

- 
- Combining FADN with income tax data to analyze farm and off-farm income in france

Nathalie Delame

Economie Publique, AgroParisTech, INRA, Université Paris-Saclay, 78850 Thiverval-Grignon

➤ What for ?

Analyze the composition of the farmer's global income

	Mean value for tax households	Share of households involved	Share in global income
Complete sample in 2010			
Global income	42 784	100%	100%
Farm income	28 700	100%	67%
Wages	21 827	32%	16%
Ind.& com. profit	12 077	9%	2%
Pensions	9 562	12%	3%
Asset income	4 710	97%	11%

Source : INRAE from FADN – DG-Fip 2010

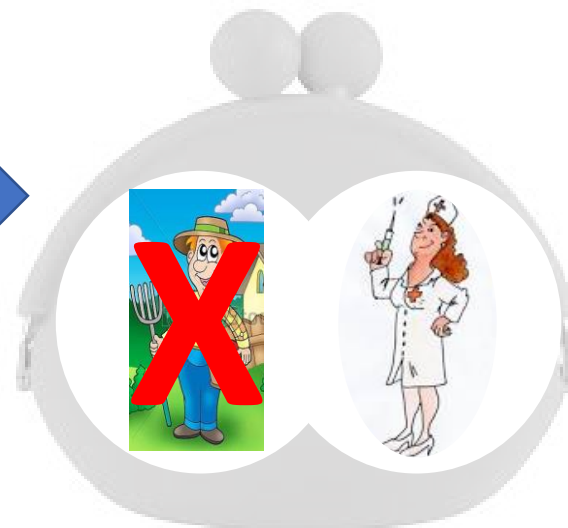
Wages are the main off-farm income, but involve the third of farmers. Those wages come from the farmer's spouse. In France, farmers with off-farm activities work on the smallest farms, not in FADN.

Asset income are the most frequent, but also the weakest

➤ How estimate those figures ?

A specific matching between FADN and farmers' tax income declarations (INSEE in 1991, 1997, 2003, 2007; SSP in 2010)

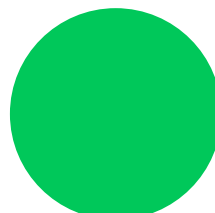
Tax income declarations



+



=



Farm result
(FADN)

INRAE

➤ Evaluation of farmers' income

A specific matching between FADN and farmers' tax income declarations (INSEE in 1991, 1997, 2003, 2007; SSP in 2010)

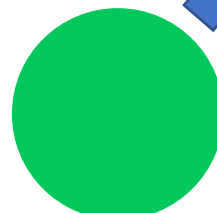
Tax income declarations



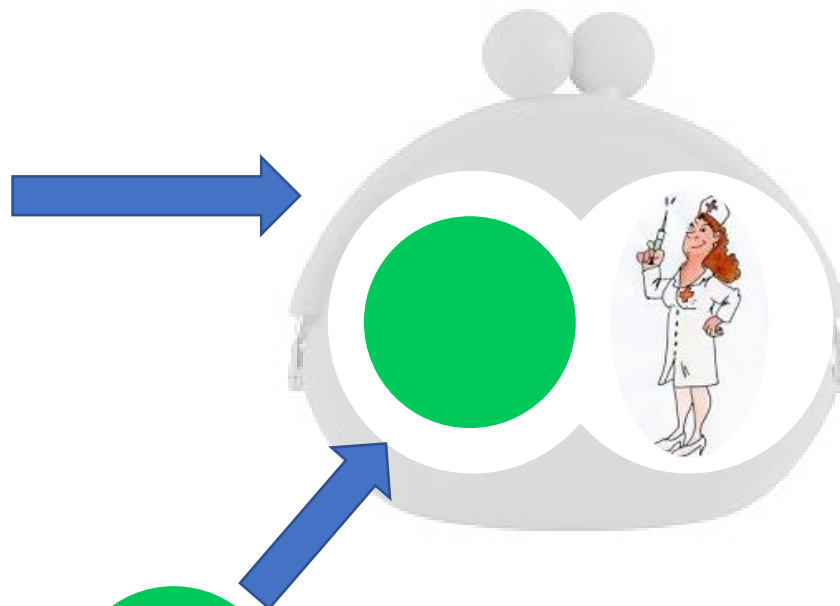
+



=



Farm result
(FADN)

