

# SLU conference

December 14th 2015

by/ Klaus Kaiser

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## SUSTAINABLE PROFIT IN AGRICULTURE I – AN INTERNATIONAL COMPARISON

### AGRICULTURE IN DENMARK – PROFIT AND PROFITABILITY



Se 'European Agricultural Fund for Rural Development' (EAFRD)

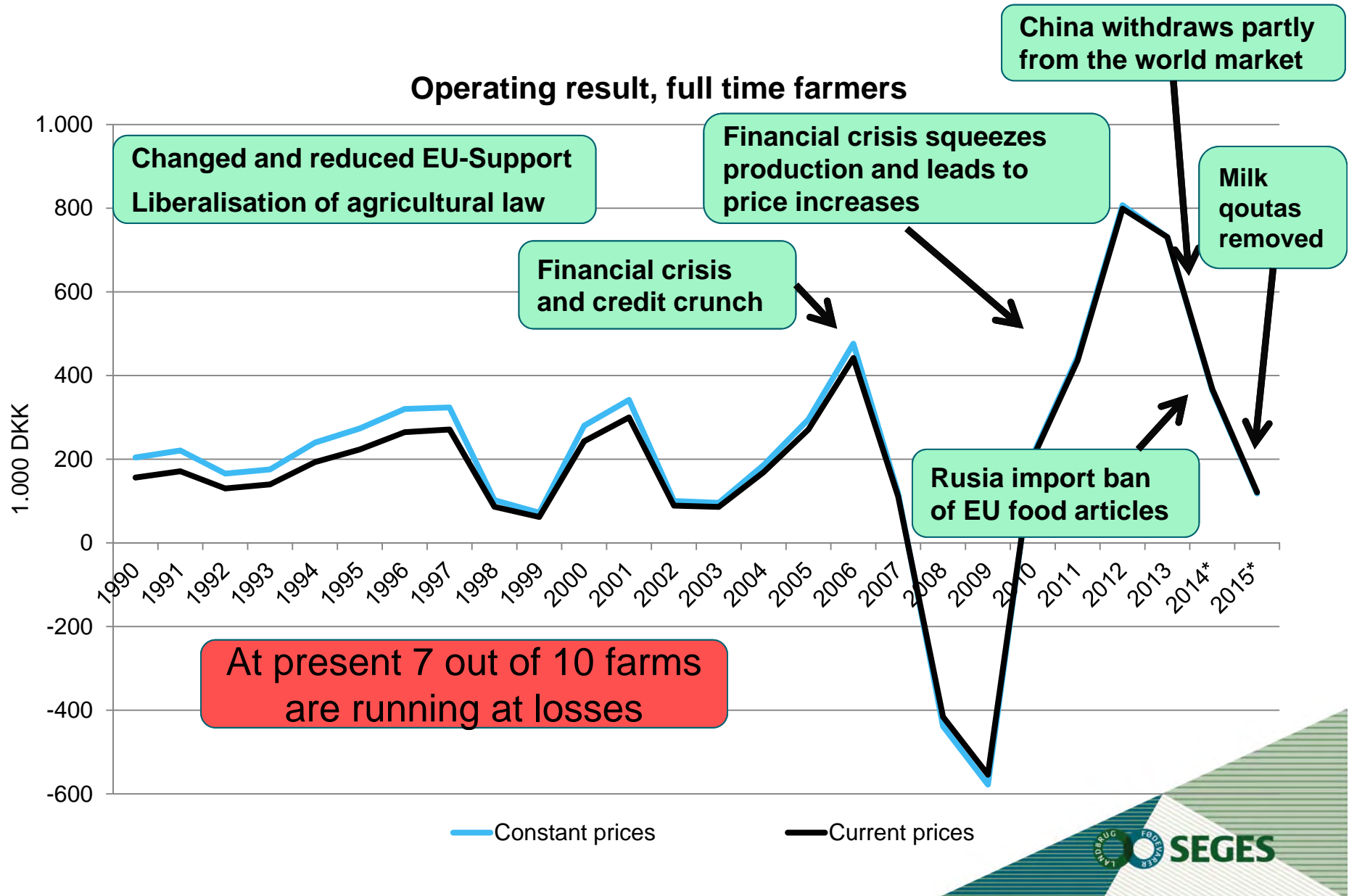


# THE ECONOMIC IMPACT OF THE AGRICULTURAL SECTOR

- Agriculture and food cluster:
  - Global leading position as regards food safety, research and education, technology and production efficiency
  - Exporting for more than 150 bill. DKK
  - Provides approx. 6 % of the total gross domestic product in Denmark
  - Employes approx. 160,000 people
  - Creator of work and considerable income for the rural areas

