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The Impact of CAP Payments on the Exodus of Labour from Agriculture in Selected EU Member States

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THE IMPACT OF CAP PAYMENTS ON THE EXODUS OF LABOUR FROM AGRICULTURE IN SELECTED EU MEMBER STATES*

Abstract

This paper examines the determinants of exit from agriculture under the implementation of CAP payments in four selected EU countries (France, Hungary, Italy and Poland) in the period 2005-08. The main results suggest that total subsidies at the regional level reduce the out-farm migration of agricultural workers in the two New Member States, Hungary and Poland. Conversely, the non-significant results for the 'old' Member States may be interpreted as the result of opposing effects of coupled payments and rural development support. The diverse impact of CAP on the likelihood of leaving agriculture in the four countries reflects the heterogeneity across European Member States, which does not allow a common and simple generalisation of the effect of the CAP on labour allocation.

Keywords: Common Agricultural Policy; Farm Exit; European Union

JEL code: J43, Q12, Q18

1. Introduction

Since its creation, the Common Agricultural Policy (CAP) has often been subject to criticism due to the economic distortions created and high budgetary costs. In particular, the fairness and the efficiency of farm subsidies in Europe have often been questioned. One of the main recent reforms of the CAP is the (partial) decoupling of farm payments which started in 2003 and continued in the 2009 'Health Check', and was expected to remove the distortions on farmers' production decisions. To some extent this process may have changed the return to farm labour and thus the incentives of farmers to supply labour on and off the farm.

For this reason, academics and policy communities have been increasingly interested in understanding the effects of farm payments on labour allocation decisions, which becomes fundamental for the design of efficient policies, and thus a better targeting of the CAP. Nonetheless, the empirical evidence on the impact of farm subsidies is rather mixed and inconclusive. Direct payments and price support, which are assumed to increase the farm wage, and thus the prospects of survival for farmers, are found instead to have an ambiguous effect on their likelihood to work in agriculture and preserve their farming activities. Moreover, in the context of an enlarged EU, where the structure of the agricultural sector presents heterogeneous conditions across Member States (MS), it becomes important to examine the differences within labour markets.

Therefore, the objective of this study is twofold: first to test the role of CAP payments on farm exit decisions; and second to investigate whether there are significant differences in labour responses to farm subsidies according to specific country situation. The empirical work focusses on a mix of 'old' EU Member States (MS) and New Member States (NMS), namely France, Italy, Hungary, and Poland, in the period 2005-08. We differentiate among the different measures

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of the CAP, looking at the individual impact of instruments within Pillar 1, i.e. coupled and decoupled payments, and at the aggregate level of Pillar 2 payments, targeted at rural development support. The analysis is based on micro-data from the European Union Labour Force Survey (EU-LFS) and regional data from the Farm Accountancy Data Network (FADN). The empirical approach consists in employing a bivariate probit with selection which focuses on the binary decision of individuals to work in agriculture and, conditional on this, examines their likelihood of leaving the farm sector. The remainder of the paper is structured as follows. Section 2 provides an overview of the existing literature on the impact of farm subsidies. Section 3 presents the empirical approach. Section 4 describes the dataset and the variables employed in the analysis. Section 5 discusses the estimation results. Section 6 concludes.

2. Empirical Evidence on the Role of Farm Subsidies

Studies on the impact of farm subsidies on labour allocation are quite extensive. Nonetheless, the empirical evidence is mixed and inconclusive. It is worth emphasizing that there are several issues which must be considered from an empirical point of view. First, different methodologies have been employed according to the specific research question. Second, different types of data have been used. Several studies employ micro-level data, focusing on the farm household/individual level, while others rely on macro data, at the regional/national level. Although there is no *a priori* better approach, both contain limitations. For instance, studies at the individual level seek to explain labour adjustment patterns as a function of some exogenous variables, mainly of individual and farm related characteristics, though they do not take into account the changes in agricultural policy and general economic conditions. On the other hand, the aggregate level approach enables the researcher to examine the effect of policy changes over a longer period of time, whereas it ignores the individual decisions within the farm households. Nonetheless, the choice of the empirical approach is often determined by the availability of data and the specific objectives of the researcher. Lastly, the different results found in the literature are also dependent on the measurement of farm payments.

