



Economic Performance, Solidity and Risk Exposure of Danish Farmers

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Ministeriet for Fødevarer, Landbrug og Fiskeri



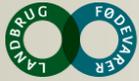
Naturerhverv.dk



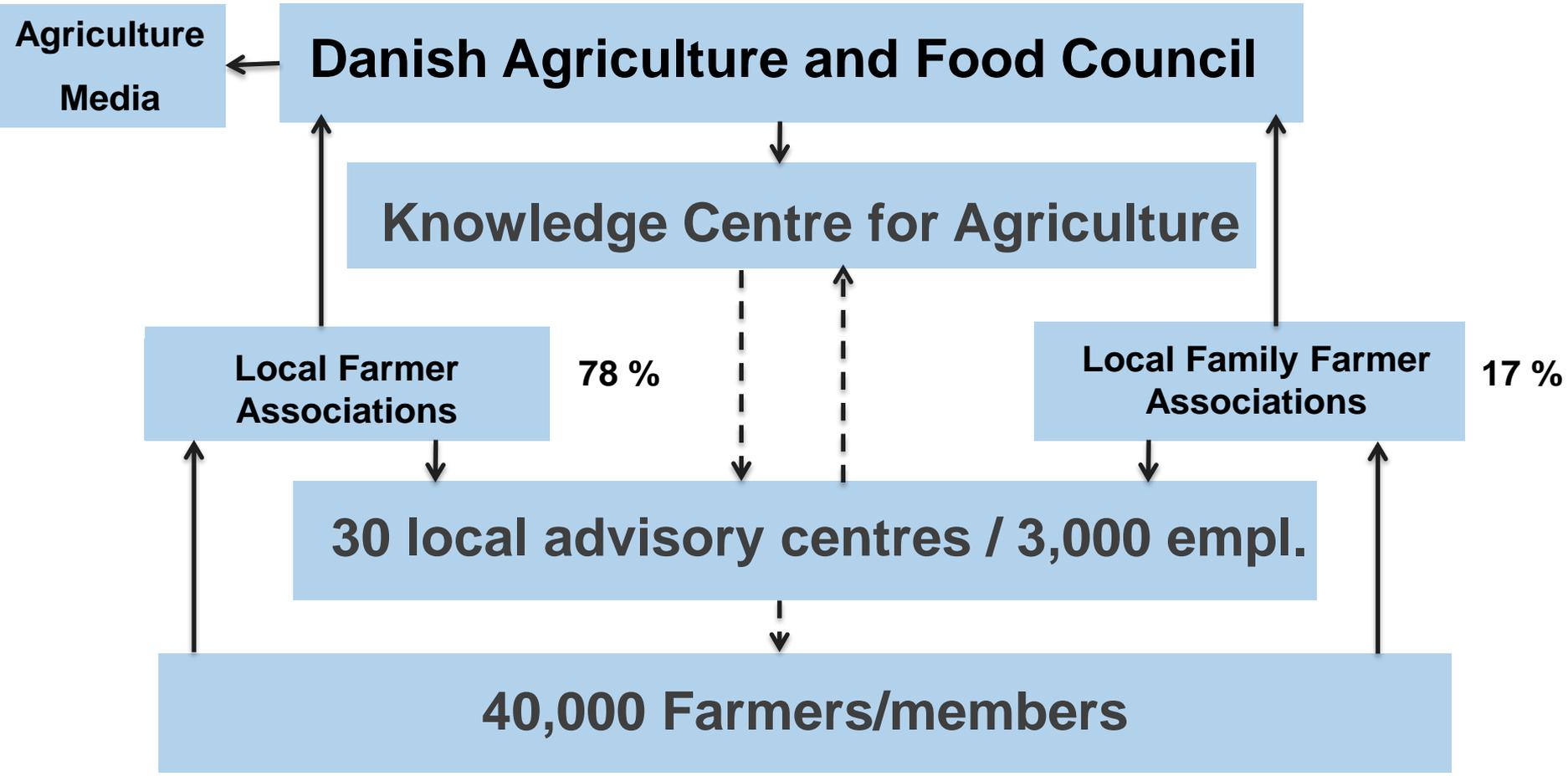
Den Europæiske Landbrugsfond for Udvikling af Landdistrikterne



