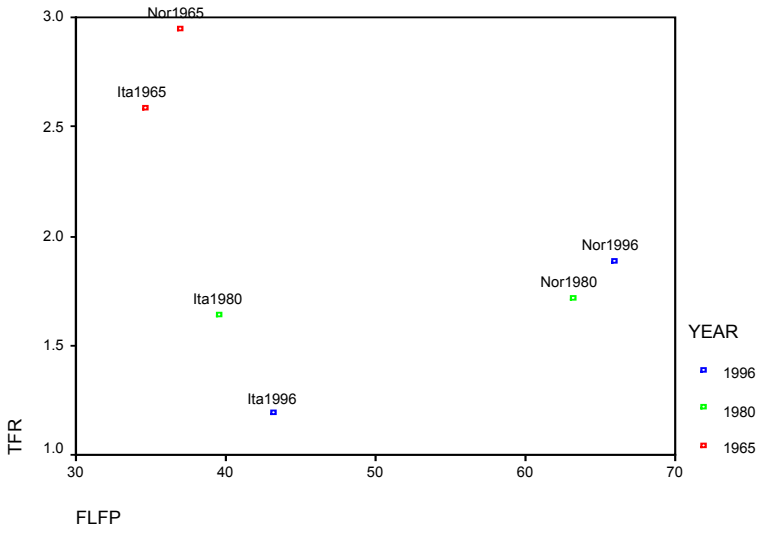
Norwegian 'modernism'

In comparison to their Scandinavian 'neighbours', Norwegians are traditional in their opinions concerning family and gender roles. For example, compared to Swedish women, Norwegian women are more religious and usually marry directly without pre-marital cohabitation. However, strong inconsistency between perceived norms and preferences exists. According to Norwegian parents a traditional division of tasks within the family with small children should be a norm in the society. When it comes to their own preferences Norwegian parents chose most often equal partnership, believing that others are more traditional then themselves (Ellingsaeter, 1998). While attitudes towards women's employment are strongly negative among older generations there are relatively few people in younger generations who oppose women's employment (Korpi, 2000).

2.3 Labour force participation of women and fertility

In the years 1965-1990 labour force participation rates of women and fertility tended to be higher in Norway than in Italy (compare, Figure 1 and Appendix A, Table 1). In this period changes in Total Fertility Rates (TFR) and Female Labour Force Participation Rates (FLFP) in these countries went similar directions but with different intensity. Levels of both indicators in selected years are presented in Figure 1. In 1965 FLFP was relatively low in both countries and TFR was much above the replacement level, higher in Norway than in Italy. Rapid changes occurred in the period 1965-1980. They resulted in lower fertility and higher participation of women in the labour market. In both countries TFR decreased dramatically and reached similar level (1.9 in Italy and 1.8 in Norway) but there were big differences between the countries as far as the increase in LFPR is concerned. In Italy labour force participation of women increased only by 14 percentage points,

Figure 1: Total Fertility Rate (TFR) and Female Labour Force Participation (FLFP) in Italy and Norway, selected years



*Source:*Brewster, K. and Rindfuss, R.,2000, pp.274,276

while in Norway there was a dramatic change- by 71 percentage points. After 1980 FLFP rose in both countries with similar intensity. At the same time fertility continued to fall in Italy and levelled off in Norway. As a result in the middle of the 1990s Italian period fertility was at the lowest-low level in Europe and Norwegian one- among the highest (Council of Europe, 2002). In both countries the changes in fertility between cohorts influenced births of third and further order. There were hardly any reductions concerning the first and the second child (di Ricerche Sulla Populazione, 1999; Ronsen, 2004).

It is important to mention here that in Italy there are significant differences between the regions as far as fertility and female employment are concerned (Delgado and Livi-Bacci, 1992). As the scope of this paper is to compare the situation in Italy and Norway we are not discussing further regional differences within the countries.

3 Theoretical Framework

The conceptual framework of the study is based on economic theory of employment decision (see, for example,Even, 1987; Mincer and Ofek, 1982; Mincer and Polachek, 1974). In our analyses fertility decisions have been already made and we scope on the process in which a mother decides whether to stay at home with a child (children) or enter labour market. We assume that a woman starts to work only at the moment her full wage exceeds her reservation wage. The reservation wage we define as minimum wage an individual is willing to work for (Smith, 1994). The concept of reservation wage is also related to opportunity costs of working. The opportunity costs of working is the value of woman's time spend at home (Joesch, 1994). The higher the value of woman's time at home the higher the wage she would be willing to work for. The full wage consists of the present market wage, the present value of the lost in future earnings caused by non-accumulation and depreciation of the human capital due to the break in employment (Even, 1987). The full wage is also known as opportunity costs of staying at home.

According to Hotz and Miller (1988) the reservation wage of a woman grows with the need to provide care for a small child. In this situation the value of woman's time at home is higher than before the childbirth and so higher the wage she is willing to work for is. On the other hand, the presence of a child requires extra expenditures. This component lowers the wage a mother is willing to work for. When children grow they require less care from their mother, in other words they become less time-intensive, and become more good-expensive. As a result the reservation wage decreases with the age of a child. This means that the reservation wage of a mother would decrease with duration of the interruption. The longer a woman stays out of employment the lower her market wage due to decreased value of her human capital. In addition the longer the break, the older the woman becomes and the shorter her working horizon and as a result the lower the other two components of her full wage. That means that the full wage decreases with the duration of the interruption. Only in the moment the full wage exceeds the reservation wage woman enters labour market. If the full wage of women falls more rapidly than the reservation wage she will not be willing to enter employment at any moment of time.

3.1 The full wage

Level of the full wage depends both on individual characteristics of a woman (micro level) and context of the process (macro level). The following individual characteristics of a woman, which influence the level of her full wage, should be included in empirical analysis:

The level of accumulated human capital

In general, the more stock of human capital a woman accumulated before the birth the higher her market wage. In addition, if we set rates of depreciation and appreciation of human capital at the same level for all women, the more human capital accumulated the higher the absolute loss in future earnings due to the interruption. As a result the higher the accumulated human capital the higher the full wage and the more probable that a woman will enter the labour market. In addition, according to Mincer and Polachek (1974) the higher the on-the-job accumulated human capital the higher the depreciation rate of it. That means that the full wage will fall more rapidly for these women who accumulated more human capital before the birth of a child. In particular, if the full wage falls more rapidly than the reservation wage a woman may never resume employment. There are two stocks of human capital- **(a)** on-the-job training together with work experience and **(b)** education. All in one, educational attainment and work experience are expected to have a positive effect on the level of full wage and as a result to have positive effect on (re)entry rates. Empirical results in this case were mixed. Mincer and Ofek (1982) found that women who interrupt for longer periods are those characterised by lower investment in human capital. Positive effect of educational level and work experience on the risk to (re)enter labour market after birth was also found in other studies (Dankmeyer, 1996; Dex et al., 1998; Drobnic et al., 1999; Greenstein, 1989; Gustafsson et al., 1996; Macran et al., 1996; Pylkkanen and Smith, 2003). However, the effect of education was found insignificant in the study of Even (1987). In the same analysis work experience proved to have significant positive effect on the risk, decreasing with the duration of the break. Effect of education was weak in the comparative study by Ronsen and Sundstrom (2002), while work experience prior to birth- positive and significant. Gustafsson et al. (1996) also found insignificant effect of education while analysing decisions to enter labour market made by Swedish mothers.

