THE IMPORTANCE OF THE TERRITORIAL DIVERSITY. EMPLOYMENT EFFECTS OF THE FIRST AND SECOND PILLAR OF THE CAP IN RURAL AREAS

FRANCESCO MANTINO (CREA)

Paper prepared for presentation at the 160th EAAE Seminar

www.irwirpan.waw.pl/eaae_warsaw2016/

Rural Jobs and the CAP

Warsaw, Poland

1st & 2nd December 2016

OBJECTIVES OF THE PAPER

- Study of the CAP impact on agricultural labour in Italian agriculture in 2007-14 period
- Explore the diversity of impacts in different territorial settings
- Consider also other determinants of labour within an econometric model

- *Research funded by the National Rural Network*

- *Aimed ultimately at defining the Italian position within the debate on CAP post-2014*

BACKGROUND

- Continuous trend in rural exodus
- New forms of rural jobs and new generations of rural entrepreneurs
- Emphasis on sustainability both on environmental and social side (conditions for hired labour)
- Review of the most recent studies (EP, 2016)
- Different geographical coverage and CAP components

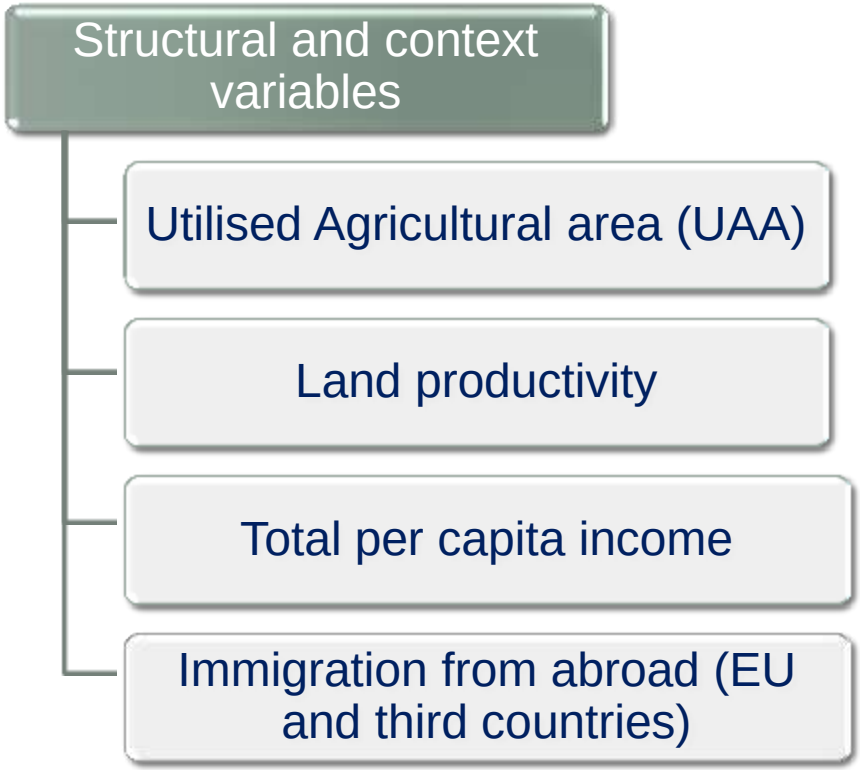
BACKGROUND 2

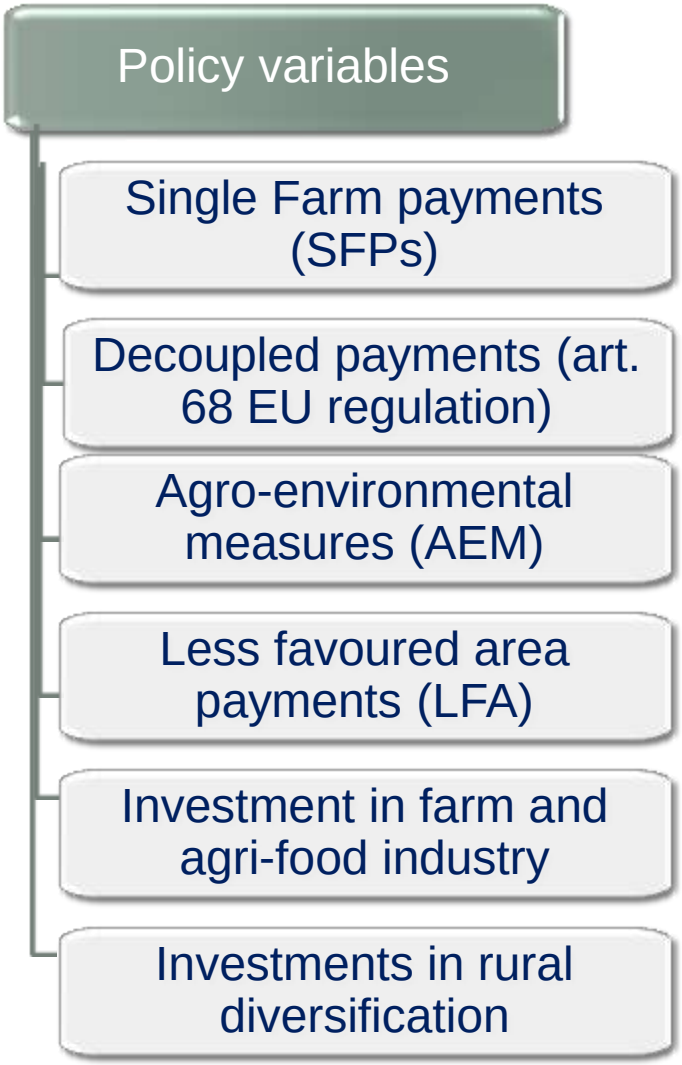
- Most studies confined to specific countries or regional case studies
- Need to take into account cross-country and cross-region heterogeneities
- Equally important to give more attention to territorial diversities between rural areas
- Need to consider the hypothesis that impacts of CAP on labour can depend strongly on the meso-level (between farm and national/regional levels)
- This implies to go deeper than NUTS2 or NUTS3 tiers.

Methodology

- Analysis of CAP measures (I and II pillar)
- Econometric model explaining labour use