Danmark og Europa investerer i landdistrikterne



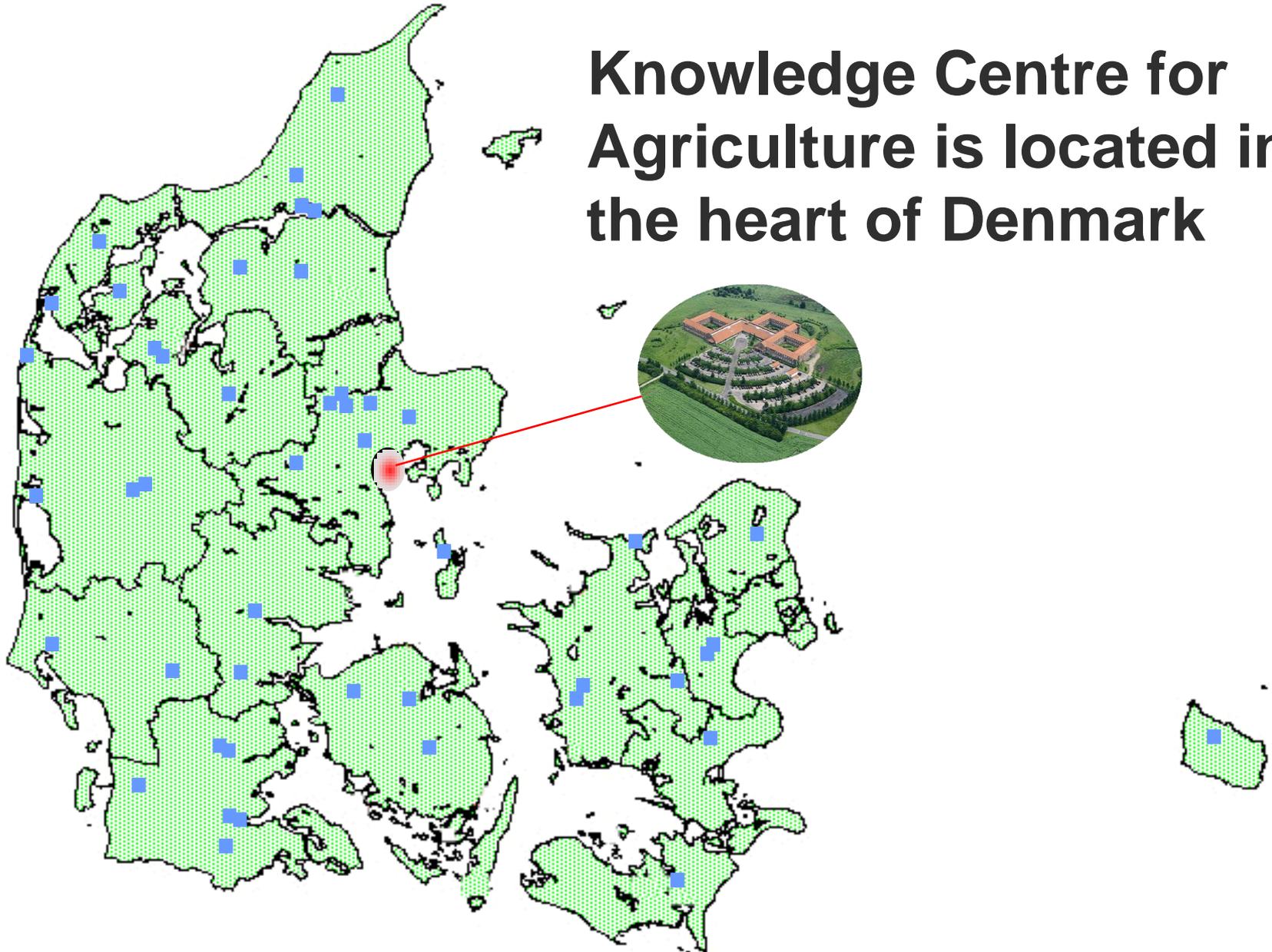
Danish Agricultural Organisations



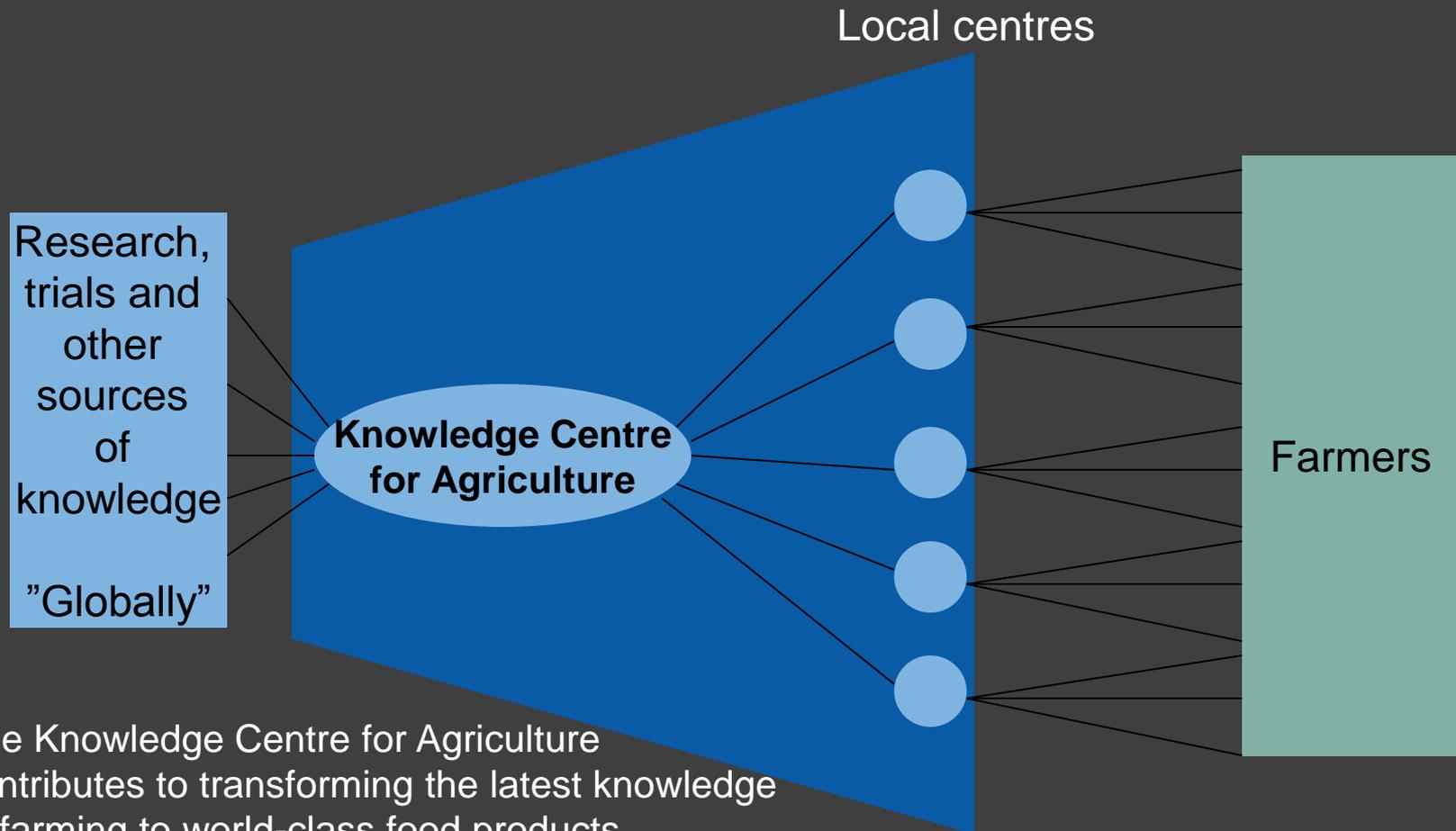
————— Organising and/or administrative connection

- - - - - Advice and Information flow

Knowledge Centre for Agriculture is located in the heart of Denmark



The Knowledge Centre acts as a service and innovation centre for DLBR – a network of 30 local advisory companies. The employees are the "Experts of the Experts" – "or the Advisers of the Advisers"