In addition, if a woman works when her first child is small and before birth of the second one it prevents her from the depreciation of human capital and allows to accumulate additional stocks of it. Significant effect of employment after first birth on the risk to enter labour market after second birth was found by Ronsen and Sundstrom (2002) and Macran, Joshi, and Dex (1996). However, it would be also important to distinguish between types of jobs women hold between the two births (compare also part 2.2.). Women working part-time may be those of having less job commitment (Ondrich et al., 1996), lower human capital or perceived so by employers. All in one, women who work part-time after first and before second birth could be expected to have lower full wage and so (re)enter labour market after second birth later then women who worked full-time during this period. According to Ronsen and Sundstrom (2002) women who worked full-time between the births have the highest risk of working full-time after second birth, while other women are more likely to enter part-time employment. Similar effect was reported by Ondrich, Spiess, and Yang (1996).
On the basis of these considerations we can formulate the following hypotheses:

H1: Educational level and work experience have positive effect on (re)entry rates. In addition, women who worked after the birth of their first child are more probable to work when second child is small, with full-time work making the risk higher.

Age

The younger the woman the longer her future work horizon, which means longer period of penalty due to depreciation and non-appreciation of human capital during the interruption of work. As a result, age of the mother is expected to have negative impact on re(entry) rates. In addition, according to Ronsen and Sundstrom (2002) younger mothers would prefer full-time employment to part-time employment as part-time job may lower their future earnings and the working horizon is longer for young women. Greenstein (1989) found that American women who delay first birth (re)enter labour force less quickly than women who have their first child at relatively young age. Age at birth of child was reported to have negative effect on the process under study in Western Germany and Sweden (Gustafsson et al., 1996) but

positive effect for British mothers.
This leads to the following hypothesis:

H2: Age at the birth of the first child has negative influence on (re)entry rates.

Situation on the labour market

The level of the full wage of a mother depends also on contextual macro characteristics and among them the situation on the labour market. The current market wage is influenced by the level of earnings and types of jobs available to women (Gordon and Kammeyer, 1980). The market wage of a mother grows with a general increase of wages and could lower during high unemployment periods. The effect of the situation on labour market on re(rentry) rates could be specify using period variables.

H3: General situation on the labour market influences possibilities to enter employment after childbirth.

3.2 The reservation wage

The level of reservation wage of a mother depends, among others, on the following individual characteristics:

Attitudes towards gender roles

According to Gordon and Kammeyer (1980) attitudes of a woman concerning gender roles and in particular opinion about the importance of mothering should influence the decision to enter the labour force when the child is small. Women with more traditional values concerning the role of a woman and a mother will value their time at home with a child higher than those who believe that women could combine family and work. Following Hakim's Preference Theory (Hakim, 2000) McRae (1993) examined women's employment histories following first birth and came to the conclusion there are significant differences in preferences for family and market work between women who work after the first birth and those who do not work, but no distinction was found between economically active women with different work histories. One may hypothesise that women who have children out of marriage also differ

in their values and preferences from the married ones. These preferences most probably also shape the decision to work when the children are small. Similarly, religious women could be expected to be more traditional in their opinions concerning the importance of motherhood than not religious ones. Women living in a couple stayed longer out of the labour market than single mothers in the study of Dex et al. (1998). Ronsen (1995) found religiously active women being at lower risk to enter full-time employment, but no difference existed in the case of part-time employment.
In order to learn how the attitudes influence risk of employment for a mother of a small child we would like to test the following hypothesis:

H4: Religious and married women have lower risk to enter employment after childbirth than not religious, not married ones.

Total resource constraint

The economic need for work of a mother is reduced if additional income in household is available. Additional sources of income are earnings of other household members (husband's/partner's) and social security benefits. The higher those incomes the higher the value of mother's time at home and so her reservation wage. In the data sets used in our analyses there is no information about incomes. As a result we cannot study the influence of economic need on employment decisions of mothers.
In spite of the fact that we are unable to test it, the theoretical background would be incomplete if we do not include the following hypothesis

H5: The higher the incomes of other family members and social security benefits the lower the risk a mother will enter employment.

Age of children

The reservation wage falls with the age of a child. The older a child the less time-intensive and more good-intensive. Additional children may also serve as substitutes of mother's time in the childcare if they are old enough (Even, 1987). Furthermore, they rise the economic need for the work of a mother as they are more good-intensive. If both of the two children are small they both

need attention, as a result the existence of two small children at home rises the reservation wage of a mother (Joesch, 1994). All in one, the age of the older child has a negative effect on the reservation wage of mother and as a result positive on (re)entry rates. Positive effect of the age of the first child on the employment entry after the second birth was reported by Ronsen and Sundstrom (2002).
That leads to the following hypothesis concerning the effect of age of first child on the risk to enter employment after second birth:

H6: The older the first child the sooner a mother will enter employment after second birth.

Cultural and structural incompatibility

It is very important not to forget that contextual characteristics, like for example availability of alternative childcare, division of tasks within the family and gender roles, have a strong influence on possibilities and constraints to reconcile family and work for women. Hence, the reservation wage depends on the level of the conflict between women's professional career and their family roles. If it is not that difficult for a woman to combine both roles she may be willing to work at lower salary then in the other case. A strong relation between employment-supporting policies for mothers and the continuity of maternal employment was found by Meyers and Gornick (1999) in cross-national study of 14 industralised countries.
According to Liefbroer and Corijn (1999) in a society there are two causes of the incompatibility between woman's roles- cultural and structural. 'Cultural incompatibility relates to broad ideologies, values and norms concerning the role of women in society. Structural incompatibility relates to actual societal opportunities and constraints on the roles of women.' (Liefbroer and Corijn, 1999, p. 52). Intensity of both sources of the conflict is usually related - if gender roles are perceived 'modern' the society would give women opportunities to combine work and motherhood (Sjoberg, 2004). In societies with traditional gender roles women are responsible for the household duties and childcare. As a result the value of mother's time at home is very high. Similar to the effect of cultural conflict, the level of structural incompatibility influences the value of mother's time at home. The level of the conflict depends on the character of social policy of the state and labour market regulations.