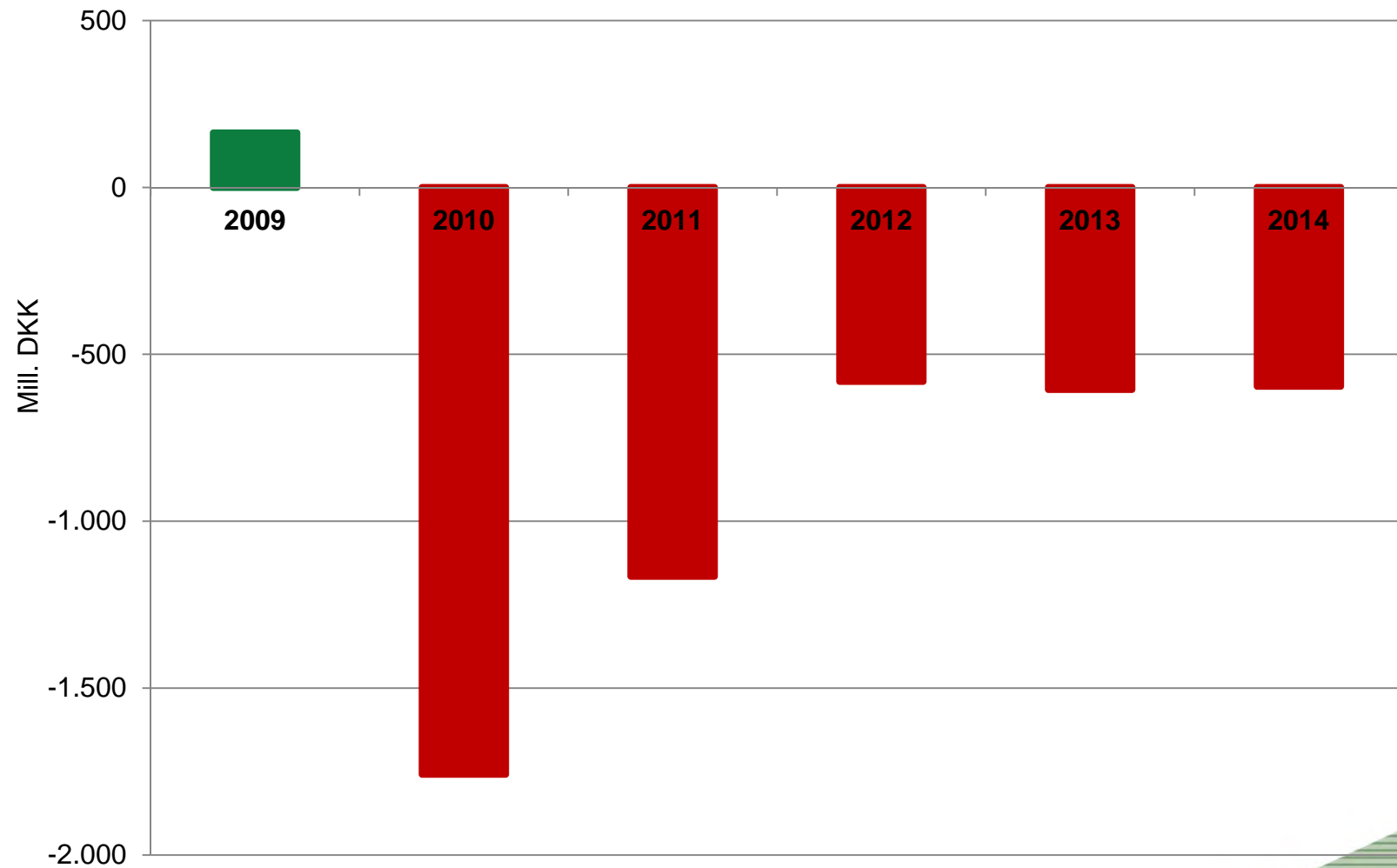


# DANISH AGRICULTURE UNDER A LOT OF STRESS DURING THE LAST 10 YEARS



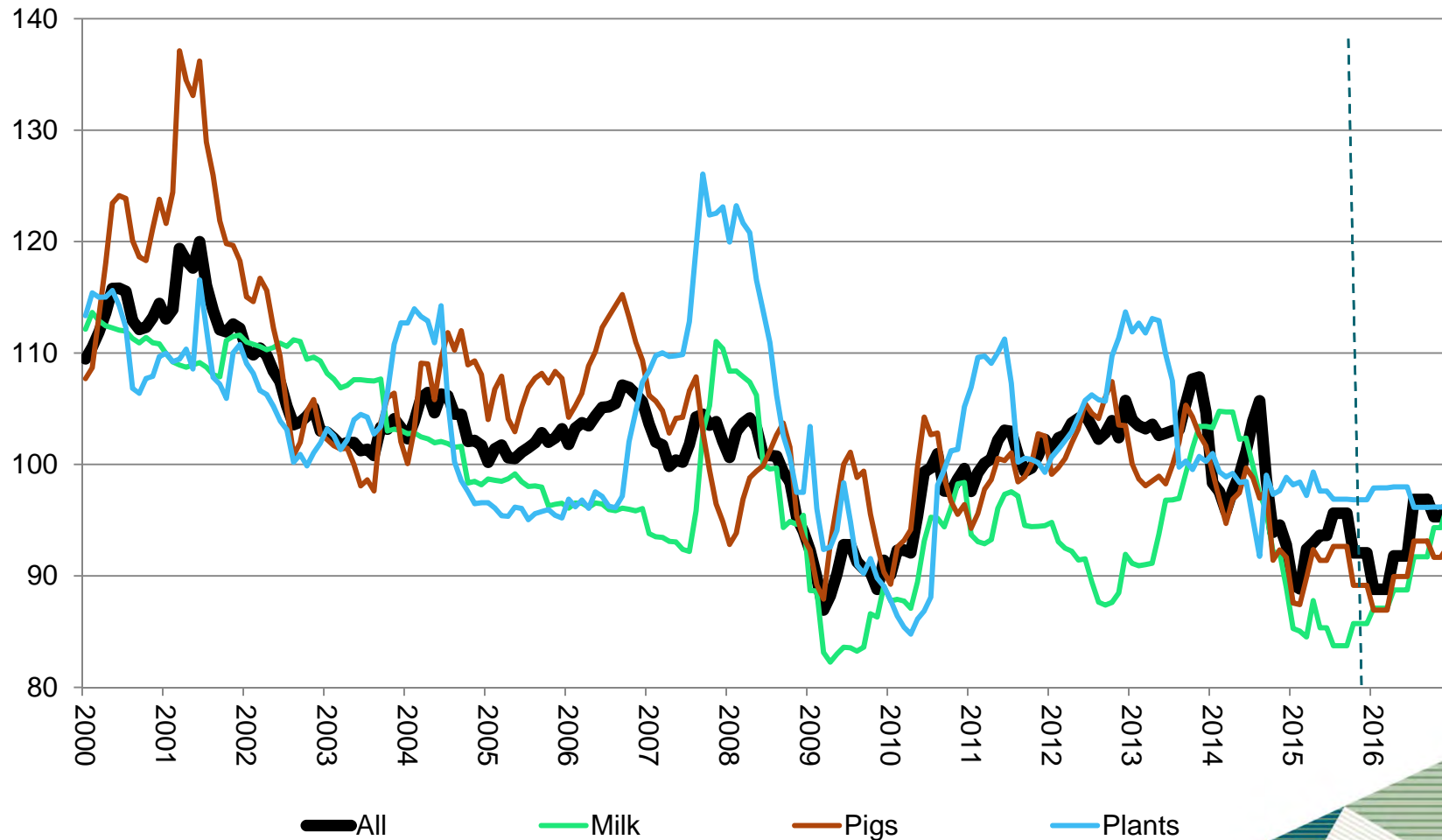
# FINANCIAL CRISIS

## Profit/loss on financial contracts per farm



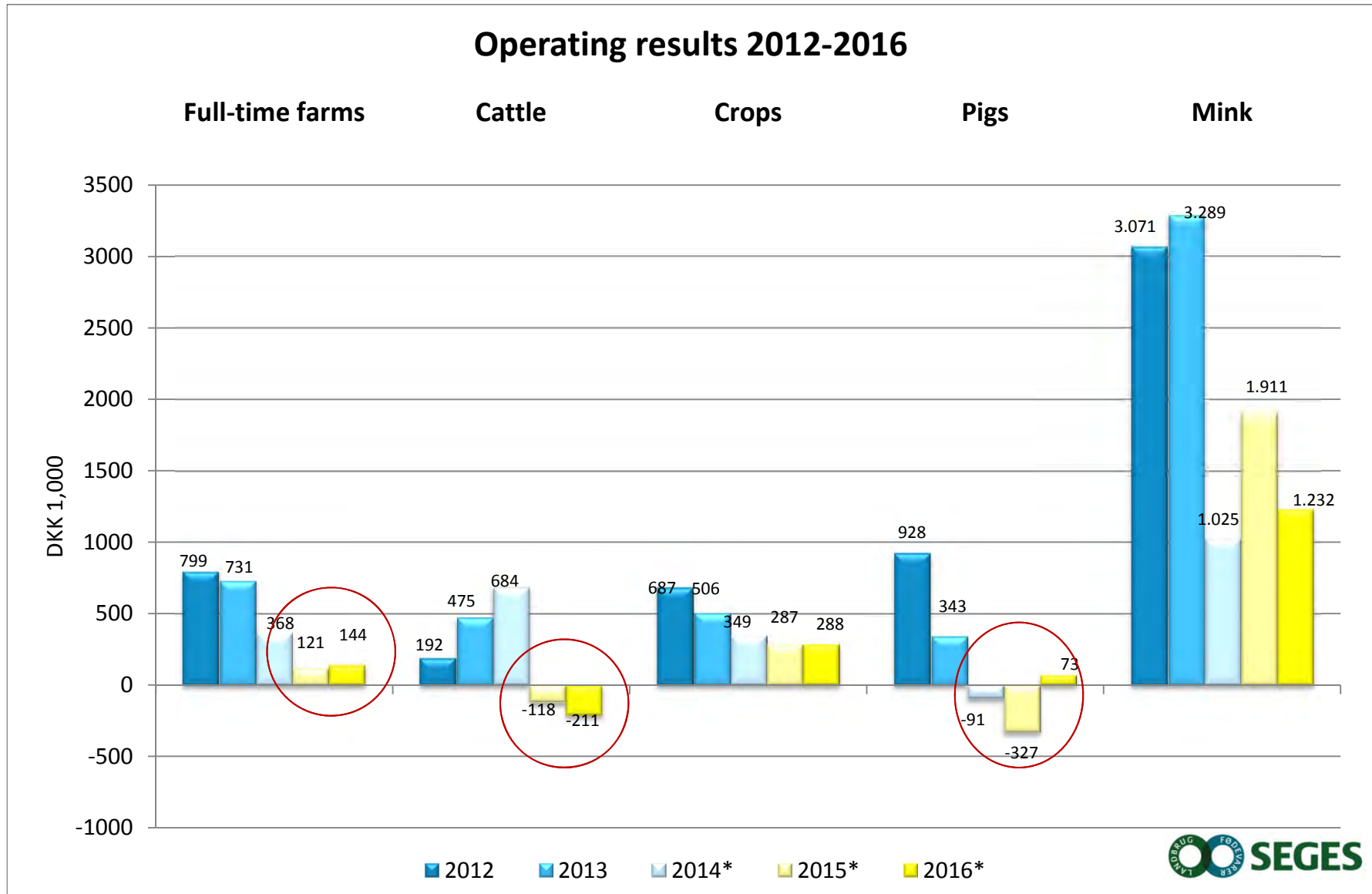
# THE TERMS OF TRADE IS EXPECTED TO REACH A BOTTOM BY 2015/16

Terms of trade  
Index 2011 = 100



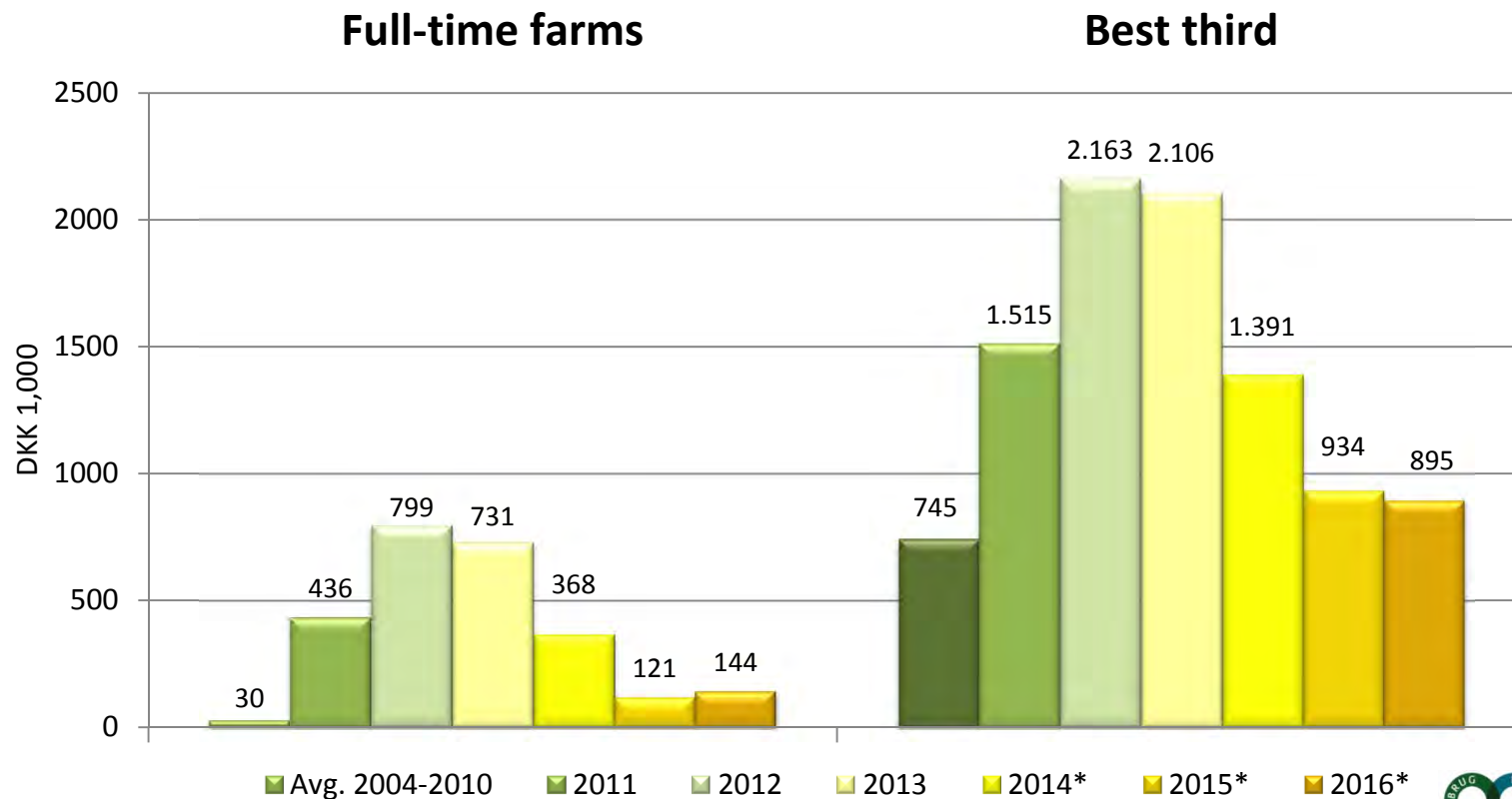
# OPERATING RESULTS OF THE PRODUCTION BRANCHES

- Substantial differences in the operating results of the production branches



# FORECAST FOR BEST THIRD

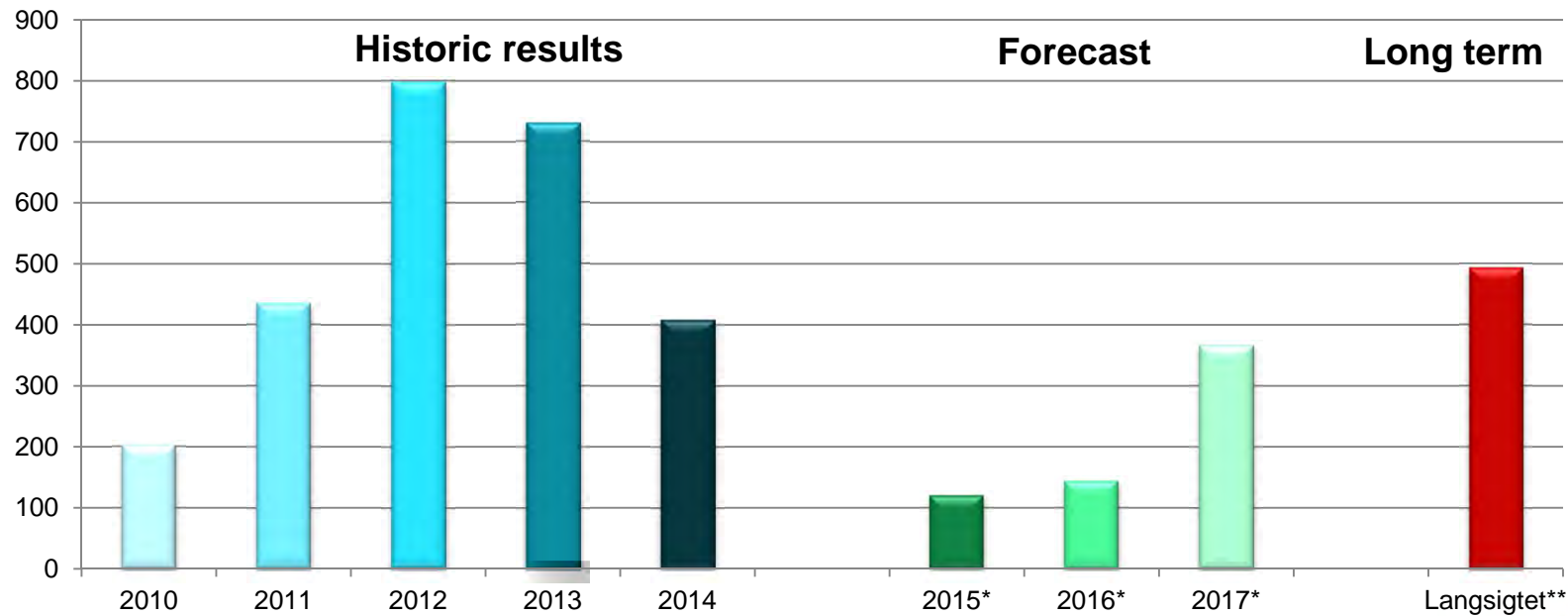
- The best third earns an average of about 1.1 mill. DKK in 2014-16
- Plants: 0.6-0.9 mill. dkk
- Milk: 0.9-1.2 mill. dkk
- Slaughther pigs: 0.8-1.1 mill. dkk
- Weaners: 1.2-1.6 mill. dkk



# LONG TERM FORECAST

	All	All ex. mink	Plants	Milk	Pigs	Slaugther pigs	Weaners	Mink
	1.000 kr.							
Operating result	494	421	330	498	442	297	662	1.021
Liquidity before investments	817	806	730	844	851	650	1.086	898
Return on invested capital	3,1%	2,8%	2,2%	3,1%	3,0%	2,6%	3,6%	7,7%

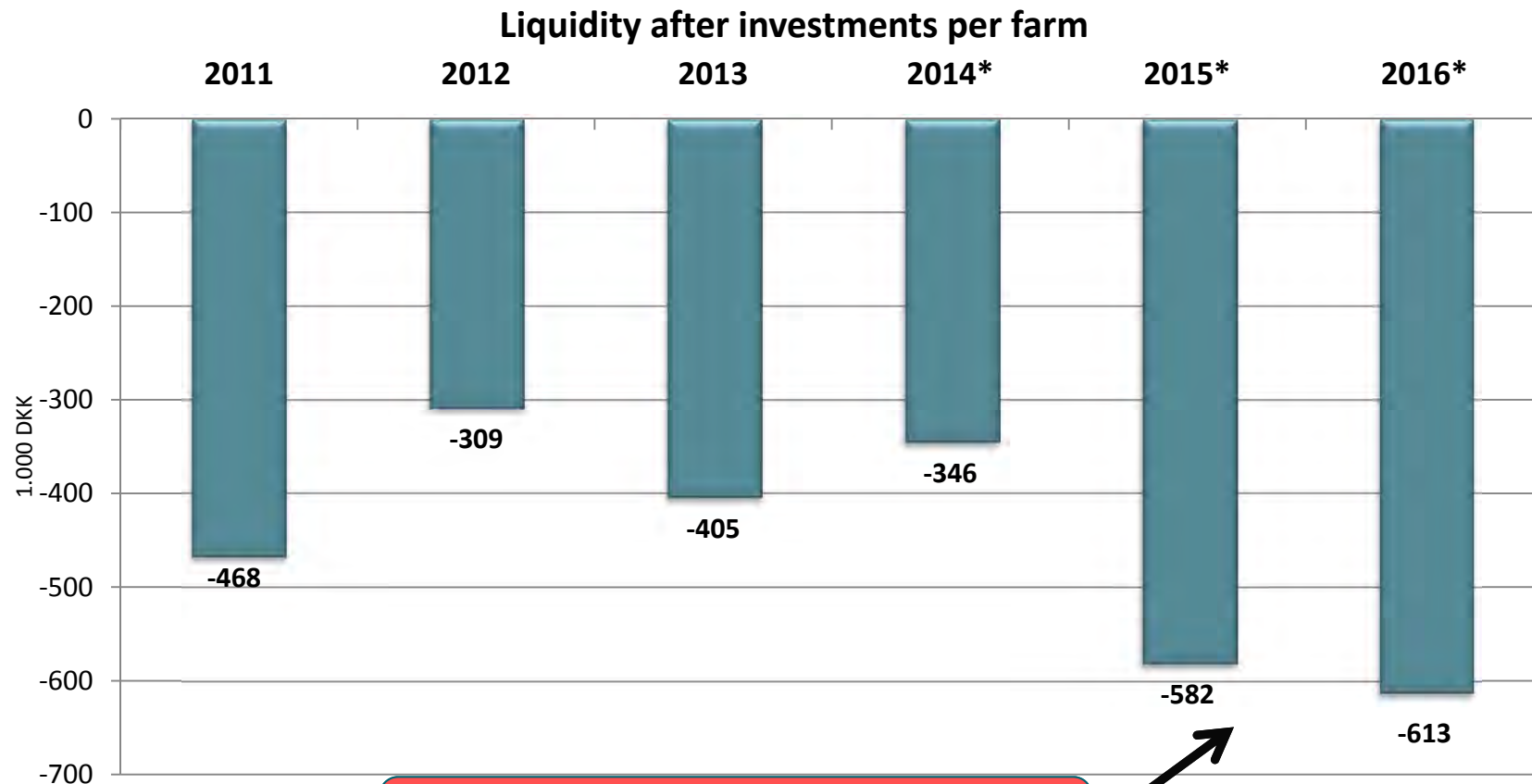
## Operating result for full time farmers