Table 1 summarises the empirical findings of a literature survey undertaken to discuss the effects of farm subsidies on labour allocation decisions. This summary finds that farm payments exert both positive and negative effects on the exit rates from agriculture. Several hypotheses have been postulated over the role of farm payments and thus few theoretical considerations are hereby discussed. For instance Goetz and Debertin (1996) argue that there may be a negative effect of farm payments on the farm labour force if farmers invest more heavily in physical capital and substitute capital for labour, or a positive effect, via higher land values, which would reduce farm consolidation. By the same token, the lack of statistically significant impact of government payments on the labour force may be a consequence of divergent effects (Barkley, 1990). Whereas, on one hand, income payments are expected to reduce out-farm migration, on the other hand, other farm subsidies, such as acreage set-asides, may reduce the need for those inputs complementary to land, resulting in an increase in the migration of farm labour.

Several studies have emphasized the need to distinguish among the different instruments of farm subsidies due to the different way these payments are viewed by the household, i.e. if considered as an increase in the farm wage (coupled) or as non-labour income (decoupled) (Ahearn et al., 2006). Similarly, Hennessy and Rehman (2008) argue that the decoupling of direct payments implies a decrease in the returns to farm labour, which may lead to an increase in off-farm employment (substitution effect).

Table 1. Summary of the empirical evidence on farm subsidies and labour allocation.

Author	Level of Analysis and Period	Farm Payments (Measurement)	Research Objective (Dependent Var)	Impact
Barkley (1990)	US aggregate time-series, 1940-85	US government payments	out-farm migration (change in farm employment)	not significant
Goetz and Debertin (1996)	US rural counties, 1980-90	US government payments	rural population decline (change in total population)	positive
Mishra and Goodwin (1997)	Kansas farm households, 1992	US government payments	off-farm labour supply (hours)	negative
Pietola et al. (2003)	Finnish elderly farmers, 1993-98	subsidy rates	farm exit	negative
Ahearn et al. (2006)	US farm households, 1996 and 1999	US government payments: coupled and decoupled	off-farm participation	negative for all
Key and Roberts (2006)	US crop farms, 1982-97	US government payments	farm survival	positive
Breustedt and Glaubien (2007)	110 EU regions (from 12 'old' MS), 1993-97	CAP payments	farm exit (change in the No of farms)	negative
Hennessy and Rehman (2008)	Irish farmers, 2002	CAP payments: decoupled scenario	off-farm participation and off-farm labour supply (hours)	positive
Van Herck (2009)	EU farmers (from 18 EU MS), 2005-06	CAP payments: coupled, decoupled	farm exit	positive for all
Petrick and Zier (2011)	3 Eastern German States, 2000-06	CAP payments: entire portfolio	farm employment (No of employees in agriculture)	negative for all, positive for agri-environmental
Olper et al. (2012)	149 EU regions (from 14 'old' MS), 1990-2008	CAP payments: coupled, decoupled, agri-environmental, less-favoured areas, investment aids, others	Out-farm migration (net migration rate)	negative for all

However, the increase in total income following the receipt of payments would relax the farm household budget constraint which may increase leisure time while reducing farm work (wealth effect).

According to van Herck (2009), although both coupled and decoupled payments are expected to increase farmers' income, there are second order effects which must be considered. The capitalisation of subsidies in farm input prices (Key and Roberts, 2006), such as land and fertilizer prices, if high, and the unequal distribution of payments over the farm population, may result in the decrease of the net income of those farmers receiving less than the average subsidy. As suggested by Petrick and Zier (2011), the decoupling of payments independent from production levels implies that labour input can be reduced without risking the loss of farm payments, which result in the release of labour at the margin. Nonetheless, direct payments may have altered the input mix in production, as for instance allowing more labour-saving investments on credit-constrained farms, and perhaps also the output mix.