If social policy supports labour market participation of mothers, for example by assuring institutional child-care, the opportunity costs of working are lower than in the other case. In addition, if flexible forms of employment, for example part-time work, are available it is easier for women to combine work and motherhood. Part-time job allows women to combine family issues and work for pay and at the same time prevents human capital from depreciation (Drobnic, Blossfeld, and Rohwer, 1999). As a result women may be willing to work at lower wages as they still have time to take care of the child.

H7: Cultural and structural incompatibilities influence the value of mothers' time at home. The more difficult it is for a woman to combine work and motherhood the higher her reservation wage and the less probable that she will enter employment.

4 Data and methods

The analysis is based on data derived from the Fertility and Family Survey. In Italy the survey was conducted between November 1995 and January 1996 (for the description of the survey see, De Sandre et al. 2000). In Norway the survey was conducted in 1988 under the name Family and Occupation Survey and covered women born in 1945, 1950, 1955, 1960, 1965 and 1968 (for the description of the survey see, Noack and Oestby 1996). The period of observation is restricted in Italy to the years 1971-1995 and in Norway-1968-1988.

As twin births, women of misreported work histories and women whose child died within one year after birth were excluded the analyses for first birth are based on 2547 cases in Italy and 2257 cases in Norway, for second birth- 1604 and 1516 respectively.

In the analyses we follow a woman until she starts to work, the child is 6 years old, a second (third, in the models for second birth) child is born or the moment of the interview, whichever comes first.

The dependent variable in the study is the time woman enters employment after giving birth to a child. According to the theoretical background we assume that woman enters employment only at the moment her full wage exceeds reservation wage.

Two sets of models were calculated separately for each of the counties-after first and second birth. For both birth orders we calculate event specific hazard functions separately. This allowed us to analyse the risk of entering a specific form of employment in a given period. As a result we estimate the hazard of one event in the presence of other competing events (full-time job, part-time job, jobs of other hours of work).
Let J denote the set of competing events and T denote the duration a person is at risk of experiencing an event $j \in J$ within a short time interval $(t, t + \Delta t)$ can be written

$$h_j(t) = \lim_{\Delta t \to 0} \frac{P(t \leq T \leq t + \Delta t, J = j \,|T \geq t)}{\Delta t}, j \in J, t \geq 0$$

That is a conditional probability of experiencing an event j within a short time interval given that none of the events from the set of events J have occurred before. Practically it means that the moment a woman experiences any of the events she is no longer in the risk set, this case is censored.

In our study we specify the baseline hazard using piecewise constant exponential model. Time is measured in months since the first child is born and the risk is constant for the following segments: 0-3, 4-11, 12-23, 24-35, 36-47, 48-59, 61-71 months.
In addition, we introduce in the model a set of time-constant and time-varying covariates as the risk under study depends on several individual and macro characteristics. Thou the hazard rate for an event j in a sub-period k can be expressed as

$$\log h_{jk}\left(X\right) = h_{ojk} + \alpha_j \mathrm{X} + \beta_j \Upsilon$$

where h_{ojk} is the baseline hazard rate of event j in a sub-period k, X is a vector of time-constant covariates, Y is a vector of time-varying covariates, vectors of parameters associated with event j.

4.1 Explanatory variables

Following the theoretical background we introduce in the models the following variables. Distribution of occurances and exposures for every level of the variables in each of the models are presented in Table 1 .

Educational level

Education is measured at the birth of first child at four levels: primary, lower secondary, higher secondary and tertiary and included into the model time-constant due to the following reasons: In Norway only 3% of women studied in the period after they gave birth to their first child and before they started to work or have second child. After the birth of second child there are hardly any women who study. In Italy due to incomplete information it was difficult to reconstruct women's educational histories, however, according to De Sandre et al. (2000) on average only 1.2% of mothers undertake further studies.

Marital status

The variable 'marital status' distinguishes if a woman raises her child(ren) in marriage, cohabitation or as a single mother. This variable is specified in the model as time-varying covariate. In the case of employment transitions after second birth single and cohabiting mothers were put into one group of not-married due to small number of exposures (Italy- together both levels -3% of exposures, Norway- 7%).

Religiousness

Religiousness was measured at the time of the interview as it is usually assumed not change during the life-course. The variable in Italy was based on answers to the question *Are you religious?*. Answers *not*, *somehow* were pooled into the group not-religious. In Norway the variable was based on the question *How often do you attend religious services?*. Women who answered *once a week*, *more than once a week* were considered religious and not-religious in other cases.

Table 1: Descriptive statistics for the variables included in the analyses of employment entries after first and second childbirth

	after first childbirth								after second childbirth							
	Italy				Norway				Italy				Norway			
	person	entries			person	entries			person	entries			person	entries		
variable	months	any job	full -time	part -time	months	any job	full -time	part -time	months	any job	full -time	part -time	months	any job	full -time	part -time
education																
primary	16338	188	150	23	10241	192	109	70	18762	106	80	18	8726	133	46	79
lower secondary	23595	392	311	48	18625	566	305	229	22244	213	150	37	18355	408	145	238
higher secondary	18674	518	375	70	7962	363	195	140	14400	245	164	45	7064	192	72	110
university	1457	171	85	62	4060	349	187	145	1098	109	58	37	3682	271	97	156
marital status*																
single	2388	54	40	8	5526	154	85	53								
cohabiting	976	50	36	7	4643	252	151	79	1376	29	21	4	2733	78	36	36
married	56700	1165	845	188	30719	1064	560	452	55128	644	431	133	35094	926	324	547
religiousness																
yes	55341	1100	805	171	4813	133	60	66	53089	606	403	129	5482	129	37	79
no/ somehow	4723	169	116	32	36075	1337	736	518	3415	67	49	8	32345	875	323	504
age																
15-19	8453	95	75	12	8835	198	102	86	9095	85	57	20	8120	186	68	105
20-24	29738	410	322	45	22427	651	357	254	31534	247	179	37	22185	509	182	299
25-29	18167	522	361	100	7440	485	271	189	13852	273	172	70	6673	269	96	158
30-46	3706	242	163	46	2186	136	66	55	2023	68	44	10	849	40	14	21
spacing of births																
9-35									25114	226	150	43	19557	439	157	252
36-71									24498	301	199	66	15883	435	152	260
72-284									6892	146	103	28	2387	130	51	71
period (It / Nor)																
1971-84/ 1968-73	32677	666	517	83	11104	273	177	85					12238	194	73	111
1985-89/ 1974-79	13233	260	173	50	14921	491	258	207	25589	415	297	77	17392	399	135	238
1990-95/ 1980-84	14154	343	231	70	7938	300	161	111	14724	160	99	37	6710	260	87	159
/ 1985-88					6925	406	200	181	16191	98	56	23	1487	151	65	75
work experience																
none	34938	118	82	24	4730	78	44	32	36218	140	82	38	4555	87	34	49
small	18101	668	464	119	28450	981	510	413	14502	350	237	68	25434	722	266	414
big	7025	483	375	60	7708	411	242	139	5784	183	133	31	7838	195	60	120
job between																
no									46516	83	47	21	25181	243	73	156
part-time									568	100	1	98	4360	256	23	227
full-time									5964	395	384	8	5648	315	228	83
other									3456	95	20	10	2638	190	36	117
total	60064	1269	921	203	40888	1470	796	584	56504	673	452	137	37827	1004	360	583