# LIQUIDITY

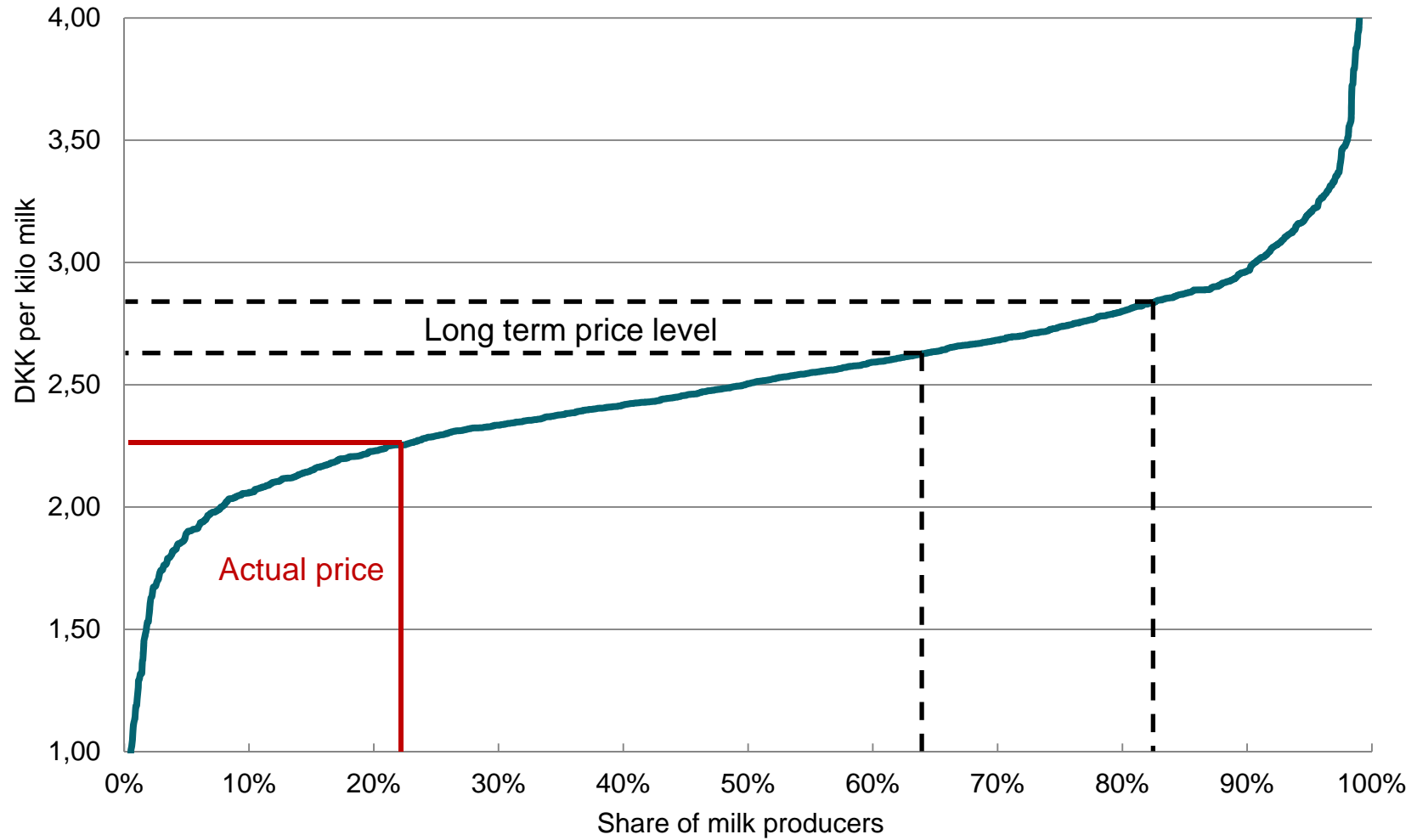
- Cronical deficit measured by the liquidity after investments continues...
- ...even with a low level of investments
- Gives evidens of a struktural income crisis



- Total liquidity deficit in 2015 and 2016:  
About 6-7 bill. DKK (about 900 mill. EUR)

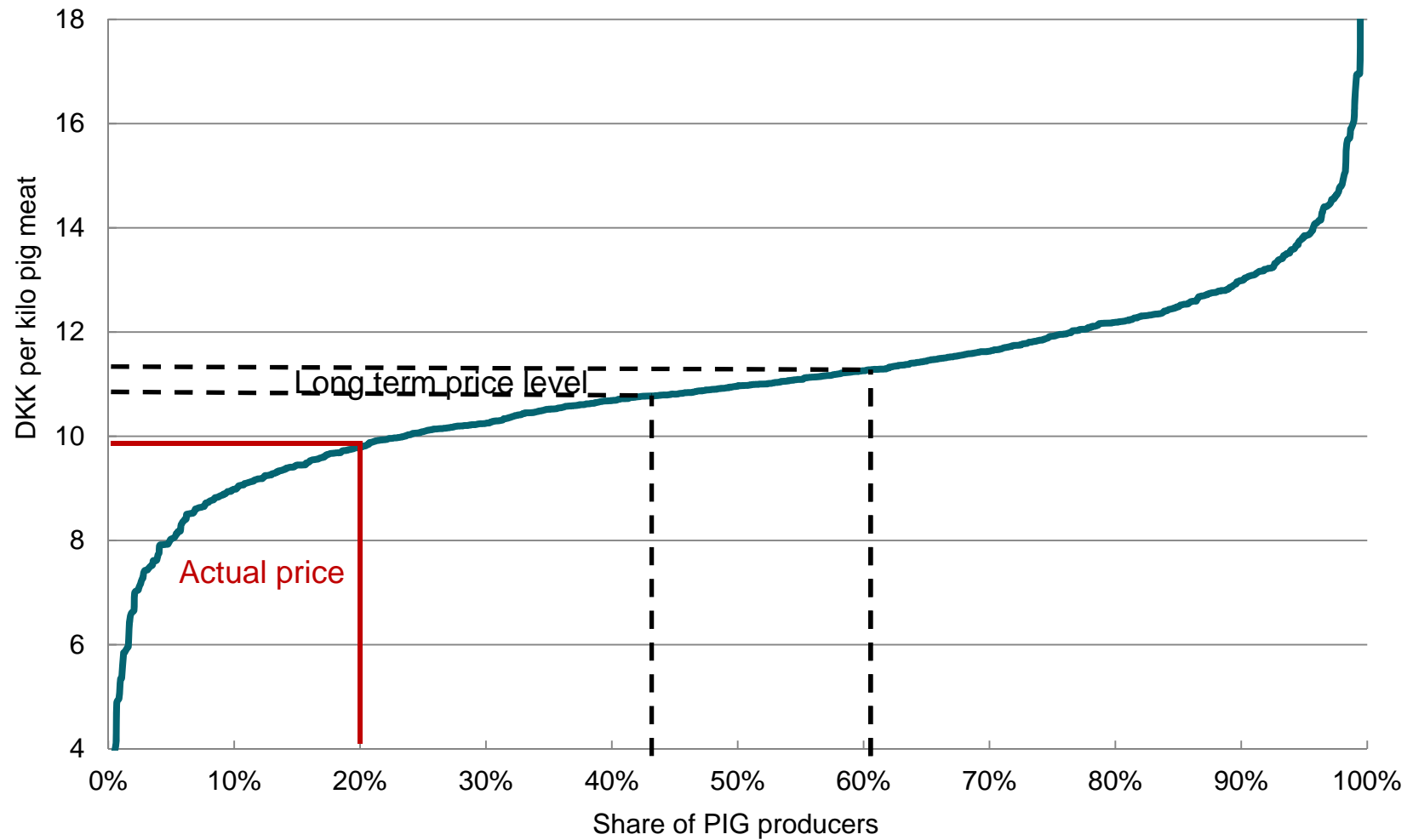
# LIQUIDITY

## Share of milk producers with positive liquidity



# LIQUIDITY

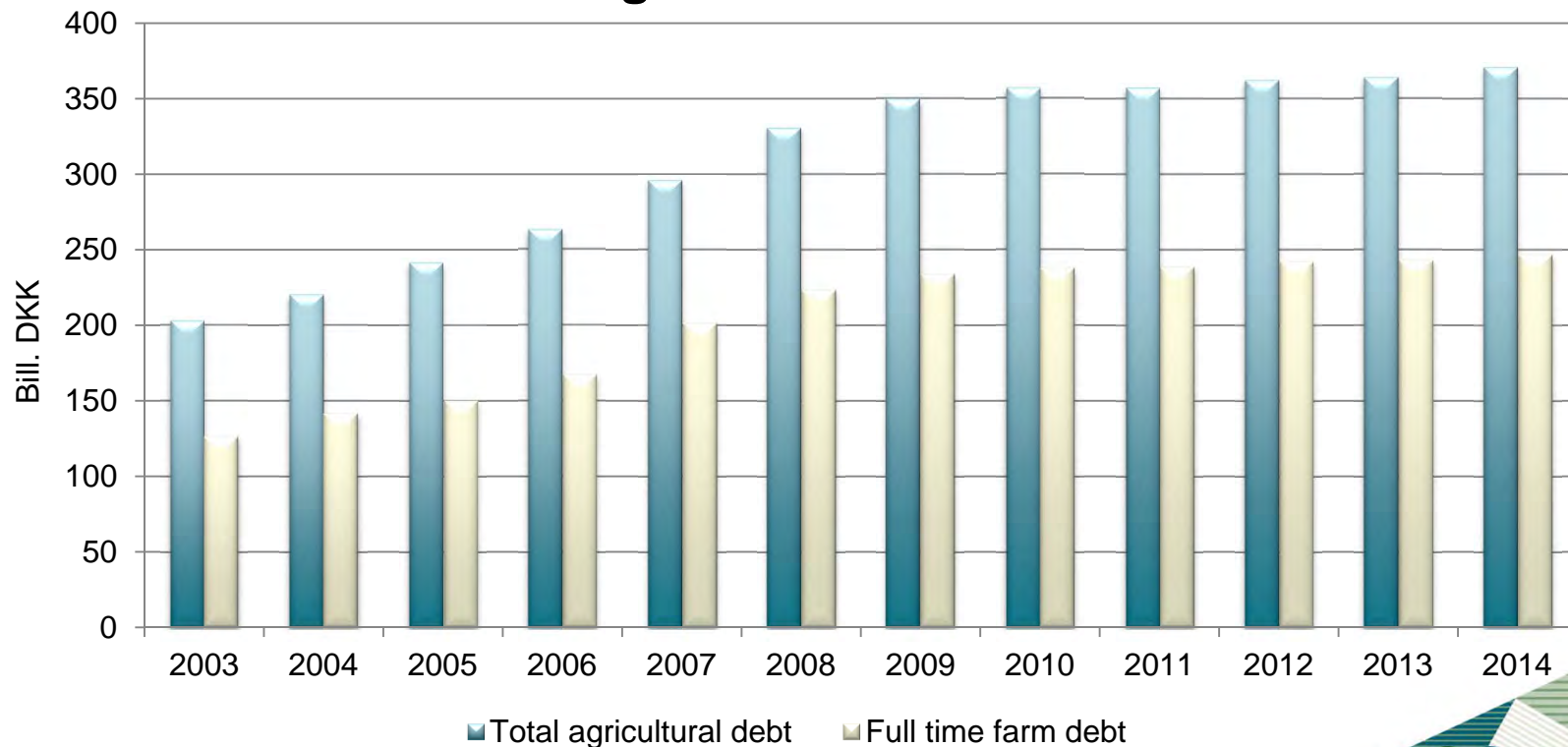
## Share of pig producers with positive liquidity



# FARMERS DEBT

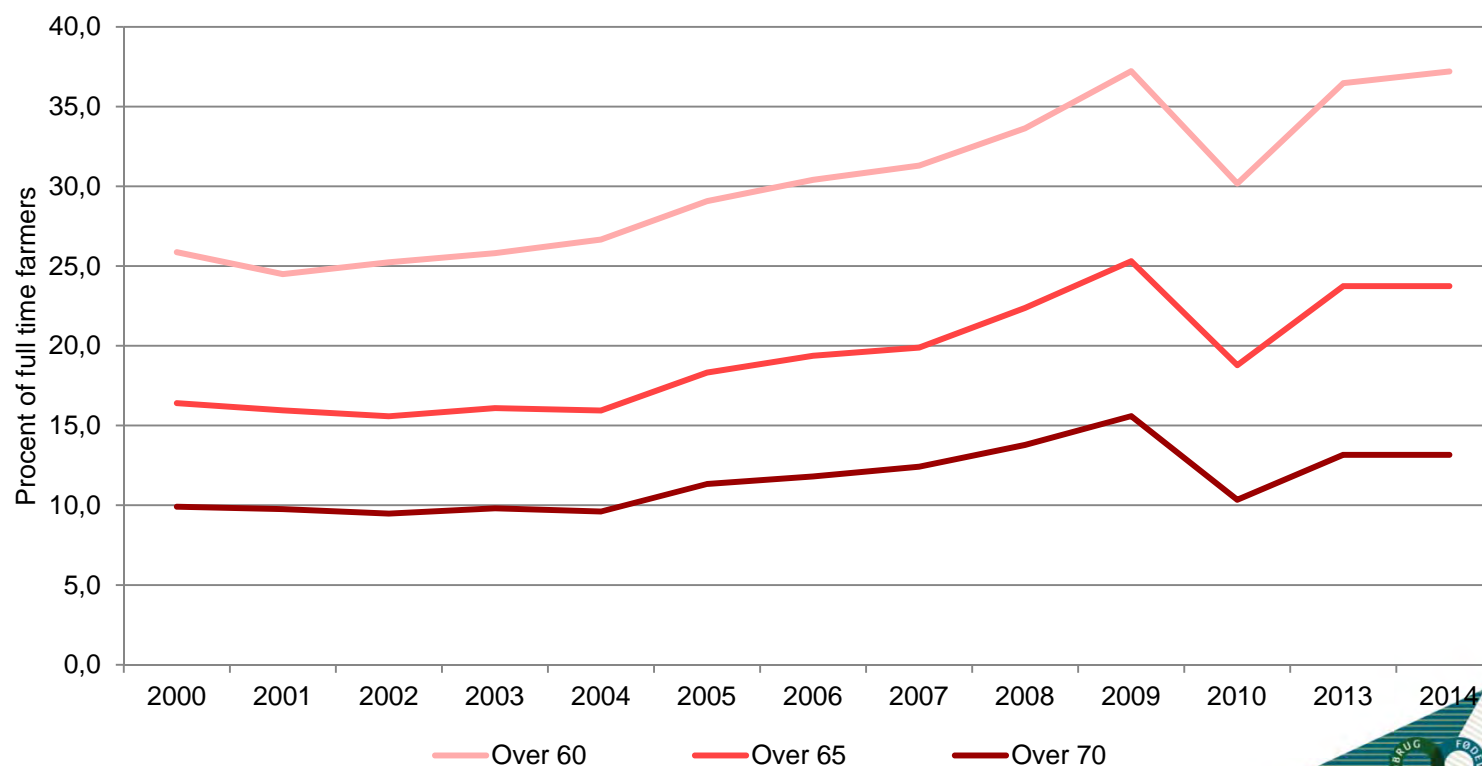
- Average debt percentage: 64
- 10 percent of the farmers are technical insolvent
- The debt burdens the bottom line and makes the industry extremely interest rate sensitive