The Knowledge Centre for Agriculture contributes to transforming the latest knowledge of farming to world-class food products

- More than 600 employees in the company and subsidiaries (Agrotech)
- Seven out of ten have an academic education or equivalent
- 70 different educations are represented at the Knowledge Centre for Agriculture

We also work internationally

The Knowledge Centre For Agriculture cooperates closely and professionally with universities, technical institutes, the financial industry, public authorities, national and worldwide companies on research and development

The Knowledge Centre for Agriculture is part of Agro Food Park

Projected: By 2020 Agro Food Park will:

- Employ 3,000 specialists working in 40-50 agricultural and food companies
- Be among the world's five strongest innovation clusters within the agriculture and food sector



Vision and values

We create balanced growth, and the basis for the activities of the Knowledge Centre for Agriculture are:

- To be a key driver in the development of diverse and competitive farming by
- Working on a professionally and unbiased basis
- Creating value in everything we do
- Being first – credible – results orientated

Income distribution

- The Knowledge Centre for Agriculture finances its operations primarily through the sale of e.g. IT tools and advisory concepts
- 60 percent derives from this activity
- Otherwise the Knowledge Centre is financed through agricultural and development funds



Knowledge Centre activities are holistic

- Agricultural economy, finance, tax and law
 - Animal welfare, health and breeding
 - Food quality and safety
 - Building and work environment
 - Cultivation of the soil
 - IT in farming
 - Environment, nature and bioenergy
 - Nature conservation
 - Organic farming
 - Rural development
 - Advisory service abroad
- 

Denmark leading the field:

- Research and education
- Technology and food science
- Food safety
- Management and craftsmanship

- Agricultural exports: 30 billion USD
- 160,000 employed in the agriculture and food industry

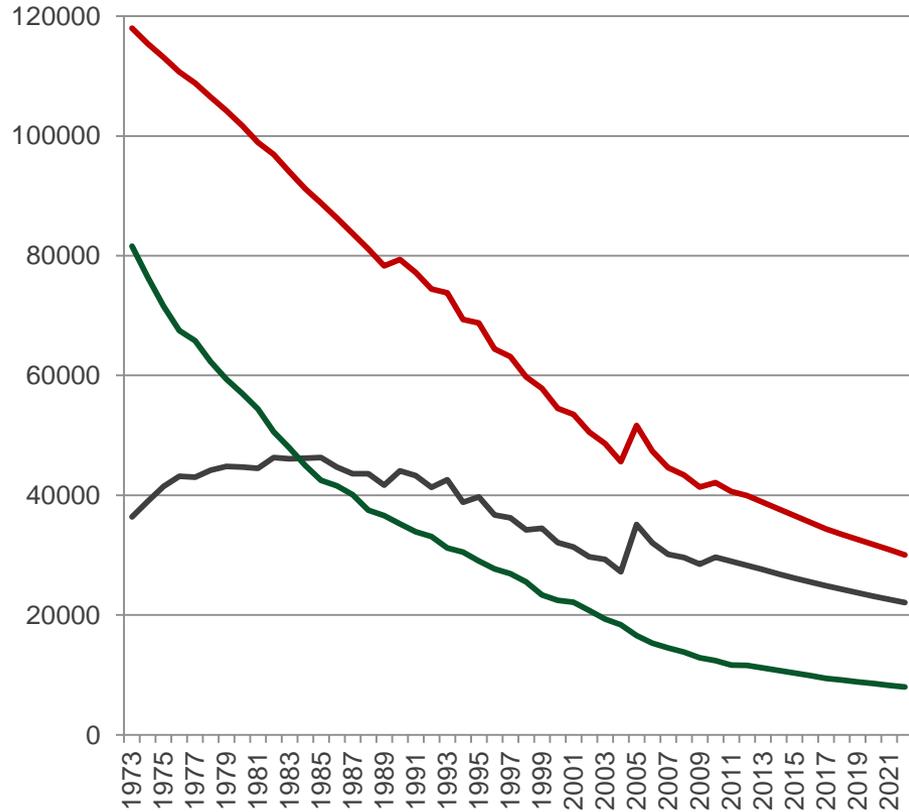
But ...

