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OUT OF SIGHT, OUT OF MIND?

Leandro D'Aurizio and Livio Romano

EUROPEAN UNIVERSITY INSTITUTE, FLORENCE
DEPARTMENT OF ECONOMICS

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LEANDRO D'AURIZIO

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LIVIO ROMANO

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Family Firms and the Great Recession: Out of Sight, Out of Mind? *

Leandro D'Aurizio[†], Livio Romano[‡]

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Abstract

This paper studies how family firms reacted to the 2008 economic crisis in terms of employment adjustment. By using a difference-in-difference approach, we provide empirical evidence that divergent paths of adjustment between family and non-family firms exist, with family firms systematically preferring to safeguard workplaces close to the firm's headquarters, compared to other plants. We offer a new theoretical framework consistent with these findings, that we define the social recognition motive, based on the psychological relation linking the family owner with his community of reference. We investigate possible alternative explanations for the results, most of which can be ruled out in our setting. Finally, we test more directly for the validity of the social recognition theory, finding encouraging results in line with the predictions.

JEL classification: C81, D22, J60, M14

Keywords: Family Firms, Great Recession, Employment, Social Pressure

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[†]leandro.daurizio@bancaditalia.it, Economic and Financial Statistics Department, Bank of Italy.

[‡]livio.romano@eui.eu, Department of Economics, European University Institute.

1 Introduction

The family firm has been the object of intense economic research in the last decade, in terms of comparison with the other traditional way of structuring the corporate ownership represented by the so-called widely-held firm. Typically, the question addressed in literature is the measuring of relative performance, in terms of profitability, implied by these two types of corporate ownership, and accordingly understanding the underlying mechanisms that determine the success or failure of concentrated ownership, as opposed to a dispersed and loosely knit mass of shareholders.¹

However, little attention has been devoted so far to the determinants of firm employment policies, and in particular how firms, be they family or not, react to economic fluctuations by adjusting their workforce levels. Two recent contributions on this topic are those by Sraer and Thesmar (2007) and by Bassanini *et al.* (2010), both focusing on French data. In both cases, the period covered by the data does not allow to observe the reaction of family firms to the 2008 economic recession, and therefore the analysis is limited to the impact of idiosyncratic or at most industry-level shocks on employment decisions. By using different data sources and alternative estimation strategies it is found that family firms offer an implicit insurance mechanism to their workers against economic fluctuations, as opposed to non-family firms. In particular, the lower wages offered by family firms to their workers are associated with a higher degree of job security, because the employment status reacts less to economic fluctuations. As a consequence of this argument one observes the coexistence of high wages/high job-risk contracts offered by widely-held companies and low wages/low job-risk contracts provided by family firms. Both papers interpret these results similarly: family firms could credibly commit *ex ante* to offer lower salaries, in exchange for higher job security, because of their longer-term investment horizon. Thus, different rates of job destruction are an optimal response to different incentives faced by family and non-family firms (from the inter-temporal perspective of maximizing profits). Albeit fascinating and economically meaningful, this interpretation is somehow limited by the fact that family firm status is by nature endogenous, and therefore potentially correlated with time-varying unobservables, which may drive the results, but are not correlated with the credible commitment hypothesis.

The paper contributes to existing literature in many respects. Firstly, we use business survey data on Italian firms, which directly measure the impact of the current economic crisis, by looking at how the employment levels adjusted in 2009 (last available year) with respect to pre-crisis 2007. Differently from other periods, this exogenous variation repre-

¹See Bertrand and Schoar (2006) for an overview of existing literature.

sents an opportunity for empirical economists, because it generates significant variations in employment levels and, equally important, it also allows for a direct comparison of how different types of firms behaved when facing a common negative shock.

Secondly, we focus on plant location, which is shown to be a different source of variability in the employment adjustments of family and non-family firms. More precisely, two dimensions are combined: time variability, as done typically in the literature, and geographical differences between workforce levels close to the headquarters and workforce levels in plants far from the headquarters. The point of interest then becomes: are all company workers treated in the same fashion, or is there a location-specific source of discrimination for family firms, as opposed to non-family ones? Quite surprisingly, we find that compared to non-family firms, the within firm difference between workforce levels close to the headquarters and the workforce elsewhere increased for family firms of around 60 personnel units. This result can be due either to a faster increase or to a lower decrease in the headquarters workforce compared to the workforce located elsewhere, but in both cases it can be interpreted as a preference for safeguarding jobs in the headquarters. The finding, both statistically significant and economically relevant, is robust to different specifications of the econometric model, and suggests that family firms' strategies are strongly influenced by factors related to the place of birth of the firm itself.

The interest in the geographical variability of employment adjustments lies in the fact that (as shown by the recent case of the Fiat group, where the tension between workers and management about a new labor agreement was leading to the closure of the company's main plant in Italy) the traditional relation between a firm and the territory(ies) where it is located, characteristic of a closed economy, may have changed dramatically due to international competition and may have gained momentum after the 2008 turmoil. In fact, in a globalized economy where countries compete for attracting investments, firms are not only exposed to international competition but also more easily prone to the reallocation of parts of their production out of the home country. Thus, it becomes relevant to study whether family and non-family firms behave differently when it comes to choosing the optimal plant (re)location and the subsequent investment strategies, because this may reflect a difference in the objectives pursued by the owners depending on the corporate structure. In other words, given the ongoing process of delocalization, we may need to understand where the firm is likely going to "sacrifice" home production in order to remain competitive in international markets.

Finally, we offer a new theoretical framework, called the social recognition motive, which is in line with the observed results. In particular, this would explain the observed different paths of employment adjustments at the headquarters of family firms as opposed to non-

family ones, differently from the credible commitment hypothesis. The idea, which will be explained in detail in the paper and also tested empirically, is based on the presumption that family firms internalize, more than family-unrelated companies, the social pressure originated from the community of stakeholders surrounding their headquarters plants in order not to reduce (or even increase) the workforce levels, in a situation of general deterioration of the national economy. The theory is grounded on contributions coming from sociology (see, for instance, Coleman, 1990) and behavioral economics (see, for instance, Fehr and Fischbacher, 2002)² stressing the importance of social norms, implemented at the community level, in influencing individual behaviors. The social recognition motive is in line with other recent contributions in economic literature (see for instance Bandiera *et al.*, 2010; Guiso and Rustichini, 2011), focusing on the amenity potential connected with ruling the firm. It is also compatible with recent findings from Landier *et al.* (2009), who showed the existence of a negative relation between the rate of dismissal of divisional employees and the distance from corporate headquarters, using US data.

The remainder of the paper is organized as follow: section 2 describes the data used for the analysis and provides some descriptive statistics; section 3 describes the effects of the Great Recession which will play a role for our empirical and theoretical discussion; section 4 presents the economic motivation; section 5 shows the econometric strategy we used and the results obtained; section 6 is devoted to the theoretical framework able to capture the observed results, presenting the theory of social recognition, and running robustness checks on it; section 7 is aimed at directly testing the validity of the social recognition motive. Section 9 concludes.

2 Data sources and descriptive statistics

We use firm micro-data from the *Invid* survey, conducted yearly by the Bank of Italy on a representative sample of Italian firms and we build a balanced sample of firms for the period 2007-2009. The dataset contains quantitative data on the most relevant variables concerning the firm activity such as investments, employment levels, wages and revenues, together with many categorical variables indicating, for instance, the headquarter location, the economic sector, and, most importantly for us, the nature of the firm. More specifically, the following question was asked for three consecutive surveys in the first months of 2007, 2008 and 2009:

“Is the firm owned or controlled (directly or indirectly) by a physical person or a family?”

²See also Fehr and Fischbacher (2004) for a reappraisal by the same authors.

An answer to this question is the basis for defining our variable of interest, namely being a family firm or not. Given that the family nature of the firms was observed only from 2007, we focus on the 2007-2009 period, going back to 2005 only for those firms present for the whole 2005-2009 period. Limiting the analysis to this short time span is not a big concern for the purpose of this research, because we are still able to capture the structural change in firm behaviors induced by the current economic recession, the scope of this study. Being able to classify firms as family ones through an explicit question has an advantage compared to the standard use of proxies, based on the percentage of shares detained by the majority shareholder. As discussed by Corbetta (2010)³, classifying a firm as a family one simply on the basis of the observed composition of the shareholding can be misleading, given that the family characteristics of a business crucially rely on the intensity of the links among the different owners and on the degree of their strategic cohesion with respect to the future perspectives of the firm's activity. Therefore, a self-reported answer in this setting provides a more robust basis for comparison between family and non-family firms.