## Agricultural debt



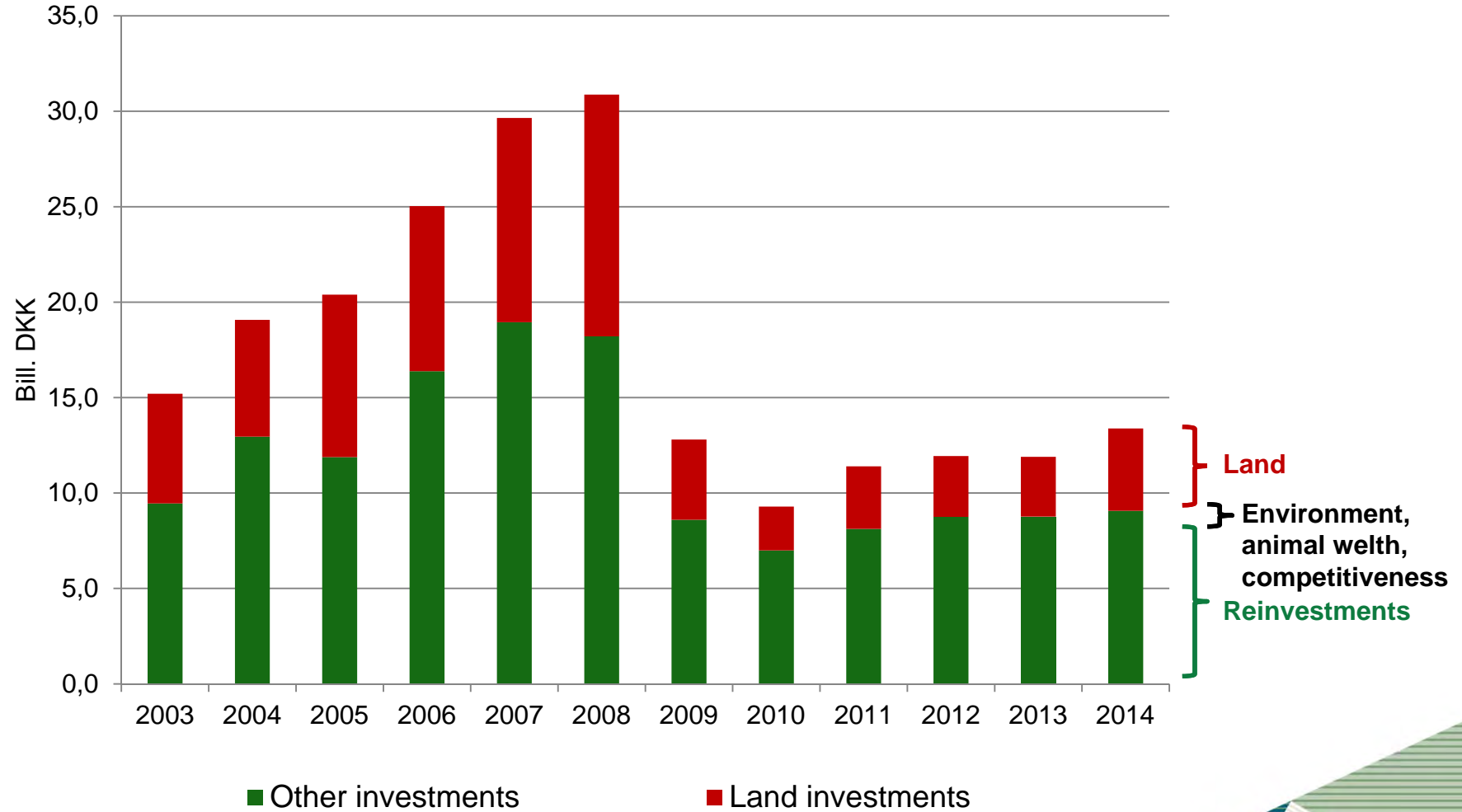
## HEAVY NEED FOR CHANGE OF OWNERSHIP

- 8-9 % of full-time farms (about 1.000 units) need to be closed down for economic reasons
- Approx. 5-6 % of the full-time farms (about 630 units) and even more small farms will cease to exist within a short period of time due to high age (over 65 years)
- Added to these are the ownership transfers made out of "free will/wish"



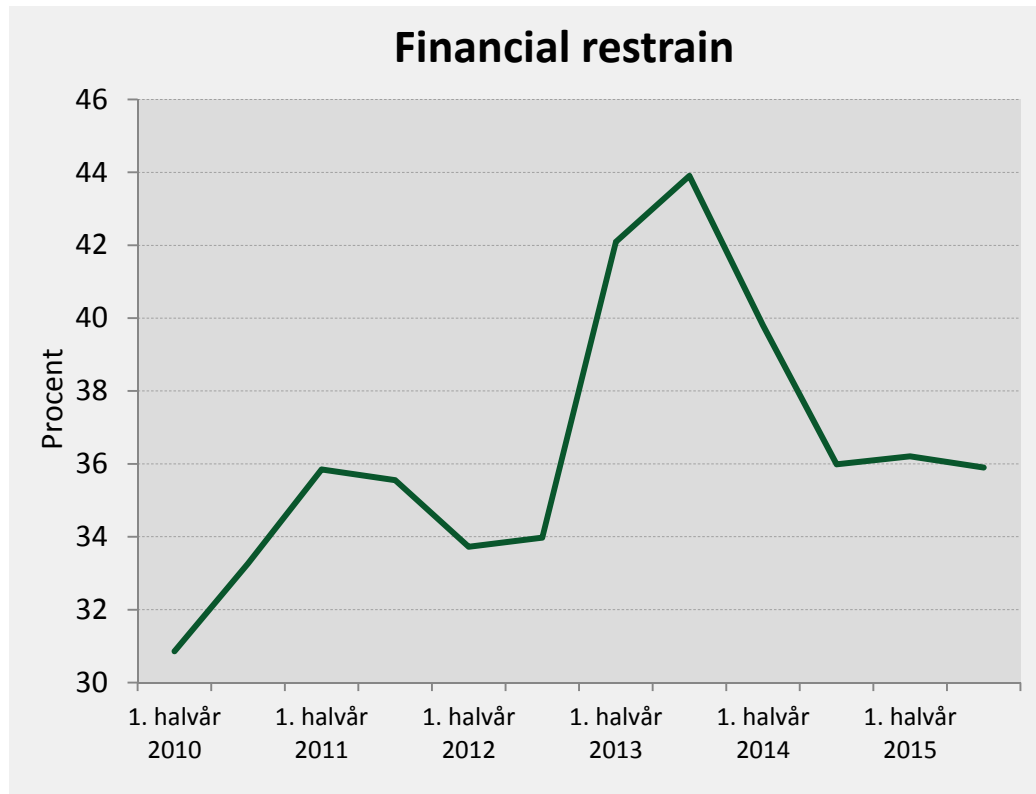
# AGRICULTURAL INVESTMENT

## Total investment



# DIFFICULT ACCESS TO FINANCING AND CAPITAL

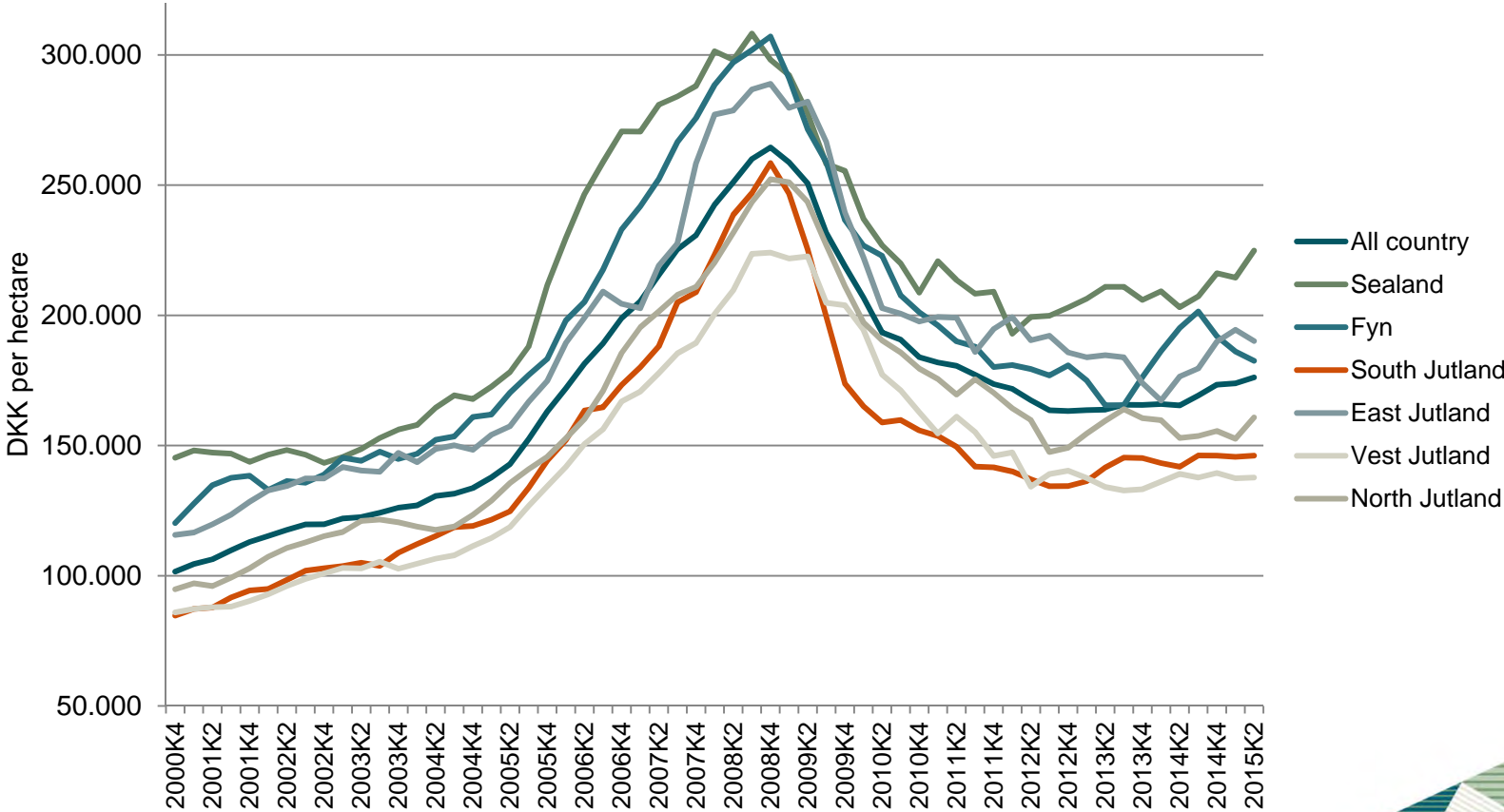
- About 36 percent of the farmers experience financial restrains