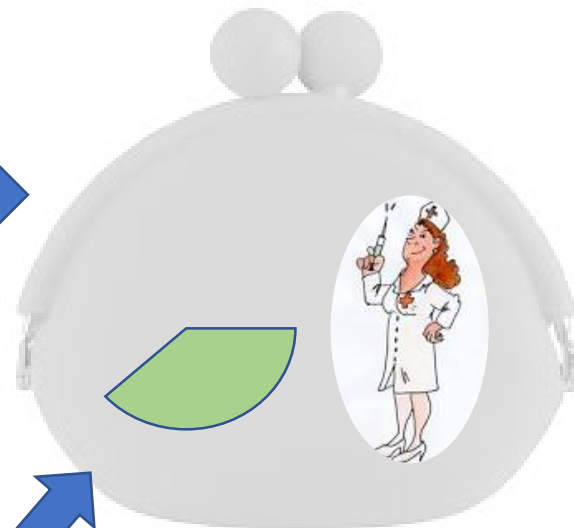


INRAE

➤ Evaluation of farmers' income

A specific matching between FADN and farmers' tax income declarations (INSEE in 1991, 1997, 2003, 2007; SSP in 2010)

Tax income declarations



FADN : Farm identifier = SIRET

bienvenue à la ferme

MSA : Contributor id

Farm result (FADN) + agricultural social insurance MSA



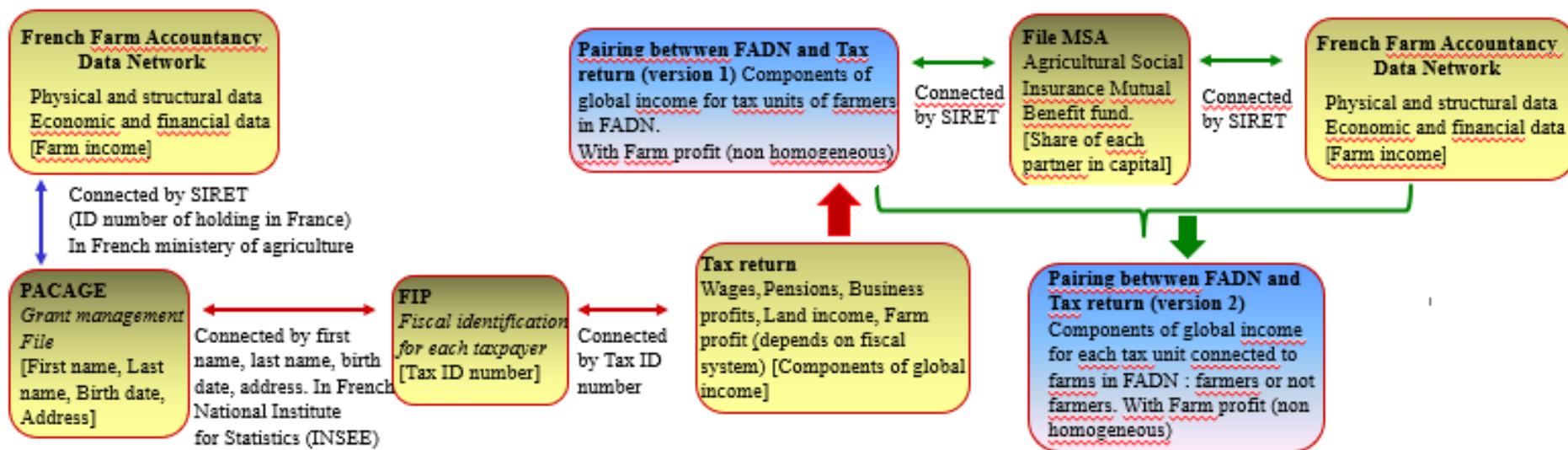
INRAE

Combining FADN with income tax data to analyze farm and off-farm income in France

23/04/2021 - 27th meeting of the OECD Network for Farm-Level Analysis– Nathalie Delame