- Total labour units, family and hired labour
- OLS method of regression analysis
- Log-linear transformation
- All variables at LAU2 level (municipality). No. 8.091 observations (agricultural census data aggregated at LAU2 level)
- Availability of data at LAU2 level only for the period 2007-2013
- Estimates at national and territorial level
- Typology of territories based on the access to general interest services

Explicative variables





A typology of territorial diversity

- Based on the travel distance from urban centres providing services of general interest (healthcare strucures, railway stations of medium size, primary and secondary schools)
- Four types of areas:

a) Urban poles;
b) Diffuse economic development (peri-urban and interstitial areas)
c) Intermediate areas
d) Peripheral and ultra-peripheral areas (remote/inner areas)

Population and economy

Types of area	% Population 2011	% Territorial surface	Population density	% Total labour force occupied	% Industrial labour force occupied	Per capita income 2009 (000 €)
Urban Poles	40,3	12,4	638,3	48,9	30,9	19,4
Diffuse economy	37,2	27,8	263,6	35,3	51,6	16,9
Intermediate	14,9	29,2	100,2	10,9	13,1	14,9
Peripheral and ultra-peripheral	7,6	30,6	48,7	4,9	4,4	13,8
Total	100,0	100,0	196,8	100,0	100,0	17,4

Population and economy 2

Types of area	% population change 1981-2011	% population change 2001-11	% immigrants change 2001-11	Ratio immigrants/ population 2001	Ratio immigrants/ population 2011
Urban Poles	-6,8	1,5	185,7	2,8	7,8
Diffuse economy	22,2	8,8	223,5	2,2	6,5
Intermediate	9,1	4,3	203,0	2,1	6,2
Peripheral and ultra-peripheral	-6,1	-1,5	213,3	1,2	3,8
Total	4,8	4,3	201,8	2,3	6,8