Invind allows us also to disaggregate the workforce levels into geographic areas, since the Italian territory is divided into 4 macroareas (North-East, North-West, Center and South, including Sardinia), with a separate indication of the firm headquarters. As will be seen, this crucial information is exploited to perform the econometric analysis, because it adds a source of variation in the data not commonly available in empirical literature about family firms. From now on the region where the headquarters are will be denoted with the term headquarters. Since the analysis is restricted to multiplant firms (i.e. firms with plants located in more than one region of Italy), the 2007-2009 panel is reduced from 3340 to 712. Furthermore, given that we want to compare firms with multiple production sites (the concept is widely extended, as service firms are included), it was decided to exclude the firms with less than five employees either at the headquarters or far from them in 2007. In these cases it is assumed that one would be observing administrative or commercial offices of the firm, rather than production sites. The *Invind* information about the family nature of the firms was integrated and sometimes revised by using information from financial databases.⁴ The web sites of the companies sometimes provided useful information.

These multiple checks to the *Invind* questionnaires permitted to adjust the classification in the few instances of anomalies.⁵ The data cleaning left 529 truly multiplant firms, of which 246 are classified as family, 215 as private and non-family, 33 as state-controlled and 35 as cooperatives. The last two groups were not considered in the analysis. For each firm

³See also Bianco *et al.* (2009) on this point.

⁴We used *Amadeus*, a pan-European financial database providing detailed accounting information, together with a full structure of the governance and ownership of the firms, when available.

⁵This happened in cases when *Invind* classified a firm, known to be clearly in the hands of a family, as non-family, or when a company under public control was labeled as privately-owned.

two variables were constructed: the number of employees within the headquarters region and the number of employees outside this region.

Table 1 provides a summary description of the main variables relative to the sub-sample of the multiplant firms used.

Insert Table 1 here

From the table we can see that family firms are smaller than non-family ones, with a higher proportion of workers employed in the headquarters region, with respect to other locations. The smaller size of family firms is also reflected in the volumes of revenues generated. There is no significant difference in terms of hours of *Cig* (acronym for Cassa Integrazione Guadagni) over annual working hours, both before and after the crisis. The *Cig* represents a wage subsidy (a fraction of the standard salary) paid by the social security system, to sustain workers employed in sectors affected by negative economic shocks, either temporary (ordinary *Cig*) or structural (extraordinary *Cig*). Workers thereby receive a monetary compensation for the amount of working hours lost because of the crisis. The length of the *Cig* regime is limited in time, ending either with reintegration in the firm workforce (if the negative shock was transitory) or with unemployment. Finally, non-family firms tend to be slightly younger than family firms. The effects of the recent global economic crisis are seen through the substantial decrease of most of the performance indicators, in particular in the significant deterioration of the *ROA* (Return on Assets).

Table 2 shows the share of workers outside the headquarters region, according to the macroarea of the firm headquarters.

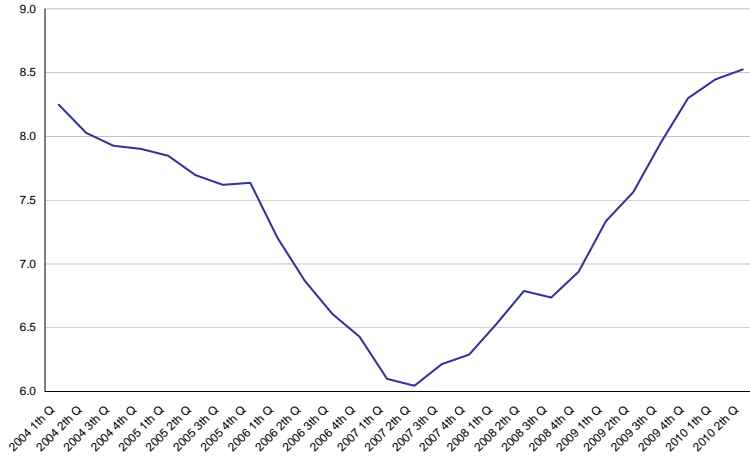
Insert Table 2 here

It emerges that, before and after the crisis, both family and non-family multiplant firms employ a sizeable part of their workforce outside their headquarters region.

3 The effects of the Great Recession

The object of the empirical analysis is to see how the 2008 economic crisis has influenced firm employment decisions, and in particular to see whether there are differences between family and non-family firms. Unlike other time periods, the one examined is characterized by a huge negative aggregate shock affecting the economy as a whole, therefore representing an exogenous variation for both family and non-family firms. To give an idea of the impact of the current economic recession on the Italian economy, figure 1 plots the deseasonalized time series for the unemployment rate in Italy, computed by the national bureau of statistics (ISTAT), for the period 2004-2010.

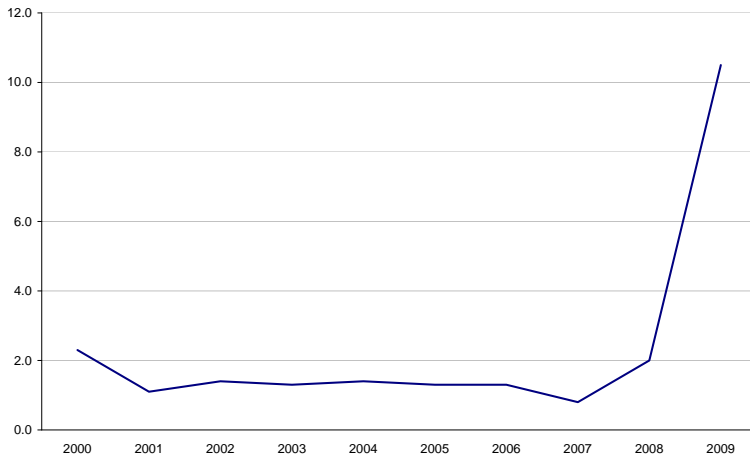
Figure 1: Unemployment Rate (%) - Deseasonalized



It can be immediately noticed that the declining trend in the unemployment rate, which reached a minimum at the beginning of 2007, reversed from the end of that year (this was the moment when the crisis began to spread in Europe), with an upward slope for the years 2008 and 2009.

Figure 2 shows the impact of the crisis on the sample of multiplant firms considered, in terms of average percentage of hours of *Cig* (as previously defined) over annual amount of working hours.

Figure 2: Multiplant firms: hours of Cig over hours of work (%)

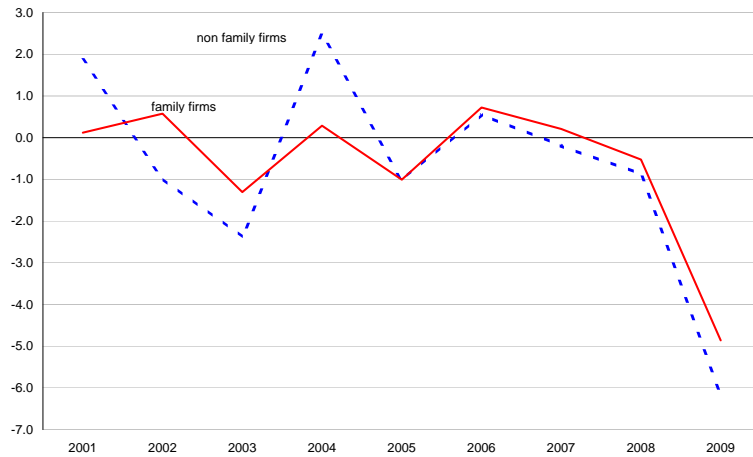


Not surprisingly, the recession negatively affected not only the rate of unemployment, but also the use of *Cig* (both ordinary and extraordinary), with a sharp increase (from 0.8% in 2007 to 10.5% in 2009). The figure also suggests that it is appropriate to use 2009 as the reference year, because most of the effects of the current economic crisis in Italy appeared in all their magnitude with a lag of over a year, with respect to the crash of the US housing

market.

Another measure of the impact of the crisis on the sample of multiplant firms is represented by the average percentage variation in the annual working hours per worker: figure 3 unambiguously shows that both family and non-family companies were similarly affected by the 2008 turmoil, with most of the effects appearing in the year 2009.

Figure 3: Multiplant firms: percent variation of hours worked per capita



Apart from the effects on the real economy, the 2008 recession represented a turmoil also in terms of uncertainty about the present and the future as it is perceived by public opinion. Figure 4 measures the number of times, within a given year, that the word “*disoccupazione*” (unemployment) appears in the titles of the most important Italian newspapers, therefore representing the media exposure of job loss fear within the population.⁶

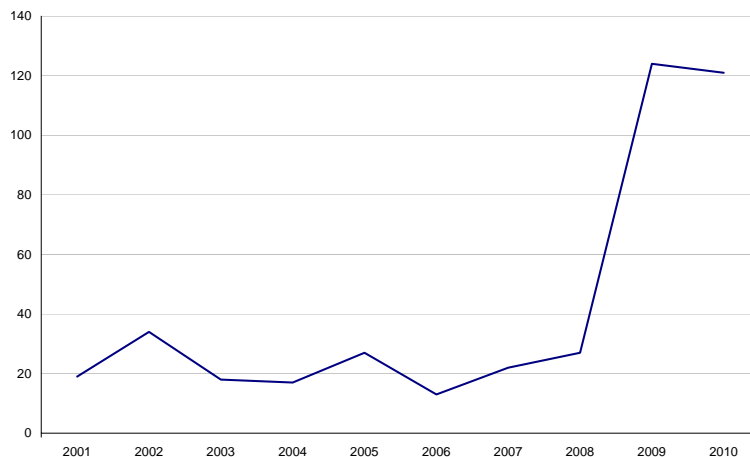
It is interesting to notice the timing of the huge increase in attention devoted by the newspapers towards the unemployment issue. In fact, as for the effect on the hours of *Cig* depicted in figure 2, figure 4 shows that the economic crisis is perceived in all its gravity with a delay of one year with respect to the crash of the US housing market at the end of 2007. The number of times the Italian term for unemployment features in the titles of the newspapers increases by around 360% between 2007 and 2009.