# LAND PRICES

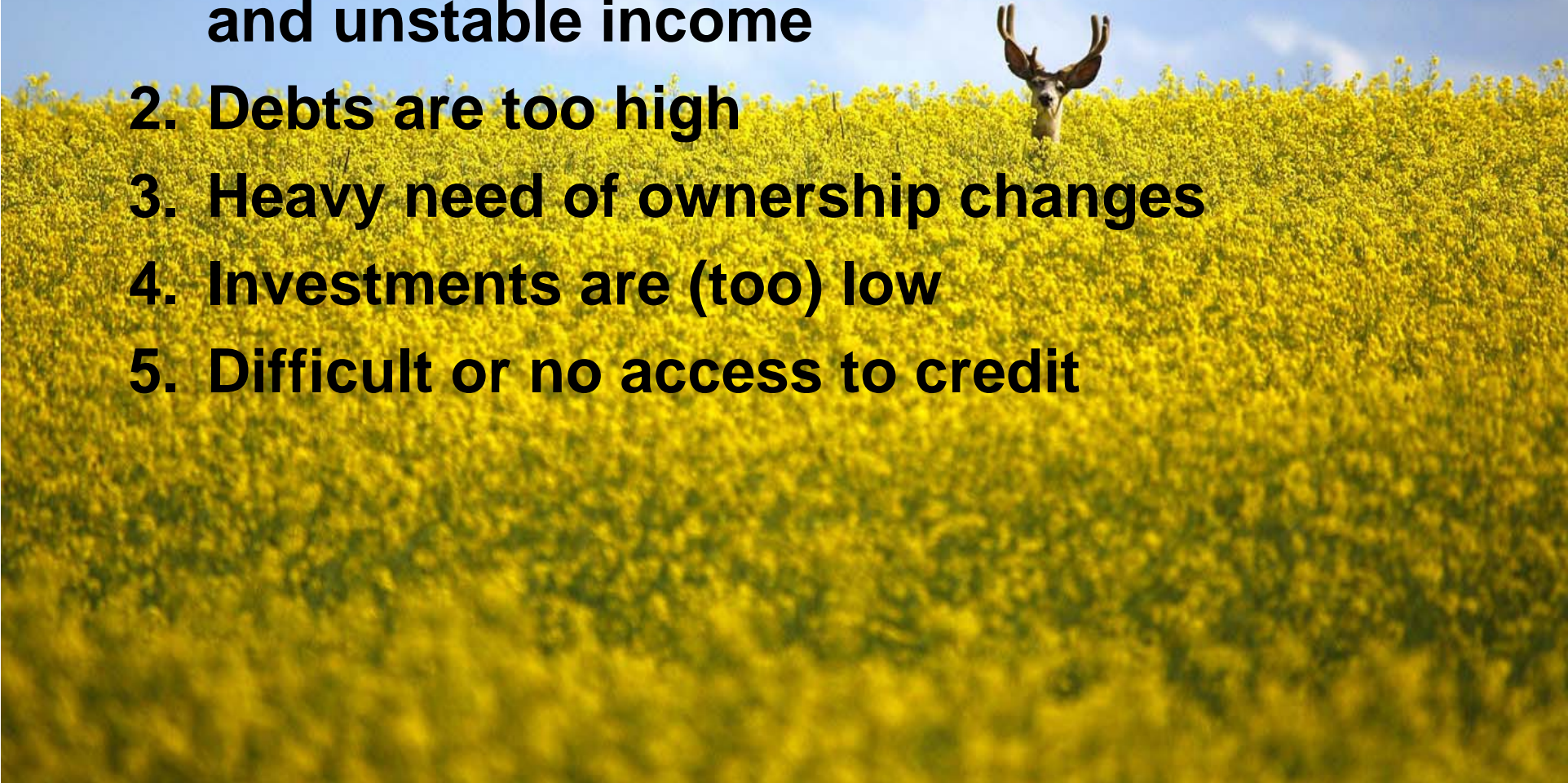
Prices are now around fair value/production value – but the current crisis contains a risk

### Regional prices on land

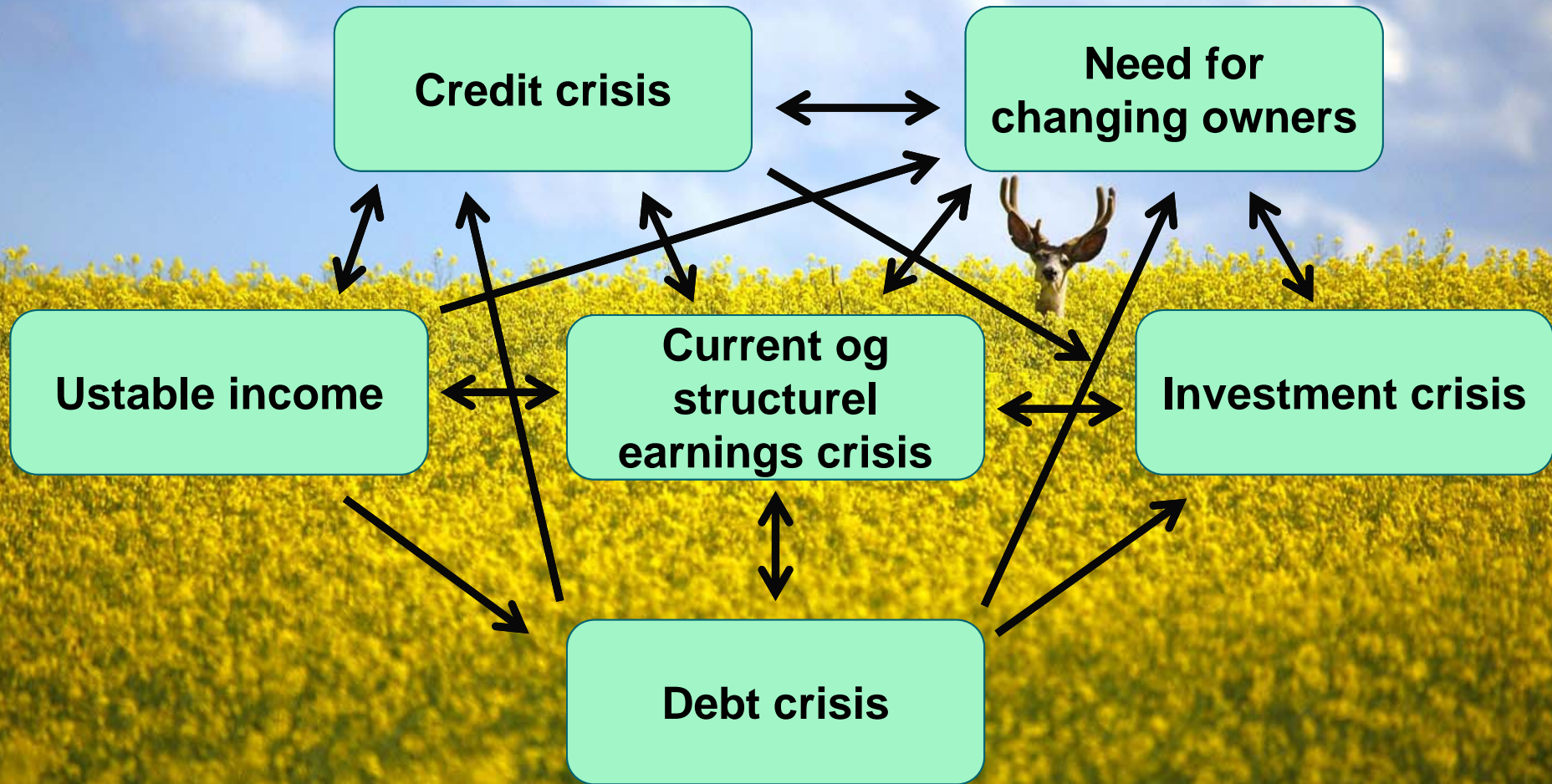




# THE BIGGEST ECONOMIC CHALLENGES FOR THE AGRICULTURAL SECTOR

1. **Current as well as structural earnings crisis and unstable income**
  2. **Debts are too high**
  3. **Heavy need of ownership changes**
  4. **Investments are (too) low**
  5. **Difficult or no access to credit**
- 
- A photograph of a deer with large, dark antlers standing in a field of bright yellow flowers. The deer is positioned in the center-right of the frame, looking towards the camera. The background is a clear blue sky with scattered white clouds. The overall scene is bright and natural.

# THE BIGGEST ECONOMIC CHALLENGES FOR THE AGRICULTURAL SECTOR



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# **SUSTAINABLE PROFIT IN AGRICULTURE II**

**– AN INTERNATIONAL COMPARISON**

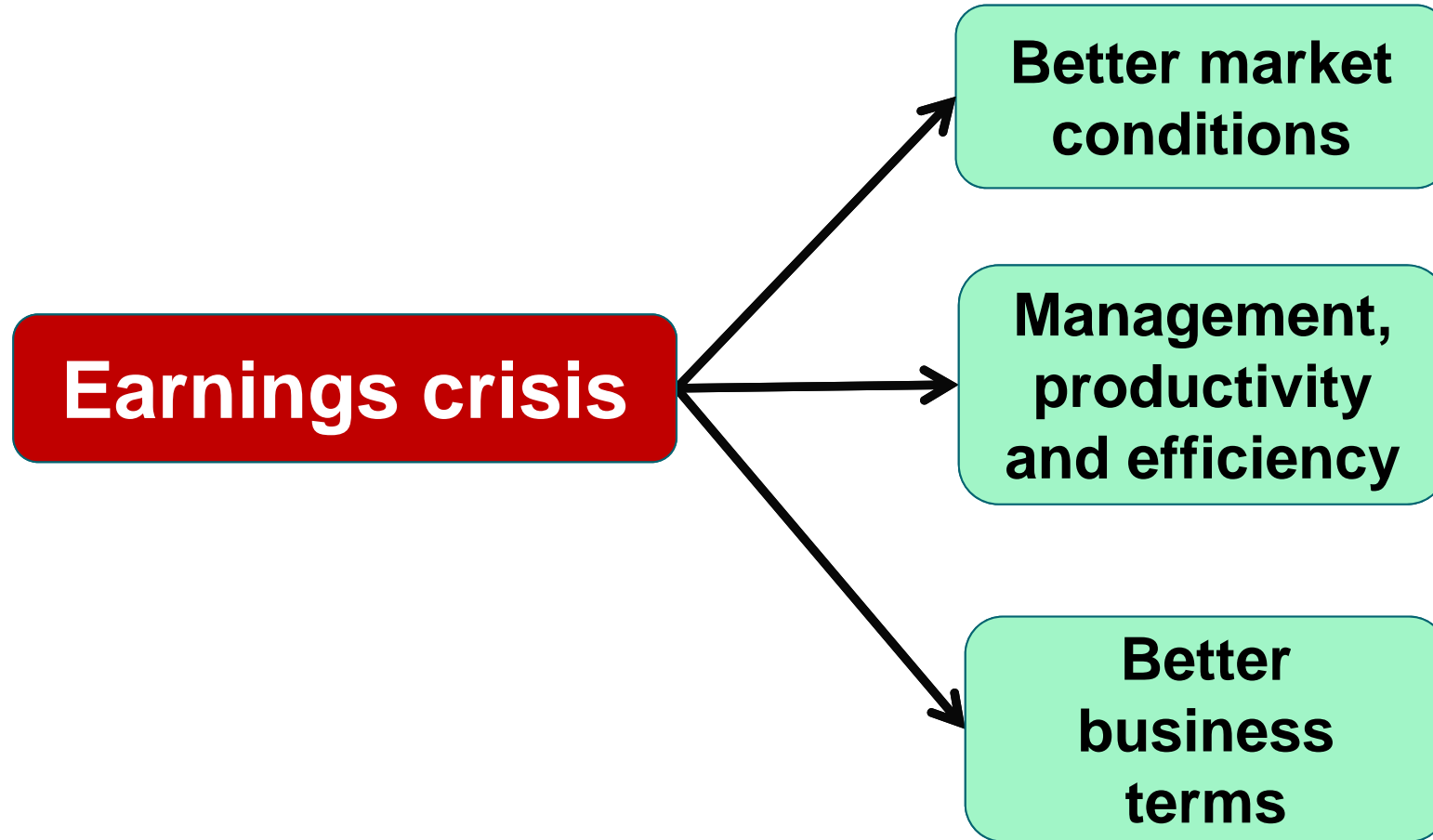
**STRATEGIES FOR SUSTAINABLE PROFIT AND PROFITABILITY - DENMARK**



Se 'European Agricultural Fund for Rural Development' (EAFRD)



# EARNINGS HAS TO INCREASE



# Advisory fields and tools

- Strategic advisory tools
- Screening
- Credit rating
- Benchmarking
- Accounts, balance sheets and budgeting
- Price and income forecasts
- Financial management
- Risk management
- Crisis management
- Legal counseling
- Change of ownership and types of ownership
- Investments
- Pension
- Tax
- IT

# MANAGEMENT THROUGH THE CONCEPT OF DYNAMIC STRATEGY

- A tool to take a structured and systematic strategic view
  - Mapping out the business to get an overview:
    - Production
      - Animal Stock
      - Crop Farming
      - Other Production
    - Machinery
    - Manpower
    - Type of Ownership
    - Environmental restrictions/approvals

# MANAGEMENT THROUGH THE CONCEPT OF DYNAMIC STRATEGY

- Strategic objectives of the company, fx.
  - Consolidation
  - Expansion
  - Improvement of efficiency
  - Reduction of financial risk
  - Start of related activities (energy production, real estate among others)
- Intercompany resource requirements to assets, competencies, financial resources etc. to achieve the company goals
- Interaction with the surrounding community
- Coherence between long-term goals and daily management
- Action Plans and Gantt Maps
- Ongoing adjustments to adopt to changed conditions of business and/or community
- Communication with all the stakeholders of the company
  - Investors and financial partners
  - Suppliers
  - Employees
  - Etc.

