



**From coupled support to ecoschemes:
is there a better way to support livestock
farmers in Wallonia ?**

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The ‘protein transition’ and farmers’ welfare



The “protein transition”, defined as the rebalancing between animal and alternative proteins in diets, is presented as a solution to mitigate the harmful effects of animal production on the environment, but also as an opportunity to induce healthier diets.

Yet, the implications of this transition on livestock farmers are still unclear, both at a macro-level (e.g. in a system functioning perspective) and micro-level (e.g. at the farm level).

Outline:

1. Study investigating how the factors associated with a protein transition (i.e. reduction of herd size, increased feed autonomy and increased share of pastures) impact the economic performance of dairy and beef farmers in Wallonia
2. Proposal on how the CAP can accompany this transition at the farm level

Beef and dairy farming in Wallonia



- 47% of wallon agricultural production value
- - 80% of cattle farmers, since 1984
- Average income: *suckler cow farmers*: 4,756 €/pers/ year (~250% subsidies); *dairy cow farmers*: 19 888 €/pers/ year (~50% subsidies)
- Coupled support (total = 21.3% of P1): 18.8% suckler cows, 1.2% milk cows
- Subsidies: Coupled support (58 million €/ year) + 'feed autonomy' (AECM; 6 million €/ year); Decoupled payments (213 million €/ year)
- BE consumption: meat - 8%; milk -20%, since 2010



- BE Agricultural emissions: 6.21 kt CO₂ eq/1000 ha (3x EU average)
- BE Livestock density: 2.8 LSU/ ha (3rd in EU)
- -23% surface area permanent pasture since 1980
- Poor conservation status of all grassland habitats in Wallonia
- < 1.4 LSU/ha → positive impact on biodiversity (UCL, 2011)

Economic implications of a protein transition (Duluins et al. 2021, working paper)



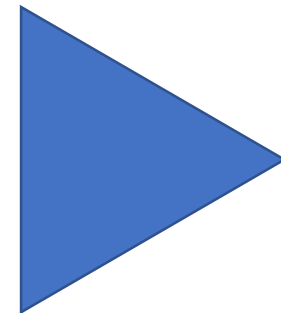
Gap addressed: Farm-level analysis of the implications of a protein transition on livestock farmers

→ Analysis of the diversity of production practices of dairy and suckler cow systems in the Walloon Region and **investigate the link between environmental and economic performance.**

Regression framework, with FADN data:

Factors associated with a reduced environmental impact

- reduction of herd size
- increased feed autonomy
- increased share of pastures



Economic performance of dairy and beef farmers

Economic implications of a protein transition - Dairy

	Gross revenues/ha	Operating profit margin	Subsidy dependence
Log (herd size)	1.09*** (0.26)	0.11 (0.09)	-0.28*** (0.07)
Grazing livestock density	-0.13 (0.12)	-0.10*** (0.04)	0.07** (0.03)
Log (cattle area)	-0.91*** (0.26)	-0.12 (0.09)	0.22*** (0.07)
Share of grassland	-0.39* (0.22)	0.17** (0.07)	0.06 (0.04)
Log (total concentrate)	0.01 (0.01)	-0.005 (0.00)	-0.003 (0.00)
Concentrate autonomy	0.01 (0.17)	0.12** (0.05)	0.05 (0.07)
Log (labour)	0.01 (0.06)	0.01 (0.03)	0.02* (0.01)
Constant	6.93*** (0.33)	0.63*** (0.15)	0.36*** (0.06)
R ² overall	0.544	0.316	0.562
Obs	324	324	324

- Reduction in herd size is associated with lower gross revenues but also a reduction in operating costs → no differences in operating profit margins
- **A higher share of pastures and higher concentrate autonomy** is associated with a lower milk productivity per cow and therefore lower gross revenues, but operating costs are lower as well → **higher operating profit margins**

Economic implications of a protein transition - Beef

	Gross revenues/ha	Operating profit margin	Subsidy dependence
Log (herd size)	0.67 (0.65)	0.04 (0.16)	-0.31*** (0.05)
Grazing livestock density	0.28 (0.34)	0.001 (0.07)	0.07*** (0.02)
Log (cattle area)	0.22 (0.67)	-0.01 (0.16)	0.28*** (0.06)
Share of grassland	-1.11* (0.58)	0.32 (0.19)	0.12* (0.07)
Log (total concentrate)	0.02 (0.01)	-0.02*** (0.01)	-0.005 (0.00)
Concentrate autonomy	-0.05 (0.26)	0.09 (0.05)	-0.04 (0.03)
Log (labour)	0.08 (0.20)	-0.02 (0.05)	-0.006 (0.02)
Constant	3.09*** (1.01)	0.25 (0.29)	0.37*** (0.13)
R ² overall	0.635	0.309	0.679
Obs	208	208	208

- Farm **characteristics are poorly correlated with economic indicators but highly associated with subsidies**
- Subsidies are positively correlated with a larger cattle area, a higher grazing livestock stocking rate, and the share of grassland

→ Results suggest that **the business model of beef farms is based on subsidies rather than on actual production and demand factors.**

Economic implications of a protein transition – Dairy & Beef



UCLouvain



Economic and environmental win-wins are possible, but there are large differences between the dairy and beef sectors.