*after second birth single and cohabiting mothers together as not-married

*Source:*author's estimations based on FFS, Italy and Norway

Age at first birth and spacing of births

Four age groups to measure age of a mother at birth of her first child are used in the analysis (15-19 years, 20-24, 25-29, 30 and more). The variable 'spacing of births' is included in the models only for second birth. The age of first child was measured at the birth of second child and divided into four groups age groups (0-2, 3-5, 6 years old and older)

Period

The description of selected calendar periods and the reasons of their selection are presented in the Table 2.

Table 2: Characteristics of macro-economic factors captured by period variable

Italy		Norway	
period	characteristics	period	charactristics
1971-1984	highly regulated labour market	1968-1973	period of steady economic growth
1985-1989	first deregulations	1974-1980	first economic problems
1990-1995	further reforms aiming at flexibility of the labour market	1980-1984	rising unemployment
		1985-1988	fast economic growth and fall in unemployment

*Source:*Ferrera, Gualini,2000, pp. 356-381;Ronsen 1995, p.10

Work experience

Work experience before the first birth was measured in months, from the 15th birthday of a woman. Three levels of work experience were distinguished in the analyses- no experience, small experience and big experience. Work experience of women who ever worked was divided into two groups according to the value of the third quartile of experience (84 months in Italy, 74 months in Norway).

Between birth work

This variable, included in the second models, measures woman economic activity in the period between first and second birth. The variable has four levels- no work, only part-time job, only full-time job, other (women who had full and part-time jobs, or jobs of unknown working hours).

5 Results

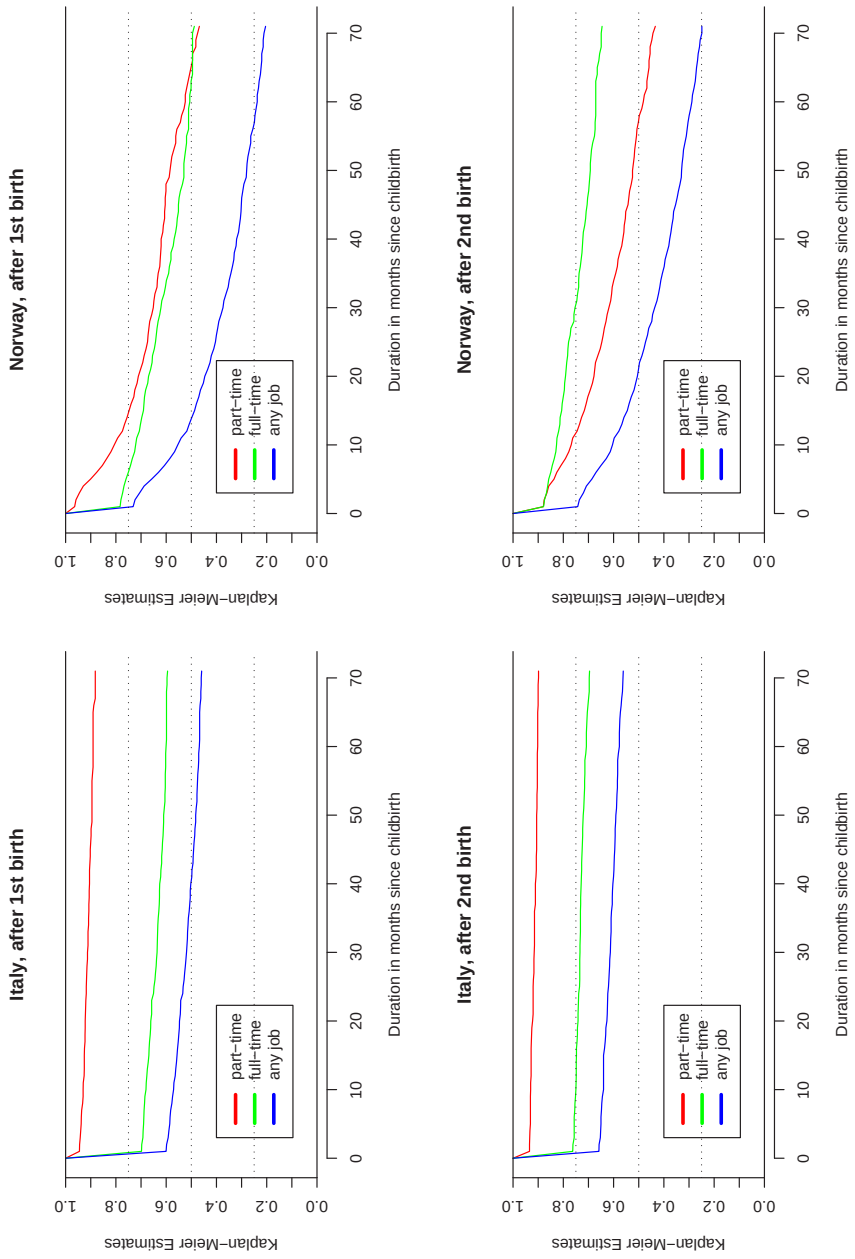
5.1 Macro level

Cultural and structural incompatibilities

Levels of structural and cultural conflict between family and job have strong impact on labour force participation of women. They influence not only the general level of female labour force participation (compare Part 4) but also mother's employment, in particular the level and speed women enter job after childbirth. In general, Norwegian mothers of small children enter job more often and much faster than the Italian ones, with the exception of first 3 months. When first child is six-years-old 80% of Norwegian mothers have already started to work and only 54% of Italian mothers, in the case of second child- 75% and 44%, respectively. Moreover, 50% of Norwegian mothers have already started to work when their first child is 14 months old, while for Italy it takes about 41 months from the birth of the child. The survival functions, calculated for full-time and part-time jobs and all jobs, are presented in the Figure 2.

In both countries women have the highest risk to start working within first 3 months after first and second birth (in Italy 79% of all entries after first birth and 75% entries after second birth occur within this period, in Norway- 44% and 38%, respectively). In this sub-period more women enter full-time job than part-time job (Italy - 84% of entries within this period, Norway- 82%). In Italy also after second birth most women who enter labour market within the first 3 months start to work full-time (79%), while in Norway - as many women enter part-time as full-time jobs. Similar to the results of (Desai and Waite 1991) for the US, in Italy and Norway most women who re-enter labour market relatively soon after childbirth return to the jobs their previous jobs and otherwise they tend to seek another job.