# RISK MANAGEMENT

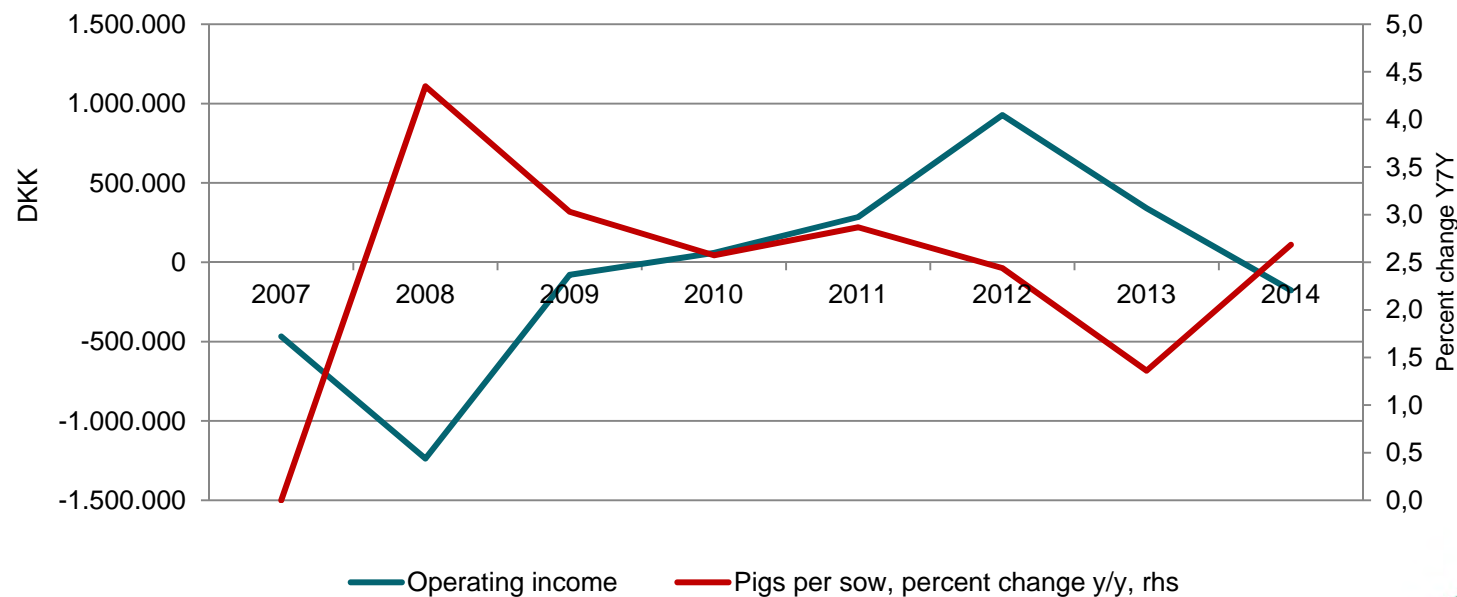
- Defined as factors at risk of threatening the company goals and/or generating an economic loss
- Mapping out potential risks, any possible interaction between them, implement and evaluate the risk management
- Quantify the risks
- Production risk – production interruptions due to
  - Supply of production input
  - Machinery
  - Crop or livestock disease
  - Weather
  - Employees – available manpower, employee competencies
  - Own age, disease, accident, divorce etc.
- Market risk
  - Product prices (output and input prices)
  - Land prices
  - Financial risk
    - Interest rates
    - Currencies
- Institutional risk
  - Legislation relating to environment and animal welfare
  - Farm Bill



# CRISIS: TIME TO IMPROVE

- Often you see an improvement in productivity og cost efficiency when earnings decrease in the pig industry
  - 2013 to 2014: Production increases but cost decrease:
    - Farms have become bigger...
      - No. of standard hours and no. of animal units increased by 2.4 % and 4.5 %, respectively
    - ...without a cost increase – on the contrary!
      - Capacity costs and total costs decreased by 1.7 % and 5.1 %, respectively

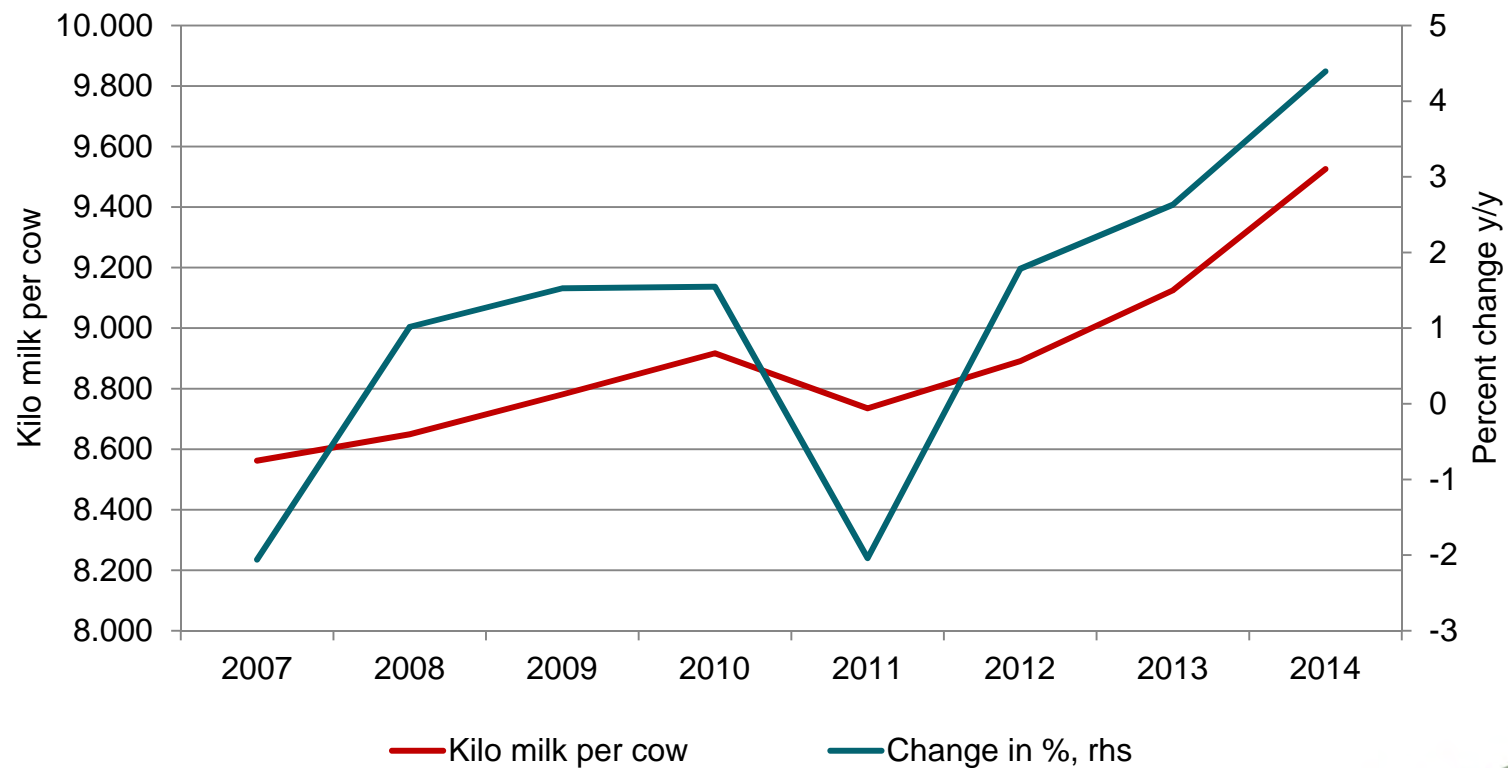
## Operating income and pigs per sow



# MILK PRODUCTIVITY HAS IMPROVED

- Productivity has increased in milk production:
  - Milk production per cow has increased by 2.6 % i 2013 and 4.4 % in 2014
  - This improves the long-term earnings capacity

## Milk production and productivity



# POSITIVE PROSPECTS FOR 2016 AND 2017

- The improvement in productivity and cost efficiency paves the way for the agricultural sector in terms of an improved opportunity of profiting from the market conditions, once prices recover.
- All in all the agricultural sector will see improvement in earnings in 2016 and 2017:
  - An improvement of the underlying agricultural economy
  - Global production adjustments
  - Continued low interest rates and possibly a stronger USD
  - New governmental agreement of an agricultural package



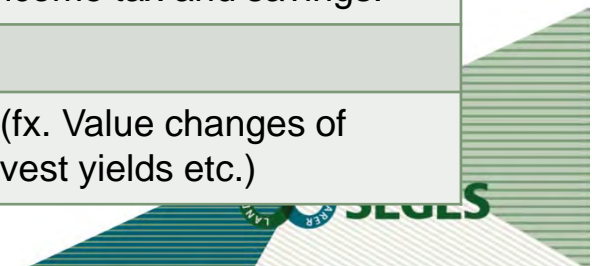
# THERE IS A PACKET COMING!