With this inconclusive empirical literature in the background we test the impact of the different CAP measures on the likelihood to exit farming. We use cross-sections of micro-data and compare the four selected EU countries, by running separate estimations. The methodology is discussed in the next section and the results from the empirical analysis follow.

3. Methodology

The main objective of the study is to explore the impact of CAP on labour allocation, and specifically whether farm payments prevent the out-farm migration of labour or contribute to the shedding of labour. The empirical approach consists in employing a bivariate probit with selection (van de Ven and van Praag, 1981) which focuses on the binary decision of individuals to work in agriculture ($y_j^{agriempl}$) and, conditional on this, examines their likelihood of leaving the farm sector (y_j^{exit}). This methodology allows us to control for those unobserved characteristics which influence the choice of participating in agricultural employment in the first place, and examine the subsequent decision to exit agriculture. Because leaving farming is conditional on the decision to engage in farming in $t-1$, correcting for sample selection bias in the first stage enables us to obtain consistent and unbiased estimates.

The model assumes that there exists an underlying relationship, or latent equation of the type

$$y_j^* = x_j\beta + u_{1j} \quad (1)$$

such that we observe only the binary outcome of exiting farm employment

$$y_j^{exit} = (y_j^* > 0) \quad (2)$$

However, the outcome variable is not always observed. The dependent variable for individual j is observed only if the individual was working in agriculture

$$y_j^{agriempl} = (w_j Y + u_{2j} > 0) \quad (3)$$

Therefore, the selection rule implies that $y_j^{exit} > 0$ if $y_j^{agriempl} = 1$ and missing otherwise. We assume that the errors of the two equations (u_1 and u_2) have zero means and unit variances, and we denote the correlation among the error terms by p

$$corr(u_1, u_2) = p \quad (4)$$

We test the hypothesis that $p = 0$. If the hypothesis is rejected (and thus $p \neq 0$) there is sample selection bias and standard probit techniques for y_j^{exit} yield biased results.

4. Data

The main data source used for the empirical estimation is the EU-LFS, which consists of harmonized micro data across the EU MS. The survey allows us to observe the same individuals across two consecutive periods (current period t and one year prior to the survey $t-1$) and contains several individual and family background characteristics, and employment information. The two dependent variables, constructed as dummy variables, indicate whether each individual works in agriculture (Agricultural employment = 1) and, conditional on this, whether they exit farming activities in the next period (Exit agriculture = 1).

The independent variables include individuals' gender (Male = 1), marital status (Married = 1), age (five different age bands), level of educational attainment (Low, Medium and High education), the highest field of education or training completed (several dummies),¹ presence of children under 15 in the household (Children = 1), professional status (Employee, Self-employed and Family worker). Moreover, we are able to match regional data (at the European NUTS-2 level) to each individual based on the individuals' residence information. In this way we control for differences in the local farm structures, labour market conditions, and policy influence. From the Farm Structure Survey (FSS) of the Eurostat online we extract information in regards to the economic size of farms (as shares of total holdings: <2 ESU, 2-8 ESU and >8 ESU), and the production structure (farm types as shares of total holdings: Crops, Livestock and Mixed System). We also control for the regional level of unemployment (%) from the Eurostat New Cronos Database. The policy data are taken from the FADN database online and consist of the

¹ The fields of education are the exclusion restrictions used to identify the selection model, and therefore enter the participation equation (selection probit) but are omitted in the outcome equation (exit farming).

amount of total CAP payments, received by the ‘average farm’ at the regional level (measured in thousands of Euros per year)².