4 Motivation

Previous studies on the relation between the family status of the firm and the degree of job security offered to workers have emphasized the importance of what can be define as the credible commitment hypothesis. In particular, the theory supported by Sraer and

⁶Source: data from the on-line archive of the Italian Parliament. The Italian newspapers considered are in the top 12 among those with national coverage, according to data collected by Accertamenti Diffusione Stampa. In particular, we considered: *Avvenire*, *Corriere della Sera*, *Il Giornale*, *Italia Oggi*, *Liberio*, *Il Manifesto*, *Il Messaggero*, *La Repubblica*, *Il Sole 24 ore*, *La Stampa*, *Il Tempo* and *L’Unità*.

Figure 4: Occurrences of the word unemployment in the Italian newspapers' headlines (times/year)



Thesmar (2007) and by Bassanini *et al.* (2010), suggests that family firms react to economic fluctuations by adjusting the workforce less than as opposed to widely held companies. This happens because the credibility fostered by the longer term investment horizon of the family firms induces both the entrepreneur and the employees to agree on a contractual scheme that insures the workers against negative firm performances by offering lower wages.⁷

The theory is fascinating and economically meaningful, but not easy to test with non-experimental data, with only the time dimension as control for unobserved effects. In fact, even if one were to observe a different path of adjustment in the workforce levels between family and non-family firms as a consequence of the economic crisis, it would be difficult to claim that this is the causal effect of the different contractual agreements implicitly signed by the employer with his employees, because other variables connected with the family status may have changed with time and have affected the outcome variable. For example, it could be argued that, because of the longer term horizon of investments, family firms are abler than widely-held companies to renegotiate the conditions of debt repayments with their banks and that therefore they do not suffer the financial constraints induced by the economic crisis in the same measure. Consequently, family firms might be able to avoid an activity downsize, thus keeping the employment levels relatively stable.

The example therefore suggests that, if the family status is correlated with some relevant unobserved variable changing with time, by taking the time difference (equivalent in our setting to the use of a fixed effect model) we could not solve the problem of identification, because the coefficient associated with the family status would not be clearly disentangled in its components, and any causal inference would then be impossible.

⁷See also Favero *et al.* (2006) and Muller and Philippon (2006), on this point.

In addition, one may suspect that the family status affects the way employment levels adjust to the economic downturn in different ways, depending on the nature of the plants being close or far from firm headquarters. The idea will be developed in depth in section 6, but the motivation can be traced back to the peculiar relation between the family entrepreneur and his territory of origin, which, on the contrary, is negligible for the appointed CEOs of a widely-held company. The sense of the previous argument can be more easily captured in the following quotes, where different attitudes towards the territory where the firm is established seem to emerge, between the former family owner of the FIAT group, Gianni Agnelli, and the current CEO of the same automobile group, Sergio Marchionne, to whom the original controlling family has devolved most of the decision-making power, after the inter-generational transfer of company stocks.

In particular, at the Annual Family Business Network World Summit, held in Rome in 2001, Gianni Agnelli spoke about the family firm in the following way:

*“The roots in a community, in its culture, in its values, are an integral part of the firm identity. They induce the entrepreneur to incorporate in the actions and decisions he takes an attention and a sense of responsibility towards the community, its problems and its expectations about future developments. This attention and this sense of responsibility cannot be separated from the primary objective of competitiveness. In fact, competitiveness is the premise and condition for any social role played by the firm. But this constant search for a balance between higher competitiveness and deeper integration with the local and national territory represents one of the constituent dimensions of the family firm.”*⁸

The next quote, instead, reports the reaction of Sergio Marchionne, at the beginning of 2011, to the debate concerning the new labor contract to be approved by the workers in the Turin plant, where the company has the historical headquarters:

“With 51% of votes in favor of the new agreement, we can solve the controversy and the investment is realized. If 51% is not reached, everything blows up and we go away. Fiat has alternatives (to Turin), let’s see what happens Thursday and Friday.”. And about the social responsibility Fiat should consider when taking its decisions, the CEO adds: *“My role is humbler: I produce and try to sell cars. The social problems cannot be solved by Fiat.. We, as Fiat, can only create the conditions for economic development.”*⁹

⁸Translation from Italian. The original text can be found in Corbetta (2010), page 27.

⁹Translation from Italian. The original text can be found on the on the web edition of the 11th January 2011 issue of Corriere della Sera.

Although anecdotal, the comparison of the two quotes seems to suggest that important differences appear in the strategic vision of the firm, as conceived by the former family owner and the current CEO of the FIAT group. The common focus of the two speeches is that competitiveness is a necessary precondition for the survival of the firm and the economic development of the territory. However, the two speeches differ in the fact that the current CEO's words lack any reference to the the responsibility of Fiat towards the the community where it is rooted.

Therefore, we may conjecture that employment levels adjust differently, according to the nature of the firm, either family or not, due to the nature of the plants considered, rather than to different agreements implicitly signed by entrepreneurs and workers, something not controlled by Sraer and Thesmar (2007) nor by Bassanini *et al.* (2010). In particular, a headquarters effect specific to family firms might exist, which induces family firms to absorb differently the effects of economic shock in plants close to their headquarters, with respect to other plant locations. In other words, family firms, as opposed to non-family ones, may have a preference for the headquarters plants as opposed to plants far from the headquarters. As already mentioned in the introduction, if this were the case, it could be expected that family firms pursue delocalization strategies differently from widely-held companies, inducing them to "sacrifice", in the name of competitiveness, plants that are far away from the headquarters.

5 Empirical analysis

5.1 Identification

To test the possibility of a different geographical adjustment path in the workforce levels of family and non-family firms, the time dimension of the data must be exploited contemporaneously to the within-firm variation in the geographical distribution of the workforce, either close or far from headquarters (as explained in section 2).

Using econometric terminology, when comparing family and non-family firms, it is necessary to consider not only the time difference between 2007 and 2009, to determine a time variation in the employment levels, but also the within firm difference between the employment levels close and far from headquarters, to get rid of time varying but plant invariant fixed effects. With respect to standard panel data approaches, the cost of adding a further source of variation in the regression consists in the loss of a significant amount of the original *Inwind* sample observations, because only multiplant firms are considered. On the other hand, great benefit derives from making the comparison between family and non-family firms more robust against potential confounding factors, as, in the regression, the headquarters-specific differential effect induced by the crisis between family and non-family

firms can be isolated. In other words, after the double difference in the workforce levels, the residual variability between family and non-family firms is necessarily a time varying effect which differentiates the headquarters from the other production sites.

In order to be able to identify the causal effect of the 2008 economic shock on the employment decisions made by the firms, either family or not, it is necessary to make two types of assumptions related to the quasi-experimental setting exploited in the empirical strategy.

Firstly, it is assumed that the family status of the firm is independent of the shock, hence that there are no anticipated changes in the family status of the firms with respect to the 2008 recession. If, on the contrary, the crisis has been anticipated and determined a relevant change in the corporate ownership from family firms to non-family firms, a problem of self-selection would arise. In fact, it could not be assumed, as required for any causal statement, that the economic shock is exogenous to the family status of the firms. However, in view of the exceptionality of the event and the fact that the economic recession hitting the Italian economy was imported from the US, it can be confidently argue that the exogeneity assumption is satisfied.

The second assumption required for the identification of the causal effect is the pre-crisis common trend, expressed at the within firm difference level. The assumption of a common trend prior to the shock is necessary when exploiting a time-break in the observations, in order to attribute the *ex-post* effect to the shock itself and not to other existing factors. The validity of this assumption can be checked by looking at the within firm trends for the period 2005-2007.

