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RÉPUBLIQUE FRANÇAISE

MINISTÈRE
DE L'AGRICULTURE
DE L'AGROALIMENTAIRE
ET DE LA FORÊT



IMPACT OF CAP DIRECT PAYMENTS AND THEIR DISTRIBUTION ON THE SUPPLY FOR ENVIRONMENTAL PUBLIC GOODS IN AGRICULTURE

17th meeting of the
OECD Network for
Farm-Level
Analysis

23 May 2016

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appliquées à l'Agriculture et aux Espaces Ruraux

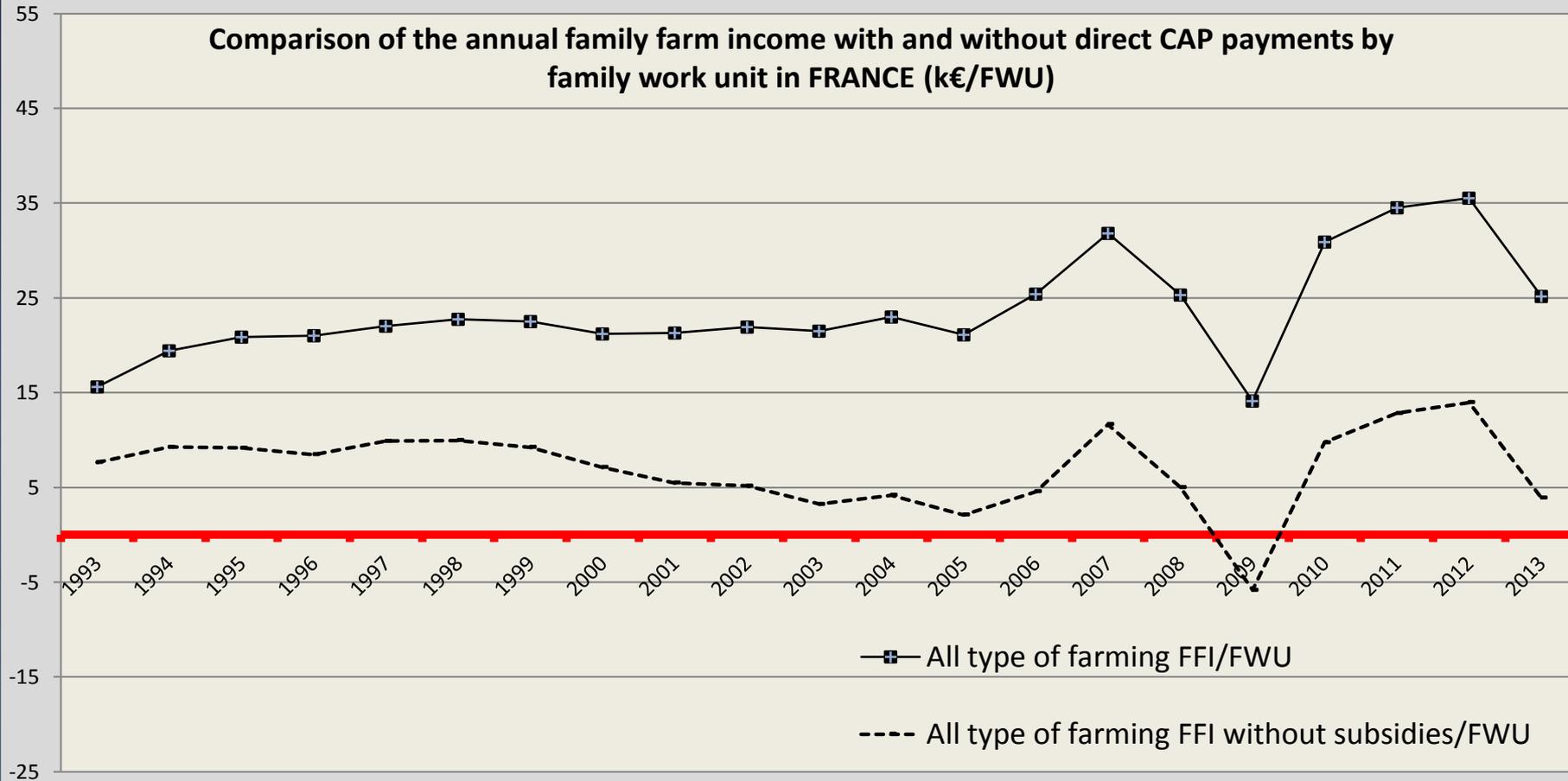


The environment to justify CAP direct payments

Legitimate direct payments

The ambiguity of political speeches

- Direct payments are even today **essential** elements of farmers' incomes ... *Even when market prices are favorable*



How to justify that the biggest European budget is dedicated to support a supposedly competitive agriculture ?

The environment to justify CAP direct payments

Legitimate direct payments

The ambiguity of political speeches

“It is only fair that farmers be rewarded by the CAP for providing us with this valuable public good. Income support payments from the CAP are increasingly used by farmers to adopt environmentally sustainable farming methods.”