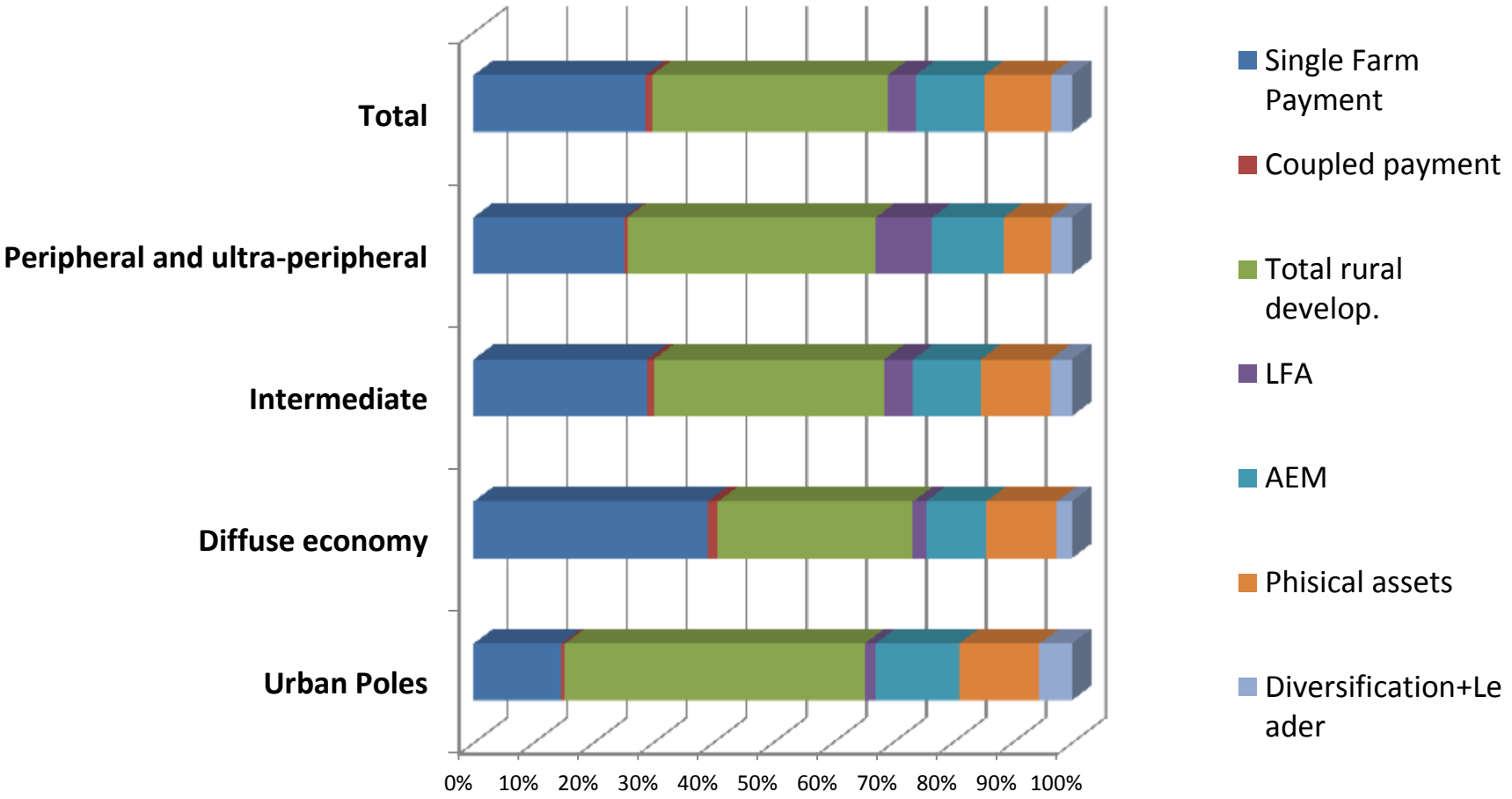
Agriculture, CAP

Types of area	Gross Agricultural production (million €)	Gross Agric. Prod per labour unit	Gross Agric. Prod per UAA	Gross Agric. Prod per farm unit	PAC subsidies/ Gross Agricultural Production
Urban Poles	7.935,9	55.655	4.353	34.256	18,9
Diffuse economy	21.591,0	62.928	5.400	39.194	14,0
Intermediate	13.291,3	50.905	3.757	27.305	20,1
Peripheral and ultra-peripheral	6.641,1	40.198	1.899	18.890	33,8
Total	49.459,4	54.231	3.847	30.514	19,1