- Accelerating environmental requirements from the authorities makes profit a challenge



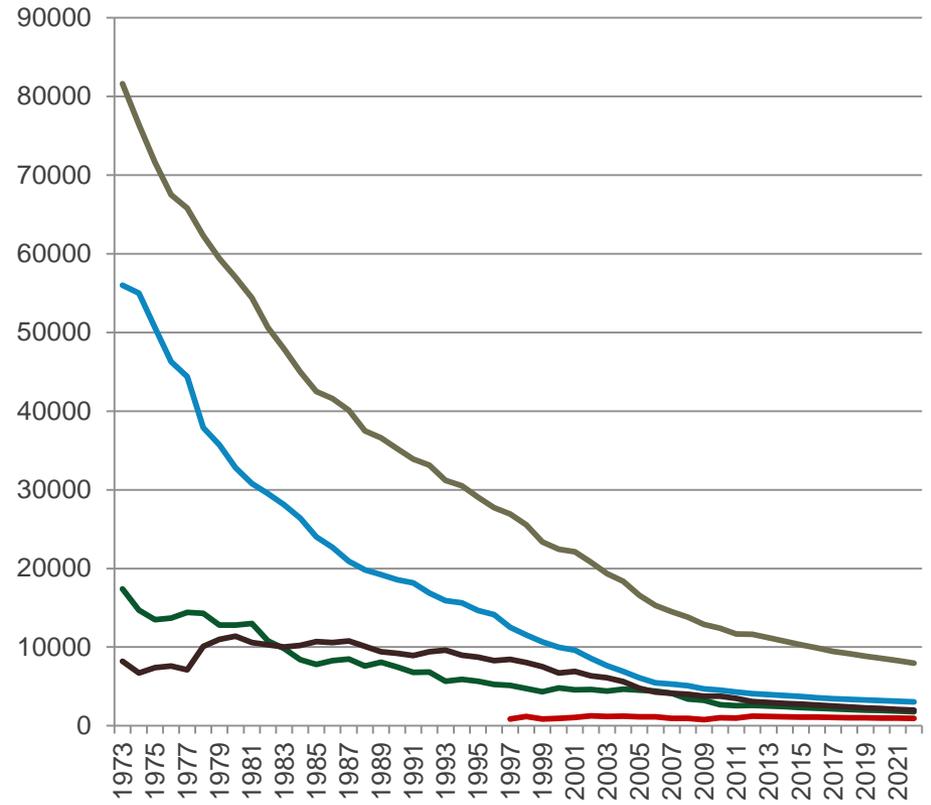
Structural development in Danish agriculture