Figure 2: Transition to a job after childbirth, Kaplan-Meier survival estimates



*Source:*author's estimations based on FFS, Italy and Norway

While among Norwegian mothers part-time employment is a popular way to reconcile job and childcare duties, in Italy the prevalence of this form of employment is similar in all moments of the life cycle. In order to answer the question about the prevalence of part-employment additional variable was calculated - status on the labour market before first birth. This variable measures if a woman worked before birth of her first child (6 and less months before) and hours of her work. In previous studies woman's status on the labour market before the childbirth was found to be an important factor determining mother's employment after the birth (for example, Joesch 1994; Ondrich, Spiess, and Yang 1996). We decided not to include this variable in the models due to collinearity with other covariates describing labour force participation of a woman (e.g. work experience prior to first birth, between births employment), which were strongly related to the theoretical background. In both countries the percentage of women working part-time among those working before first birth is similar. In Norway 12% of women who work before first birth work part-time and in Italy- 15%. It changes after first child with significant rise in this form of employment among Norwegian mothers and moderate change in Italy. Although in both countries mothers enter faster full-time than part-time employment after first birth, in Norway part-time jobs are as popular as full-time among mothers with a child of pre-school age. In contrary, in Italy only 12% of women start to work part-time after first birth. In addition, in Italy the percentage of mothers who work part-time does not change even after second birth. In most of the cases women who enter part-time employment after second birth are those who worked part-time after first birth (compare Table 4). In Norway mothers with two small children enter part-time jobs more often than full-time employment. Most of these women also worked part-time between the two births.

General situation on the labour market

The effect of general situation on the labour market on mother's decision to enter employment are particularly interesting. The changes in mothers' employment over time were different in both countries and these trends should be discussed separately.

In Norway the risk a woman starts to work when a child is small was growing from period to period, independently of hours of work (full-time or

part-time job) and number of small children at home. Contrary to Ronsen (1995) no effect of economic crisis of the years 1981-1984 on the entry rates of mothers was found in our study.

In Italy the effect of labour market regulations on the risk under study was different than it was originally hypothesised. When controlled for individual characteristics of a woman the relative risk of entering employment after childbirth (both, first and second child) was higher in the period when the labour market was strictly regularised than in the periods when the deregularising reforms have been already introduced. One possible explanation of this phenomenon is that when rules of hiring and dismissal of employees is strictly regularised women tend to make shorter breaks in employment, in most of the cases not longer than 3 months, because otherwise they would face difficulties to find a new job. This would mean that if a woman is exposed to the risk of staying unemployed for longer period her full wage is relatively high and she resumes work faster than in other circumstances

5.2 Micro level - individual characteristics of a woman

Human capital

In both countries under study the effect of accumulated human capital on (re)entry rates of mothers was positive and significant. The more human capital of the two types a woman accumulated before first and second birth the higher the risk of transition to both full- and part-time job.

Influence of educational level on work entries of mothers is positive and strong, independently of the number of children. In both countries the higher the level of education of a women the highest her full wage and the faster she (re)enters labour market (Table 5). This effect applies both to full- and part-time jobs and is independent of other individual characteristics as well as contextual variables. In Italy after second birth this positive influence does not change, while in Norway the effect of educational level lower than tertiary becomes insignificant when controlled for mother's work experience. Only mothers with University education have higher risk, independently of their work experience. When controlled for mother's work experience the difference in relative risks between women with primary and secondary education disappears. That means that women with lower than tertiary education differ in their work experience and this is the factor that actually influence the risk of employment and not educational level itself.

Table 3: Relative risks of job following first birth for Italian and Norwegian women, by selected individual and macro characteristics. Absolute risks of full-time job following first birth, per person months

	Italy						Norway					
variable	any job		full-time		part-time		any job		full-time		part-time	
education												
primary	0.53***	0.58***	0.56***	0.61***	0.55*	0.64	0.62***	0.56***	0.66***	0.57***	0.57***	0.55***
lower secondary	0.77***	0.68***	0.84*	0.72***	0.74	0.70	0.85*	0.77***	0.84	0.75**	0.91	0.86
higher secondary	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
university	1.74***	2.01***	1.17	1.38*	5.09***	5.61***	1.38***	1.53***	1.30*	1.51***	1.65***	1.72***
marital status												
single	0.91	1.05	0.93	1.06	0.83	1.03	0.98	0.99	1.06	1.07	0.73*	0.74
cohabiting	1.34*	1.15	1.38	1.18	1.07	0.91	1.20**	1.22**	1.40***	1.42***	0.85	0.86
married	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
religiousness												
Yes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
No/ somehow	1.36***	1.15	1.31**	1.11	1.61*	1.39	1.40***	1.36***	1.69***	1.64***	1.15	1.13
age												
15-19	0.51***	1.22	0.53***	1.38*	0.46*	0.87	0.56***	0.86	0.51***	0.85	0.67**	0.89
20-24	0.60***	0.85*	0.64***	0.96	0.44***	0.52***	0.64***	0.78***	0.62***	0.82	0.68***	0.73**
25-29	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30-46	1.42***	1.07	1.55***	1.13	1.02	0.84	0.82*	0.66***	0.77	0.57***	0.77	0.71*
period (It/ Nor)												
1971-84/ 1968-73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1985-89/ 1974-79	0.78***	0.88	0.69***	0.78**	1.12	1.19	1.32***	1.33***	1.09	1.11	1.76***	1.77***
1990-95/ 1980-84	0.78***	0.77***	0.71***	0.70***	1.14	1.12	1.37***	1.42***	1.13	1.18	1.66***	1.71***
/ 1985-88							1.77***	1.83***	1.22	1.27*	3.10***	3.18***
work experience												
none		0.13***		0.13***		0.16***		0.53***		0.63***		0.47***
small		1.00		1.00		1.00		1.00		1.00		1.00
big		1.61***		1.84***		1.10		1.45***		1.75***		1.10
time (in months)												
0-3	0.2889	0.3450	0.2242	0.2506	0.0298	0.0409	0.0924	0.0785	0.0739	0.0566	0.0135	0.0131
4-11	0.0085	0.0125	0.0042	0.0057	0.0023	0.0040	0.0277	0.0238	0.0082	0.0063	0.0158	0.0155
12-23	0.0073	0.0112	0.0048	0.0069	0.0014	0.0025	0.0190	0.0165	0.0072	0.0056	0.0095	0.0094
24-35	0.0090	0.0134	0.0063	0.0088	0.0015	0.0027	0.0156	0.0136	0.0080	0.0063	0.0057	0.0057
36-47	0.0077	0.0114	0.0046	0.0063	0.0015	0.0026	0.0122	0.0109	0.0070	0.0055	0.0036	0.0036
48-59	0.0051	0.0073	0.0027	0.0036	0.0012	0.0021	0.0149	0.0136	0.0055	0.0045	0.0079	0.0082
60-71	0.0039	0.0053	0.0019	0.0025	0.0013	0.0021	0.0119	0.0110	0.0037	0.0030	0.0072	0.0075
log	-3378.29	-2965.77	-2759.19	-2435.15	-856.04	-805.33	-3571.31	-3545.77	-2508.94	-2490.84	-1694.78	-1685.71