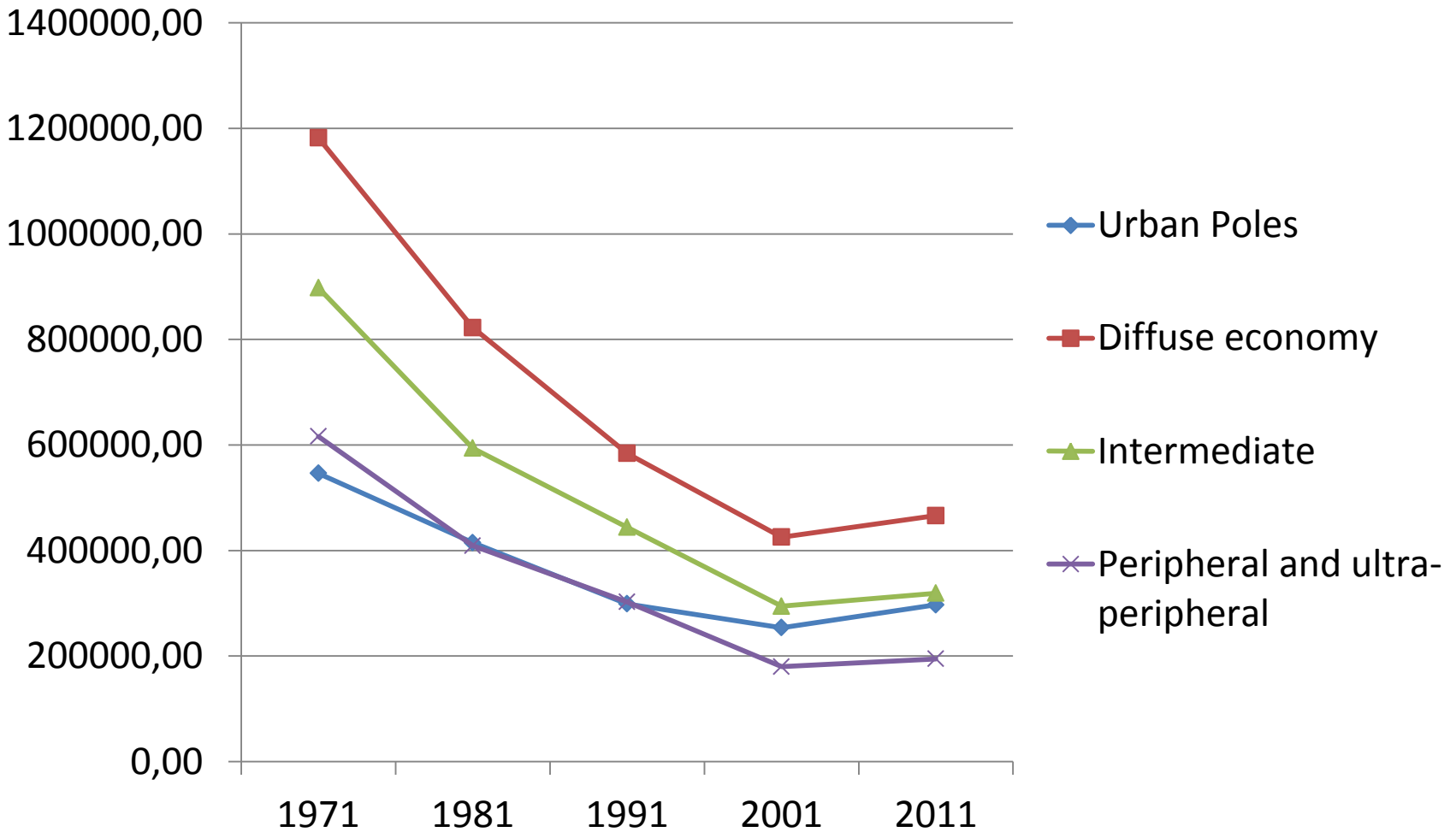
CAP profile by types of area

Types of area	Single Farm Payment	Coupled payment	Total rural develop.	LFA	AEM	Physical assets	Diversification+Leader	Total
Urban Poles	22,5	0,8	76,6	2,8	21,4	20,6	8,3	100,0
Diffuse economy	53,3	2,4	44,4	2,9	13,7	16,1	3,4	100,0
Intermediate	42,3	1,6	56,2	7,1	16,4	17,0	5,2	100,0
Peripheral and ultra-peripheral	37,5	0,7	61,8	14,0	17,7	11,7	5,2	100,0
Total	41,5	1,5	57,0	6,7	16,7	16,0	5,1	100,0

CAP profile by types of area



Trends in agricultural labour force



Trends in agricultural labour force

Types of area	Change. % 2001-11	Change% 1981-2011
Urban Poles	17,0	- 28,4
Diffuse economy	9,6	- 43,3
Intermediate	8,3	- 46,3
Peripheral and ultra-peripheral	8,2	- 52,4
Total	10,7	- 43,0

Main findings from OLS regressions

Dependent variable: log of Agricultural Work Units (total) LnAWUt			
Independent variables	Standardized Coefficients	Standard error	Collinearity statistics (VIF)
Constant	5,6989***	0,365	
Utilized Agricultural Area (2010)	0,663***	0,005	1,270
Farm Land Productivity per Hectare (2010)	0,291***	0,009	1,451
Per-capita total available income (2009)	-0,164***	0,035	1,338
No. of total immigrants (annual average 2001-10)	0,238***	0,005	1,601
Coupled Payments (art. 68) per hectare	-0,025***	0,005	1,468
Single Farm Payments (2007-13) per hectare	-0,070***	0,005	1,449
Agro-environmental Payments (2007-13) per hectare	0,035***	0,004	1,227
Less-favoured areas Payments (2007-13) per hectare	0,040***	0,003	1,426
Total Investment in agriculture (2007-13) per hectare	0,081***	0,003	1,263
Total investment in rural diversification (2007-13) per hectare	0,036***	0,003	1,141
Observations		8091	
R-squared adjusted		0,794	
F-test		3120***	