European Commission, 2012

Decoupled payments = 75% of direct aids distributed to farmers



“It is also not possible, at present, to establish a direct link between SPS aid and the positive public externalities resulting from agricultural activities.”

European court of auditors, 2011

“To what extent does the distribution of direct aids of the CAP reward the supply for environmental public goods by farming?”

Objectives:

- Develop an operational method for approaching the production of environmental public goods by farms
- **Enable the analysis of the distribution of direct aids perceived by these exploitations**
 - Using FADN data
 - From previous studies such as IDERICA

- Analyse 3 types of productions: OTEX 15 (cereales et oil seeds), OTEX 45 (milk farms) et OTEX 46 (cattle farms)
- = 44% of French farms et 50% of the direct payments of the FADN sample

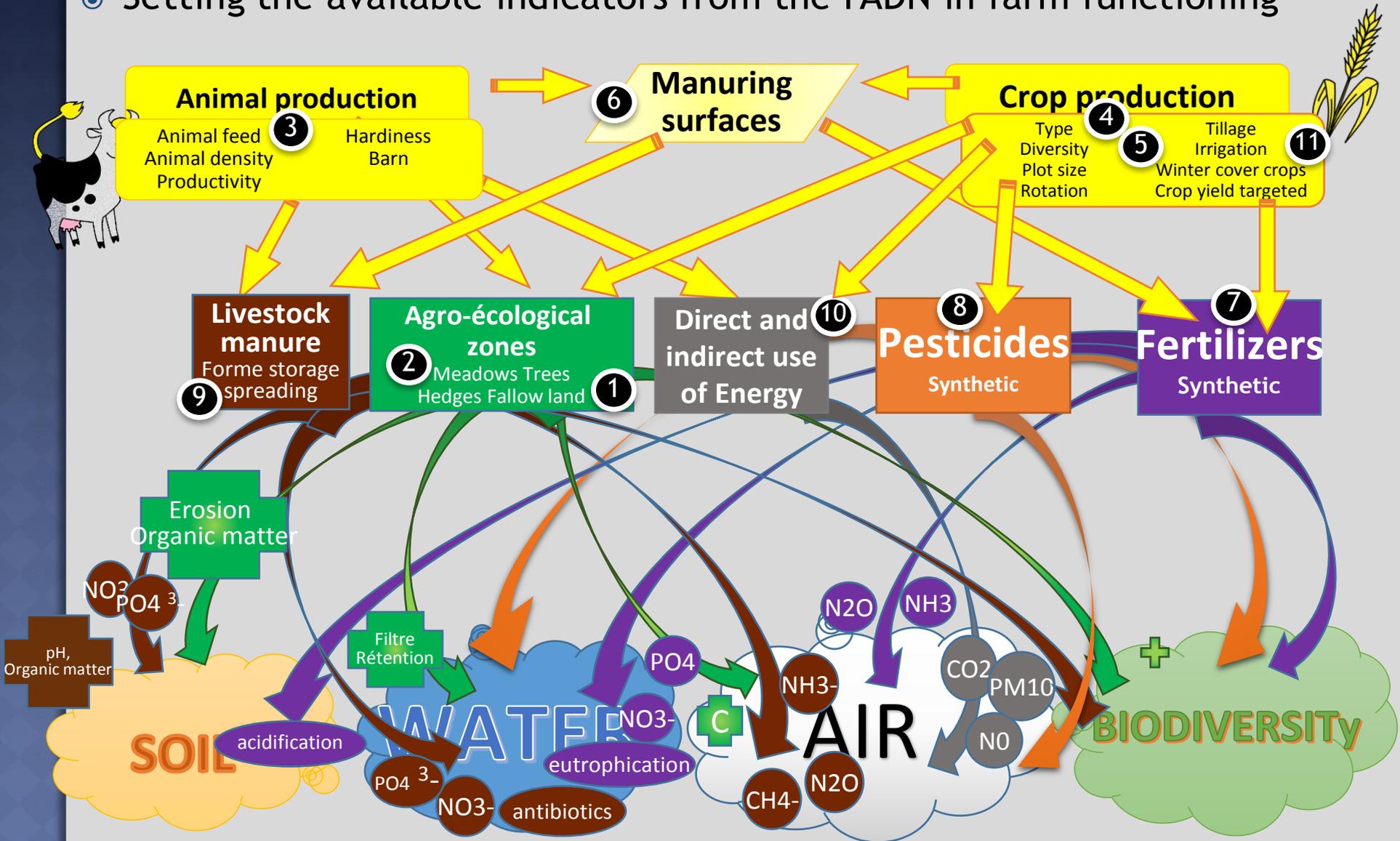
- Compare with other Member States

Methodology

The indicators

Farm ranking

- Setting the available indicators from the FADN in farm functioning



Methodology

1) Part of low-productive land in UAA (%)	(agricultural area out of production + rough grazing)/ SAU
2) Part of meadows in UAA (%)	(meadows + permanent pasture + temporary grass) /SAU
3) Feeding purchases per LU(%)	Concentrate feeding and coarse fodder for grazing livestock purchase/total of grazing LU
4) Part of protein crops (%)	Areas in alfalfa, lentils, chickpeas, peas, field beans / arable land
5) Reciprocal Simpson	Diversity crop index which also considers the cropping balance
6) Organic N pressure (kg/ha)	Total LU*82,5/UAA
7) Synthetic fertilizer expenses per productive UAA (€/ha)	Synthetic fertilizer expenses / (arable land + meadow and grass)
8) Synthetic pesticide expenses per productive UAA (€/ha)	Synthetic pesticide expenses / (arable land + meadow and grass)
9) Veterinary fees for cattle per LU(€/UGB)	Other livestock specific costs/grazing LU
10) Direct energy use per economic size(%)	(Motor fuels and lubricants, electricity, heating fuels) / Economic size of holding expressed in ESU
11) Part of irrigated areas in productive UAA (%)	UAA under irrigation / (arable land + meadow and grass)

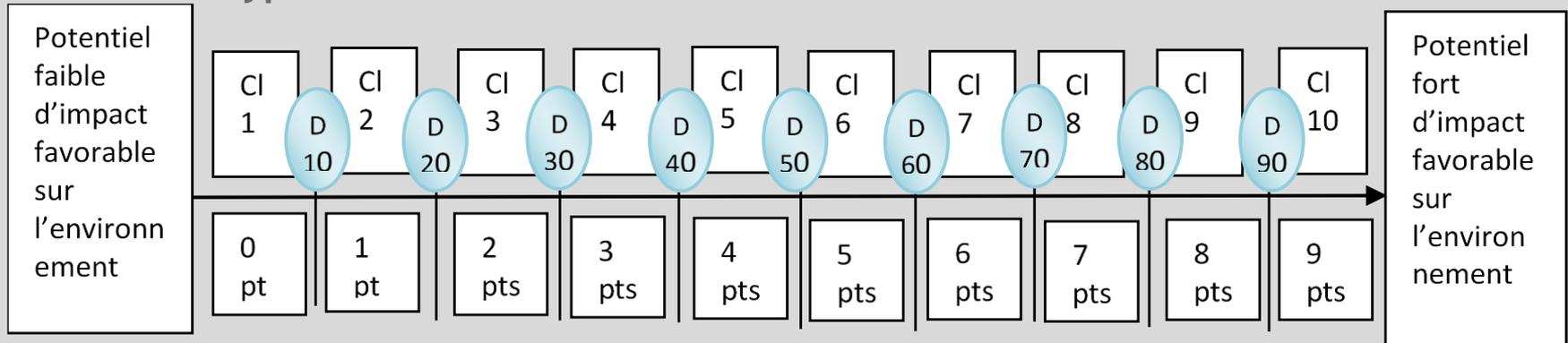
Methodology

The indicators

Farm ranking

Ranking farms on their overall environmental impact:

