





# The effect of administrative burden on farmers' perceptions of the cross-compliance based direct payment policy

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- 2. Research questions
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## 1. Motivation

## Cross-compliance based direct payment system

- Farmers have to fulfill cross-compliance standards (Mann, 2005)
- Farmers participate in voluntary agri-environmental programs (Mack et al., 2020)

## Administrative burden

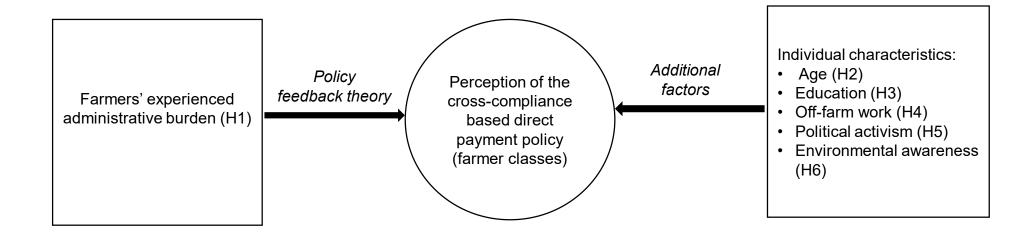
- Farmers have to provide various documentations to prove eligibility for direct payments (El Benni et al., 2020)
- Administrative burden: "The experience of policy implementation as onerous" (Burden et al., 2012)

# **2.** Research questions

- 1. How do Swiss farmers perceive the cross-compliance direct payment system?
- 2. Does the experienced administrative burden influence the farmers' policy perception?
- 3. Which further individual characteristics of farmers' influence their policy perception?

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## 3. Conceptual framework and hypotheses



- H1: A high administrative burden leads to a negative perception of the direct payment policy
- H2: Younger farmers perceive the direct payment policy more positively
- H3: Better-educated farmers perceive the direct payment policy more positively
- H4: Farmers with a high share of off-farm work perceive the direct payment policy more positively due to more social exchange
- H5: Politically active farmers perceive the direct payment policy more positively
- H6: Farmers with an environment-friendly attitude perceive the direct payment policy more positively

Literature on «policy feedback theory» see Wichowsky & Moynihan (2008); Moynihan & Soss (2014)

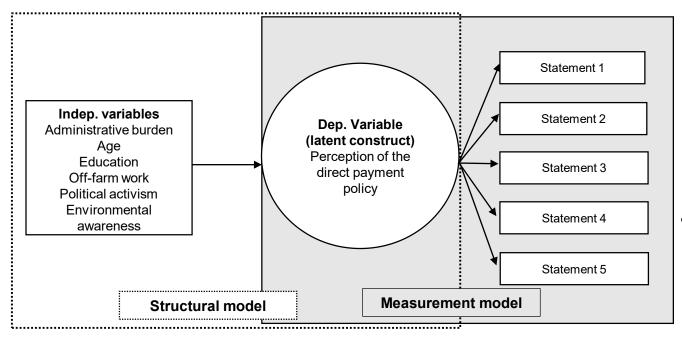
## 4. Database

## Survey data

- A written survey of 2,000 randomly selected Swiss farmers was conducted from February to April 2019 (Mack et al., 2019)
- The response rate was approximately 40% (N=808)
- Questions on farmers' experiences of administrative requirements, administrative compliance and learning costs and statements on agricultural policy...

## 4. Empirical approach

Latent Class Model (Combination of LCA and regression analysis)



- Measurement model: Latent Class Analysis (LCA) based on five 7-point Likert scale items → optimal class solution AIC, BIC & LR-Test
- Structural model: Regression analysis → ordinal logistic regression

Legend:

Latent Observed

StataCorp. (2019)

# **♥** 5. Results – Measurement model (LCA)

### Class 1 «indifferent» (53% of the total population)

| Items   | 1 = not<br>correct at<br>all | 2   | 3   | 4   | 5   | 6   | 7= fully correct |
|---|------------------------------|-----|-----|-----|-----|-----|------------------|
| "I identify myself with the federal direct payment system."   | 4%                           | 18% | 23% | 32% | 16% | 7%  | 0%               |
| "I believe that the current monitoring and inspection measures of the direct payment system are important."     | 0%                           | 8%  | 22% | 36% | 23% | 12% | 0%               |
| "I consider the current obligations to provide proof for becoming eligible for direct payments as appropriate." | 2%                           | 11% | 28% | 35% | 21% | 4%  | 0%               |
| "I feel restricted in my entrepreneurial freedom<br>by the direct payment monitoring and inspection<br>system." | 1%                           | 9%  | 12% | 18% | 25% | 26% | 9%               |
| "The sanctions/fines in case of non-compliance with cross-compliance standards are justified."                  | 3%                           | 17% | 21% | 32% | 19% | 7%  | 2%               |