Some synthetic views

- Good statistical results
- Role of structural and context variables
- Positive role of immigration and negative role of income per capita
- Conflicting nature of I and II pillar measures
- Role of SFP consistent with current literature, while coupled payments is highly specific
- Propulsive role of investment un agricultural structures (targeting and pushing competitiveness) and also in rural diversification

Differences between Family/Hired labour

Dependend variable:	ln (Family Annual Working Units		ln (Hired Annual Working Units	
Independent variables	Standardized Coefficients	Standard error	Standardized Coefficients	Standard error
Constant	5,499***	0,363	3,239***	,795
Utilized Agricultural Area (2010)	,669***	,005	,396***	,011
Farm Land Productivity per Hectare (2010)	,279***	,009	,280***	,019
Per-capita total available income (2009)	-,162***	,035	-,129***	,077
No. of total immigrants (annual average 2001-10)	,236***	,005	,252***	,011
Coupled Payments (art. 68) per hectare	-,013**	,005	-,073***	,010
Direct Payments (2007-13) per hectare	-,079***	,005	-,047***	,010
Agro-environmental Payments (2007-13) per hectare	,025***	,004	,103***	,009
Less-favoured areas Payments (2007-13) per hectare	,060***	,003	-,111***	,008
Total Investment in agriculture (2007-13) per hectare	,086***	,003	,044***	,008
Total investment in rural diversification (2007-13) per hectare	,031***	,003	,078***	,007
No. observations	8091		8091	
R-squared adjusted	0,785		0,517	
F-test	2954,08***		867,67***	

Differences between types of area

Dependend variable: log AWUt14 (Total Annual Working Units in 2014)	Typology of areas			
Independent variables	Urban Poles	Diffuse economy	Intermediate areas	Inner areas
	Standardized Coefficients	Standardized Coefficients	Standardized Coefficients	Standardized Coefficient
Constant	2,866*	5,235***	4,362***	7,275***
Utilized Agricultural Area (2010)	0,882***	,659***	,659***	,641***
Farm Land Productivity per Hectare (2010)	0,353***	,297***	,288***	,206***
Per-capita total available income (2009)	-0,151***	-,147***	-,139***	-,174***
No. of total immigrants (annual average 2001-10)	0,064**	,216***	,188***	,231***
Coupled Payments (art. 68) per hectare	0,007	-,011	-,033***	-,043***
Single farm Payments (2007-13) per hectare	-0,083***	-,113***	-,068***	,018
Agro-environmental Payments (2007-13) per hectare	0,048*	,038***	,034***	,053***
Less-favoured areas Payments (2007-13) per hectare	0,066***	,026***	,048***	,028**
Total Investment in agriculture (2007-13) per hectare	0,074***	,089***	,078***	,069***
Total investment in rural diversification (2007-13) per hectare	0,021	,045***	,037***	,024**
No. observations	338	3567	2359	1824
R-squared adjusted	0,861	0,789	0,792	0,765
F-test	210,99***	1336,14***	897,20***	593,54***

Territorial impacts of CAP

- In each area statistical validity of the model is confirmed
- Pillar 1 measures confirm their negative impact or no impact at all in some areas
- The same for Pillar 2, but with some relevant detail
- Support to investment (physical assets and diversification) have higher impact in areas with diffuse economy
- LFA measures do not generate a relevant impact in peripheral areas, while AEM perform much better

Some implications for policy reform

- Is still there a room for developing a CAP with specific aims to promote smart jobs and growth?
- Need of a deep revision of CAP policy structure and tools
- I pillar: to identify clear and simple ways to support income when and where it is really necessary
- II pillar: no need of new measures, definitely a more holistic vision of the structural problems of agri-food chains and diversity of rural areas
- Keep most of old measures (particularly those devoted to physical and human capital), but new approaches and a different governance
- Don’t mix different policy tools in a 1 pillar reform, please!
- CAP alone cannot face the employment challenges, add national policies addressed to provide services of general interests in rural areas are crucial (a new conditionality)