1. Ranking by indicator: we attribute points to each farm according to its rank in its type of farm decile.



2. For each farm, we sum the points attributed for each indicator

3. We finally rank farms in quartiles calculated according to this sum of points, still by type of farm

Faible potentiel de production de BP environnementaux

Classe 1

Q1>0

Classe 2

Med>0

Classe 3

Q3>0

Classe 4

Fort potentiel de production de BP environnementaux

Methodology

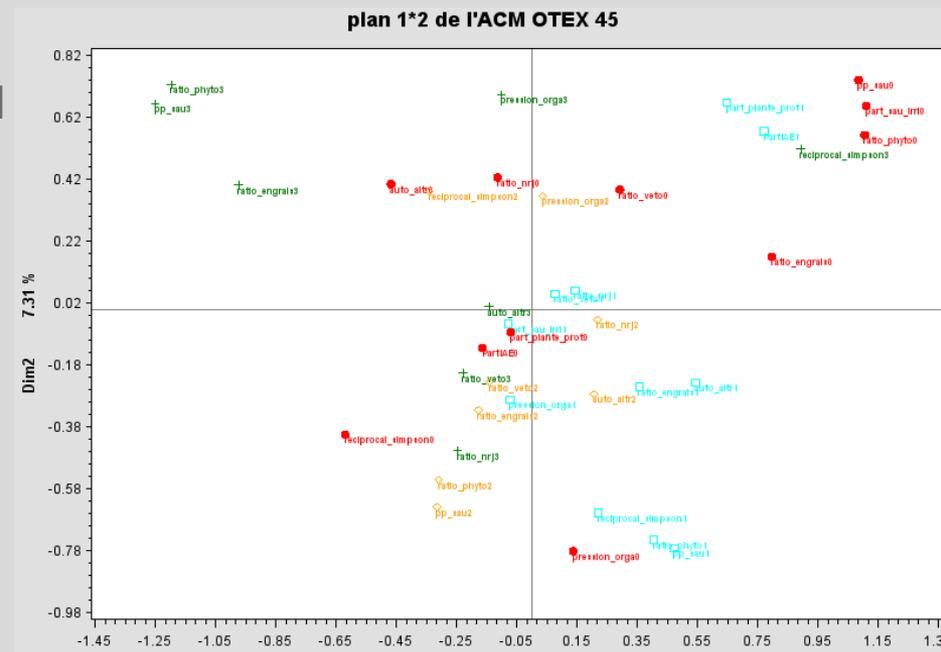
The indicators

Farm ranking

- ⦿ **The interest:** identify the most (or the least) environmentally friendly farms in a given type of farm, and link this to the amounts of subsidies perceived.
- ⦿ **Difficulty:** Transform a "thresholds" method into a "quartiles" method
 - Imply that our indicators are substitutable
 - We do not set weights
 - Final Class are made up of farms which do not get the same key points

- RICA environmental data are limited

→ Is our method reliable?

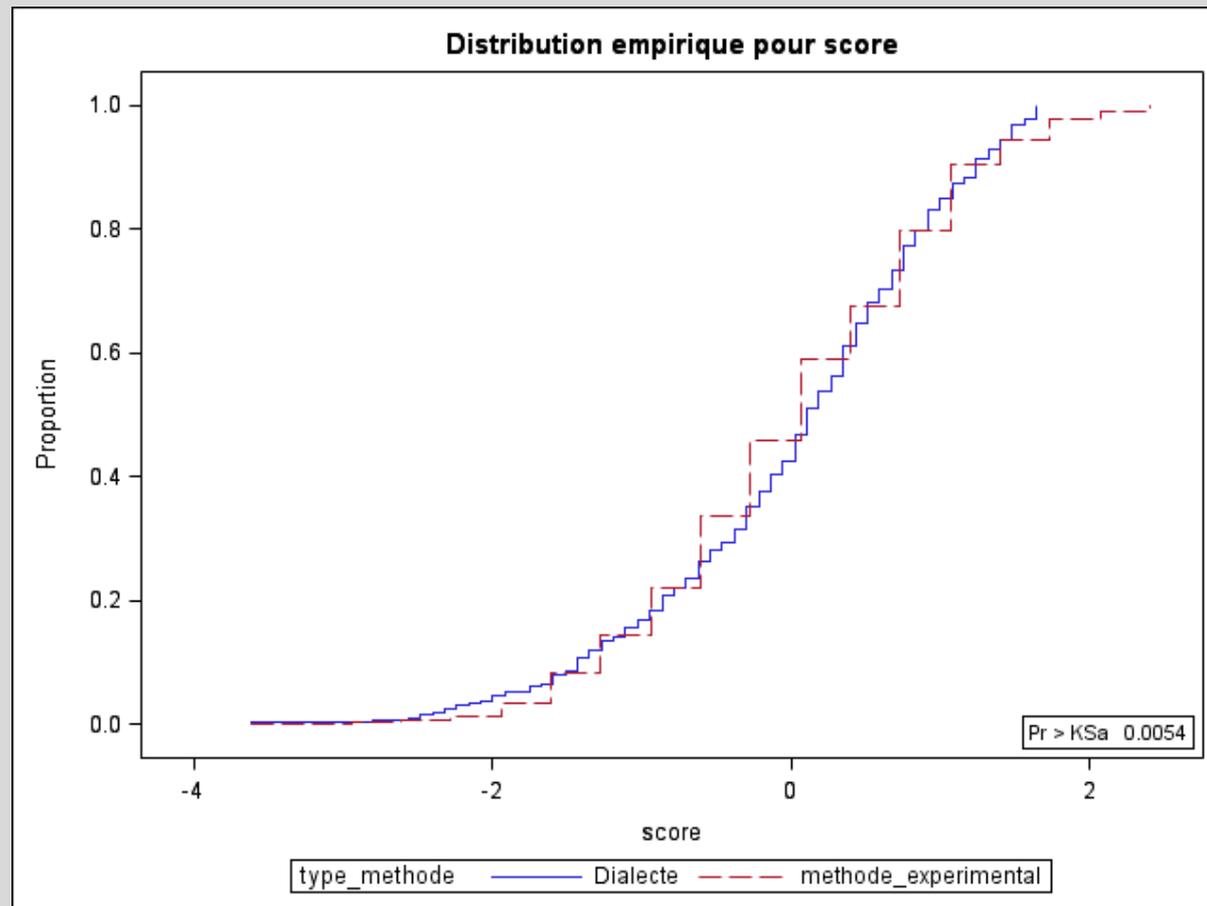


Comparison with DIALECTE

The Dialecte method (from Solagro) assesses farm durability by means of a field interview. Solagro gave us a sample of 340 dairy farms. We calculated our final score and compared our ranking with the Dialecte ranking.