# **♥** 5. Results – Measurement model (LCA)

Class 2 «supporters» (27% of total population)

| ltem  | 1= not<br>correct at<br>all | 2   | 3   | 4   | 5   | 6   | 7=fully<br>correct |
|---|-----------------------------|-----|-----|-----|-----|-----|--------------------|
| "I identify myself with the federal direct payment system."   | 4%                          | 13% | 10% | 23% | 22% | 16% | 12%                |
| "I believe that the current monitoring and inspection measures of the direct payment system are important."     | 0%                          | 0%  | 2%  | 9%  | 28% | 43% | 17%                |
| "I consider the current obligations to provide proof for becoming eligible for direct payments as appropriate." | 2%                          | 1%  | 2%  | 12% | 26% | 42% | 16%                |
| "I feel restricted in my entrepreneurial freedom by the direct payment monitoring and inspection system."       | 16%                         | 26% | 14% | 11% | 12% | 12% | 8%                 |
| "The sanctions/fines in case of non-<br>compliance with cross-compliance<br>standards are justified."           | 3%                          | 3%  | 4%  | 21% | 18% | 29% | 22%                |



# **♥** 5. Results – Measurement model (LCA)

### Class 3 «grumpy» (20% of total population)

| ltem  | 1= not<br>correct at<br>all | 2   | 3   | 4   | 5  | 6   | 7= fully correct |
|---|-----------------------------|-----|-----|-----|----|-----|------------------|
| "I identify myself with the federal direct payment system."   | 43%                         | 17% | 10% | 17% | 4% | 5%  | 4%               |
| "I believe that the current monitoring and inspection measures of the direct payment system are important."     | 26%                         | 34% | 14% | 16% | 6% | 2%  | 3%               |
| "I consider the current obligations to provide proof for becoming eligible for direct payments as appropriate." | 38%                         | 35% | 11% | 10% | 3% | 2%  | 2%               |
| "I feel restricted in my entrepreneurial freedom by the direct payment monitoring and inspection system."       | 8%                          | 6%  | 5%  | 8%  | 6% | 14% | 54%              |
| "The sanctions/fines in case of non-<br>compliance with cross-compliance<br>standards are justified."           | 45%                         | 20% | 16% | 10% | 1% | 5%  | 3%               |

## 5. Results – Structural model (ologit regression)

| Dependent variable: membership of latent class <i>q</i> |                       | (1) Base Outcome Class:<br>Indifferent |         | (2) Base Ou<br>Supporter | itcome Class: | (3) Base Outcome<br>Class: Grumpy |         |  |
|---|-----------------------|--|---------|--------------------------|---------------|-----------------------------------|---------|--|
| Indifferent   | Administrative burden |  |         | 0.162**                  | (0.065)       | -0.166**                          | (0.071) |  |
| (53%)   | Age                   |  |         | -0.020*                  | (0.012)       | -0.007                            | (0.012) |  |
|   | Education             |  |         | -0.038                   | (0.079)       | 0.055                             | (0.086) |  |
|   | Off-farm work         |  |         | -0.003                   | (0.003)       | 0.015***                          | (0.005) |  |
|   | Political activism    |  |         | -0.183                   | (0.243)       | 0.538*                            | (0.285) |  |
|   | Environ. awareness    |  |         | -0.626***                | (0.124)       | 0.254***                          | (0.077) |  |
|   | _cons                 |  |         | 5.559***                 | (1.122)       | -0.566                            | (0.795) |  |
| Grumpy  | Administrative burden | 0.166**                                | (0.071) | 0.325***                 | (0.078)       |                                   | •       |  |
| (20%)   | Age                   | 0.007                                  | (0.012) | -0.011                   | (0.014)       |                                   |         |  |
|   | Education             | -0.055                                 | (0.086) | -0.091                   | (0.097)       |                                   |         |  |
|   | Off-farm work         | -0.015***                              | (0.005) | -0.017***                | (0.005)       |                                   |         |  |
|   | Political activism    | -0.538*                                | (0.285) | -0.721**                 | (0.313)       |                                   |         |  |
|   | Environ. awareness    | -0.274***                              | (0.077) | -0.833***                | (0.130)       |                                   |         |  |
|   | _cons                 | 0.566                                  | (0.795) | 5.560***                 | (1.233)       |                                   |         |  |
| Supporter   | Administrative burden | -0.162**                               | (0.065) |                          |               | -0.325***                         | (0.078) |  |
| (23%)   | Age                   | 0.020*                                 | (0.012) |                          |               | 0.011                             | (0.014) |  |
| ` '   | Education             | 0.038                                  | (0.079) |                          |               | 0.091                             | (0.096) |  |
|   | Off-farm work         | 0.003                                  | (0.003) |                          |               | 0.017***                          | (0.005) |  |
|   | Political activism    | 0.183                                  | (0.243) |                          |               | 0.721**                           | (0.313) |  |
|   | Environ. awareness    | 0.626***                               | (0.124) |                          |               | 0.833***                          | (0.130) |  |
|   | _cons                 | -5.559***                              | (1.122) |                          |               | -5.560***                         | (1.233) |  |