Total CAP payments are defined as total subsidies on current operations linked to production excluding those on investments (SE605, FADN database). These include: total subsidies on crops, total subsidies on livestock, other subsidies, total support for rural development, subsidies on intermediate consumption, subsidies on external factors, and decoupled payments. We are aware that the treatment of subsidies at the regional level may suffer from measurement error, as the marginal farm may not receive the same benefits of the average farm in the sample. Nonetheless, we are constrained in terms of data (as the EU-LFS does not provide information on the subsidies or wages) and the empirical results still prove to be insightful. Since previous studies suggest diverse impacts of different policy instruments, we also control for the main measures of the CAP, namely total subsidies on coupled payments (crops and livestock), decoupled payments, and total support for rural development (which includes environmental subsidies, less favoured area and other rural development payments).

Instead of pooling the data into a unique sample we want to control for differences at the national level, due to the heterogeneity which characterises farm structure and functioning of labour markets across EU MS. We run separate estimations for the four selected countries: two NMS, Hungary and Poland, and two ‘old’ MS, France and Italy³. The period of analysis covers the years 2005-2008 and is a pooled-cross section; hence, year dummies are included. Descriptive statistics of our agricultural sample is included in the Appendix (see Table A.1).

5. Estimation Results

Consistent with the empirical approach, we began by estimating the selection equation for the participation in agricultural employment. Due to space limitations we do not discuss the empirical results for this estimation, which is included solely to control for selection bias⁴. The significance of the selection term in Table 3 suggests that the proposed methodology is appropriate and estimating two individual probit models would have led to biased estimates. In this section, firstly, we look at the impact of the total subsidies on labour allocation, and secondly, we control for the main CAP payments, namely Pillar 1 instruments (coupled and decoupled subsidies) and Pillar 2 payments.

5.1 *The Impact of Total Subsidies*

Table 2 summarises the results concerning the impact of total CAP payments on the likelihood of exiting the farm sector. For our purpose, we only report the general effect of the policy data, without including the full estimation results. We also omit the other control variables, which are instead discussed in the following sub-section.

The negative signs for Hungary and Poland suggest that total subsidies reduce the out-farm migration of workers, thus hindering the exit of labour from agriculture, contributing to job

² For the stratification of the FADN sample and clarification of the standard groupings and average farms see: http://ec.europa.eu/agriculture/rica/diffusion_en.cfm.

³ We matched the NUTS-2 regions with the FADN regional data: for France (21 regions), Hungary (7 regions) and Italy (21 regions). The regions in Poland were reduced from 16 to 4 (Pomorze and Mazury, Wielkopolska and Slask, Mazowsze and Podlasie, Malopolska and Pogorze) so that we lose some of the regional variation.

⁴ The full estimation results are available upon request.

maintenance and farm survival, consistent with some previous empirical evidence (Key and Roberts, 2006; Breustedt and Glauben, 2007; Olper et al., 2012). The non-significant signs for the ‘old’ MS may instead be the combination of opposing effects from different measures (see the discussion in the next section).

Table 2. The impact of CAP subsidies on farm exit.

Country	Exit Agriculture
France	not significant
Hungary	negative
Italy	not significant
Poland	negative

Note: The reported signs are those significant at the 10% level or below.

Nevertheless, the individual impact of the different CAP measures should be controlled for to better understand what forces come into play. Therefore, in the next sub-section we examine the determinants of farm exit decisions focussing on the main instruments of the CAP.

5.2 The Impact of Different CAP Instruments on Exiting Farm Employment

The estimates for the effect of different CAP instruments on leaving farm employment are summarised in Table 3. The large debate among academics and policy communities has focused on whether CAP payments keep more people in agriculture or instead facilitate out-farm migration, although it is difficult to draw firm conclusions without a counterfactual analysis. While our results suggest that these policy variables influence the probability of working in the agricultural sector, conditional on this probability they become less relevant for the decision to exit or remain in the same sector. On the other hand, the decisions to leave the farm sector seem to be mainly driven by individual characteristics. Nonetheless, it is worth recalling that these policy variables are measured as regional average farm receipts which may not necessarily be those received by the marginal farm.