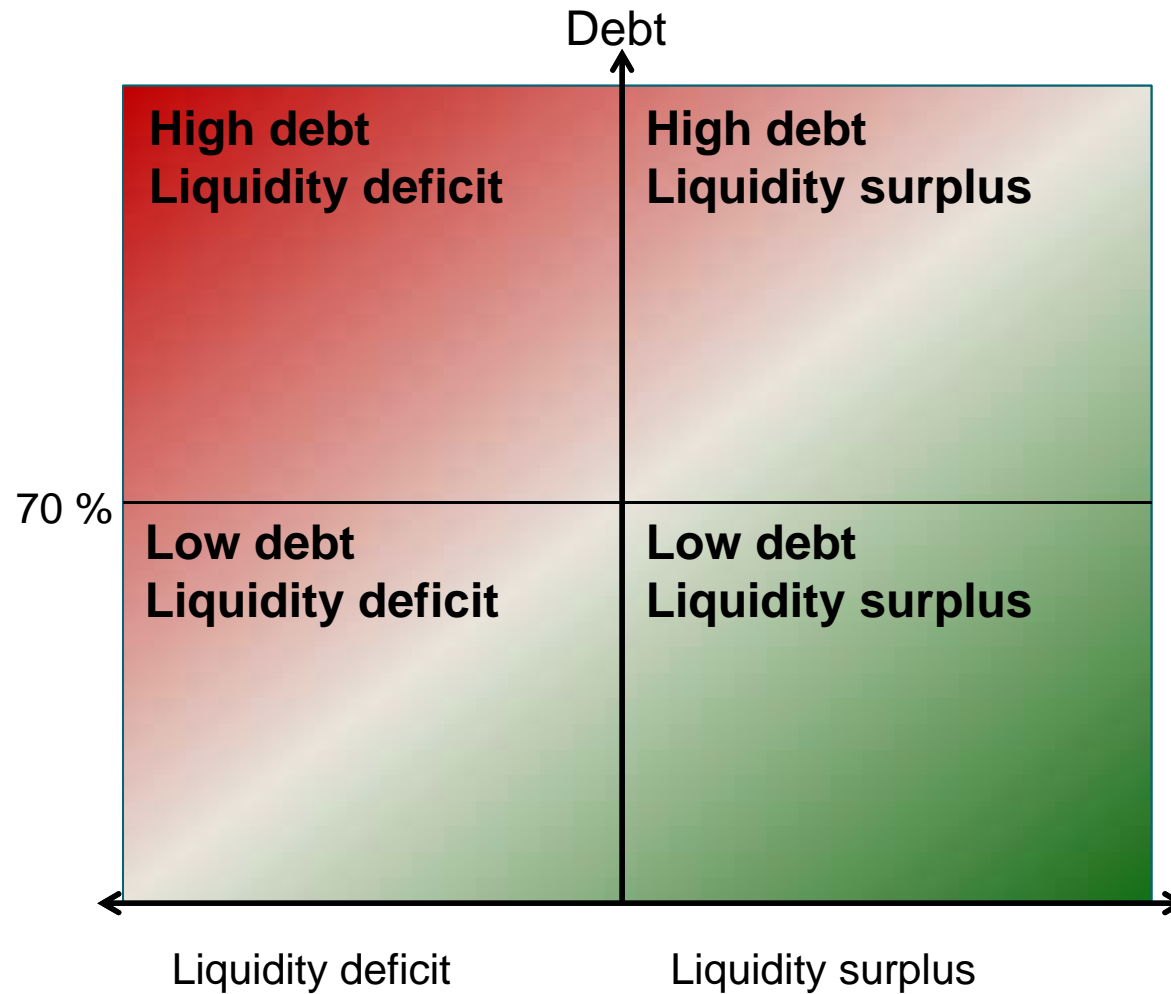
# SCREENING ACCESS TO CREDIT BENCHMARKING

# ASSUMPTIONS FOR THE AGRICULTURAL ECONOMIC SUSTAINABILITY

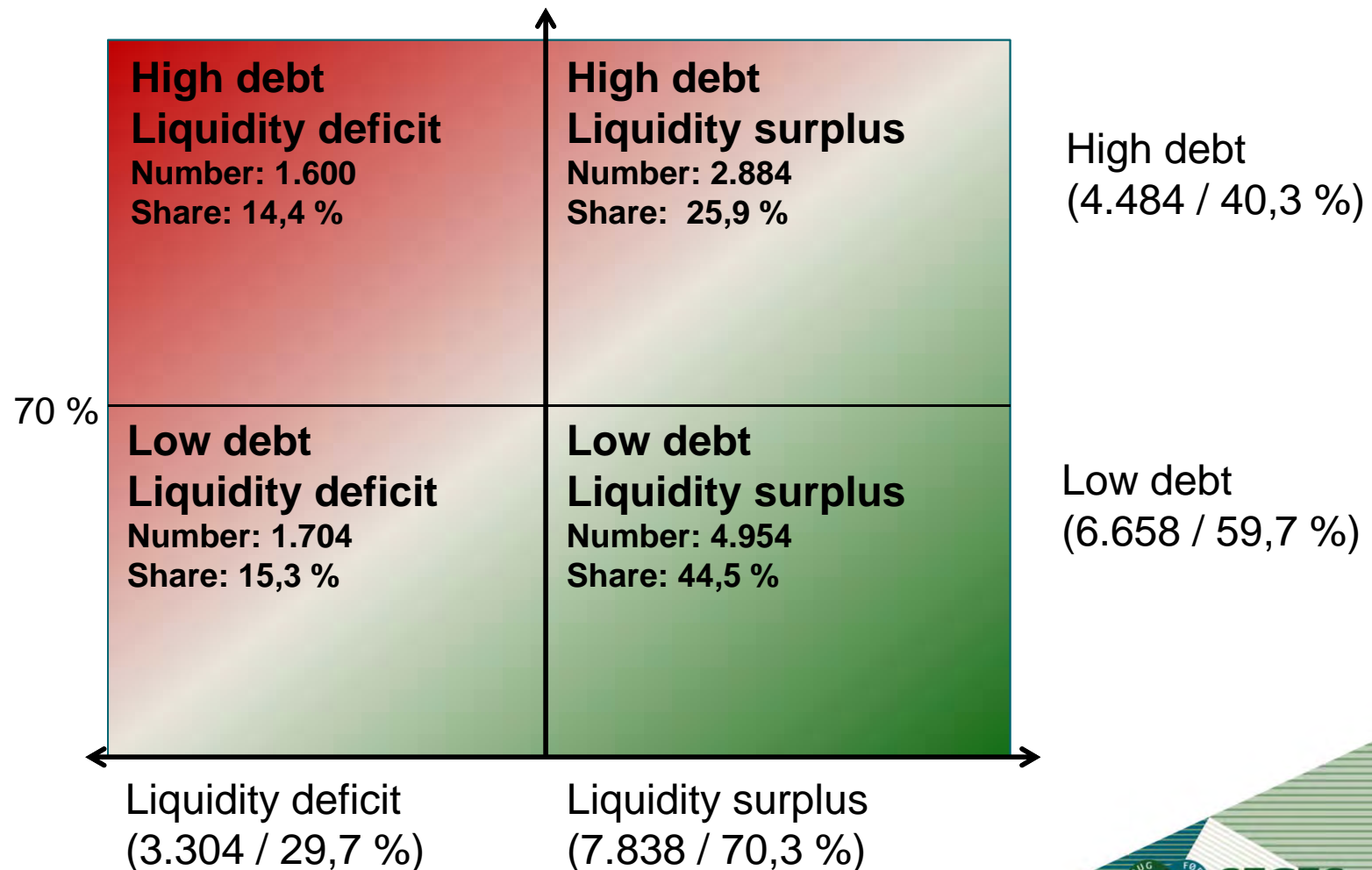
<b>Product prices</b>	<p>Estimated long-term price levels (incl. corrective payment):</p> <ul style="list-style-type: none"> <li>• Pork: 11.00 dkk/kg.</li> <li>• Milk: 2.5 dkk/kg.</li> <li>• Organic extra: 0.75 dkk/l</li> <li>• Cereal (wheat): 120 dkk/hkg.</li> <li>• Mink fur: 350 dkk/fur</li> <li>• Soy: 270 dkk/hkg.</li> <li>• Beef meat 23.91 dkk/kg.</li> <li>• Rape seed: 240 dkk/hkg.</li> <li>• Potatoes: C: 50, I: 80</li> <li>• Eggs: 0.969 dkk/unit</li> <li>• Poultry: 6.80 dkk/kg.</li> <li>• Diesel: 6.50 dkk/l</li> <li>• Fertilizer: Index 175</li> <li>• A.o.</li> </ul>
<b>Financing/interest incl. costs</b>	<ul style="list-style-type: none"> <li>• Mortgage DKK variable: 2.70 %</li> <li>• Mortgage Foreign Currency variable: 2.60 %</li> <li>• Mortgage DKK fixed: 4.50 %</li> <li>• Bank: 6.25 %</li> <li>• Overdraft facility: 7.75 %</li> <li>• Foreign loan: 6.25 %</li> </ul>
<b>EU funding</b>	<ul style="list-style-type: none"> <li>• Reduction according to CAP2020.</li> </ul>
<b>Instalment Investments</b>	<ul style="list-style-type: none"> <li>• Amortization-free loan corr. to value of land and livestock.</li> <li>• Repayment/reinvestments on the remaining loans corresponding to depreciation.</li> </ul>
<b>Land, buildings and inventory etc.</b>	<ul style="list-style-type: none"> <li>• Book value.</li> </ul>
<b>Own Remuneration</b>	<ul style="list-style-type: none"> <li>• Withdrawals for private spending, income tax and savings.</li> </ul>
<b>Spouse/Husband income</b>	<ul style="list-style-type: none"> <li>• Included in liquidity.</li> </ul>
<b>Extraordinary conditions</b>	<ul style="list-style-type: none"> <li>• Adjustment for extraordinary items (fx. Value changes of livestock and supplies, unusual harvest yields etc.)</li> </ul>