➤ A complex match requiring the intervention of several organizations

Example on 2010



➤ Evaluation of farmers' income from 2010 to 2016

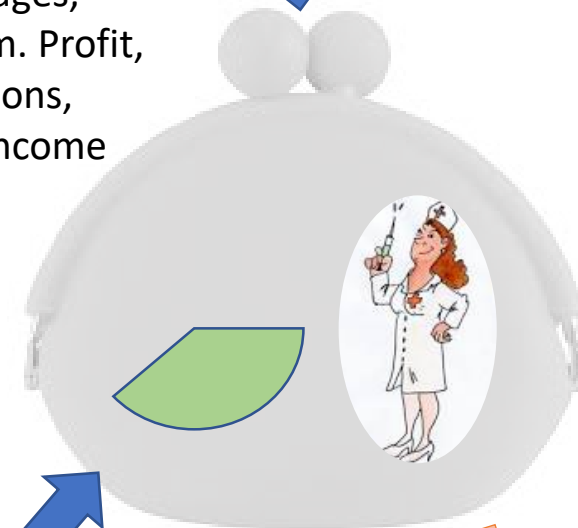
A few more assumptions

Tax income declarations

The image shows a French tax declaration form for the year 2010. The title is 'DÉCLARATION DES REVENUS 2010'. Below the title, it says 'DÉCLAREZ SUR WWW.IMPOTS.GOUV.FR'. There is a section for 'VOTRE ÉTAT CIVIL' with fields for name, date of birth, and marital status. A large red diagonal banner across the form reads 'Tax : 2010'.

Annual evolution indexes

For wages,
Ind. & com. Profit,
Pensions,
Asset income



FADN : 2010, 2011,...,2016

bienvenue à la ferme

=

MSA : 2010, 2011,...,2016

Farm result (FADN) + agricultural social insurance MSA



INRAE

Combining FADN with income tax data to analyze farm and off-farm income in France

23/04/2021 - 27th meeting of the OECD Network for Farm-Level Analysis– Nathalie Delame

➤ Number of tax households

Complet sample

Périod 2003-2010

	Number of tax households		Annual evolution (%)
	in sample	weighted sample	
2003	6 346	428 190	
2004	5 808	390 393	-0,08
2005	4 810	321 905	-0,17
2006	4 175	277 935	-0,13
2007	3 490	233 594	-0,16
2008	3 001	197 814	-0,14
2009	2 708	177 273	-0,10
2010	2 439	153 589	-0,10

Périod 2010-2016

	Number of tax households		Annual evolution (%)
	in sample	weighted sample	
2010	5 308	363 620	
2011	4 779	326 873	-0,10
2012	4 287	293 643	-0,10
2013	3 915	268 944	-0,09
2014	3 554	243 112	-0,09
2015	3 195	222 282	-0,10
2016	2 909	200 629	-0,09

Source : INRAE from FADN – DG-Fip – MSA

Panel sample- without retirement and without zero farm income

Périod	Number of tax households	
	in sample	weighted sample
2003-2010	2 213	353 999
2010-2016	3 409	330 347

