

# Factors affecting farmland prices in Finland

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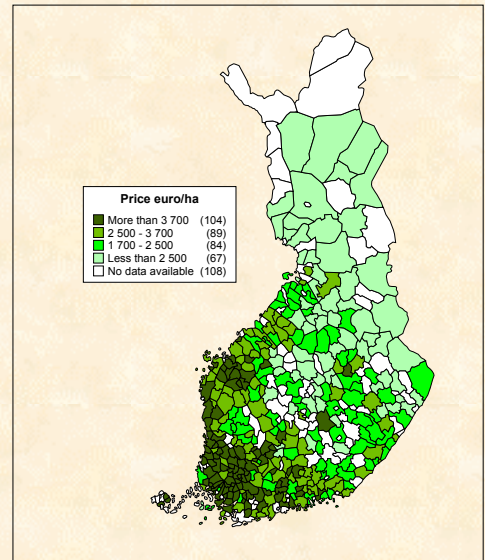
## Reasoning for the study

- Due to climatic conditions, farmland prices have traditionally varied greatly between different regions in Finland
  - Policy and infrastructure effects have become more important
  - A rapid structural change is going on in Finnish agriculture
- ⇒ The issues of how and at what price resources, especially land, are transferred to continuing farmers are very crucial
- ⇒ The knowledge of the factors that affect land prices is important

## A hedonic pricing model

- Dependent variable is the sales price of land
- Independent variables are divided into four subgroups:
  1. Land characteristics
  2. Support measures
  3. Local agricultural structure
  4. Infrastructure

The data consists of 2 612 arms-length transfers of arable land from 1995 to 1999. This price data is extended by municipality level data.



## Parameter estimates of the semilog OLS model.

The dependent variable is  $\ln(\text{sales price})$ .

	Coefficient	p-level
Intercept	3.9240	0.000
Sales size	-0.00923	0.000
Dummy (if bordered by lake, river, or sea)	0.08687	0.014
Average yield	0.00031	0.000
Thermic growth period	0.01255	0.000
CAP support	0.00302	0.000
LFA support	0.00317	0.000
Environmental support	0.00246	0.016
Other support	0.00264	0.004
Farm density	0.40635	0.000
Manure density	0.02406	0.000
Share of agricultural incomes of farms	-0.35182	0.017
Share of agric. labour	-0.27887	0.020
Population density	0.00120	0.000
Unemployment	-2.33601	0.000
Year-dummies not reported		

Adjusted  $R^2 = 0.391$

$F(18,2592) = 94.081$ ;  $p < 0.0000$

## Results

- Confirmation of the common result of lower transaction costs for larger sales
- The dummy variable indicates that the irrigation possibility (or some recreational value) increases the land price
- The productivity effects (yield, length of thermic growth period, and the four support variables) are all positive and significant.

⇒ When roughly estimating the effect of a €1 increase either in support or in market returns (based on the value of the yield), the effect on the land price seem to be similar.

The trivial results of the increased demand:

- The more there are potential buyers for the specific parcel the higher the price
- The greater the environmental pressure the higher the demand for additional land and the higher the price

The trivial signs and significancies of the infrastructure variables

The non-trivial interpretation of the infrastructure variables:

As Finland is a large and generally sparsely populated country and what is more, the proportion of agricultural land is indeed very small

⇒ The urban pressure as such and non-farm demand for farmland may not be a very relevant factor

The reasoning behind these variables is in the job opportunities and availability of services in the neighbouring area that is a very relevant factor considering the part-time nature of Finnish family farms

⇒ The better the non-farm job opportunities are, the more reliably the farm family can regard the future of their agricultural production. Hence, the willingness to pay more for the additional land is greater.

## Further research

- Since the effect of local factors may not have covered accurately enough, the spatial econometric analysis is worth attempting.
- Since the policy changed in 2000, another enlargement of the model will be to gather information for more recent years.