We start by estimating the following regression:

$$\Delta_t Empl_{ifh} = \alpha_0 + \alpha_1 Head_{ih} + \alpha_2 Family_{if} + \alpha_3 (Head \cdot Family)_{ifh} + X_{ifh}\beta + \Delta_t \epsilon_{ifh} \quad (1)$$

where $\Delta_t Empl_{ifh}$ is the time difference in the workforce levels for firm i , either family or not (denoted by the subscript f), observed at the headquarters or in other plants (denoted by the subscript h); $Head_{ih}$ is a geographical dummy equal to one if the firm is observed at the headquarters and zero otherwise, $Family_{if}$ is a dummy equal to one if the firm is a family firm and zero otherwise; X_{ifh} includes dummies for sectors, macro-areas of the headquarters, also interacted with the family dummy, size in 2007, also interacted with headquarters dummy and a variable indicating the year of foundation. The inclusion of these control variables is intended mainly to improve the quality of the estimates, except for the size dummies, and their interaction with the the headquarters dummy, used to capture

possible scale effects correlated with the family status¹⁰. One of the specifications used as robustness checks includes the percentage change in firm revenues, also interacted with headquarters, to control for the possibility that differences in the employment adjustments between family and widely-held companies are driven simply by differences in the reaction to economic shock.

The coefficient of interest in the analysis is associated with the interaction term $(Head \cdot Family)_{ifh}$, capturing the effect of the 2008 aggregate shock on the relative employment adjustments at the headquarters of family firms, as opposed to non-family firms. Therefore, under the previous assumptions of exogeneity of the shock and of pre-treatment common trends between family and non-family firms, we can consistently estimate α_3 , being

$$\begin{aligned} \alpha_3 = & \{E[\Delta_t Empl_{ifh} | Family = 1, Head = 1, X_{ifh}] - \\ & E[\Delta_t Empl_{ifh} | Family = 1, Head = 0, X_{ifnh}]\} \\ & - \{E[\Delta_t Empl_{ifh} | Family = 0, Head = 1, X_{ifh}] - \\ & E[\Delta_t Empl_{ifh} | Family = 0, Head = 0, X_{ifnh}]\} \end{aligned} \quad (2)$$

Note that the difference in difference approach proposed in this paper will not allow to reject or confirm the credible commitment hypothesis, because the focus is on differences in behaviors within the firm at and far from the headquarters. Therefore, while an estimate of α_3 not statistically different from zero would support the idea that the discrepancies between family and non-family firms would need to be found at the firm level (thus eventually in different wage/job-security schemes offered), an estimate of α_3 different from zero would imply at least the existence of other sources of variations between family and non-family firms which are headquarter specific, apart from those which may exist at the firm level. In other words, α_3 different from zero would suggest the existence of other explanations, not related to the credible commitment hypothesis.

5.2 Results

Figure 5 allows for an initial assessment of the adjustment paths of the workforce levels for family and non-family firms, in terms of the difference between employment in the headquarters region and employment in other plants of the company. The difference between panel A and B lies in the different samples considered: panel A plots the average difference in employment levels between headquarters and other plants, focusing only on firms observed in 2007 and 2009, while panel B refers to the balanced panel for the years 2005-2009.

¹⁰It was also checked the importance of the relative percentage of workers in the headquarters over the total workforce in explaining different trends between family and non-family firms. As expected, once controlled for the size of the firm, this variable has no explanatory power, thus it was omitted from the analysis.

Figure 5: Employment Adjustments: Family vs Non-Family Firms (*personnel units*)

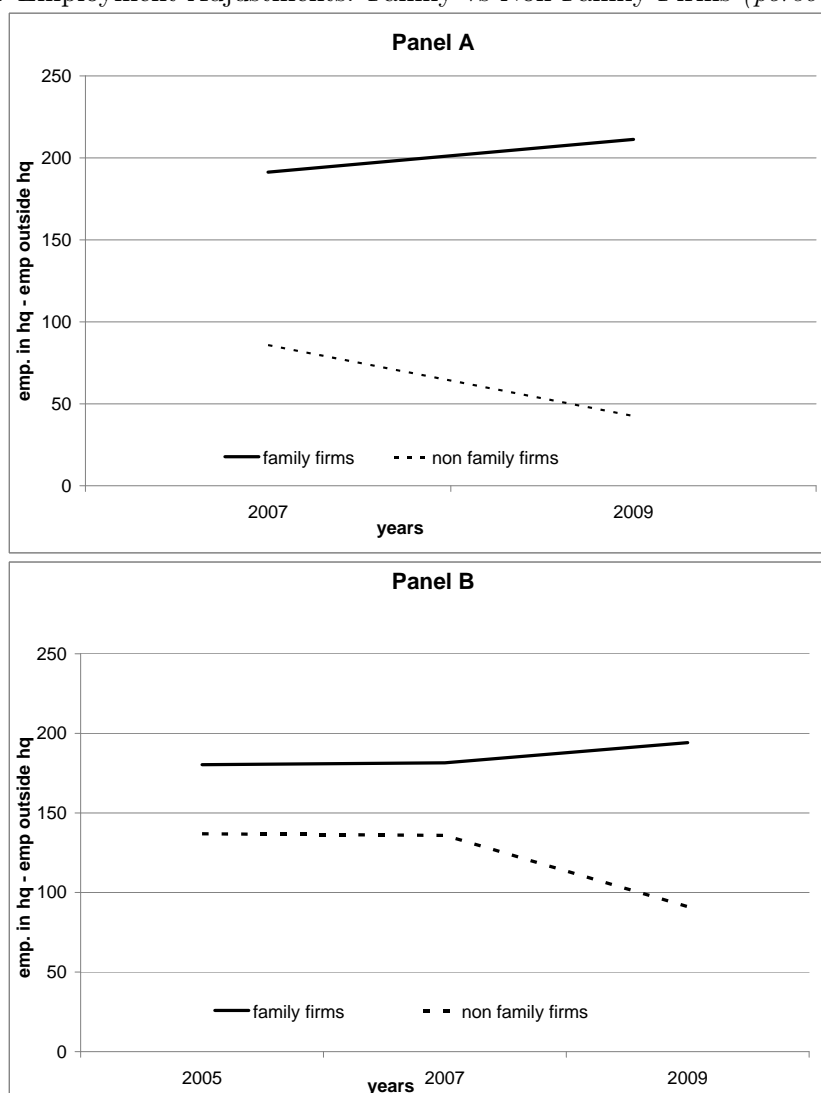


Table 3 reports the estimates of the coefficients, together with the statistical significance of the differences observed in figure 5.

Insert Table 3 here

It emerges from these figures that family and non-family firms had divergent trends of relative employment adjustments after the 2008 economic shock. In particular, the distance between workforce levels close to the headquarters and the workforce elsewhere increased for family firms, while it shrunk for non-family ones. This may be due either to a smaller decrease or to a faster increase in the workforce close to the headquarters relative to the workforce in the other plants, but in both cases it suggests that family firms tend to safeguard more the employment levels “close to home”, differently from non-family privately-owned

firms.

If only the balanced sample of firms observed in the period 2005-2009 (71% of those observed only in 2007 and 2009) is considered, no differences emerge in trends for the two years preceding the shock, while the trend for the period 2007-2009 is comparable with the one observed in panel A. Hence, it can reasonably be argued that also for the firms observed in 2007-2009, but not in 2005-2007 (29% of the sample), the difference in trend is the result of the 2008 economic shock and did not exist before.

Table 4 presents the results of the econometric estimation, as from equation (1). Columns (1) and (2) refer to the entire sample of firms observed in the period 2007-2009; column (3) differs from column (2) only in respect to the additional inclusion of the percentage change in revenues, also interacted with the headquarters dummy; column (4) refers only to the sub-sample of manufacturing firms, observed in 2007-2009; columns (5) to (7) refers only to the sample of firms appearing in the entire period 2005-2009 (balanced panel), whereas the last column refers to the estimation for the period 2005-2007.

Insert Table 4 here

The results of the difference in difference approach are in line with the graphical representation shown previously. In particular, considering the entire sample for the period 2007-2009, the coefficient α_3 is positive and always statistically significant at the conventional levels, implying that, compared to non-family firms, where the workforce at headquarters shrunk or remained stable with respect to the workforce elsewhere, the employment adjustments in response to the economic recession have determined for family firms a statistically significant increase of more than 50 workers at the headquarters, with respect to employment levels in other locations. The results are also economically relevant, because the magnitude of the coefficient α_3 represents around 8% of the total workforce in 2007 for family firms.

Similar results are found for the firms present in the survey in all the years 2005-2009, even if the reduced sample size lowers the estimate accuracy. The common trend assumption necessary to interpret the results as the effect of the 2008 negative economic shock is justified by the evidence that nothing shows up for the pre-crisis period (2005-2007), where family and non-family firms appear to have statistically identical within-firm workforce adjustment paths.

These figures confirm that the 2008 economic shock, exogenously hitting the Italian firms, caused a divergence in the employment policies of family and non-family firms, with the former focusing on workforce level preservation, or even creation, at the headquarters, while the latter adjusting their workforce more evenly. The next step is understanding the causes of these different behaviors. Section 6 is intended to provide a new theoretical

framework, apt to explain the previous results, that will be tested more directly in section 7.