- There is a correlation between the Dialecte mark and ours of **0.52**
- The distribution of the scores of both centered and reduced methods seems to follow the same model

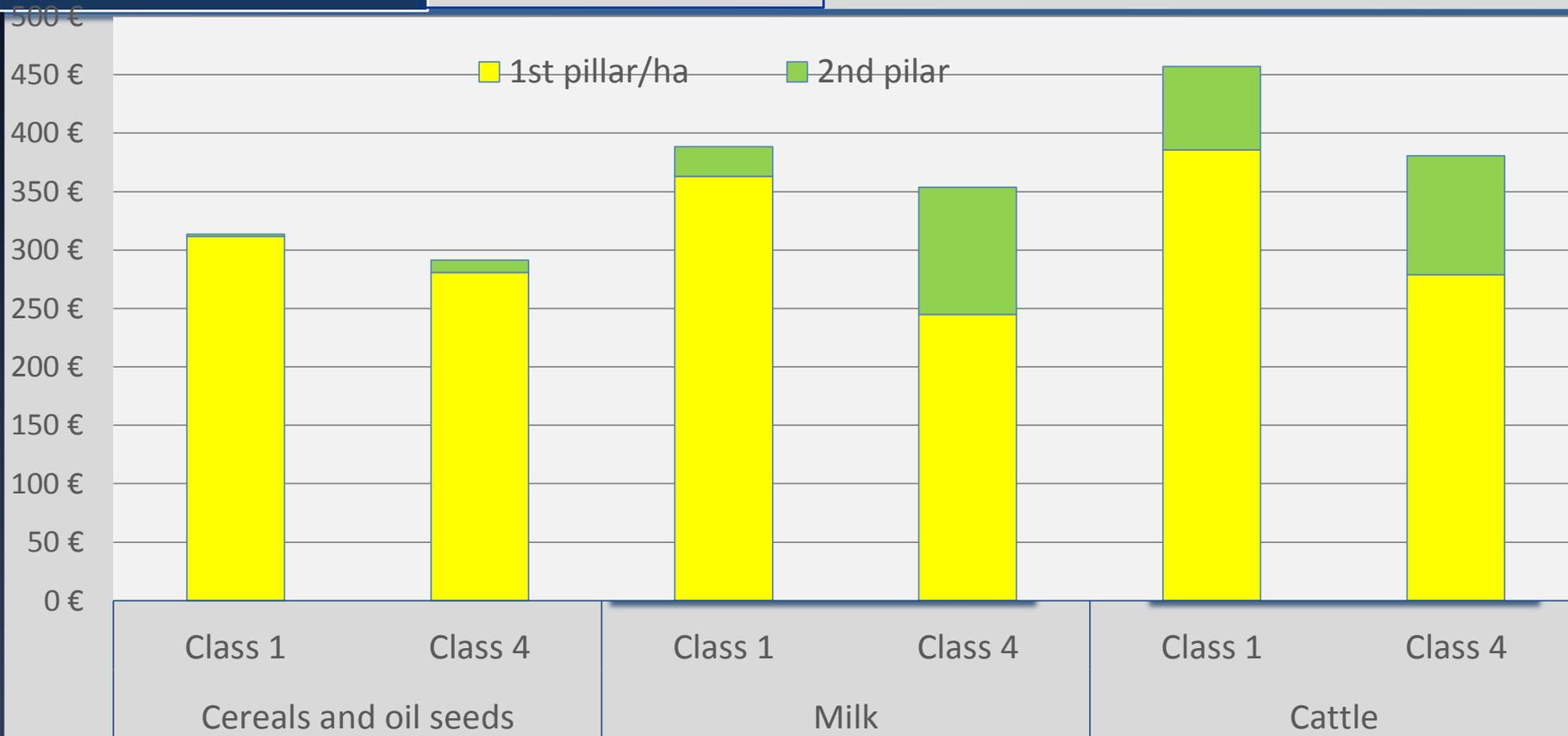
This finding shows that our method is not as accurate as the Dialecte method, but it produces results which point in the same direction.



Results- French FADN 2013

Differences in the aids/ha perceived

Differences of structure



- Direct aids per hectare are always more important in the group with the least marks.
- The difference is not very important in cropping, but a huge difference in dairy farming and cattle farming, because of the first pillar aids. The second pillar aids are raising for the most environmental farming group, but not enough.

Results- French FADN 2013

Differences in the aids/ha perceived

Differences of structure

For the more environmental firendly farms, on average, UUA are bigger and arable land smaller. Even thought, crops are more diversify, and incomes are like-for-like.