First of all, we find variations in the results across MS and within CAP measures. The coefficient of coupled subsidies displays generally a negative sign, although it appears to be significant only for Italy. According to the literature these payments increase agricultural output prices, and may therefore increase agricultural income, maintain jobs, and provide incentives for farmers to remain in the sector (Hennessy and Rehman 2008). Therefore this result is to be expected, as coupled subsidies increase the marginal value of farm labour, which is equivalent to an increase in the farm wage rate (income effect) (Donnellan and Hennessy, 2012). This finding is supported by several studies which find that coupled payments are expected to indirectly slow down the rate of out-farm migration due to higher land values (Barkley, 1990), and reduce the likelihood of participation in off-farm employment (Mishra and Goodwin, 1997; Benjamin and Kimhi, 2006).

Conversely, decoupled payments, which are independent of the level of production, are expected to have a different impact on labour allocation.

Table 3. Results for the bivariate probit with selection: exiting farm employment.

Variable	France	Hungary	Italy	Poland
Male	-0.178 (0.120)	-0.0708 (0.0454)	-0.356*** (0.0298)	-0.0159 (0.0389)
Married	0.221** (0.108)	-0.117*** (0.0352)	-0.0775*** (0.0301)	-0.155*** (0.0360)
Age 15-24	0.616*** (0.195)	0.307*** (0.0769)	0.214*** (0.0580)	0.532*** (0.0586)
Age 25-34	0.344** (0.155)	0.328*** (0.0475)	0.0697* (0.0368)	0.318*** (0.0428)
Age 35-44	0.153 (0.140)	0.0958** (0.0440)	-0.00406 (0.0311)	0.0722* (0.0409)
Age 55-64	0.740*** (0.131)	0.479*** (0.0428)	0.335*** (0.0321)	0.673*** (0.0393)
Low education	0.169* (0.0987)	0.257*** (0.0348)	-0.0236 (0.0328)	0.00673 (0.0350)
High education	-0.0604 (0.152)	0.00606 (0.0612)	0.298*** (0.0628)	-0.0564 (0.0695)
Children	-0.202 (0.134)	-0.0102 (0.0415)	0.0109 (0.0337)	0.0397 (0.0381)
Female with children	0.198 (0.201)	0.0579 (0.0726)	-0.0598 (0.0476)	0.0133 (0.0547)
Self-employed	-0.545*** (0.154)	-0.489*** (0.0506)	-0.494*** (0.0419)	-0.433*** (0.0856)
Family worker		-0.197* (0.115)	-0.444*** (0.0738)	-0.218** (0.0999)
Unemployment	0.00444 (0.0362)	0.0373*** (0.0115)	0.00595 (0.00420)	0.0357*** (0.00862)
Farm size 2-8 ESU	0.408 (2.338)	-6.313 (3.943)	0.613** (0.258)	0.188 (0.325)
Farm size >8 ESU	-0.112 (1.169)	23.74** (11.01)	-0.149 (0.192)	0.0863 (0.495)
Livestock production	-0.234 (0.385)	-1.408*** (0.536)	0.189 (0.169)	-0.738*** (0.282)
Mixed production	1.568 (1.274)	-1.025 (1.601)	-1.152* (0.682)	-1.578** (0.765)
Year 2007-8	0.237 (0.197)	-0.230* (0.125)	-0.0139 (0.0281)	0.303*** (0.0866)

Table 3. (Continued)

Variable	France	Hungary	Italy	Poland
Coupled subsidies	-0.00445 (0.00825)	-0.0175 (0.0332)	-0.0276* (0.0166)	2.913 (1.874)
Decoupled payments	-0.00537 (0.00901)	0.0659** (0.0321)	0.00122 (0.00522)	-0.176 (0.113)
Rural development support	0.0127 (0.0289)	-0.154*** (0.0381)	0.0292** (0.0139)	0.138 (0.154)
Constant	-1.766 (1.381)	-1.518*** (0.480)	-1.635*** (0.181)	-1.729*** (0.387)
Selection Term	0.299*** (0.0931)	0.252*** (0.0503)	0.421*** (0.0575)	0.237*** (0.0526)
Number of observations	1,587	13,068	21,569	25,886

Notes: T-statistics in parentheses. Levels of significance: ***1%; **5%; *10%.
For France Family worker predicts failure perfectly and was dropped (91 observations not used).

