Structural change in Dutch Agriculture

Developments from 1971 - 2014

October 17th, OECD

Hans Vrolijk, Head of center for economic information



LEI
WAGENINGEN UR

Overview

- Introduction changing agriculture
- Decrease in number of farms
- Structural change in dairy, pig fatterning, broilers and glass house vegetables
- Volume and productivity development
- Conclusions

Introduction: Agriculture changes







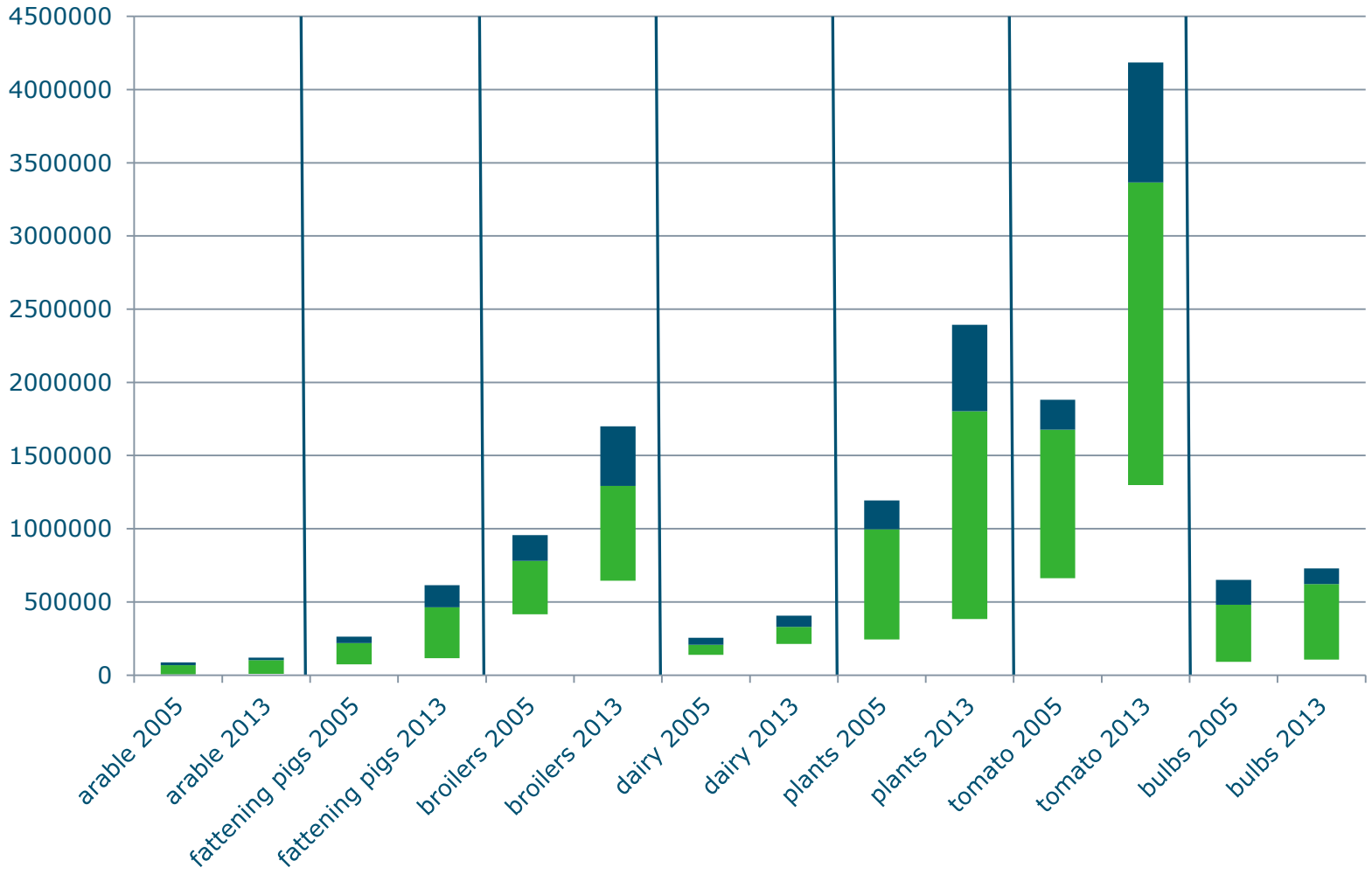






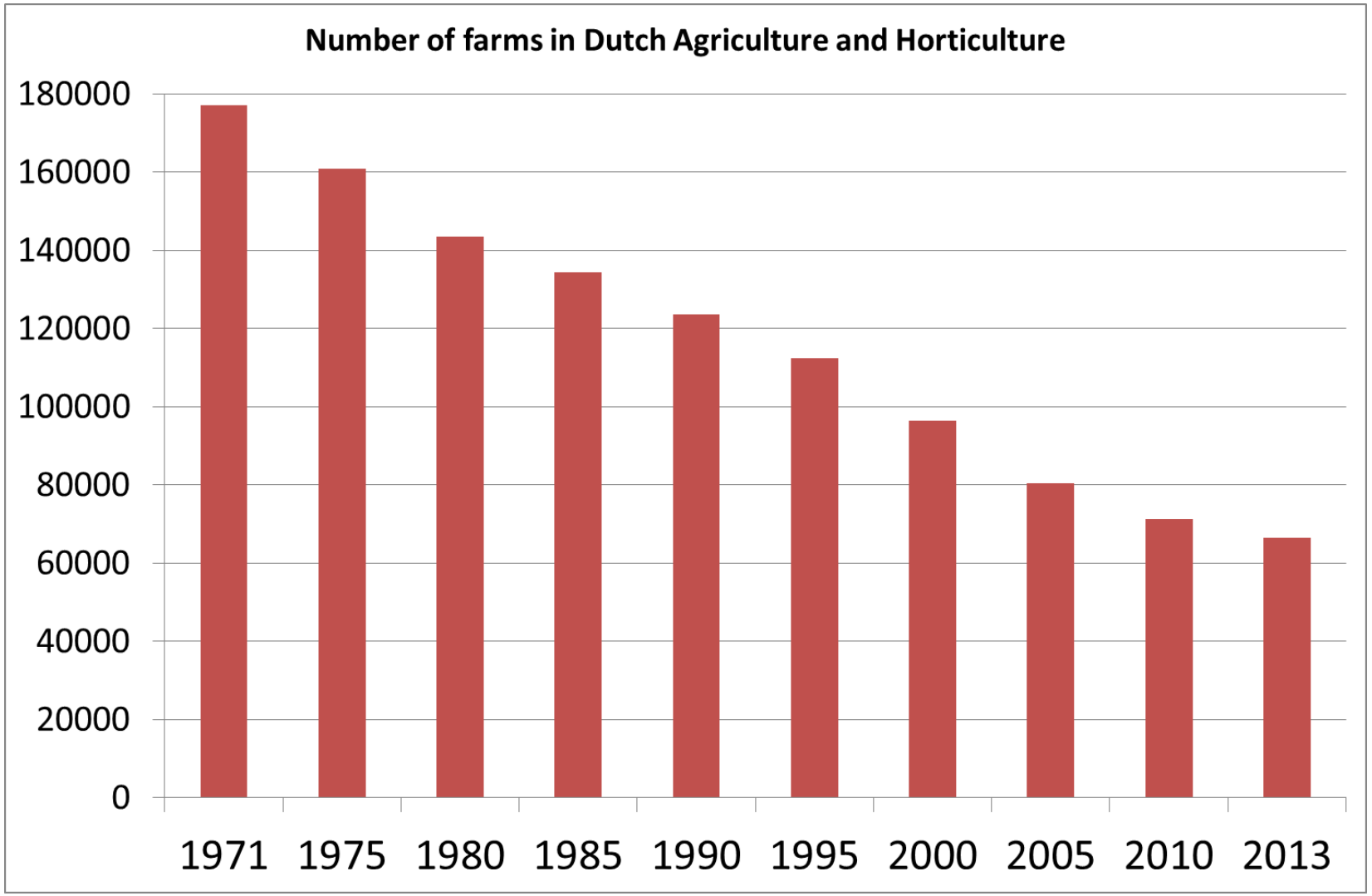
LEI
WAGENINGEN UR

Increasing farm scale SO (mean, p25, p75)