## 6. Conclusions

- Only 20% of Swiss farmers have a negative perception of the cross-compliance based direct payment policy
- Experienced administrative burden has a significantly negative effect on their perception of direct payment policy
- Policy-supporting and indifferent farmers have more social exchange than the grumpy ones
- Farmers with a high awareness of the environmental dimension of agriculture tend to be policy-supporting

















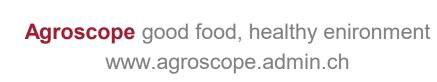






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# Overview of administrative regulations imposed on Swiss farmers due to the cross-compliance based direct payment system

| Ongoing records required to demonstrate animal welfare (livestock farms)   |
|--|
| - Accompanying document for cloven-hoofed animals  |
| - Udder health report  |
| - Treatment journal  |
| - Inventory list of veterinary medicinal products  |
| - Animal movement notifications  |
| - Manure flow report and cleaning journal  |
| General annual records (all farms)   |
| - General information form   |
| - Land survey form   |
| - Animal survey form   |
| Annual records to demonstrate cross-compliance standards (all farms)   |
| - Nutrient balance sheet and documentations  |
| - Land plot registry   |
| - Crop rotation report   |
| - Biodiversity area report   |
| Annual records for voluntary agri-environmental programs (all farms)   |
| <ul> <li>Biodiversity area report (biodiversity programs)</li> <li>Feed balance sheet (grassland-based milk and meat program)</li> </ul> |
| - Feed balance sheet (grassland-based milk and meat program)   |
| - Documentation of regular outdoor exercise of animals (regular outdoor program)   |
| - Registration for voluntary agri-environmental programs in the following year   |
| Monitoring and inspections by the government (all farms)   |
| - At least every four years, area records every eight years  |

## **U** Statements 1 to 5

| Variable  | Unit   | Obs | Mean | Std. | Min  | Max  |
|---|--|-----|------|------|------|------|
| "I identify myself with the federal direct payment system."   | Likert scale from 1= "not correct at all" to 7="fully correct" | 792 | 3.60 | 1.63 | 1.00 | 7.00 |
| "I believe that the current monitoring and inspection measures of the direct payment system are important."     | Likert scale from 1= "not correct at all" to 7="fully correct" | 793 | 4.19 | 1.57 | 1.00 | 7.00 |
| "I consider the current obligations to provide proof for becoming eligible for direct payments as appropriate." | Likert scale from 1= "not correct at all" to 7="fully correct" | 797 | 3.90 | 1.63 | 1.00 | 7.00 |
| "I feel restricted in my entrepreneurial freedom<br>by the direct payment monitoring and inspection<br>system." |  | 797 | 4.52 | 1.88 | 1.00 | 7.00 |
| "The sanctions/fines in case of non-compliance with cross-compliance standards are justified."                  | Likert scale from 1= "not correct at all" to 7="fully correct" | 783 | 3.83 | 1.74 | 1.00 | 7.00 |