The heterogeneous and not quite significant results across MS may reflect the different way these payments are perceived by the farm household. The positive coefficient found for Hungary is supported by the fact that farms can reduce their labour input, and the output produced, without the risk of not receiving the subsidies. This result is consistent with the study of Petrick and Zier (2011) which finds that the decoupling induced the shedding of excess labour. Moreover, these subsidies can be considered as a source of exogenous household wealth which reduces the return to farm labour and increases the unearned income of farmers (Hennessy and Rehman, 2008). As a consequence, farmers receiving decoupled payments allocate less time to farm work and more time to off-farm work or leisure. Nonetheless, in our dataset we cannot observe whether individuals hold a second job in the off-farm market which is a limitation of our analysis.

Likewise, the payments for rural development show mixed results on the farm exit decisions across MS. The difference in the significance level and in the direction of results suggests that the various Pillar 2 instruments for rural development may have contradictory effects. In this respect, the findings of Olper et al. (2012) reveal a negative effect of Pillar 2 policies when taken as a whole, but a heterogeneous effect across instruments (negative for agri-environmental and other payments and not significant for less favoured area and investment aids).

The other control variables confirm previous evidence. Overall, men and married individuals are generally less likely to leave agriculture. Age displays a non-linear relation so that individuals in the youngest age groups (those aged 15-24 and 25-34) are more likely to exit farming, possibly due to better job opportunities in other sectors. Nonetheless, the highest exit rates are associated with the retirement of people, as displayed by the coefficient of those aged 55-64. The level of educational attainment is somewhat less significant, which can be explained by the different reasons of individuals to exit farming, i.e. whether entering off-farm work or leaving the labour force altogether.

Self-employed and family-workers are more reluctant to leave agricultural employment, possibly due to ownership motives or family values and responsibilities, whereas employees are those more likely to respond to economic stimulus. We expected higher levels of regional unemployment to be negatively associated to farm exits, following the assumption that agriculture plays a buffer role in hard times. Instead, the results show a positive relationship, which may reflect the temporary provisions of some farm activities and suggest frictional unemployment.

Lastly, we find mixed results over the impact of market and production structures on farm exit decisions across MS. Although the variables for the economic farm size display ambiguous effects, in general regions with larger farms are associated with higher exit rates, whereas smaller farms prevent major outflows of labour possibly through part-time farming and diversification activities. The typology of farming system also suggests that livestock production is more likely to retain farm employment in comparison to crop systems. This may reflect that there are higher sunk costs associated with quitting livestock production, but also that crops require a demand for seasonal labour.

6. Conclusion

The paper has examined the impact of the CAP subsidies on labour allocation in four EU MS, focussing on the decision of individuals to exit the farm sector. Against the background of mixed evidence on the role of farm payments on labour supply and out-farm migration, stemming from different methodologies, datasets and country coverage, the main finding from this study reflects the complexity of the topic and seems to suggest that there is no simplistic answer to the role of subsidies, but instead emphasises the heterogeneous results across MS. Nevertheless, to the extent that the ‘average farm’ does not differ too much from the marginal farm, two important conclusions can be drawn.

First, there seems to be a discrepancy in the results between the NMS and the ‘old’ MS. On one hand, total subsidies at the regional level are found to be negatively associated with the out-farm migration of agricultural workers in Hungary and Poland, so that the CAP would seem to preserve jobs in the farm sector, increasing the probability of farm survival. In this respect, the CAP is found to be effective in transferring income to farmers. On the other hand, the non-significant coefficient for Italy and France can be interpreted as a reflection of the opposite effect of the different measures of the CAP. More specifically, whereas Pillar 2 payments are positively associated with exit rates, coupled payments exert a negative effect, as they increase the marginal value of farm labour and provide incentives for farmers to remain in the sector.