6 Theoretical frameworks

6.1 The role of social recognition

In recent years, most economic literature about family firms has focused on the relative performance of family businesses as opposed to non-family ones. Some authors focus on the perverse incentives connected with detaining the full control over the firm (see for instance Pérez-Gonzalez, 2006, or Bennedsen *et al.*, 2007) while others point out the potential benefits coming from an established and continued relation between the family and the firm (see for instance Anderson and Reeb, 2003, or the already mentioned Favero *et al.*, 2006, and Sraer and Thesmar, 2007). Although not conclusively assessing the relative outperformance/underperformance of family *versus* widely-held firms, the empirical works seem to suggest that, underlying the performance difference of the two types of business structure, there is a divergence in the objective function to be maximized, involving in the case of family firms a departure from the standard maximization of profits described in classical literature.

In particular, as first pointed out by Demsetz and Lehn (1985) and recently formalized by Bandiera *et al.* (2010), the value function of a family firm seems to include a non-monetary component which is strictly connected to the amenity that the owner can gain by ruling the firm. As by Demsetz and Lehn (1985), this amenity potential can be interpreted as the pleasure connected with detaining the leadership and exercising the power of influencing public opinion (citing, for example, the buying of sport teams or broadcasting companies), while for Bandiera *et al.* (2010) owning the firm allows for the use of resources for personal or family purposes (intended mainly as a tunneling of resources for private tangible benefits). The concept of amenity potential has also been indirectly investigated by Guiso and Rustichini (2011), showing empirically that entrepreneurs with high managerial skills (captured using a measure of testosterone) tend to oversize their firms with respect to the optimal size (reflected in a lower return on assets), seemingly compelled to “empire building” and to accrue the size of the firm towards maximum visibility, not necessarily pursuing the objective of profit maximization.

The theoretical contribution of this paper is to develop the concept of amenity value into a direction not yet explored, that we define as *recognition value*. The recognition value is accorded (or denied) to the entrepreneur by the stakeholders surrounding the economic activity as a consequence of a positive (or negative) contribution to the well-being of the community, through the entrepreneur’s own decisions. In other words, the owner of the firm

gets utility not only through the profits generated but also through the respect and the social status attributed to him by the community of which he feels part.

6.1.1 Source of social recognition

The idea that social recognition may be an important element for describing the behaviors of family firms is based on the assumption that, differently from widely-held corporations, the owner of a family firm interacts with the community of stakeholders not only as an entrepreneur but also as a member of the community. In fact, he is constrained in his economic decisions not only by formal laws and regulations but also by social norms that, as by Fehr and Fischbacher (2004), are defined as “*standards of behaviour that are based on widely shared beliefs how individual group members ought to behave in a given situation*” (p. 185). Therefore, it is the membership of the family owner in the community that determines his implicit acceptance of the social norms, aimed at preserving collective objectives considered relevant for the social well-being.

The enforcement of these social norms is not guaranteed through formal sanctions, as would be in the case of violation of the law, but is secured through a social recognition which is accorded (or denied) depending on the conduct of the entrepreneur. In other words (Fehr and Fischbacher, 2002), “*peer pressure, social ostracism and, more generally, the cooperation-enhancing punishment of free-riders play a key role in the enforcement of social rule*” (p.18). As explained by Bowles and Gintis (2002), “*an effective community monitors the behavior of its members, rendering them accountable for their actions. In contrast with states and markets, communities more effectively foster and utilize the incentives that people have traditionally deployed to regulate their common activity: trust, solidarity, reciprocity, reputation, personal pride, respect, vengeance, and retribution, among others*” (p. 7).

This implies that often a trade-off exists between the pursuit of individualistic interests and the compliance with social norms, driving individuals to balance the loss of private benefits with the reward offered by society.

6.1.2 Social recognition and the corporate structure

As already mentioned, social norms seem to be a relevant constraint to the action of the family owner while they are likely less influential when applied to the strategies of a widely-held firm. In fact, as Coleman (1990) points out, the modern corporation, owned by anonymous investors and managed by professional executives, being recognized in law as a person, as the subject and object of action, breaks the traditional mechanism of social control for natural persons used to encourage social responsibility; in particular, “*The detachment of corporations from individual persons and their construction instead around positions of which*

natural persons are merely temporary occupants means that socialization and norms applied to natural persons no longer constitute effective means for ensuring responsible action on the part of corporations” (p. 576).

Even assuming that widely-held companies are owned by a small group of identifiable individuals, therefore potentially responsible themselves for the breaking of social norms, it is clear that we cannot expect recognition (accorded/denied) to be as effective as for the strategies of a family firm. The reason is that punishment/reward comes diluted to the n^{th} shareholder of a widely-held company, while the family owner is fully exposed to it, being clearly identifiable as the one taking the decisions within the firm.

6.1.3 Work preservation as a social objective

If it is true that recognition depends on the adherence of firm strategies to a set of social norms shared by the community, what are the objectives identified as relevant for the collective well-being? Again referring to Coleman (1990), behind the need for social norms as a constraint to individual behavior, there is a problem of externalities caused by firm activity. Many potential sources of negative externalities linked to the economic activity of the firm can be cited, such as the classical example of pollution, or the enforcement of safety norms in working spaces to avoid accidents. The present analysis, however, focuses on the social objective of preserving employment levels by the firm.

In other words, it is assumed that society demands that the entrepreneur internalizes (at least partially) the negative externalities, suffered by the stakeholders, deriving from firing workers. These negative externalities represent the theoretical justification of the existence of social norms and vary from the psychological consequences for those who actually lose their job and for their families, to the stress generated by those who keeps their jobs and feel the risk of being fired themselves (see Clark *et al.*, 2008).

Moreover, the decision to cut jobs or to shut down entire plants can also trigger off a phenomenon of economic desertification. In fact, a certain number of ancillary businesses are often created in the vicinity of the plants, for instance for the provision of product components or for the distribution services. Closing or reducing significantly the activity of a plant may in turn harm these related economic businesses, with significant effects on the local economy affected by the decision. The main consequence may consist in a sensible deterioration of the social peace in the community, and the risk of potentially raising criminal activities. Take as an example the city of Detroit, hit in the last decades by the huge process of restructuring and downsizing of its largest economic sector (the automobile industry) and facing, in 2008, the second highest unemployment rate and the highest rate for violent crime

in the US¹¹.

The intensity of social pressure to induce “responsible” actions by the entrepreneur increases as the likelihood for the fired worker to find easily another job decreases; thus, the phenomenon is likely to play an important role in countries, like Italy, with significant entry barriers to the labor market, and it is amplified during economic downturns when the overall rate of job creation is reduced.

6.1.4 Model

In this section a simple modeling of the objective function of the firm is provided, to show how the equilibrium levels differ once the recognition value is taken into account, therefore illustrating the theoretical underpinnings of the empirical analysis. The modeling takes Dufwenberg and Lundholm (2001) as a reference to introduce what the authors call social payoff (in a context of exerting the optimal level of effort for finding a job) and that in our notation is the recognition component of the value function.

We make the following assumptions:

- Community cares about employment level
- Wages are given for the firm
- Recognition is valuable by both the owner of the family firm and to the controlling shareholder of the widely-held company

The second hypothesis simply assumes that firms are price takers and that, at least in the short run, market wages stay constant. The third assumption states that all individuals appreciate in the same way the recognition offered by others, and therefore there is no matching between different human behaviors and different corporate structures. Assuming that family firm owners intrinsically appreciate more recognition with respect to greedy dispersed shareholders would not change the final result but would limit the horizon of the analysis to a specific and likely unrealistic situation.

In a classical modeling of entrepreneur’s behavior ignoring social concerns, the objective function coincides with the profit function, which for simplicity (but without changing the results) is made dependent only on labor, with a technology parameter A . An entrepreneur (our family firm’s owner) simply caring about the material payoffs of business activity would thus maximize:

$$V = \Pi = pAn^\alpha - wn \quad (3)$$

¹¹Taken from http://www.forbes.com/2008/01/29/detroit-stockton-flint-biz-cz_kb_0130miserable.html.

which leads to a standard result for the optimal demand of labor:

$$n^*(p, w) = \left(\frac{pA\alpha}{w} \right)^{\frac{1}{1-\alpha}} \quad (4)$$

If, otherwise, it is assumed that the entrepreneur also cares about the social approval from the community of reference, and the preservation of employment levels is considered as the primary objective of the community, the new objective function can be formulated as follows:

$$V = \Pi^{ff} = pAn^\alpha - wn + \phi(n - n^*) \quad (5)$$

Equation (5) reflects that society rewards the choice of the entrepreneur to fix the employment level above that chosen by ignoring social concerns at all (the optimal level of employment found in equation 3), that is by acting only in function of the profits. In other words, society rewards the effort of the entrepreneur to value not only his material payoff but also the beneficial effects on the community.¹² ϕ therefore measures the sensitivity of the entrepreneur to social recognition.

