19/20 programme

future projects

first ideas

Johannes Sauer

8 future projects

I) farms switching technologies and policy effects

follow-up to drivers of farm performance project based on estimates

focus on farms performance over time

- productivity-technology class membership dynamics
- sustainability / structure / diversity / intensity etc. dynamics
- characteristics of farms switching classes, triggering factors, policy implications
- i) identify switching farms, ii) estimate correlations/importance of characteristics

focus on policy effects varying over farm classes

- variance in policy effects on farms in different technology classes?
- magnitude and factors across countries and sectors
- policies: deregulation, environmental, land etc. related policy changes
- i) identify switching farms, ii) estimate policy correlations/effects

data availability: farm accounts data for all countries in current project, 1 year update, discussion of relevant national/regional policy changes to be considered

8 future projects

II) input biased productivity and technical change

follow-up to drivers of farm performance project based on estimates

focus on technical change over time considering technology classes

- technical change is biased towards/away from some inputs
- inputs as e.g. labor, land, energy, capital, resources etc.
- biases might be less/more nuanced by farm class and indes
- e.g. more sustainable farms might develop a more labor efficient (saving) technology
- e.g. more diverse farms might follow a less capital intensive technical change path
- e.g. more land constrained farms might loose prod due to decreasing eff of non-land factors
- i) estimate technical change biases with respect to inputs per class

  ii) relate to class and farm characteristics as well as policy changes and market/institutional differences

data availability: farm accounts data for all countries in current project, 1 year update, discussion of relevant national/regional settings/dynamics with respect to input markets/regulations etc. to be considered, additional price data

Table A A.4. Hungarian crop farms: Latent Class Estimates
LCM panel translog reduced model, 2001 to 2014

Total crop output	Class I	Class II	Class III
constant	0.6515***	1.9236***	4.0176***
Land	-0.0635***	-0.0453	0.7925***
Capital	-0.0006	-0.0198	-0.0471***
Chemicals	-0.2484***	0.7313***	0.2847***
Materials	1.5565***	0.7313***	0.2847***
Labour	0.1029***	0.2895***	0.0259
Land*Land	0.0239***	0.0186***	-0.0234***
Capital*Capital	0.0058***	0.0048***	0.0066***
Chemicals*Chemicals	0.0359***	0.0245***	0.0158***
Materials*Materials	-0.0707***	-0.0273***	-0.0067***
Labour*Labour	-0.0034	-0.0109**	-0.667e-04
Time	-0.0401***	-0.0951***	-0.0536***
Time*Time	0.0027***	0.0032***	0.0019***
Time*Land	0.0051**	-0.0031	-0.0284***
Time*Capital	-0.0063***	-0.601e-04	0.0015**
Time*Chemicals	-0.0062***	-0.0059*	0.0103***
Time*Materials	0.0116***	0.0202***	0.0168***
Time*Labour	0.0028	-0.0109**	-0.0054***

Class I farms used less capital, less chemicals but more land, more materials, more labor over time

Class III farms used less land, less labor but more chemicals, more capital, more materials over time

8 future projects

III) labor productivity

- an empirical project on labor productivity considering gender, education, peer-group, migration, aging etc. effects

IV) land market developments and productivity implications

- an empirical project on land prices/markets and effect on productivity and technical change and sustainability