LEI
WAGENINGEN UR

Continuous decrease in number of farms

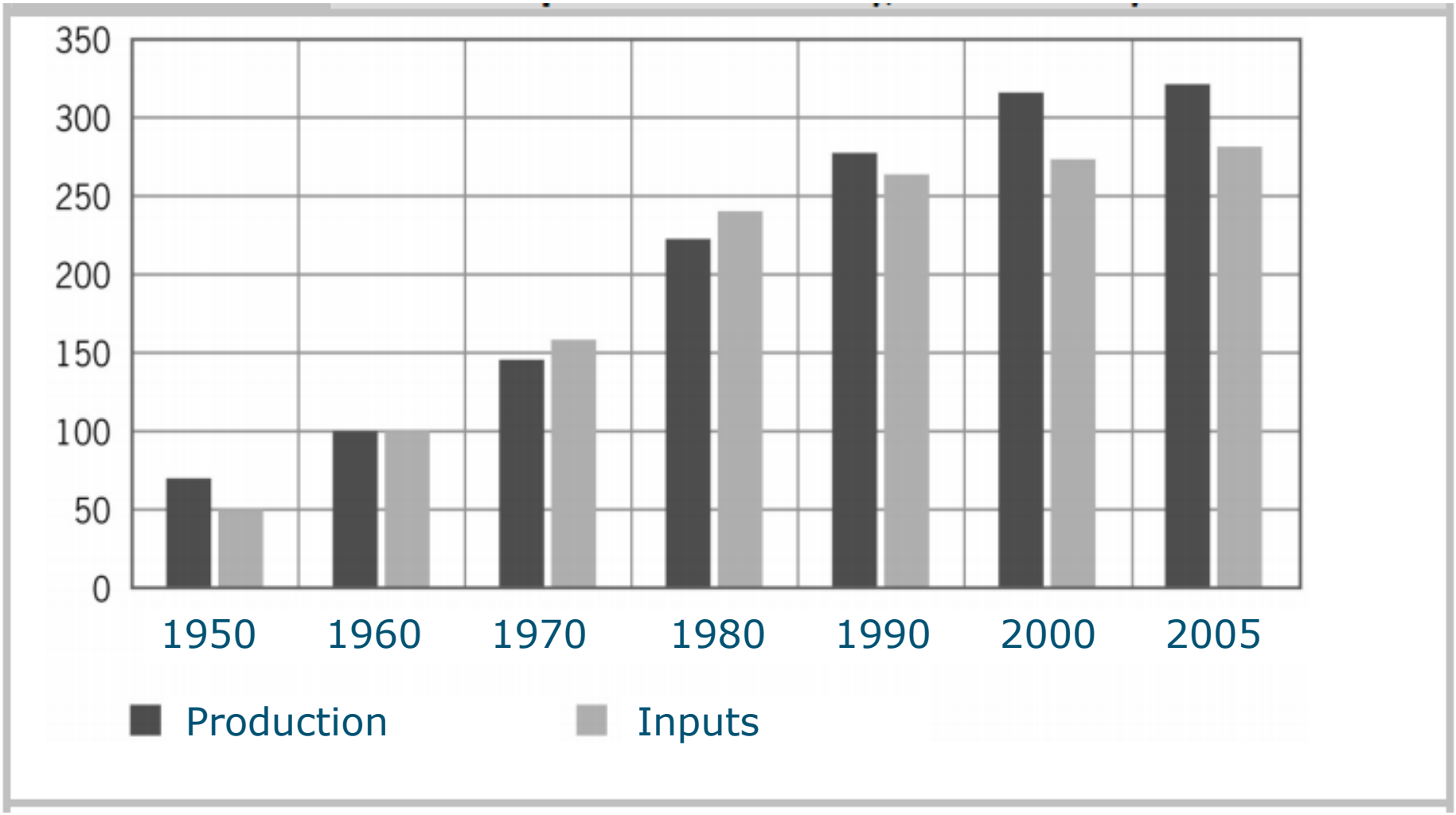


LEI WAGENINGEN UR

Decreasing but still important share of economy (% of agro in total economy)