The first-order condition in this case leads to:

$$n^{ff}(p, w) = \left(\frac{pA\alpha}{w - \phi} \right)^{\frac{1}{1-\alpha}}, \text{ assuming } w > \phi \text{ to get an interior solution} \quad (6)$$

It may be noted that $n^{ff} > n^* \quad \forall \quad \phi > 0$, meaning that the entrepreneur tends to choose a higher level of employment with respect to the standard case. This, on the one hand, reduces the profits but, on the other hand, increases the social payoff. The higher the ϕ the bigger the weight given to the social component of the total payoff. In a community with weak social ties, it is expected that ϕ will be low, thus not representing a constraint to the pure maximization of profits by the firm.

Implicitly, so far only the family firm structure with a single entrepreneur choosing optimally the employment level of the firm has been considered. What about a company where the stakes are distributed among different shareholders, family-unrelated, with a majority shareholders owning a share of β votes? To do that, we need a further assumption:

- The firm is managed by a professional CEO paid to maximize the weighted sum of the utilities of ALL the shareholders, with the weights being determined by the proportion of stakes owned.

¹²Note that we assumed for simplicity a linear function for the amenity component of the objective function, as assumed also by Dufwenberg and Lundholm (2001). Given that the purpose of the model is not to derive a structural equation to be estimated, the simplifying assumption seems appropriate as it is not determinant to derive the main conclusions, in line with the previous theoretical discussion.

This last assumption allows us to write the value function to be maximized as follows:

$$V = \Pi^{whc} = pAn^\alpha - wn + \beta\phi(n - n^*) \quad (7)$$

In fact, for the n^{th} minority shareholder the utility coming from detaining a fraction ψ_i of shares is simply $\psi_i(pAn^\alpha - wn)$, while for the main shareholder the utility is $\beta(pAn^\alpha - wn + \phi(n - n^*))$. The difference between the objectives pursued by the majority and the minority shareholder lies in the fact that only the former is perceived by the community as determinant for firm's decisions, and thus he rationally internalizes the amenity potential connected to it. However, he shares the control and the decisional power within the firm with the other private shareholders. Summing up the utilities of all the shareholders, the expression in equation (7) is obtained. In this case, the optimization problem would lead to:

$$n^{whc}(p, w) = \left(\frac{pA\alpha}{w - \beta\phi} \right)^{\frac{1}{1-\alpha}} \quad (8)$$

Notice that the bigger is the fraction β of shares held by the controlling shareholder, the higher is his visibility in the community and therefore the higher the fraction of recognition he could obtain. Consequently, the employment level chosen by the manager of a widely-held company is structurally lower with respect to that chosen by the family owner, who gets the entire benefit from the social payoff, and tends towards the standard result implied by the simple profit maximization as β gets smaller (in the limit case of a public company β is negligible, and we are back to the standard modeling as in equation 3). Formally:

$$n^{ff} > n^{whc} \geq n^*, \text{ for } \beta < 1$$

From the above derivations, the effects of unanticipated shocks on the optimal factor demand can be immediately seen. In fact, an aggregate shock affecting the economy, by reducing the total demand will result in a decrease in the equilibrium price p and in the optimal level of employment n , assuming realistically that wages adjust less (in our assumption wages are fixed). Similar results arise because of a technology shock affecting the economy, in our model captured by variations in A .

Summing up, the simple modeling proposed above, aimed at formalizing the effects of considering the recognition value as one objective function of the firms, captures two features of the theoretical framework explained in the previous subsections: it stresses the importance of considering the level of employment (because communities care about the

absolute number of people who keep or find a job) and the different ways social recognition is internalized depending on the corporate structure.

6.1.5 Social recognition and behavior of multiplant firms

So far, the paper has dealt with the existence and the origin of social norms, how these are enforced, and why, at least from a theoretical perspective, family firms are strongly influenced by social pressures as opposed to non-family firms. The next question is how this theoretical framework can explain a different reaction of multiplant family firms to a negative shock and specifically how social pressure could determine a bias towards safeguarding the headquarters workforce as opposed to the workforce elsewhere. If we take a family and a non-family firm, both with plants at and far from the headquarters, what happens when the firms have to decide to hire/fire workers as a consequence of a shock induced by the market?

In accordance to what has been theorized hereto, it would be expected that the family firm will prefer to safeguard the employment levels close to the headquarters as opposed to the workforce far from them, because the entrepreneur is part of the community where the headquarters are settled, and is therefore more exposed to the social disapproval. Undeniably, social concerns are expressed also by the communities surrounding the plants far from the headquarters, but the lack of a direct identification between them and the family owner makes social pressure ineffective in determining the firm's employment policies.

It would similarly be expected that the decisions of a non-family firm will be based on efficiency reasons, rather than on social concerns. While they too might prefer keeping employment levels relatively higher at the headquarters with respect to the other plants, we expect that, *ceteris paribus*, this occurrence will be on average significantly lower, compared with family firms, because the effect induced by social pressure at the headquarters is either missing or attenuated.

6.2 Alternative explanations

The previous results, namely the increase in the distance between employment levels at the headquarters and far from them, for family firms compared to non-family ones, are consistent with the idea that social pressure exerted towards the family owner induces him to prefer safeguarding the headquarters workforce. However, there are other potential reasons which may explain our findings, unrelated to the social recognition motive. Whereas some of them are unlikely relevant in this case, others cannot be totally ruled out, due to the limited amount of available plant-level information.

6.2.1 Nature of the headquarters: difference between family and non-family firms

Let us imagine that the composition of the workforce in terms of blue and white collars is different, depending on the nature of the plants, and assume that there is a higher proportion of white collars at headquarters than in other plants, due to the strong link typically existing between headquarters and some functional areas like finance or marketing. This fact may induce different job dismissal or hiring policies depending on the plant under consideration, leading for instance to a stronger reduction in plants far from headquarters for family firms. By comparing the reaction of family versus non-family firms, the empirical approach is able to control for this heterogeneity, as long as there are no systematic differences in the nature of plants related to company ownership structure.

This reasonable assumption could be falsified if domestic firms are compared to firms under foreign control. It might be, for example, that the Italian headquarters of a foreign multinational are mere subsidiaries of the true headquarters established abroad, therefore not systematically different from the other Italian plants. A robustness check was therefore run by re-estimating equation (1), after excluding the foreign firms. As the first column of table 5 shows, the previous findings still hold, thus confirming the validity of the results.

Insert Table 5 here

As a further robustness check equation (1) was re-estimated only with those firms having in 2007 an employment level at the headquarters greater than the total workforce far from headquarters. This was the way used to control for the risk that, in the alternative case, firms whose headquarters may not represent the true core of the business organization were included. The second column of table 5 shows that the previous findings are, also in this case, strongly confirmed.

In both cases, the common trend assumption referred to the pre-crisis period 2005-2007 was checked and no statistically significant differences between family and non-family firms were found.

6.2.2 Nature of plant agreements between firms and workers

An alternative explanation of the observed differences in workforce adjustments between family and non-family firms is related to different labor contracts signed by the workers, depending on the plant under consideration. For example, family-firm workers in headquarters plants might be more willing to agree on contracts offering flexible wages in exchange of higher job security, compared to workers employed in plants far from headquarters, with more rigid contractual schemes. These different contractual agreements would result from

peculiar attitudes of family firms towards their production sites, absent on the contrary for family-unrelated businesses. However, this explanation does not apply to this case, for several reasons.

Firstly, Italian labor legislation concerning layoffs forbids discrimination on the basis of the sector or the nature of the corporate ownership; distinctions are allowed only according to the number of employees (firing rules become more stringent for firms with more than 15 units). Secondly, in the different sectors, wages are negotiated at the national level between unions and firm associations (the so-called *CCNLs*, acronym of collective national labor contracts). Finally, the optional supplementary company-level labor contract, eventually signed at the plant level (the so-called “*contrattazione di secondo livello*”), can only negotiate work shifts, workplace safety measures and additional bonuses on top of the national baselines. Crucially, these agreements are typically discussed between the firm and the local unions every three years (the interval coincides with that of the *CCNL*). This timing precludes the flexibility required in times of sudden changes in the macroeconomic environment, such as the one considered in this paper.

6.2.3 Importance of political ties at the local level

Bertrand and Schoar (2006) argued that family firms, because of their long term horizon, are able to create stable political connections so that, in exchange of favors offered to the politicians, they benefit from favorable legislation or preferential access to public resources. However this argument holds in this setting only if the preferential relation is both negligible for non-family firms and, equally important, is headquarters specific. We believe that this factor cannot be relevant in explaining the results of this paper for at least two reasons.