	Cereals and oil seeds			Milk			Cattle		
	Class 1	Class 4		Class 1	Class 4		Class 1	Class 4	
UAA (ha)	108,9	132,6	22%	89,9	86,4	-4%	93,2	109,9	18%
Arable land (ha)	102,6	111,3	9%	53,7	14,21	-74%	20,3	4,9	-87%
Crop diversity	3,6	5,2	1,57	3,2	3,0	0,2	2,3	2,5	0,13
Pincipal crop/arable land	57%	42%	-15%	59%	60%	1%	68%	68%	0%
Produit brut/ha	2 065 €	1 406 €	-32%	3 662 €	1 939 €	-47%	1 937 €	989 €	-49%
Intermediate consumtions/ produit brut	55%	53%	-2%	59%	46%	-13%	56%	39%	-17%
Income/FWU	18 997 €	17 506 €	-8%	22 101 €	21 987 €	-1%	16 409 €	18 577 €	13%

For cattle breeding, the best group has less cows, and use more grass and less sillage.

	Milk			Cattle		
	Class 1	Class 4		Class 1	Class 4	
Surface Fourragère Principale (ha)	60,4	75,0	26%	76,6	93,1	26%
Surface en maïs fourrager (ha)	24,3	4,6	-81%	6,7	0,9	-87%
Vaches Allaitantes (UGB)				68,8	58,5	-15%
Vaches Laitières (UGB)	64,7	44,8	-20%			
Quota	464 111	247 162	-47%			

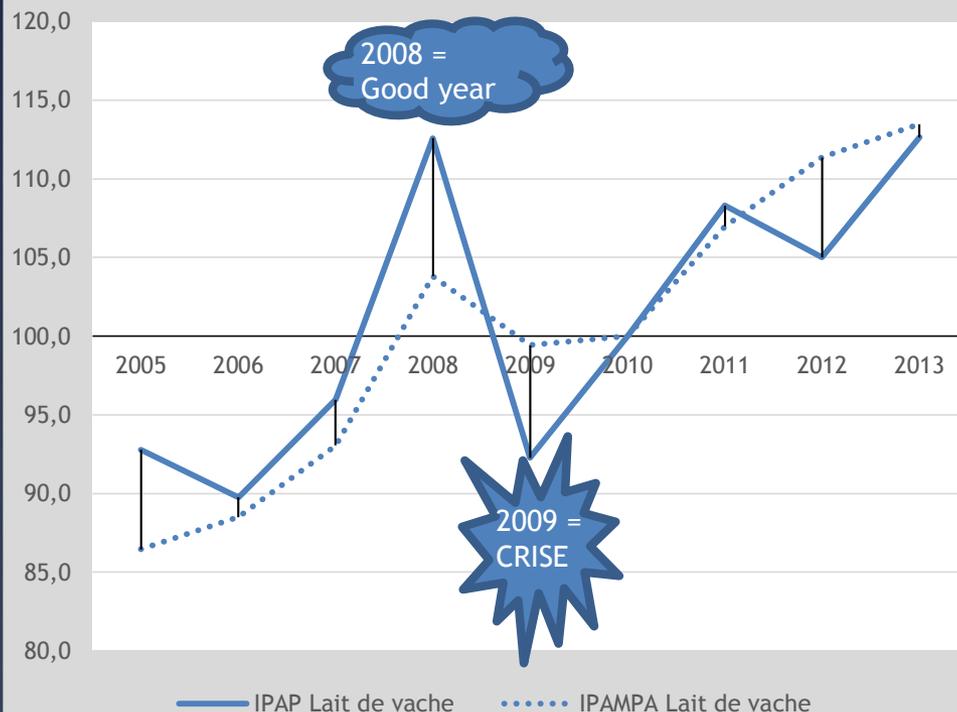
French results - Historical retrospective