Number of farms



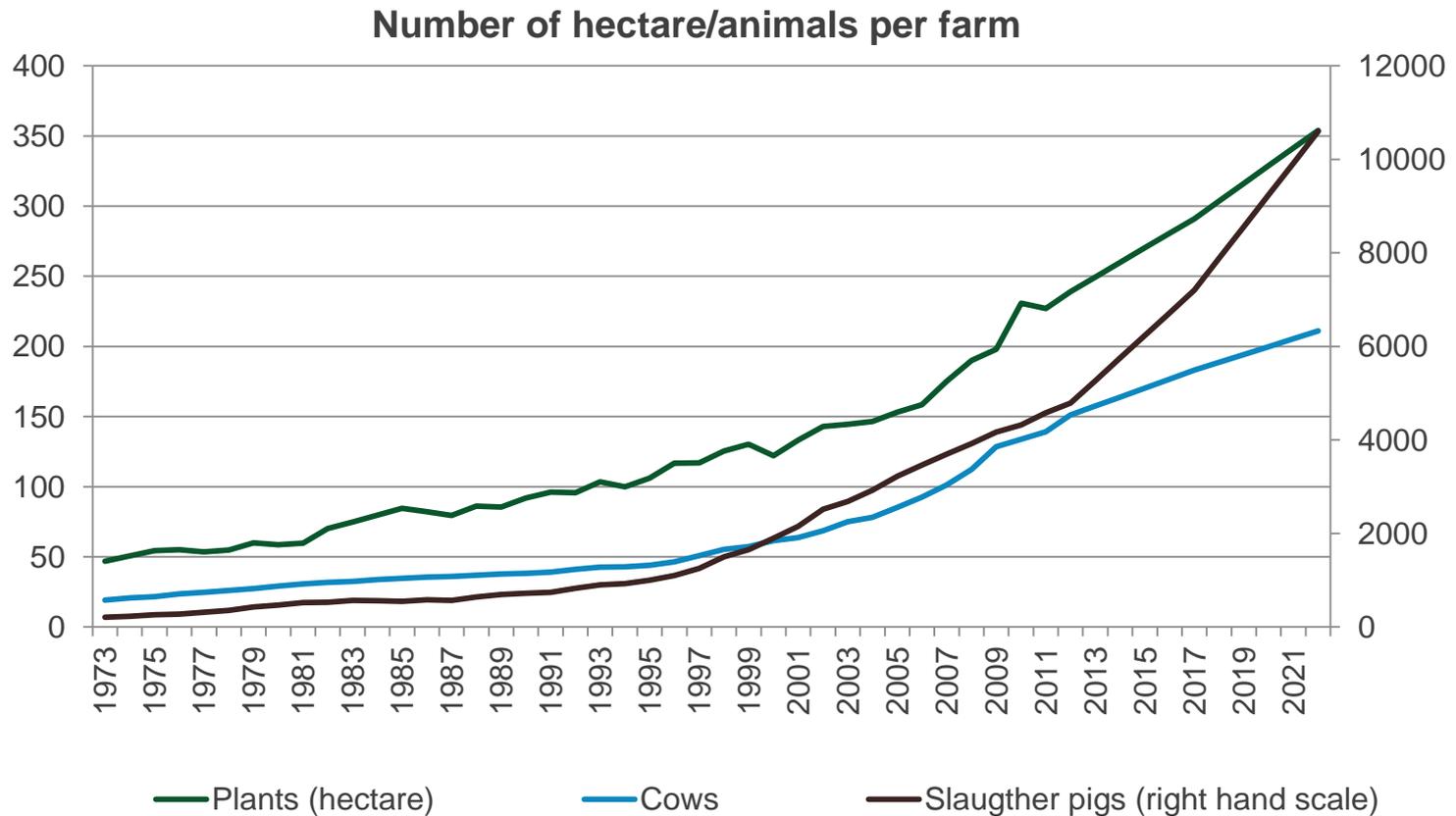
— All farms — Part time farms — Full time farms

Full time farms



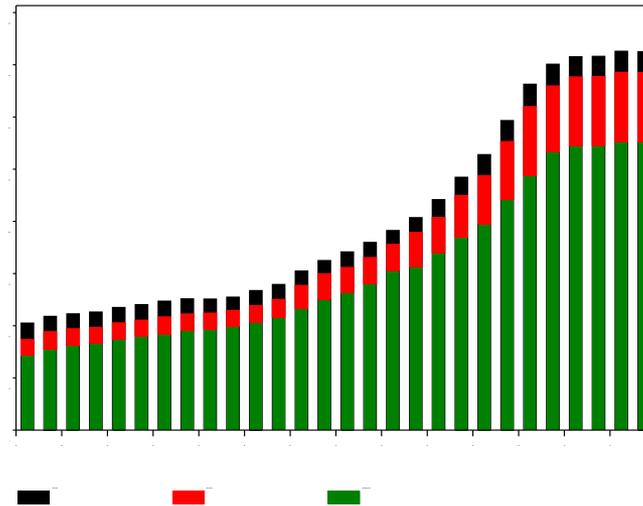
— All full time farms — Plants — Cattle/Milk — Pigs — Fur