Based on the theoretical underpinnings on the role of subsidies, we expected different effects of coupled and decoupled subsidies on the out-farm migration of labour. Conversely, this study indicates that their impact is not quite statistically different. Overall, although some results appear to be counter-intuitive they may reflect that the various policy measures are not consistent with each other. For instance, the mixed results for the Pillar 2 instruments across MS may be due to contradictory effects of different measures. In this respect, the consistency and effectiveness of the mix of CAP policy measures may be questioned although further research is needed in support of this statement.

Second, differently to results of previous studies, we find that there is no common trend across the four MS under analysis. The heterogeneity across European Member States, due to different farm sectors as well as market and production structures, does not allow a common and

simple generalisation upon the effect of the CAP on labour allocation. Therefore, the inconclusive empirical evidence until now may not only reflect differences in methodologies but most importantly reflects differences across countries and the diverse impact of different instruments of farm payments upon their agricultural labour market.

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Appendix

Table A.1. Descriptive statistics of the agricultural sample.

Variable	France (N = 1,587)		Hungary (N = 13,068)		Italy (N = 21,569)		Poland (N = 25,886)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Dependent = exit agriculture	0.12	0.33	0.11	0.31	0.12	0.33	0.06	0.23
Male	0.70	0.46	0.75	0.43	0.67	0.47	0.56	0.50
Married	0.59	0.49	0.66	0.47	0.72	0.45	0.78	0.42
Age 15-24	0.06	0.24	0.04	0.19	0.04	0.20	0.06	0.24
Age 25-34	0.16	0.37	0.18	0.38	0.15	0.36	0.18	0.38
Age 35-44	0.28	0.45	0.26	0.44	0.30	0.46	0.27	0.44
Age 45-54	0.31	0.46	0.35	0.48	0.31	0.46	0.34	0.47
Age 55-64	0.19	0.39	0.18	0.38	0.20	0.40	0.15	0.36
Low education	0.33	0.47	0.31	0.46	0.71	0.46	0.27	0.44
Middle education	0.55	0.50	0.62	0.49	0.26	0.44	0.70	0.46
High education	0.12	0.32	0.07	0.26	0.03	0.17	0.03	0.17
Children	0.34	0.48	0.32	0.47	0.37	0.48	0.49	0.50
Female with children	0.10	0.30	0.07	0.25	0.12	0.32	0.24	0.43
Employee	0.37	0.48	0.68	0.47	0.46	0.50	0.10	0.30
Self-employed	0.58	0.49	0.29	0.46	0.45	0.50	0.68	0.47
Family worker	0.06	0.23	0.03	0.16	0.08	0.27	0.21	0.41
Unemployment	8.05	1.61	8.21	2.08	8.35	4.61	13.63	4.16
Farm size <2 ESU	0.13	0.05	0.86	0.04	0.34	0.08	0.65	0.13
Farm size 2-8 ESU	0.14	0.05	0.10	0.04	0.35	0.07	0.23	0.07
Farm size >8 ESU	0.73	0.07	0.04	0.01	0.31	0.11	0.12	0.08
Crop production	0.46	0.25	0.43	0.04	0.80	0.16	0.46	0.09
Livestock production	0.44	0.25	0.40	0.05	0.16	0.14	0.33	0.10
Mixed production	0.10	0.04	0.17	0.02	0.04	0.03	0.21	0.03
Year 2005-6	0.52	0.50	0.53	0.50	0.52	0.50	0.53	0.50
Year 2007-8	0.48	0.50	0.47	0.50	0.48	0.50	0.47	0.50
Coupled Subsidies	15.30	10.43	3.95	1.79	0.83	1.30	0.04	0.02
Decoupled payments	8.54	10.43	5.21	2.17	4.26	3.05	1.11	0.54
Rural development support	2.76	2.57	2.00	1.28	1.13	1.70	0.70	0.37