Income differences

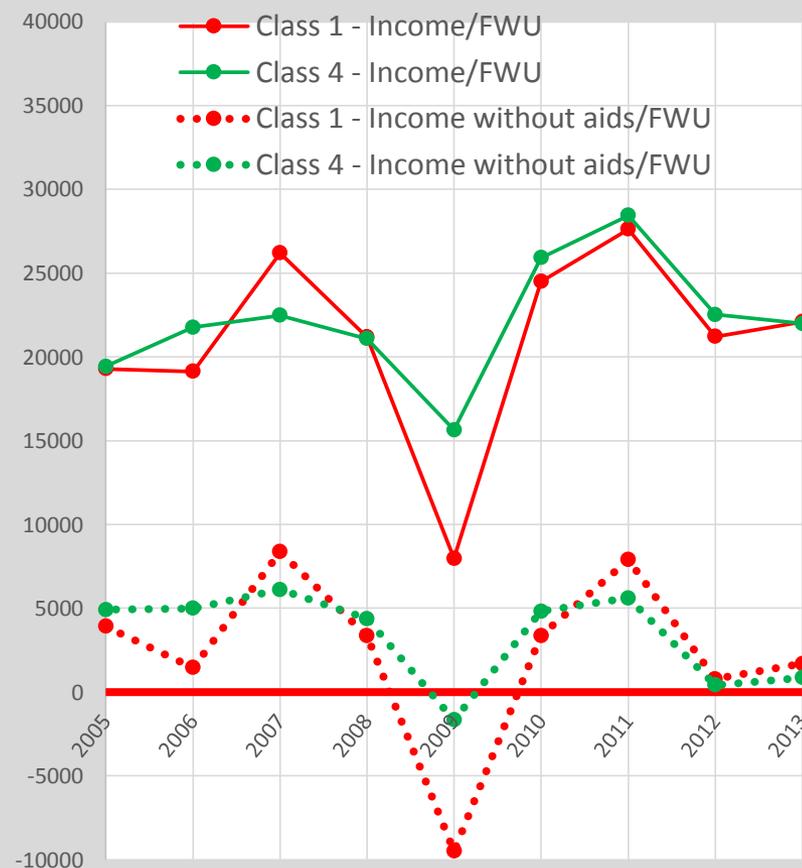
Evolution of aids distribution

- The group of the more environmental friendly farms take fewer advantage less of valuable rises, but are more resilient in case of crisis. The dairy farms exemple.

Price differential : Comparison of milk prices (IPPAP) and milk farm charges (IPAMPA)
base 100 in 2010