	1948	1960	1970	1980	1990	1995	2000	2005
Agriculture and horticulture	13,1	10,2	5,8	3,2	3,7	3,1	2,4	1,7
Processing	2,0	2,0	2,0	1,3	1,2	1,1	1,0	0,9
Supply	2,9	3,2	2,4	2,3	2,8	2,4	2,0	1,9
Distribution and logistics	3,6	3,3	2,4	1,3	1,1	0,9	0,8	0,6
Total domestic raw Materials	*21,6*	*18,7*	*12,6*	*8,2*	*8,7*	*7,5*	*6,2*	*5,1*
Total foreign raw Materials	2,3	2,5	2,7	2,2	3,7	4,0	3,9	3,5
Other	-	-	-	-	0,4	0,5	0,5	0,8
Totaal generaal	*23,9*	*21,2*	*15,3*	*10,4*	*12,8*	*12,0*	*10,6*	*9,4*

Volume of outputs and inputs development



Production development (% per year)

Periode	Arable	Livestock	Horticulture	Total
1950-1960	1,5	3,9	3,9	3,3
1960-1970	0,9	3,4	5,2	3,4
1970-1980	2,1	3,9	5,6	4,1
1980-1990	2,6	0,2	4,6	2,8
1990-2005 a)	1,9	-0,1	1,7	0,9
1950-2005 a)	**1,8**	**2,0**	**4,0**	**2,7**

DAIRY FARMING







Specialised dairy farms:

18,655

Cows per farm:

83

Total number of dairy cows

1.55 mln

Milk per dairy cow

8,000 liter

Different farm strategies



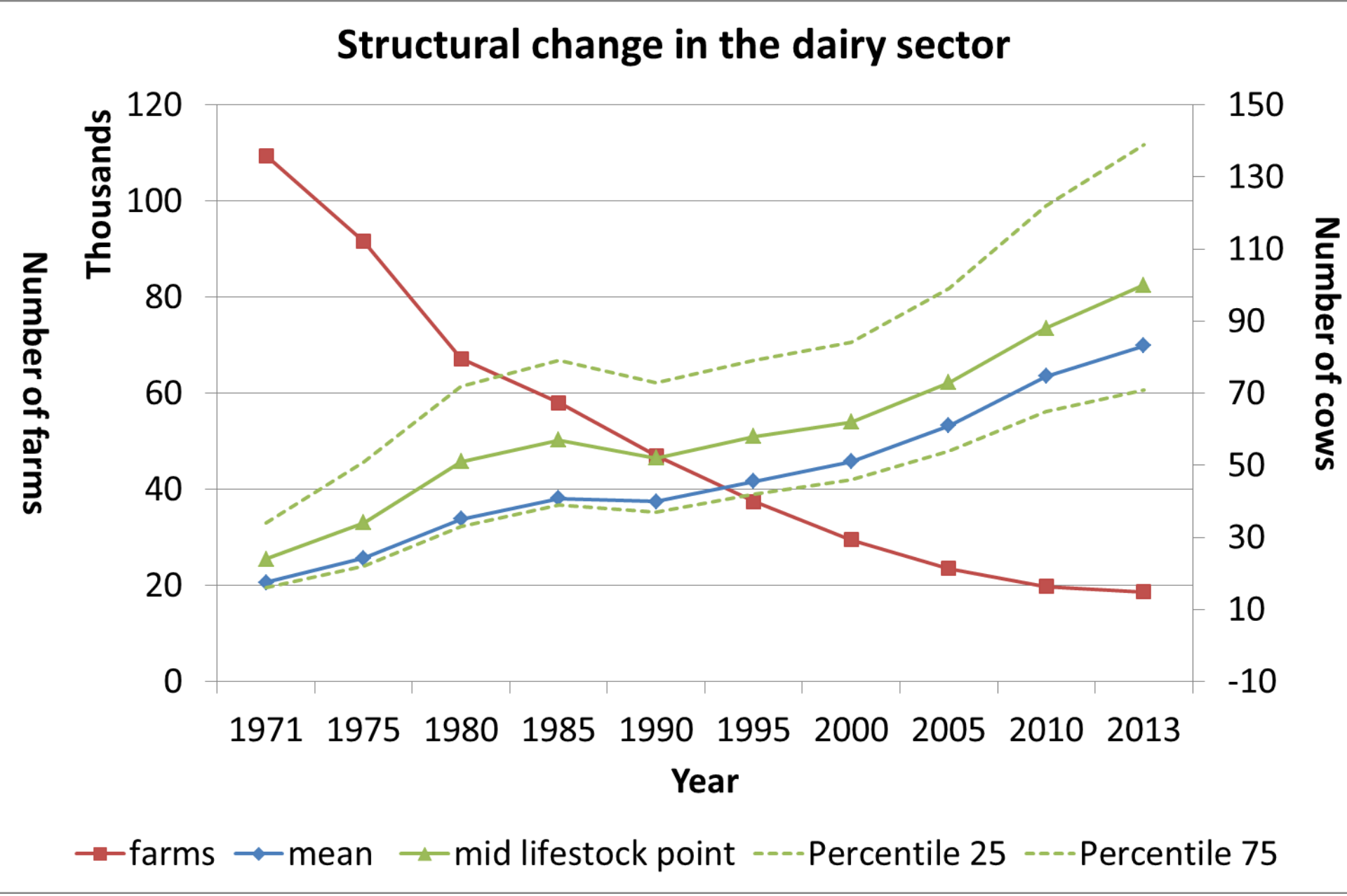











Structural change in the dairy sector
Thousands
Number of farms
Number of cows
120
100
80
60
40
20
0
150
130
110
90
70
50
30
10
-10
1971
1975
1980
1985
1990
1995
2000
2005
2010
2013
Year
farms
mean
mid lifestock point
Percentile 25
Percentile 75

Dutch dairy sector in the future

Strengths

- Strong vertical cooperation in chain
- Quality assurance
- Sustainable production
- International market position
- Infrastructure
- Positive image
- Increased multi functionality

Challenges

- Market uncertainty
- Financial vulnerability
- Environmental issues
  - Derogation, manure, GHG,
- Societal expectations
  - Animal welfare
  - Large scale farming

PIG BREEDING AND FATTENING

5,528 farm with pigs

3,678 spec. pig farms

12.2 million pigs (16 million before)