$^{*}p \leq 0.05, ^{**}p \leq 0.01, ^{***}p \leq 0.001$

*Source:*author's estimations based on FFS, Italy and Norway

Table 4: Relative risks of job following second birth for Italian and Norwegian women, by selected individual and macro characteristics. Absolute risks of full-time job following second birth, per person months

	Italy						Norway					
variable	any job		full-time		part-time		any job		full-time		part-time	
education												
primary	0.34***	0.58***	0.38***	0.67**	0.30***	0.46**	0.77*	0.90	0.74	0.78	0.79	1.02
lower secondary	0.65***	0.77**	0.68***	0.81	0.60*	0.64	1.03	1.06	0.99	0.96	1.03	1.12
higher secondary	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
university	1.93***	1.59***	1.44*	1.82***	4.29***	1.44	2.21***	1.88***	1.98***	1.66**	2.32***	2.06***
marital status												
non-married	1.42	1.25	1.45	1.26	1.19	0.89	0.80	0.90	0.97	0.99	0.65*	0.77
married	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
religiousness												
Yes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
No/ somehow	1.09	0.87	1.23	1.04	0.59	0.49	1.18	1.04	1.48*	1.30	1.14	1.02
age												
15-19	0.66***	1.14	0.65**	1.04	0.79	2.33**	0.96	1.25	0.95	1.16	0.94	1.28
20-24	0.53***	0.85	0.59***	0.89	0.36***	1.21	0.94	1.11	0.94	1.08	0.94	1.17
25-29	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30-46	1.61**	1.19	1.93***	1.05	0.70	0.96	0.72	0.86	0.67	0.76	0.68	0.79
spacing of births												
9-35	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
36-71	1.43***	1.13	1.44***	1.07	1.53*	1.27	1.35***	1.04	1.30*	0.89	1.40***	1.18
72-284	2.26***	1.28*	2.51***	1.23	2.03**	1.05	2.60***	1.47***	2.51***	1.28	2.67***	1.62***
period (It/ Nor)												
1971-84/ 1968-73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1985-89/ 1974-79	0.55***	0.68***	0.47***	0.66***	0.77	0.67	1.61***	1.53***	1.50**	1.71***	1.66***	1.41**
1990-95/ 1980-84	0.31***	0.48***	0.25***	0.44***	0.42***	0.49**	2.53***	2.41***	2.23***	2.56***	2.72***	2.33***
/ 1985-88							5.73***	4.70***	5.90***	5.90***	5.47***	4.16***
work experience												
none		0.41***		0.33***		0.67		0.53***		0.44***		0.63***
small		1.00		1.00		1.00		1.00		1.00		1.00
big		0.99		1.08		1.19		0.99		0.74		1.14
job between births												
no		1.00		1.00		1.00		1.00		1.00		1.00
part-time		17.07***		0.26		137.63***		3.90***		1.02		5.77***
full-time		14.65***		22.97***		1.78		4.68***		10.40***		1.69***
other		7.08***		2.35**		4.53***		4.70***		2.47***		4.88***
time (in months)												
0-3	0.2843	0.0534	0.1947	0.0335	0.0511	0.0055	0.0369	0.0165	0.0157	0.0068	0.0175	0.0075
4-11	0.0051	0.0018	0.0027	0.0010	0.0011	0.0003	0.0091	0.0047	0.0023	0.0012	0.0061	0.0030
12-23	0.0055	0.0020	0.0024	0.0009	0.0022	0.0007	0.0072	0.0040	0.0017	0.0009	0.0049	0.0026
24-35	0.0048	0.0018	0.0022	0.0008	0.0013	0.0004	0.0064	0.0039	0.0019	0.0012	0.0040	0.0023
36-47	0.0060	0.0021	0.0026	0.0009	0.0022	0.0007	0.0060	0.0040	0.0017	0.0011	0.0035	0.0022
48-59	0.0051	0.0018	0.0039	0.0014	0.0007	0.0002	0.0054	0.0038	0.0013	0.0009	0.0033	0.0022
60-71	0.0084	0.0029	0.0052	0.0019	0.0014	0.0004	0.0053	0.0041	0.0011	0.0008	0.0038	0.0028
log	-1842.30	-1373.89	-1402.45	-930.92	-570.02	-344.09	-2340.81	-2143.18	-1231.72	-1047.54	-1633.04	-1487.26

$^{*}p \leq 0.05, ^{**}p \leq 0.01, ^{***}p \leq 0.001$

*Source:*author's estimations based on FFS, Italy and Norway

Table 5: Median time (in months) to the event according to educational level, all types of the job

	Italy		Norway	
variable	after first birth	after second birth	after first birth	after second birth
primary	-	-	39	48
lower secondary	-	-	21	30
higher secondary	10	46	9	20
university	1	1	5	5

*Source:*author's estimations based on FFS, Italy and Norway

In Italy and Norway women who never worked before first birth have lower risk to enter employment after they become mothers than women who have some work experience. The positive effect of on-the-job accumulated human capital on (re)entry rates is particularly elevated in the case of Italy. In Italy 35% of women never worked before birth of their first child and the relative risk they will enter employment is about 9 times lower than for women who worked before, independently on their educational level. In Norway only 7% women never worked before first birth and when controlled for educational level the relative risk these mothers will start working when their first child is small is (only) about twice lower than for women who worked before. Survival estimates (Figure 1 in Appendix A) also indicate a strong selection effect between women on the basis of work preferences. This effect is much stronger in Italy than in Norway. Certain preferences concerning working life seemed to be reflected in the early decisions to enter employment, made even before the problem of reconciliation of family and childcare duties occurs. Among Italian women who ever worked before first childbirth 72% starts to work when the first child is small, but only 21% out of those who have no work experience. In Norway - 80% of women who worked before they become mothers and 69% of those who never worked.

In addition, there is a positive effect of the level of on-the-job accumulated human capital on re-entry rates of first-time mothers in the case of full-time jobs. Women who worked for a long period before their first child was born, independent of other characteristics, have higher risk to enter this employment than those who worked shorter. However, in the case of part-time job the decision to start working does not depend on the level of on-the-job accumulated human capital if a woman has ever worked.