Existing empirical evidence (see, for instance, Faccio, 2006) suggests that preferential treatment is rife in developing countries with widespread corruption, weak legal protection of property rights and feeble democratic institutions. In such conditions the firm itself exerts a lobbying power, often illegally, and can tunnel public resources towards its own interests. This scenario does not seem to apply to countries like Italy, where strict national and European laws prevent such phenomena on a large scale. Furthermore, corruption would need to be widespread at the local level, especially in northern and central Italy (where most of the firms have their headquarters), in order to be relevant for these results; this fact has never been documented.

Apart from the corruption hypothesis, there are still situations where public institutions legally allocate resources in order to sustain economically local firms as, for instance, investing in local infrastructures to reduce transportation costs. In such cases, it is rational to assume that the amount of public resources allocated will be proportional to the economic

relevance of the firm in the local community. The structure of corporate ownership and the nature of the plant (whether or not close to the headquarters) should not play any role. In fact, what matters for local politicians is the number of voters keeping or finding jobs during the crisis. The resources offered by politics are valuable for both family and non-family firms. Therefore, there are no valid *a priori* reasons supporting the idea that local politicians systematically favor family firms close to their headquarters.

6.2.4 Differences in plant's labor productivity

The differences in employment adjustments between headquarters and plants far from the headquarters might result from systematic differences in plant productivity between family and non-family firms. In particular, if, for family firms, plants far from headquarters are systematically less productive with respect to plants close to the headquarters, while this is not the case or even the opposite for family-unrelated firms, it may be observed, as a reaction to the 2008 shock, that family firms systematically decide to prefer the headquarters workforce. Available data unfortunately do not allow the measurement of plant productivity, and this hypothesis cannot therefore be ruled out.

However, even if differences in productivity across plants could be the transmission mechanism through which the crisis generated different employment adjustments, it cannot be excluded that this difference is exactly the objective pursued by the family owner, as a result of the different amenity value attached to the different production sites. In other words, it could well be that family firms tend to invest more close to the headquarters because of the higher value attached to work positions there, thus increasing labor productivity. On the other hand, the absence or attenuation of the amenity component may result in different allocations of investment (and thus of labor productivity) for non-family firms.

7 Testing more directly the Social Recognition Motive

In this final section the validity of the social recognition theory is investigated more directly, by looking at how the previous results change once the intensity of social pressure exerted at headquarters is taken explicitly into account. In fact, the previous results are obtained by averaging the heterogeneous effects exerted by social pressure in the different regions of Italy where the headquarters of family and non-family firms are located. In particular, under the hypothesis that social recognition influences employment adjustment paths, the positive coefficient α_3 of equation (1) should be statistically significant and economically relevant, specially for firms located in communities which are capable and willing to exert a significant pressure and therefore to accrue the recognition value for the family entrepreneur. On the contrary, the coefficient would be negligible for communities where the exerted social

pressure is also negligible. In other words, the higher the social pressure exerted at the headquarters of the family firm, the bigger the difference for family entrepreneur in the perceived value between additional job created (or saved) close to the headquarters and additional job created (or saved) at its distant plants.

To test this hypothesis social pressure cannot be directly measured; however, we can construct headquarters specific variables relevant in determining favorable/unfavorable conditions for the effective exertion of social pressure on the firm. These variables should capture the density and the cohesion of social networks, as suggested by Granovetter (2005).

The first variable is the level of social capital, proxied using the level of blood donation in 1995 referred to the province where the firm's headquarters are located (a variable well known in the literature, introduced by Guiso *et al.*, 2004). As stated by Putnam (2000), social capital refers to “*the collective value of all 'social networks' and the inclinations that arise from these networks to do things for each other*”. Therefore social capital measures the intensity and cohesion of a community around shared values and objectives. It is immediately clear that without strong social links and common objectives to be defended, there is no scope nor effective way for communities to exert social pressure. Therefore, it can be reasonably expected that those firms with headquarters located in areas with relatively low/high levels of social capital are also exposed to relatively low/high levels of social pressure during an economic downturn.

The second variable used is the economic relevance of the firm at the local level, measured in terms of working opportunities offered to the community. The idea is that social pressure (and hence social recognition for the entrepreneur), increases with the number of people involved in the activity of the firm, because in such a way the importance of the firm in terms of wealth generated within the community augments. In order to capture the relative importance of the firm at the local level, ratios between workforce levels in the headquarters region in 2006, $Employment_{i,HQ2006}$, and the size of local community have been constructed as follows:

$$Economic\ Relevance_k = \frac{Employment_{i,HQ2006}}{Population_k} \quad (9)$$

where $Population_k$ refers either to the population in the region of the firm's headquarters, or to that in the province of the firm's headquarters, or to that in the municipality where the firm's headquarters have been established. The use of three different scaling factors is justified by the fact that the exact distribution of workers within the region of the headquarters is unknown, and therefore it is necessary to control for cases in which the firm has possibly different plants within the region of the headquarters, located in different areas.

Using measures of social capital and of economic relevance for the local territory, and

assuming a one-to-one relation between these variables and social pressure, it is possible to construct a sample distribution for social pressure and to split the observations into two groups, corresponding to firms with headquarters in areas with a level of social pressure below or above the median of the distribution (this strategy is analogous to that pursued by Landier et al., 2009). Equation (1) can be re-estimated within each group of observations, to check whether results change in accordance to our theoretical prediction.

Before showing the results, let us focus on the way the sample distribution of social pressure has been constructed, on the base of the level of social capital. Two types of concerns dissuaded us from using directly the levels of blood donations to define the median of the distribution. First of all, there is a problem of sample bias with respect to the geographical distribution of the observations, given that firms are unevenly distributed on the Italian territory. In other words, it may be that the median level of social capital is skewed towards high levels of social capital. Additionally, we want to avoid that the split around the median merely reflected the historical gap between northern and southern Italy.

To tackle the problems outlined above, the level of blood donation, $SocialCapital_k$, was preliminarily regressed for all the k Italian provinces on a geographical dummy $North_k$, equal to 1 if the province is located in northern Italy and zero otherwise.

$$SocialCapital_k = \alpha + \beta North_k + \epsilon_k \quad (10)$$

The median of the distribution was then defined on the basis of the residuals obtained from the previous equation. Finally, the provinces present in our sample were matched with the entire population of provinces, obtaining a split of the sample observations based on the median of the entire distribution, net of the north/south gap effect. We have obtained two groups of observations, for which we have re-estimated equation (1). Table 6 shows the results.

Insert Table 6 here

As predicted by the social recognition theory, it can be observed that the positive family-headquarters effect, captured by α_3 in equation (1), is statistically significant only when sufficiently high levels of social pressure are considered, while it is negligible for relatively low levels of social pressure. The results are robust to the different specifications of social pressure, as defined previously. As usual, the common trend assumption referred to the period 2005-2007 was also checked, within each group of observations, founding no statistically significant differences between family and non-family firms.

Hence, table 6 suggests that not only there exist within firm differences between family and non-family firms in the employment adjustments, but that those differences are likely the

result of specific conditions characterizing the communities surrounding the headquarters, namely the presence of significant social pressure exerted towards the firms.

8 Conclusions

The economic recession hit the Italian economy in 2008, determining a sharp increase of the unemployment rate at the national level and consequently a growing uncertainty about the future, especially for workers not protected by public insurance mechanisms or unemployment benefits. The crisis affected both family and non-family firms. However, the economic downturn has generated divergent paths of adjustment of the employment levels within firms, depending on the geographical location of the plants. While in the pre-crisis period 2005-2007 family and non-family firms showed equivalent trends in the distribution of the workforce, either close or far from the headquarters, a significant difference emerges between the two types of firms in the years 2007-2009: family firms systematically safeguarded workforce levels close to the headquarters with respect to the rest of the workforce, as opposed to non-family firms.

These findings are consistent with the idea, already recently formalized by Bandiera *et al.* (2010), that family firms attach greater weight to the benefits deriving from the amenity component of their objective function, compared to non-family companies. Apart from the objective of maximizing profits, the family firm owner seems to value control per se, meant in our setting as the prestige and recognition of his entrepreneur status by the community he belongs to.

At the same time, as firstly pointed out by sociologists as Coleman (1990) and recently underlined by behavioral economists as Fehr and Fischbacher (2004), social norms are important tools for the community to induce individual behaviors recognized as beneficial (or at least not detrimental) for its members. These social norms are effective if generated by cohesive communities and addressed to individuals who internalize the positive/negative consequences of acting in accordance/violation with the norms.

These two currents of economic literature have been merged and have led to a new theoretical framework, that we defined the social recognition motive, to look at the data. In accordance with this theory, different paths of employment adjustments for family and non-family firms are observed, because the former have a definite preference for safeguarding workforce levels close to the headquarters. The reason is found in the psychological link existing between family entrepreneurs and their native territory (where typically the headquarters is established), determining employment policies perceived as beneficial for the local community in periods of economic recessions, in exchange of an accrued recognition value accorded to the entrepreneur and his family. This empathy is not as intense for plants

distant from the headquarters, since physical and psychological distance prevents an effective enforcing of social norms. Finally, this kind of preference for specific plant locations is negligible for non-family companies, because decisions and responsibilities are diluted among unrelated shareholders and professional managers.