# ECONOMIC STRENGTH OF THE AGRICULTURAL SECTOR

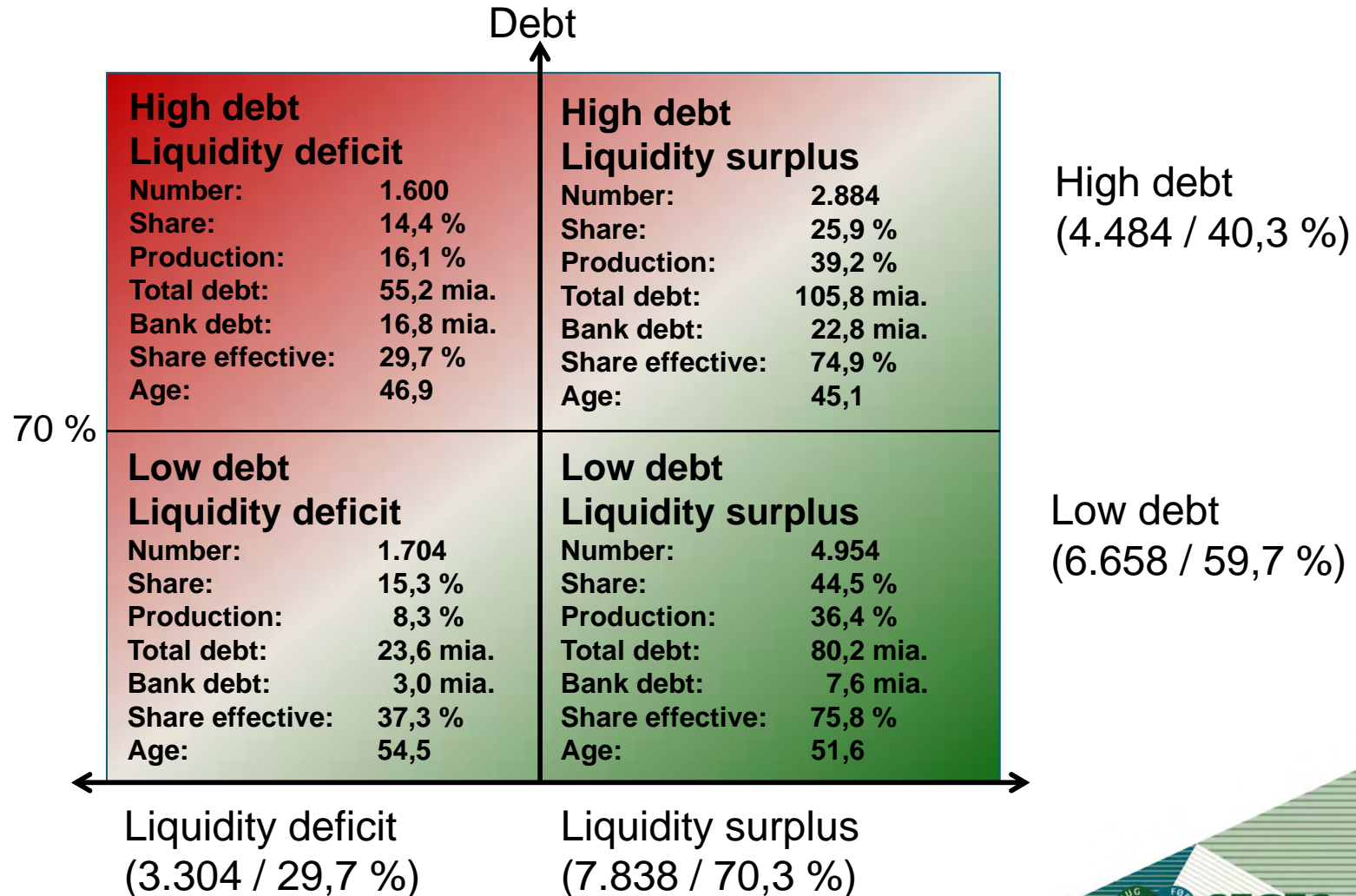


# ECONOMIC STRENGTH OF THE AGRICULTURAL SECTOR

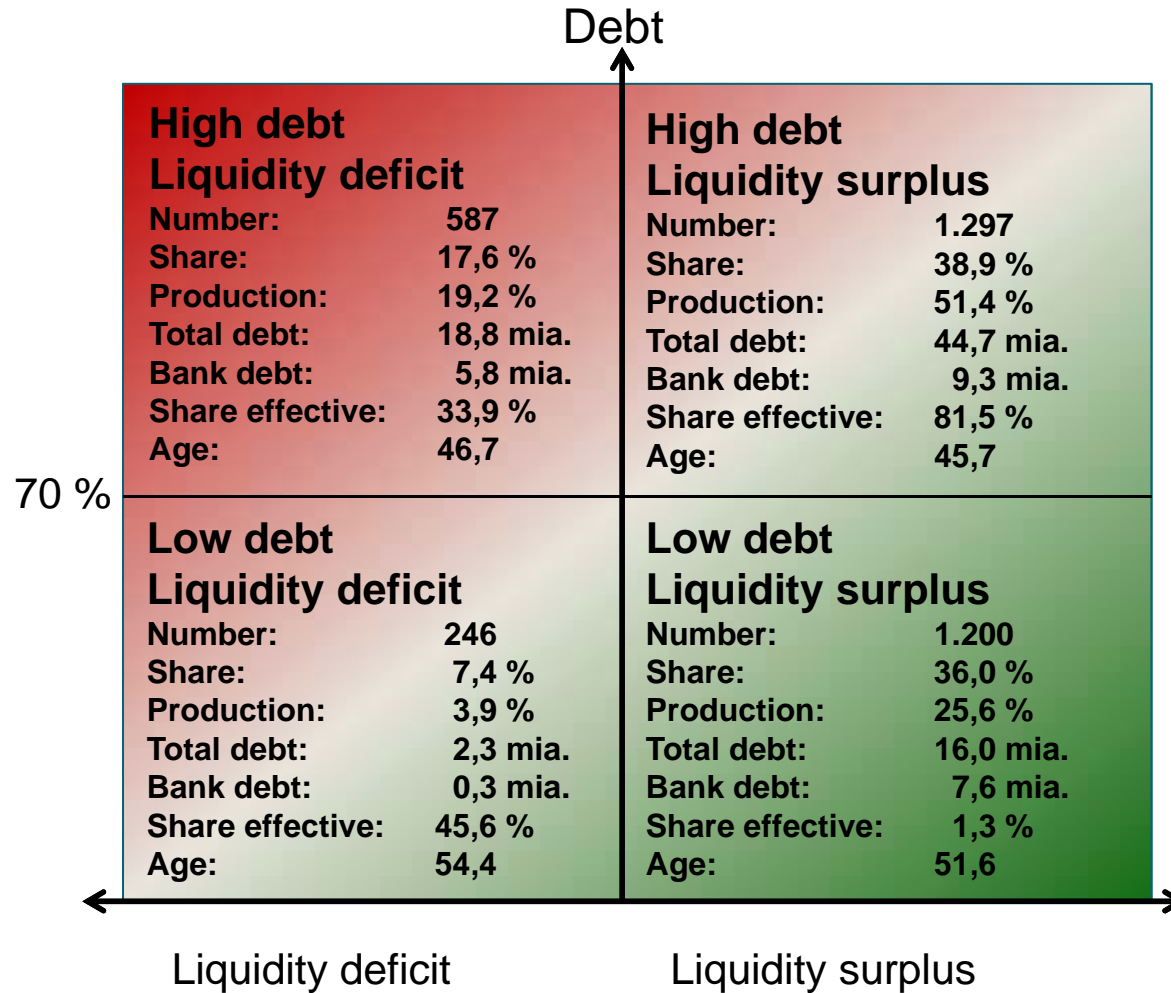




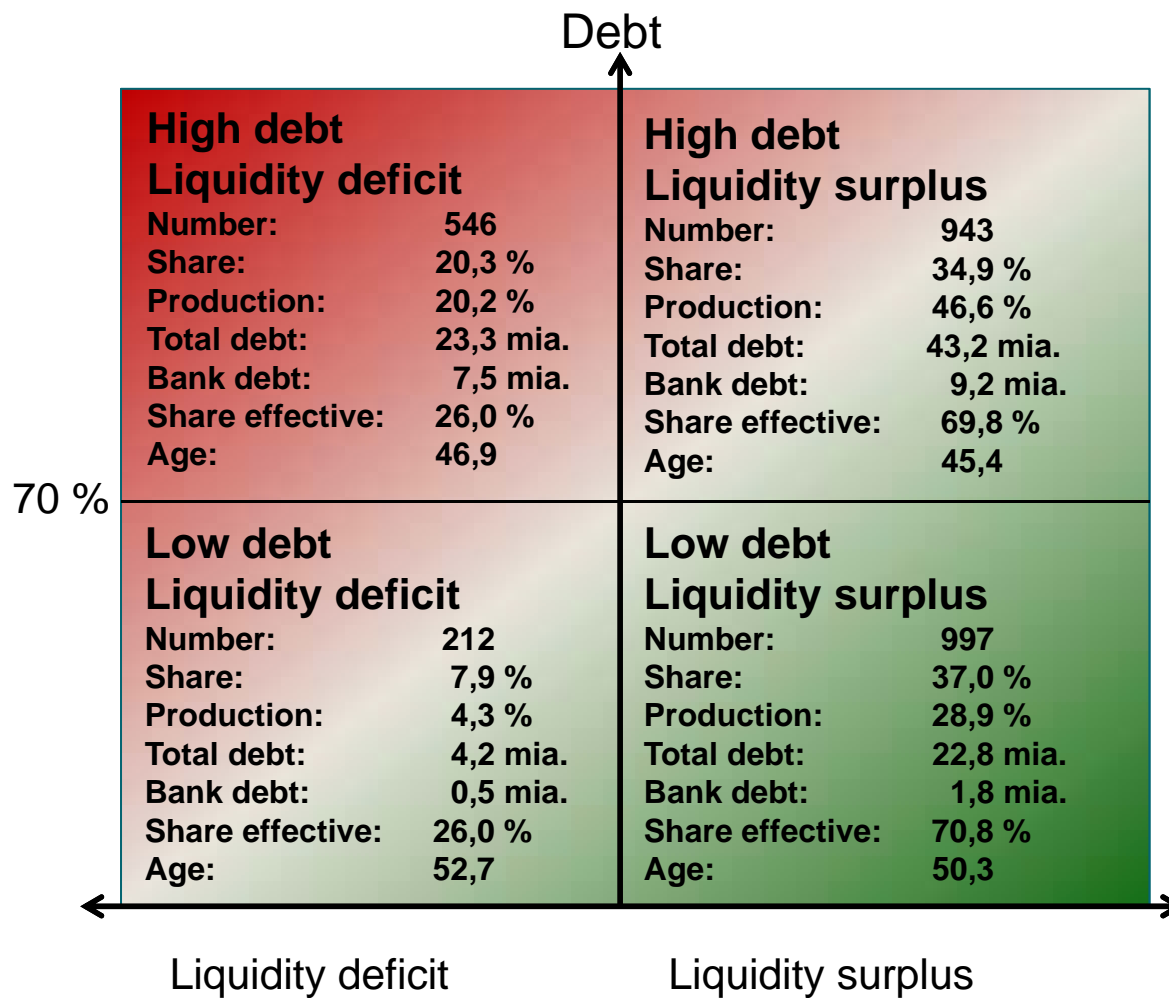
# ECONOMIC STRENGTH - SELECTED CHARACTERISTICS



# ECONOMIC STRENGTH OF THE MILK PRODUCERS



# ECONOMIC STRENGTH OF THE PIG PRODUCERS



# ALLOCATION OF THE "RED" FARMS IN DANISH REGIONS

North Jutland (1.789)	Full time farmers	Pigs total	Piglets	Slaughter pigs	Milk
Share, pct.	21,7	31,2	38,3	31,9	30,5
Production, pct.	23,6	30,4	38,8	31,0	33,2
Debt	15,0	6,8	3,6	2,6	4,0

Denmark (11.143)	Full time farmers	Pigs total	Piglets	Slaughter pigs	Milk
Number farms	1.600	546	198	240	587
Share, pct.	14,4	20,3	20,8	20,6	17,6
Production, pct.	16,1	20,2	18,7	23,2	19,2
Debt	55,2	23,3	9,5	8,8	18,8

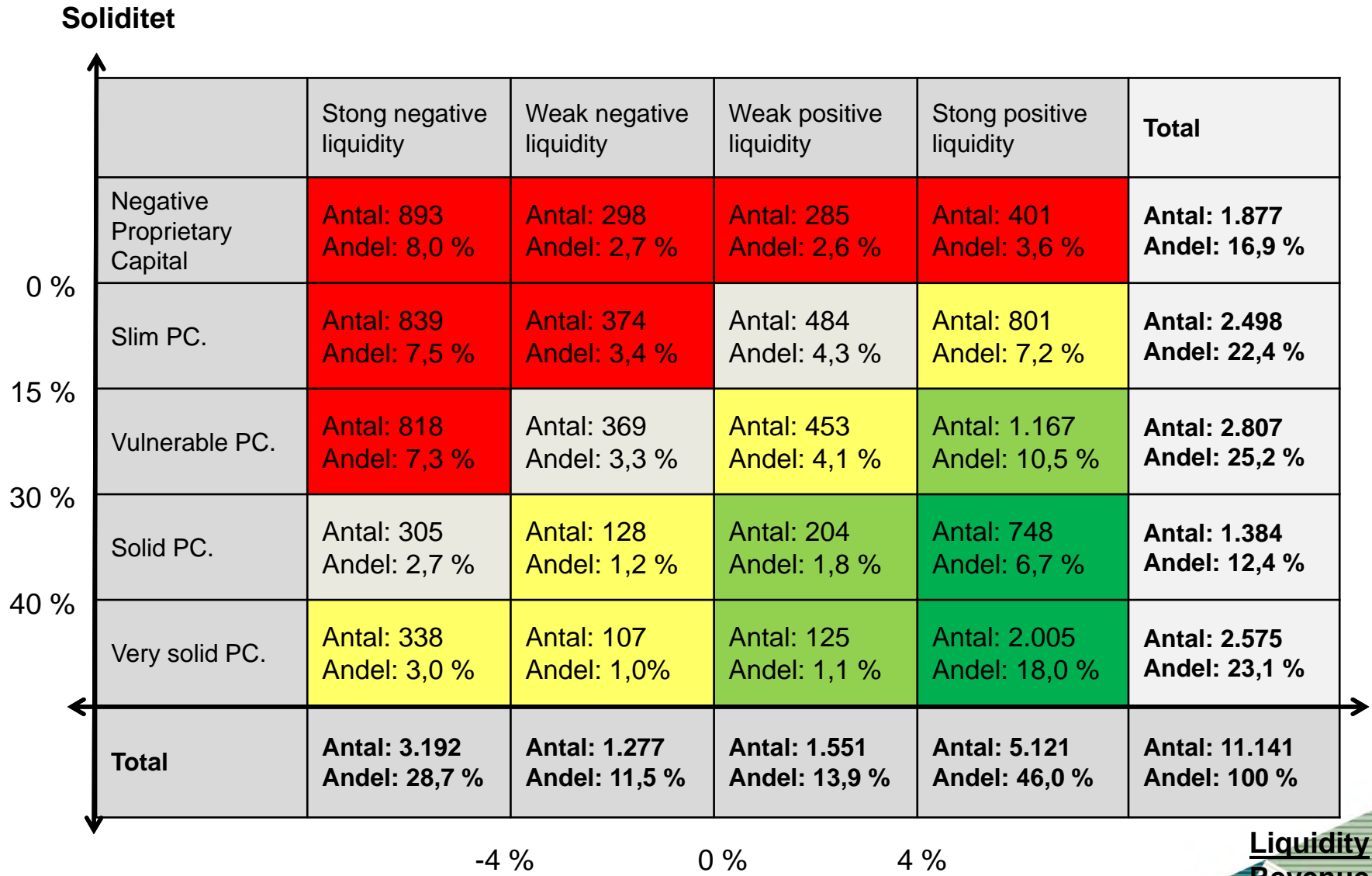
Vest Jutland (3.037)	Full time farmers	Pigs total	Piglets	Slaughter pigs	Milk
Share, pct.	14,1	21,3	19,7	22,0	15,7
Production, pct.	16,1	22,3	17,5	30,4	16,9
Debt	14,8	6,0	2,4	2,6	6,1

East Jutland (1.898)	Full time farmers	Pigs total	Piglets	Slaughter pigs	Milk
Share, pct.	13,0	16,4	12,5	19,2	13,3
Production, pct.	14,9	16,4	10,7	19,8	16,2
Debt	9,1	4,5	1,1	1,8	2,8

South Jutland and Fyn (2.397)	Full time farmers	Pigs total	Piglets	Slaughter pigs	Milk
Share, pct.	13,2	17,3	15,8	16,5	16,9
Production, pct.	14,4	18,3	12,7	21,5	17,4
Debt	9,2	4,2	1,4	1,6	3,3

Sealand and islands (1.657)	Full time farmers	Pigs total	Piglets	Slaughter pigs	Milk
Share, pct.	10,0	13,7	17,1	14,6	15,9
Production, pct.	10,7	12,4	13,1	13,9	17,5
Debt	5,1	1,8	0,8	0,7	0,9

# AGRICULTURAL SECTORS ACCESS TO BANK LOANS



# AGRICULTURAL SECTORS ACCESS TO BANK LOANS

	Access to credit	Number	Share
<b>Red</b>	None	3.907	35,1 pct.
<b>Light Red</b>	Very limited	1.157	10,4 pct.
<b>Yellow</b>	Limited	1.828	16,4 pct.
<b>Light green</b>	Often good	1.496	13,4 pct.
<b>Green</b>	Good	2.752	24,7 pct.

	Access to credit	Number	Share
<b>Red</b>	None or very limited	5.065	45,5 pct.
<b>Yellow</b>	Limited	1.828	16,4 pct.
<b>Green</b>	Good or often good	4.249	38,1 pct.



# AGRICULTURAL SECTORS ACCESS TO BANK LOANS IN PRACTICE

Kreditmultipheds analyse				Likviditet/omsætning						
Ejendoms Nummer	155					<-4%	(-4)%-0%	0%-4%	>4%	Hovedtotal
Sammenligningsgruppe:				Driftsform	Omsætning (mio. kr.)					
				Alle	Alle					
	Regnskab	Kreditanalyse	Forskel	Følsomhedsberegning						
				Værdi	Justering					
<b>Resultatopgørelse</b>										
Bruttoudbytte	7.345.674	7.324.791	-20.883	7.324.791						
Stykomkostninger	-2.216.638	-2.216.638	-	-2.216.638						
Dækningsbidrag	5.129.036	5.108.153	-20.883	5.108.153						
Kapacitetsomkostninger i alt	-6.284.687	-6.284.687	-	-6.284.687						
Resultat primære drift	-2.698.412	-2.719.295	-20.883	-2.719.295						
Resultat for finansiering	358.230	250.060	-108.170	250.060						
Finansiering i alt	-2.038.180	-2.749.461	-711.281	-2.749.461						
Resultat efter finansiering	-1.679.950	-2.499.401	-819.451	-2.499.401						
Resultat før regulering og skat	-1.408.788	-2.228.239	-819.451	-2.228.239						
<b>Pengebinding</b>										
Til invest og afdrag	-620.338	-1.087.425	-467.087	-1.087.425						
Investeringer i alt	-14.375.905	-2.256.129	12.119.776	-2.256.129						
Likviditetsoverskud/-behov	-14.996.243	-3.343.554	11.652.689	-3.343.554						
<b>Balance</b>										
Aktiver i alt	219.988.763	243.824.272	23.835.509	243.824.272						
heraf jord	125.899.048	152.238.000	26.338.952	152.238.000						
heraf driftsbygninger og installationer	16.689.622	14.186.179	-2.503.443	14.186.179						
Gæld i alt	-115.434.513	-115.434.513	-	-115.434.513						
Hensættelser	-7.000.000	-7.000.000	-	-7.000.000						
Egenkapital	97.554.250	121.389.759	23.835.509	121.389.759						
<b>Nøgletal</b>										
Soliditetsgrad	44,30%	49,79%	5,49	49,79%						
Likviditet/bruttoudbytte	-204,15%	-45,65%	158,50	-45,65%						
Antal hektar (ejet)	1.015	1.015	-	1.015						
Jordværdi pr. ha	124.048	150.000	25.952	150.000						

Soliditet	Kategori	Likviditet/omsætning				Hovedtotal
		<-4%	(-4)%-0%	0%-4%	>4%	
Soliditet	<0	994	325	250	349	1.917
		8,93%	2,92%	2,24%	3,14%	17,23%
	0-15	881	433	457	719	2.490
		7,92%	3,90%	4,11%	6,47%	22,39%
	15-30	866	400	494	1.028	2.788
		7,79%	3,60%	4,44%	9,24%	25,06%
Total	30-40	323	141	216	699	1.379
		2,91%	1,27%	1,94%	6,28%	12,40%
Total	>40	304	149	173	1.923	2.549
		2,74%	1,34%	1,55%	17,29%	22,92%
Total Antal		3.368	1.449	1.589	4.718	11.123
Total Andel		30,28%	13,02%	14,28%	42,41%	100,00%

Medtag

Andel

# BENCHMARKING: QUANTILE ANALYSIS

Tabel 1. Fraktilanalyse (konventionel, stor race, alle malkesystemer). Bedrift KM133's tal er markeret.

557 BEDRIFTER I GRUPPEN	STÆRK KONKURRENCEEVNE							STORT FORBEDRINGSPOTENTIALE			
	5 %	10 %	25 %	33 %	40 %	50 %	60 %	67 %	75 %	90 %	95 %
Fraktil											
Kg EKM pr. årsko (leveret)	11.347	10.926	10.398	10.211	10.092	9.888	9.710	9.546	9.320	8.876	8.522
Fremstillingspris pr. kg EKM	2,32	2,40	2,54	2,60	2,64	2,69	2,77	2,81	2,88	3,06	3,22
Foderomk. pr. kg. EKM	1,27	1,32	1,41	1,44	1,46	1,49	1,53	1,55	1,58	1,66	1,74
Afkastningsgrad, pct.	16,8	13,1	9,9	8,8	7,9	6,4	4,8	3,6	2,6	-0,7	-2,6
Bundet kapital	30.257	36.284	42.691	46.639	49.193	53.030	57.225	60.036	63.728	77.385	84.340
Dækningsbidrag pr. årsko	17.746	16.845	15.424	14.830	14.347	13.819	13.372	12.957	12.368	10.813	9.891
Kravtil DB pr. årsko	9.385	9.812	10.777	11.243	11.639	12.122	12.589	12.938	13.585	15.109	15.728
Arbejdsomk. pr. årsko	2.607	2.945	3.464	3.673	3.812	4.063	4.306	4.527	4.811	5.529	6.206
Bygninger pr. årsko	1.756	2.036	2.424	2.573	2.714	2.928	3.140	3.301	3.562	4.131	4.590
Inventar pr. årsko	1.964	2.336	2.835	3.047	3.281	3.553	4.000	4.398	4.658	5.548	6.009
Årets resultat pr. årsko	5.879	4.983	3.391	2.906	2.348	1.681	955	494	-69	-2.085	-3.174