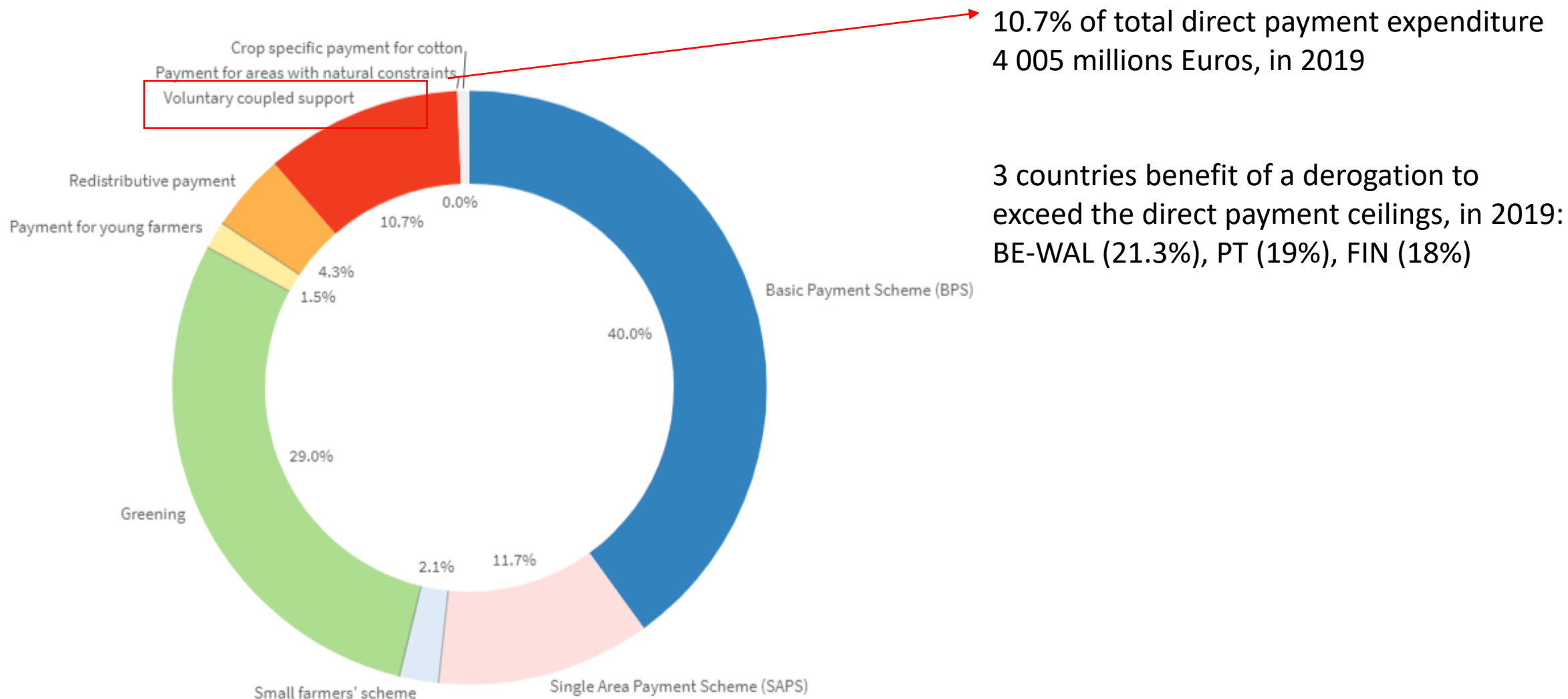
In the **dairy sector**, a switch to more extensive grazing systems that rely on own fodder production **can entail economic benefits for dairy farmers.**

In the **beef sector**, farm characteristics are uncorrelated with economic indicators, **but highly associated with subsidies → changes in this sector will rather be induced by political choices than by economic incentives.**



How to define these subsidies in order to accompany a protein transition in which livestock farmers are not left behind?