The validity of the social recognition theory has been tested more directly by splitting the sample in subgroups, depending on the intensity of factors potentially responsible for an increase in social pressure exerted at the firm's headquarters during the 2008 economic downturn. It can be reasonably assumed that social pressure is a positive function of both the intensity of social cooperation among individuals of the community and of the relative importance of the firm in absorbing local workers. As predicted by the theory, but not obvious *a priori*, divergent paths of employment adjustments for family and non-family firms were found to be positively associated with the level of social cooperation and the relevance of the firm for the territory.

In spite of the limited amount of observations available to conduct the empirical analysis and the lack of disaggregated information at the plant level, we believe that this paper is grounded on a robust econometric strategy. Moreover, the findings represent only a starting point for future investigations on the topic. In fact, further research is needed both to check the validity of the social recognition theory in cultural environments different from Italy, and to address other issues, not covered by the paper, but strictly connected with the social recognition assumption. It would be particularly worthy of attention to study the compatibility, in the medium and long-run, of pursuing the amenity value with the firm objective of remaining competitive.

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9 Tables

Table 1: Multiplant firms in the *Invind* survey, 2007 and 2009

	Family firm (1)	Non-Family firms (2)	Difference (3)	Total (4)
2007				
Return on assets	7.5	7.3	0.2	7.4
Revenues (,000 euros)	314.2	551.4	-237.2*	424.8
Investments over revenues (%)	5.2	5.2	0.0	5.2
Per capita investments (,000 euros)	1,713.6	1,626.3	87.2	1,672.8
Gross earnings per person (,000 euros)	28.1	31.0	-2.9***	29.4
Total employees	735.0	1,138.0	-402.0**	923.0
Employees in the headquarters region	463.0	612.0	-148.0	533.0
Employees elsewhere	272.0	526.0	-254.0**	390.0
Cig ^(a) (%)	1.0	0.7	0.3	0.8
2009				
Return on assets	5.0	3.8	1.2	4.5
Revenues(,000 euros)	246.5	461.2	-214.7**	346.6
Investments over revenues(%)	4.0	4.6	-0.6	4.3
Per capita investments (,000 euros)	1,396.5	1,275.7	120.8	1,340.2
Gross earnings per person (,000 euros)	32.4	31.3	1.1	31.9
Total employees	751.0	1,120.0	-369.0**	923.0
Employees in the headquarters region	481.0	581.0	-100.0	528.0
Employees elsewhere	270.0	539.0	-269.0**	395.0
Cig ^(a) (%)	10.1	10.8	0.7	10.5
Year of foundation	1969	1973	-4.0*	1971
Number of firms	246	215		461

* p-value < 0.10, ** p-value < 0.05, *** p-value < 0.01

(a): working hours paid by the social security system over total working hours.

Sources: Italian Chambers of Commerce's archives (*Cerved*) for Roa, *Invind* survey for the other indicators.

Table 2: Average distribution of the employees outside the headquarters region (%)

Macroarea of the Headquarters	Family 2007	Non-Family 2007	Family 2009	Non-Family 2009
North-western regions	41.1	49.7	40.1	52.8
North-eastern regions	32.7	43.8	33.1	44.4
Central regions	40.7	33.4	41.4	33.4
Southern regions	25.7	39.3	19.7	36.8
Total	37.0	46.2	36.0	48.1

Source: authors' calculations from *Invind* survey

Table 3: Within firm employment adjustments

Variable: employment in the h.q. - employment outside the h.q.				
	All (1)	Family (2)	Non-Family (3)	Difference (4)
Panel A:				
2007-2009	-9.50	19.98	-43.24	63.22***
Panel B:				
2005-2007	-1.90	0.37	-4.37	4.74
2007-2009	-16.91	11.86	-48.08	59.94**

* p-value < 0.10, ** p-value < 0.05, *** p-value < 0.01

Table 4: Estimation results: employment adjustments and corporate structure

Dependent variable: $\Delta_t Occ_{i, fh}$							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2007-2009	2007-2009	2007-2009	2007-2009	2007-2009	2007-2009	2005-2007
Head	-43.24** (19.15)	-23.24 (16.19)	-26.76* (16.13)	-40.66 (27.33)	-48.08* (24.46)	-20.82 (19.76)	5.84 (21.39)
Family	-14.95 (16.44)	-13.23 (18.84)	-23.30 (18.51)	-24.39 (26.38)	-8.05 (20.13)	-4.93 (26.49)	10.27 (17.55)
Family x Head	63.22*** (24.22)	58.14** (24.78)	59.42** (24.64)	74.49** (34.70)	59.94** (29.51)	52.92* (29.14)	-2.20 (32.26)
Intercept	12.67 (12.88)	-588.60 (387.60)	-576.82 (375.36)	-371.30 (251.80)	7.57 (15.50)	-588.20 (479.80)	-278.70 (731.50)
Control variables	No	Yes	Yes	Yes	No	Yes	Yes
Controlling for change in revenues	No	No	Yes	No	No	No	No
Manufacturing sector only:				X			
Family x Head coefficient in terms of family firm's 2007 number of employees (%)							
	8.60	7.91	8.10	10.13	8.16	7.19	-0.30
N	922	922	922	602	654	654	654

Robust standard errors in parentheses, clustered at the firm level

*: p-value<0.10, **: p-value<0.05, ***: p-value<0.01

Columns (1) to (3) refer to the entire sample of firms observed in the period 2007-2009

Column (3) adds the % change in revenues, also interacted with headquarters as control variables

Column (4) refers to the sub-sample of manufacturing firms only, observed in 2007-2009

Columns (5) to (7) refer only to the sample of firms appearing in the entire period 2005-2007 (balanced panel)

Control variables include: sector, area of headquarters, also interacted with family, 4 size dummies, also interacted with head, age

Table 5: Robustness checks

Dependent variable: $\Delta_t Empl_{i,fh}$ (2007-2009)		
Head	-17.90 (18.74)	-32.57 (16.78)
Family	-8.22 (21.44)	-38.31 (18.41)
Family x Head	44.93* (25.60)	68.05** (26.93)
Intercept	-665.90 (443.70)	-148.45 (385.72)
Control variables	Yes	Yes
Foreign firms	No	Yes
If $Occ_{i,2007fHQ} < Occ_{i,2007fOUTHQ}$	Yes	No
Size of Family x Head coefficient in terms of family firm's 2007 number of employees (%)		
	6.11	9.26
N	784	712

Robust standard errors in parentheses, clustered at the firm level

*: p-value<0.10, **: p-value<0.05, ***: p-value<0.01

Column (1) refers to the sample of Italian firms only

Column (2) refers to the sample of firms for which $Empl_{i,2007fHQ} \geq Empl_{i,2007fOUTHQ}$

Table 6: Estimation results: measuring the impact of social pressure

Proxy for Social Pressure:		Dependent variable: $\Delta_t Occ_{i,f,h}$											
		Blood Donation		Regional Ratio ⁽¹⁾		Provincial Ratio ⁽¹⁾		Municipal Ratio ⁽¹⁾					
		Below the median	Above the median	Below the median	Above the median	Below the median	Above the median	Below the median	Above the median	Below the median	Above the median	Below the median	Above the median
Head		11.83 (15.92)	-48.06* (27.05)	13.07 (8.96)	-60.89* (35.79)	22.75* (13.03)	-23.24 (21.72)	12.21 (13.92)	-70.93* (36.47)				
Family		20.40 (27.96)	-40.37 (26.43)	17.71 (20.56)	-35.57 (32.90)	15.15 (16.60)	-18.37 (39.67)	6.02 (18.63)	-39.47 (39.47)				
Family x Head		8.67 (23.52)	91.81** (41.39)	1.02 (13.12)	116.80** (48.09)	-11.45 (18.33)	129.30*** (47.41)	0.04 (22.44)	121.90*** (46.24)				
Intercept		-98.11 (286.60)	-1012.50 (669.40)	-33.60 (146.80)	-1093.90 (783.80)	-159.00 (288.70)	-983.60 (701.20)	-590.10 (505.00)	-303.00 (396.60)				
Control variables		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Size of Family x Head coefficient in terms of family firm's 2007 number of employees (%)		1.18	12.49	0.14	15.89	-1.56	17.59	0.01	16.59				
N		402	520	462	460	462	460	462	460				

Robust standard errors in parentheses, clustered at the firm level

*: p-value<0.10, **: p-value<0.05, ***: p-value<0.01

Below and above refer to the median of the distribution

The median of the distribution for blood donation is computed with respect to the population of Italian provinces

Levels of blood donation collected by *Associazione Italiana Volontari Sangue* (AVIS) and elaborated by Luigi Guiso

(1) Population at the regional, provincial and municipal level collected by the National Bureau of Statistics (ISTAT)