Regional concentration



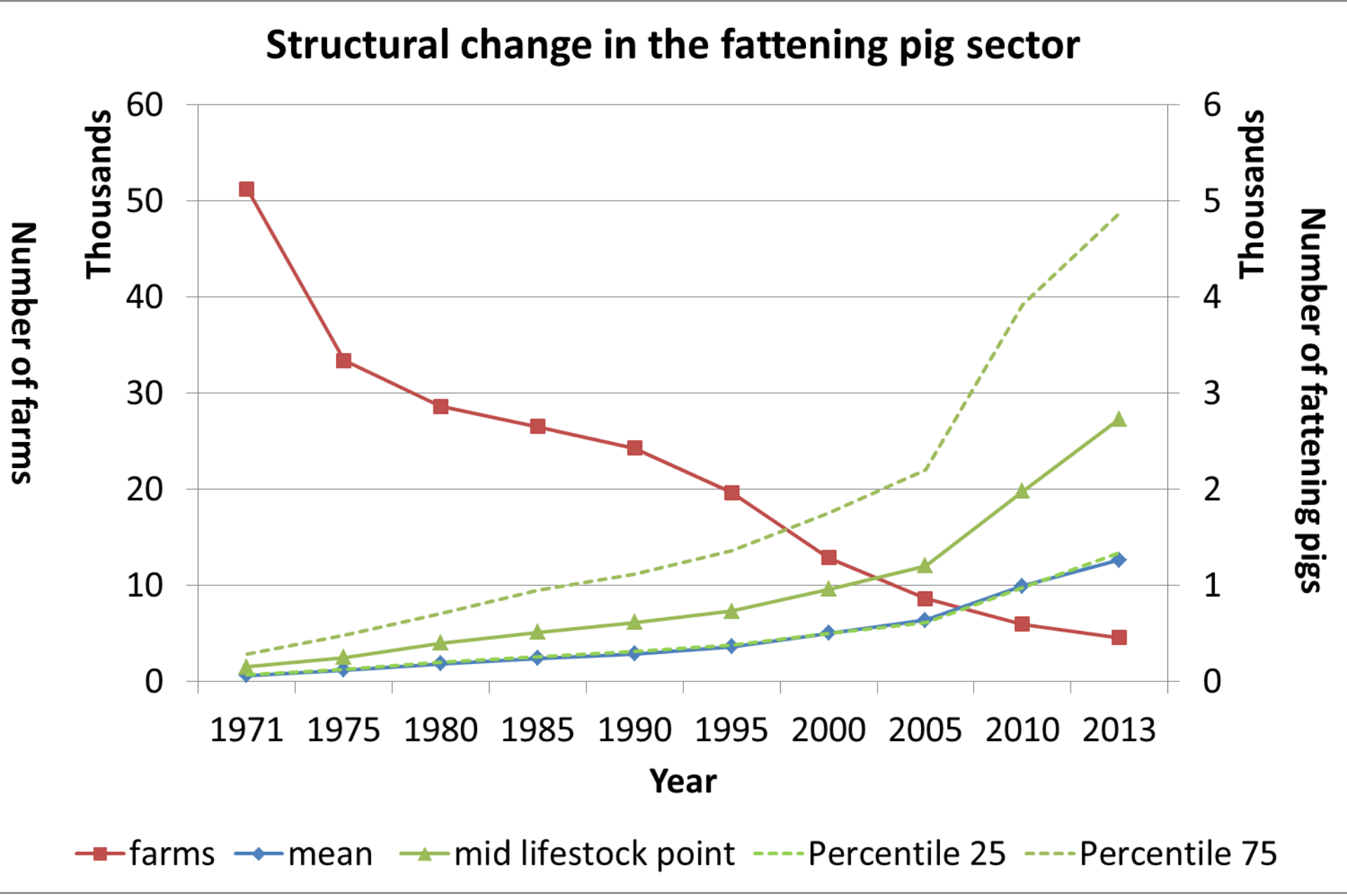


Specialised farms:

breeding farms: 972 (605 sows)

fattening pig farms : 1,957 (1600 pigs)

Integrated: 749


Structural change in the fattening pig sector
Thousands
Number of farms
Thousands
Number of fattening pigs
60
50
40
30
20
10
0
6
5
4
3
2
1
0
1971
1975
1980
1985
1990
1995
2000
2005
2010
2013
Year
farms
mean
mid lifestock point
Percentile 25
Percentile 75

POULTRY FARMING

Farm with laying hen (specialised):

1073 (697)

Hens per farm:

32,000 (44,000)