Work experience before first birth has also a positive influence on the risk of entering a job after birth of second child, both full- and part-time jobs. This effect remains significant even when controlled for employment between the two births. However, similar to job entries after first birth, the risk of employment after second birth does not depend on how long a woman worked before if she worked at all.

The risk that a mother enters a job when her second child is small depends also on her employment decisions between the two births. In Italy a woman who does not work between the two births, independent on the level of human capital she accumulated before first birth, most probably will not work after second birth. In Norway the effect of employment after two births is also positive and significant but not as strong as in Italy. This dualism of Italian labour market has been already discussed in the literature (for example, Sier et al. 2001. This segregation of the Italian labour market into primary labour market with full-time jobs and secondary with part-time employment is also shown in this study. Most of the women who worked part-time between the two births continue to work part-time after second birth and the risk they will move to full-time employment is even lower than for women who never worked before. On the other hand, most of the mothers who worked full-time between the births continue to work full-time after second birth. In Norway the effect of full- and part-time employment between the two births on the risk of employment entry after second birth is similar to the Italian case. However, some of the women who worked full-time after first birth move to part-time employment after the second, the opposite changes in working hours are less common.

Values and attitudes

The behaviour under study is influenced by the level of traditional values and preferences of a mother operationalised in the variables: marital status and religiousness. In both countries women who are traditional in other spheres of life (married, religious) have lower risk to enter a job when a child is small than other women.

Italian and Norwegian mothers who are not religious enter employment, full- and part-time work, more often than religious ones. In Italy this effect becomes insignificant when analysed together with work experience prior to birth. That means that it is not religious beliefs that make mothers to stay out of the labour market when they children are small, but rather

these beliefs shape the decision to work in general, also before the need to provide care for small child occurs. In Italy after second birth the fact of being religious has positive effect on part-time entries and negative on full-time employment. In Norway the effect of religiosity is negative in both cases- religious mothers enter employment, no matter of hours of work, less often than not-religious mothers. However, the effect of this variable in the models for second birth becomes insignificant when controlled for other characteristics, except full-time employment entries in Norway. Similar to the findings of Ronsen (1995), Norwegian not-religious mothers are more likely to enter full-time employment. No effect of religiosity was found as far as part-time employment is concerned.

In both countries first-time single mothers have similar risk of entering employment to married mothers. However, women who bear their first child in cohabitation more often enter employment than married mothers. In Norway part-time job as a first job after the first birth is most popular among married mothers, while part-time- among those cohabiting. That most probably means that married mothers of small children, more often than women in cohabiting couples, play the role of second provider. In contrary, in cohabiting couples mothers' work is treated a source of income equal to their partners' job. In both countries most of the women have their second child in marriage. However, In Italy women who are not married have higher risk of employment, no matter of hours of work. In Norway mothers who are not married have still lower risk to enter part-time job when their second child is small, even when controlled for previous work histories. In both countries the effect of marital status on employment entries after second birth becomes insignificant when controlled for other characteristics.

Timing of births

The effect of age on the relative risk of entering employment after first birth is different from what was originally hypothesised. In Italy this effect is positive both after first and second birth, while in Norway after first birth it is grows until the age 25-29 and falls down afterwards. In Norway the effect of age was found insignificant after second birth. When controlled for past employment histories one cannot make any conclusion concerning the impact of age of a mother on the risk to enter employment when a child is small.

As it was originally hypothesised the age of first child has positive and strong impact on the decision to start working when the second child is

small. When controlled for employment between the two births there is no significance difference in the risk if second child was born up to 3 or up to 6 years old after first child. As a result, the difference between these two groups could be only ascribed to different work histories- women who had their second child 3-6 years old after first birth more often worked between the two births than those who had second child 0-3 years after first one. Only women who had their second child when the first was already six or older have significantly higher risk of entering employment after second birth than women who spaced their births closer, also when controlled for work between the two births.

6 Discussion

In this study we address the question concerning the circumstances under which motherhood and employment are compatible. Comparing two countries, Italy and Norway, we analyse impact of macro and individual characteristics on employment decisions of first- and second-time mothers. The study distinguishes between full- and part-time job entries. In addition, we compare the opportunities and constrains to reconcile family and work in the two countries and give a short description of the differences in the development of female labour force participation and fertility. The study is based on the economic theory of employment decisions (Even, 1987; Mincer and Ofek, 1982; Mincer and Polachek, 1974). In addition, we included in the theoretical background our hypotheses concerning the possible influence of cultural and structural factors on the concerned decisions.

Results of the study show that motherhood and labour force participation are not necessary conflicting careers. In a society, which supports labour force participation of women, independent of their family obligations, not only mothers' employment is higher but also more children are born. Although the general level of opportunity costs of childbearing differs between countries, mother's individual characteristics have similar effect on employment entries. Similar to the findings of Dankmeyer (1996) opportunity costs of childbearing are the lowest among women with high stock of human capital - well educated, with long work experience. These women start to work in a relatively short time after childbirth.

Both in Italy and Norway the highest risk for a mother to enter a job after childbirth is within the first three months. The longer a woman stays

out of employment after childbirth the lower the risk she will work when the child is small. This applies both to first and second birth orders. However, the effect of duration on (re)entry risk is different in both countries. In Italy most of the events occur within the first three months after childbirth and afterwards few women start to work. In Norway the risk of starting a job decreases with the duration of the break, but still many women make breaks longer than 3 months.

This different pattern of mothers' entries to employment could be explained by both the demand and supply side of the labour markets. Most of the women who enter a job within first three months after birth come back to their previous jobs. This behaviour is more common in Italy, where rigid regulations of the labour market result in that those who are not on the labour market (drop or never entered) face difficulties in finding a new job (Del Boca et al., 2000). This factor is also evident when rigidities of the labour market where introduced in the study as a period variable. When controlled for individual characteristics women tend to re-enter employment faster in the period the labour market is strictly regularised than in the later periods. On the other hand, the study shows a selection effect between women as far as mothers' employment is concerned, which is much stronger in Italy than in Norway. This heterogeneity between women is explained by the variables describing work histories. According to Nakamura and Nakamura (1991) if there are unobservable factors, like preferences, which affect mothers' decision to work, their effect should be also reflected in past employment of women. The existence of home-centred women, following Hakim's Preference Theory (Hakim, 2000), is evident in Italy. As much as 35% of Italian mothers have never worked before birth of their first child and only few of them (21%) starts to work afterwards. On contrary, among those mothers who worked before first childbirth 72% re-enter employment when their first child is still small. These results would suggest that low labour market participation of women in Italy is partly related to the lack of opportunities to reconcile family and work, but also reflects preferences of many home-centred women who do not want to work at all. On contrary, in Norway only 7% women never worked before first birth and 69% of them eventually starts to work afterwards.