Source : INRAE from FADN – DG-Fip – MSA

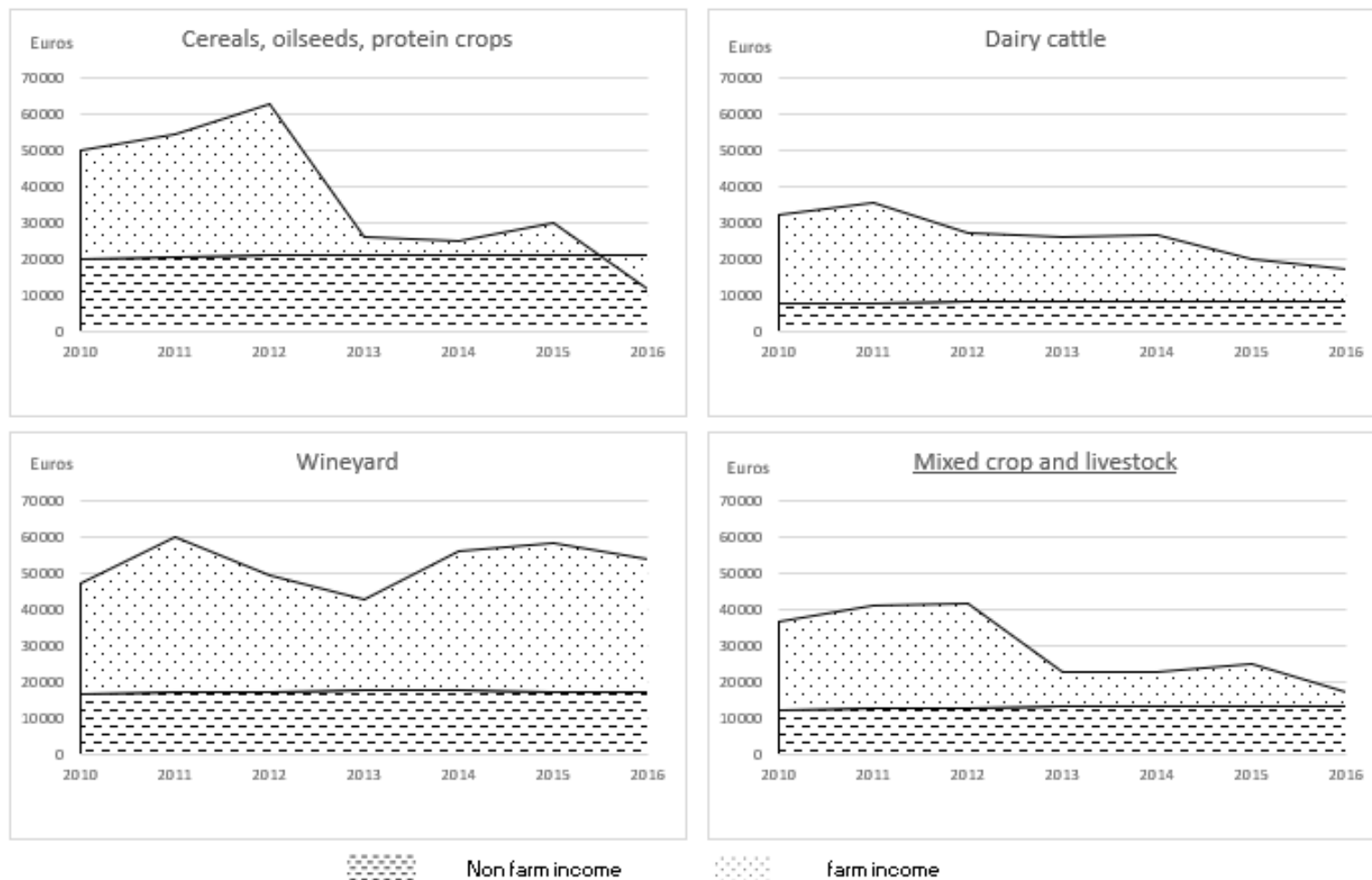
INRAE

Combining FADN with income tax data to analyze farm and off-farm income in France

23/04/2021 - 27th meeting of the OECD Network for Farm-Level Analysis– Nathalie Delame