Structural development in Danish agriculture



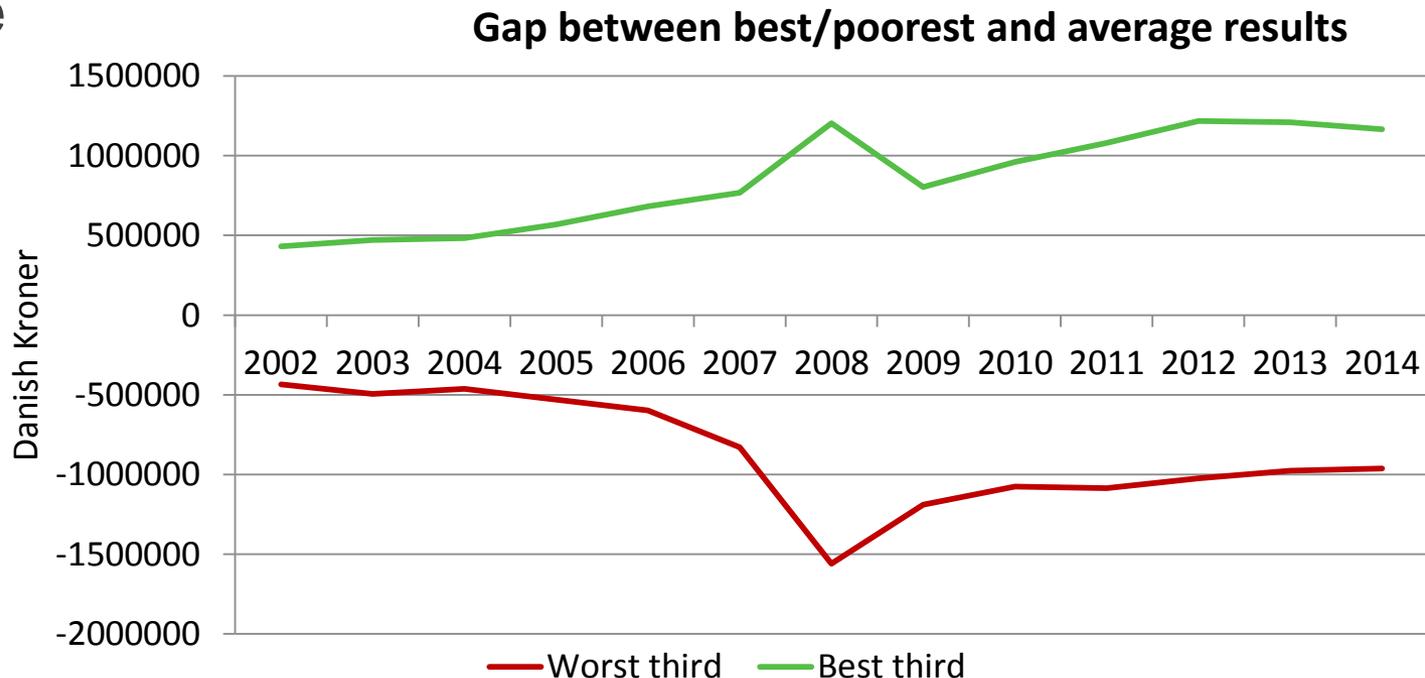
The two biggest challenges of Danish agriculture

- Danish agriculture is technological in front worldwide, and therefore very capital intensive. Highly dependent on a high level of investments and access to capital and credits.
- EU-requirements on the number of hectare per animal unit left many farmers highly indebted by the sharp increase in land prices in the years up to the financial crisis in 2008-2009