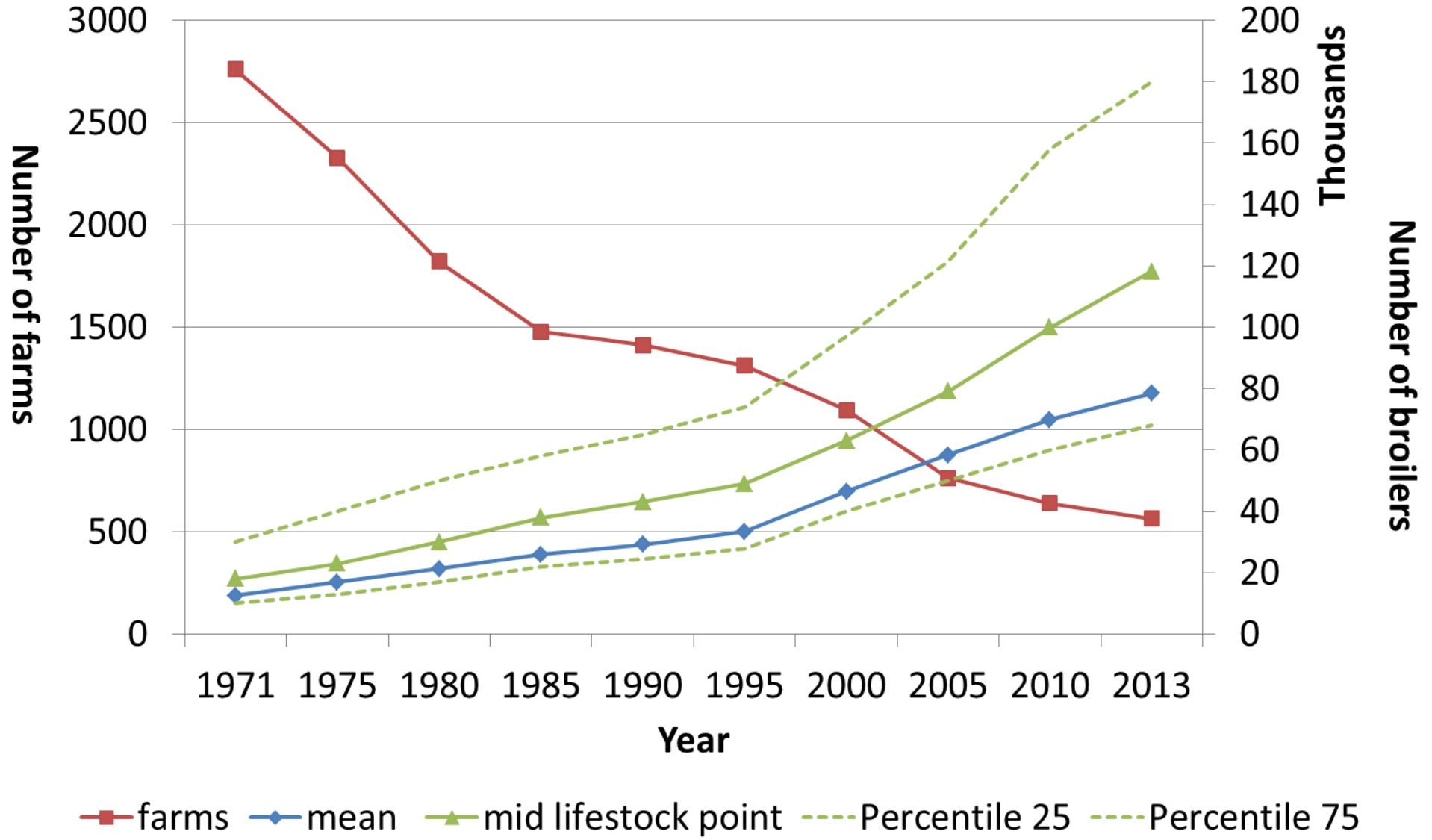
farms with broilers (specialised):

574 (428)

broilers per farm:

78,000 (93,000)

Structural change in the broiler sector



HORTICULTURE IN GREENHOUSES

Area Greenhouses:

9,818 ha

Number of specialised growers:

4,788

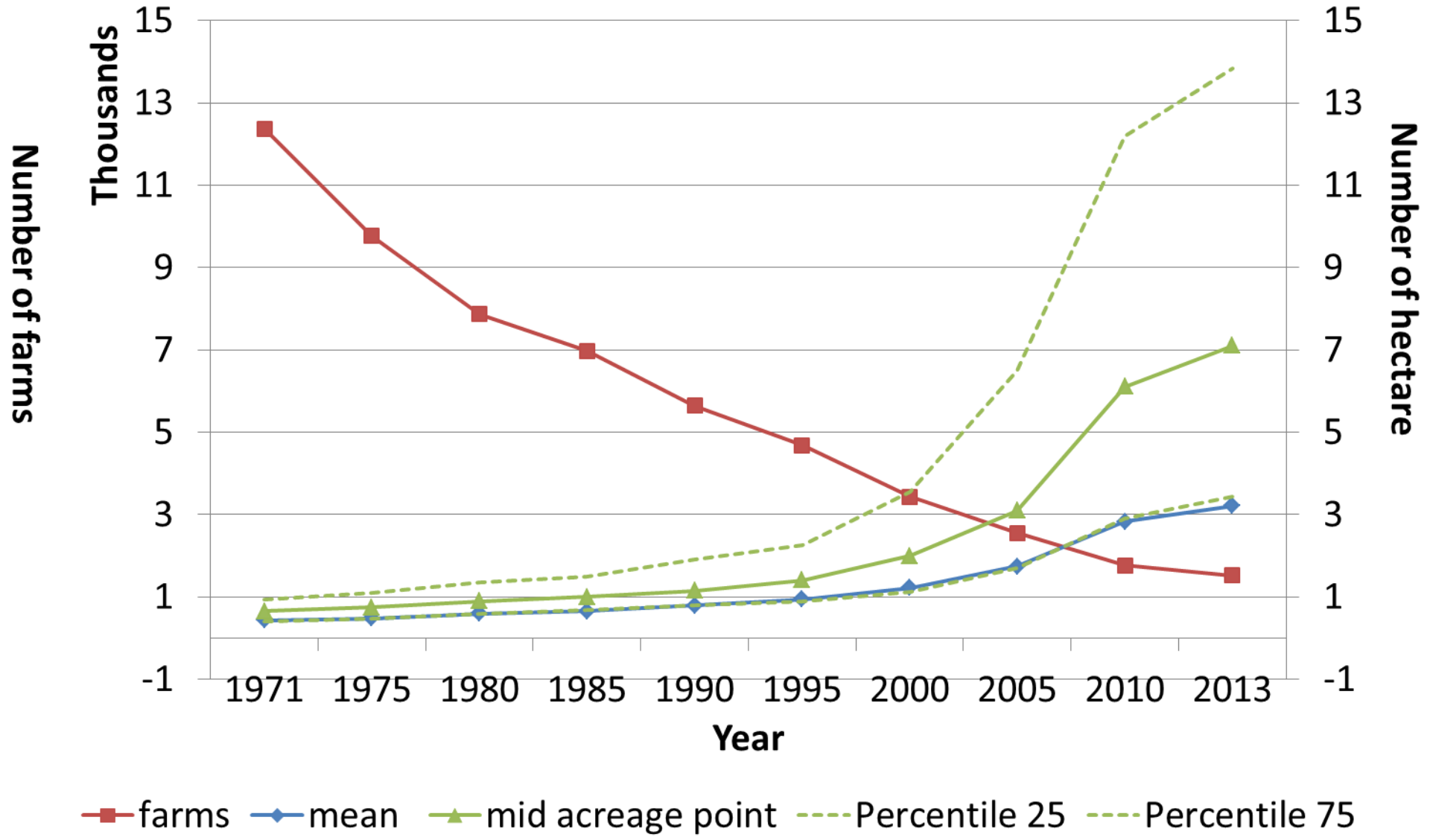




Average Greenhouse 2 ha



Structural change in the vegetables glasshouse sector



Conclusion

- Strong structural developments in agricultural sectors
- Continuous decrease in number of farms
- Importance of family farms, with high professional standards, in certain sectors
- Limitations to growth of farms (societal, enviromental, economic)

Questions

Hans Vrolijk

LEI Wageningen UR

Hans.vrolijk@wur.nl