Results of the study show that not only the prevalence of part-time employment is different in Italy and Norway, but also its character. Among Italian women who become mothers the prevalence of part-time jobs is similar in all the moments of the life-course - similar percentage of women work

before and after childbirth, also after second birth. There are very few movements around the childbirth from full- to part-time employment and in particular the opposite direction. As a result part-time employment proved in the study to be of permanent nature, as it was argued by Sier et al. (2001), and not a flexible form of employment allowing women to reconcile of family and job. In contrary, in Norway the prevalence of part-time employment grows with family obligations. Among Norwegian mothers part-time jobs are as popular as full-time work arrangements. In addition, mothers with two small children enter part-time jobs more often than full-time employment. Although, most of the movements around the childbirth are from full- to part-time jobs, there are still some changes of the opposite direction, which would suggest that part-time employment is of different nature than in Italy. As it was argued by Sier et al. (2001) flexible work arrangements in social-democratic welfare states, the group to which Norway belongs to, are treated as a temporal alternative to work interruption and allows access to full-time employment afterwards. However, we could come to these conclusions if we observe women not only until the first employment entry but also study their work histories afterwards.

Factors determining the level of woman's full wage proved to have positive and significant effect on employment entries of mothers in both countries, both to full- and part-time jobs. Variables related to human capital not only influence the risk a woman starts to work but also timing of the event. As it was hypothesised full wage of mothers who are better educated and/ or have more work experience exceeds their reservation wage much faster than in the case of other women. Only in the case of entries after second birth in Norway the effect of educational level lower than tertiary disappears when controlled for employment histories of mothers. In addition, as it has been already discussed, in Italy prior work experience is the strongest determinant of mother's employment and women who never worked before childbirth have very low risk of starting a job when their children are small.

The effect of variables 'marital status' and 'religiosity', which served as a proxy for values and attitudes, was similar on job entries in both countries, but the influence on part-time and full-time employment differed. In both countries women who bear their first child in cohabitation more often enter employment than married mothers. While in Italy the influence of marriage on the risk under study is negative both in the case of full- and part-time employment, in Norway the effect is negative in the case of full-time job and positive as far as part-time job entries are concerned. This result would

suggest that married mothers are very often only second providers.

The fact of being religious has negative effect on full-time employment entries after first and second birth. However, the effect of religiosity on full-time entries disappears in Italy when controlled for work experience and remains significant in Norway. One possible explanation is that religious beliefs shape the employment histories of Italian women even before the need to provide care for small child occurs. As a result that would mean that these beliefs influence not only reservation wage of a mother but also the full wage. Similar results were obtained in the case of part-time employment. The effect of the religiosity on part-time entries of mothers was insignificant when we controlled for past employment of women.

As far as the timing of the births is concerned, age of a mother at first birth does not have a negative effect on (re)entry rates in none of the two countries. This result is different from what was originally hypothesised. On contrary, the effect of spacing of births had significant effect on the process under study. In both countries the older the first child the lower the reservation wage of the mother and the more probable is that she will enter employment.

Results of the study show that the level of opportunity costs of childbearing depends on general opportunities to reconcile work and motherhood, but also on individual preferences. Even in the situation when the family policies and gender roles do not support employment of mothers there is a group of women who do not resign from any of these careers. This study addresses only some of the issues concerning the interrelation between fertility, employment and structural and cultural factors. It would be important to learn how the employment histories of women who do not have children differ from mothers' histories and to which extent these differences are influenced by the level of cultural and structural incompatibilities between work and family.

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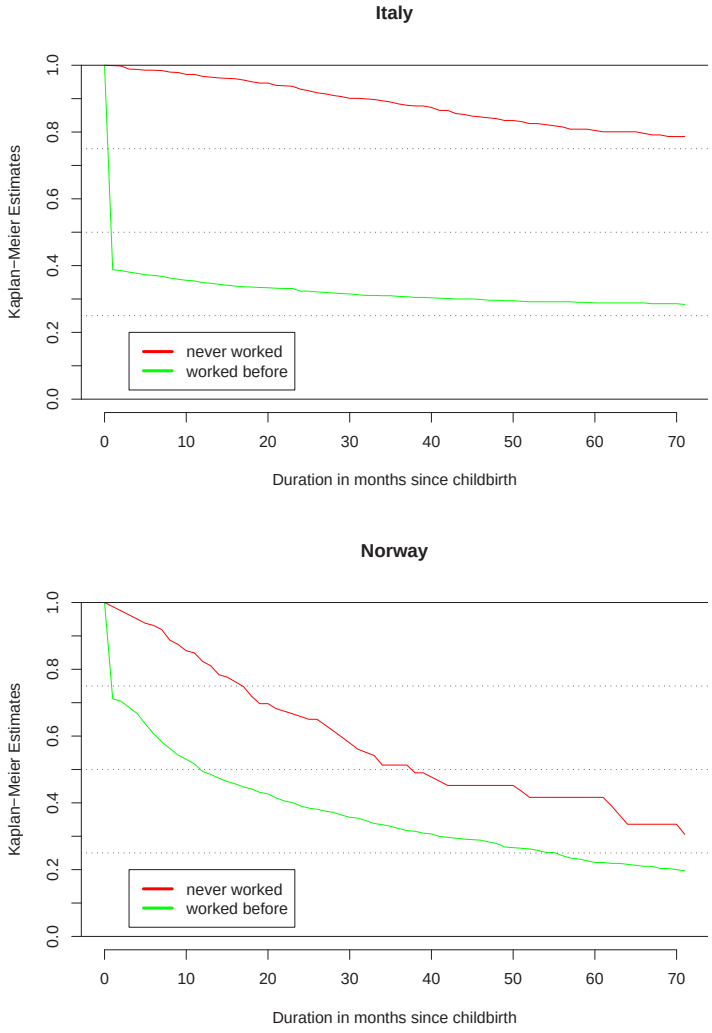
Appendix A

Table 1: Total Fertility Rate and Female Labour Force Participation, Italy and Norway, 1965-1996

	Italy		**Norway**	
year	FLFP	TFR	FLFP	TFR
1965	34.6	2.5	36.9	2.9
1970	29.6	2.4	38.8	2.5
1975	30.7	2.2	53.3	2.0
1980	39.6	1.9	63.2	1.8
1985	40.8	1.6	68.3	1.7
1990	44.5	1.3	71.2	1.8
1996	43.2	1.2	66.0	1.9

Source: Brewster, K. and Rindfuss, R.,2000, pp.274,276

Figure 1: Transition to a job after first birth according to work experience, Kaplan-Meier survival estimates



*Source:*author's estimations based on FFS, Italy and Norway