➤ Off-farm and farm incomes

Few spécializations



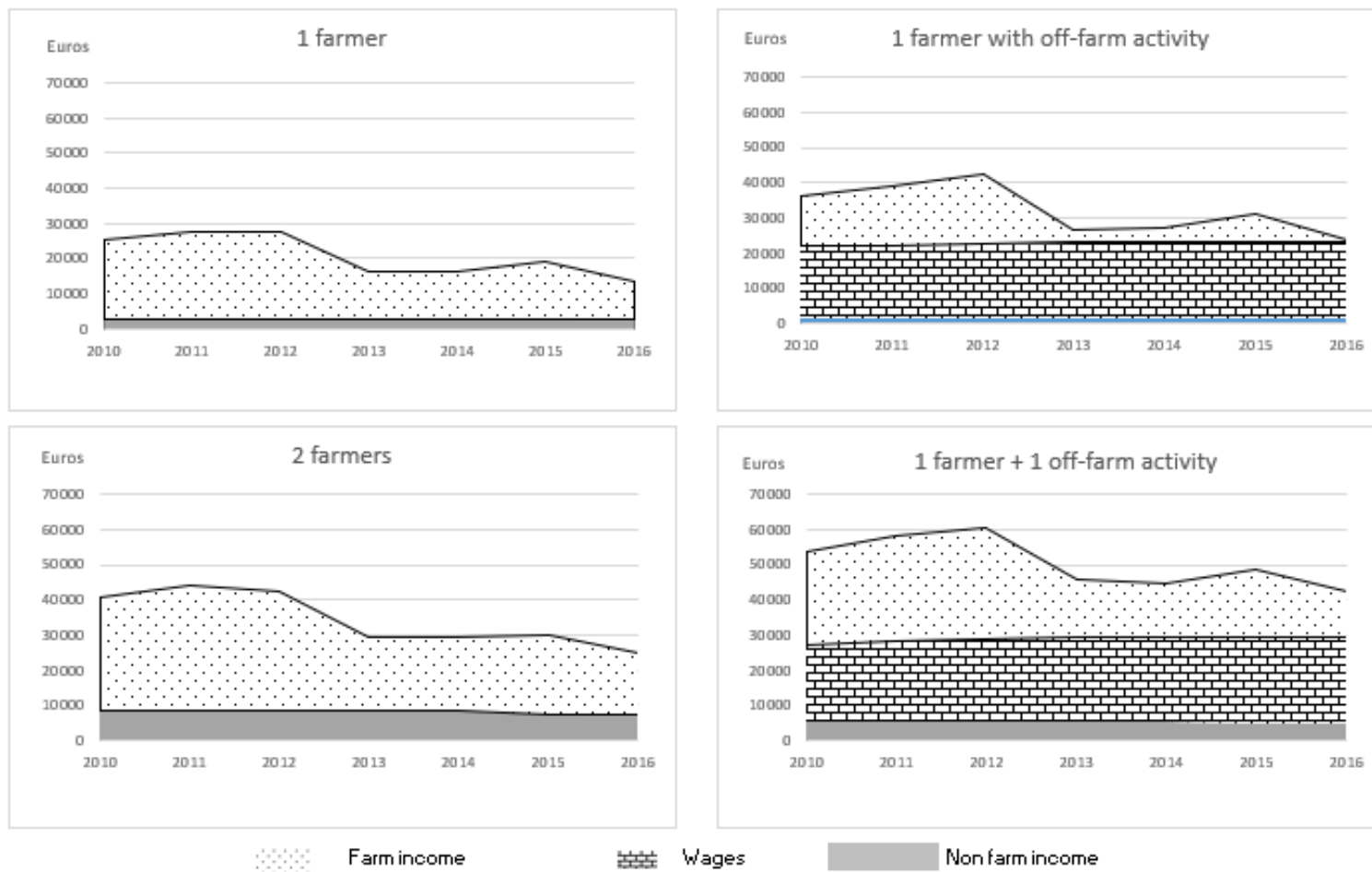
Source : INRAE from FADN – DG-Fip – MSA

INRAE

Combining FADN with income tax data to analyze farm and off-farm income in France
23/04/2021 - 27th meeting of the OECD Network for Farm-Level Analysis– Nathalie Delame

➤ Off-farm and farm incomes

Number of people in the household and their activity



INRAE

Combining FADN with income tax data to analyze farm and off-farm income in France

23/04/2021 - 27th meeting of the OECD Network for Farm-Level Analysis– Nathalie Delame

Source : INRAE from FADN – DG-Fip – MSA

➤ Conclusion

Creation of a panel from 2003-2010 and 2010-2016 allowing the monitoring of farm and non-farm income of more than 2,000 farm households

High attrition of the sample compensated by a dilation of the usual weighting coefficients of the FADN

High variability of global income in farm households dependent on farm income is highlighted

Wages provide stability.

this exercise has two outputs:

- a panel that confirms and quantifies the main trends with average values on different criteria to classify tax households
- this panel will be useful at micro level to analyze the farmers' choices on farm activity according to the composition of global income. More environmental practices, price volatility and risk management



➤ Thank you for your attention

nathalie.delame@inrae.fr