Income per FWU with and without aids
– Dairy farms

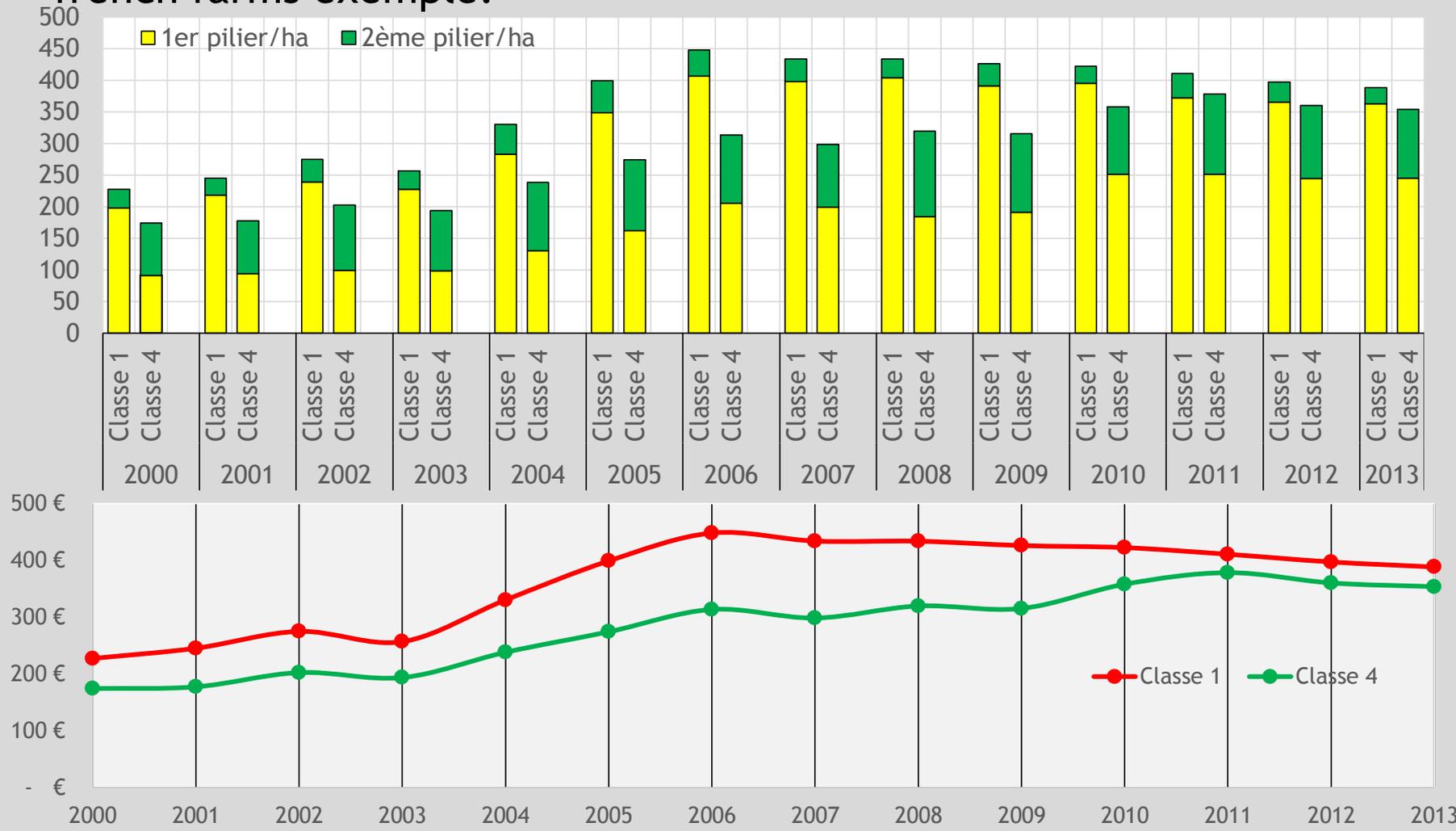


French results - Historical retrospective

Income differences

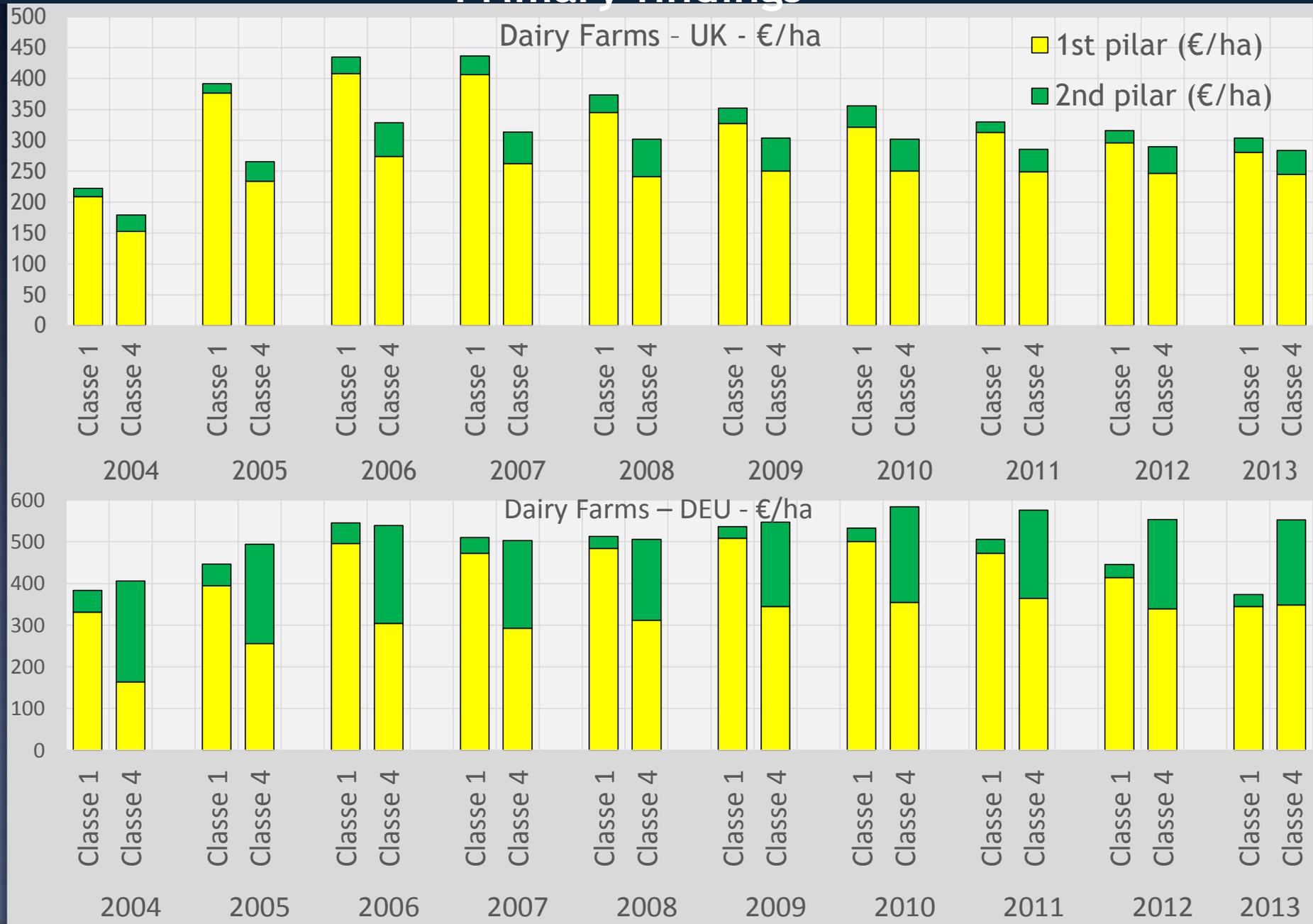
Evolution of aids distribution

- The aids distribution is historically in favour of the less environmental friendly farms groups, but evolve as reforms are made. The dairy french farms exemple.



FADN results - Comparison with UK and Deutchland-Dairy farms

Primary findings



LIMITS AND PERSPECTIVES

⊙ Limits :

- Build an environmental assessment method from accountancy datas → Limits due to the use of the FADN :
 - Sample (medium-size and big farms, economically speaking)
 - Type of data (we do not have HNV, GHG, treatment frequency index ...)
- Build an assessment method which can be apply on several types of farms

⊙ Perspectives:

- ⊙ Statistical method which can be reproducible every year for each Member State
- ⊙ Statistical method for simulating CAP direct aids redistribution
 - An assessment tool which can permit to help to decide for the next CAP reforms

THANK YOU FOR YOUR ATTENTION