The role of animal-based coupled support



2019

CAP: Insights from the literature

An economic perspective



"Coupled payments have on average **no significant impact on farmers' income**"

(Biagini et al., 2020; De Boe et al. 2020; Impact Assessment of the post-CAP 2020 proposal, EU Commission 2018; Guyomard et al, 2004; Dewbre et al. 2001)

"Coupled payments have **no impact on reducing labour outflow** from the agricultural sector, i.e. on preserving jobs in agriculture" (Garrone et al., 2019)

At the macro level: coupled payments increased beef production by 2.4% and **decreased beef prices by 3.2%** (Impact Assessment of the post-CAP 2020 proposal, EU Comm, 2018)

CAP: Insights from the scientific literature

An environmental perspective



“Coupled payments generally have negative effects on water quality and greenhouse gas emissions” (De Boe, 2020; Janssen et al. 2016; EU Commission, 2016)

Coupled support **can have negative or positive impacts on biodiversity**, depending on:

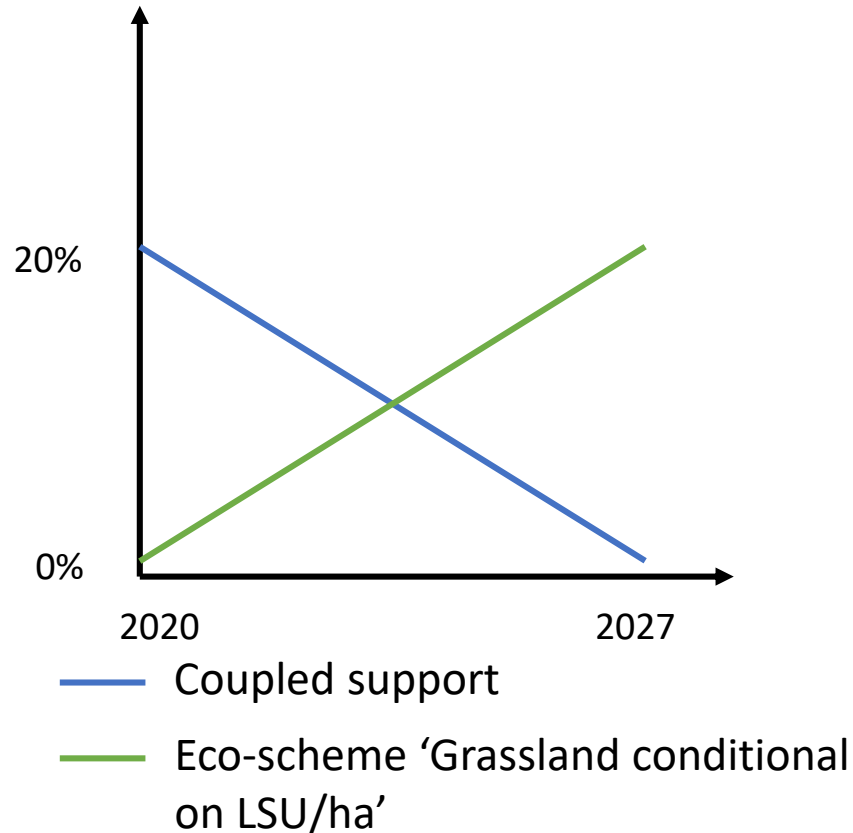
- the livestock density (if $>$ or $<$ than sustainability threshold)
- the location and nature of the grazing systems (prevent land abandonment, build targeted agri-envi payments)

(De Boe, OCDE, 2020; Bas-Defossez & Meredith, 2019; EU Commission, 2016)

→ NO ECONOMIC BENEFITS, BUT ENVIRONMENTAL POTENTIAL

CAP: Is there a better way to support cattle farmers through subsidies?

Very relevant question in countries with **1/** long history of coupled support payments (eg. Wallonia since 2003), **2/** very high % of coupled support payments (eg Wallonia, 21% of P1); **3/** where coupled support had limited capacity in addressing the structural causes of the difficulties and in making the targeted sectors more viable and less dependent on subsidies



- Progressive reduction of coupled support & replacement with eco-scheme payment, per ha of permanent grassland held by dairy & suckler cow farmers
- The amount of eco-schemes payment is conditional on livestock density

CAP: Is there a better way to support cattle farmers through subsidies?



Coupled support		Eco-scheme, payment per ha of permanent grassland to DAIRY & SUCKLER beef farmers			
		€ <1,4 LSU/ha	€ <1,8 LSU/ha	€ <2.2 LSU/ha	
2022	182€/suckler cow	120	60	0	current situation
2023	127€/suckler cow	150	90	30	
2024	89€/suckler cow	180	120	60	
2025	62 €/suckler cow	210	150	90	
2026	44 €/suckler cow	240	180	120	
2027	31€/suckler cow	270	210	150	objective
2028	0	300	240	180	

Eco-scheme more than compensates coupled support

- **Dairy:** Economic gains from extensification (+); subsidies support extensification (+) → win-win, so farmers will follow quickly
- **Beef:** Economic gains from extensification (no impact); subsidies support extensification (+) → alignment with societal demands; > profits if bigger environmental value. Business model is subsidy driven, so farmers are expected to react quickly to a change in subsidies



Thank you!

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Ref.: Duluins O., Riera R., Schuster M., Baret P., Van den Broeck, G. (2021)
"Economic implications of a protein transition: evidence from Walloon
beef and dairy farms". Earth and Life Institute. UCL