The two biggest challenges of Danish agriculture

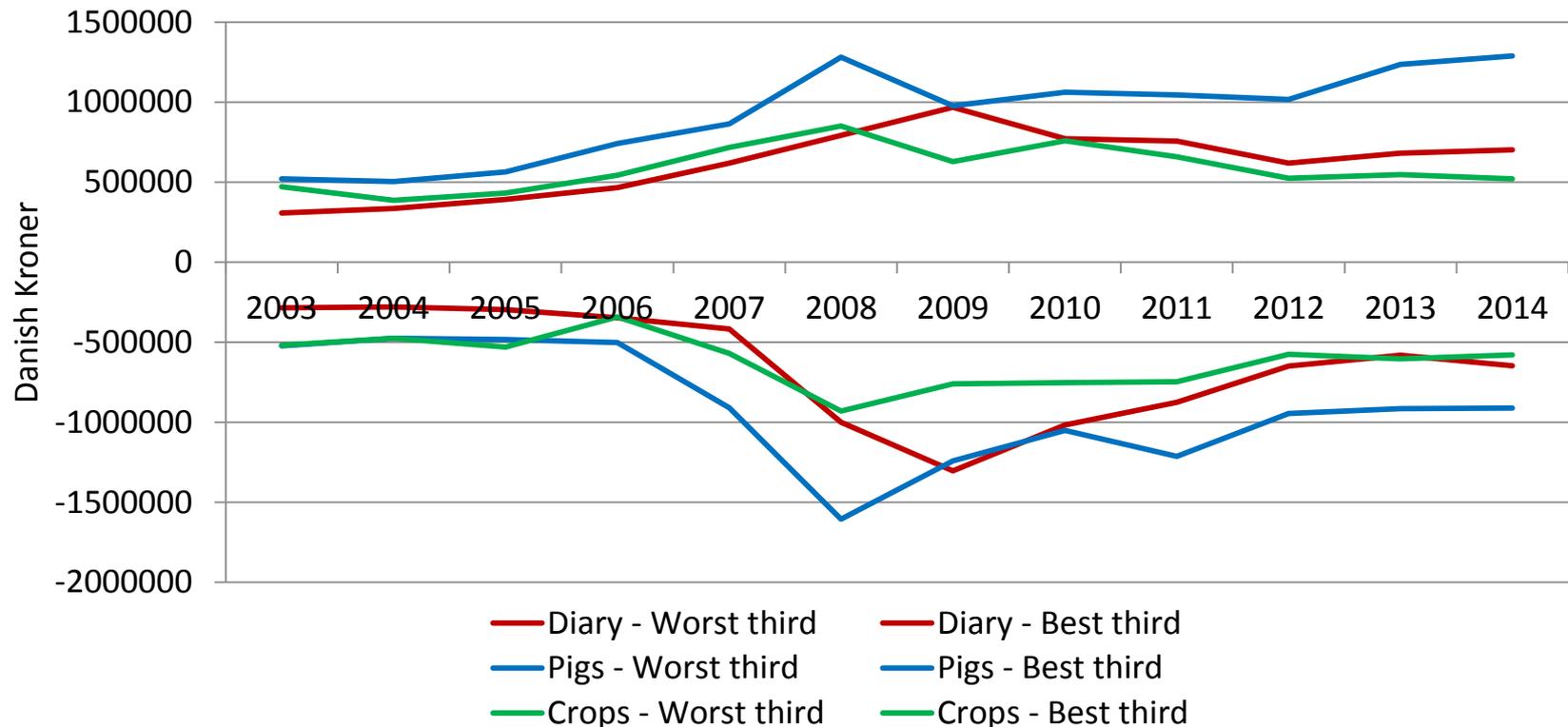
- The possibilities of profit are undermined by environmental requirements and a high taxation, and the financial results of the farmers are heavy diversified
- Approx. +/- 200,000 USD between best/worst third and average



The two biggest challenges of Danish agriculture

- Heaviest diversification within pig production
- But also more than a 200,000 USD gap between best and worst third of other operating activities

Gap between best/worst and average



Credit constrains

- In the aftermath of the financial crisis the high debt and huge differences in profits lead to financial constrains
- The Danish Banks and Mortgage companies are regulated by the Financial Supervisory Authority (FSA), which defines the conditions of lending through regulation of the minimum level of bank liquidity and solvency, valuation of assets, limits of risk exposure etc.
- Using the FSA definitions for limits of credit and risk exposure, valuation of assets etc., we examined the credit constrains and sensibility for the Danish farms

Credit constrains

Center of the requirements are:

- When do you have an “Objective Indication of Depreciation” of collateral behind the lending?
 - Company is in “substantial economic difficulties”
 - Company is violating contracts
 - Company is granted accommodative terms because of the company's economic difficulties
 - Company is likely facing bankruptcy or any kind of reconstruction where the lender loses money

Credit constrains

Putting this into formulas requires special attention and definition of the “significant economic difficulties”. Especially solidity and liquidity is considered:

- We define specific limits of:
 - Negative, weak, vulnerable, strong and very strong solidity
 - Negative, “a little” negative, “a little” positive and positive liquidity
 - “Vulnerable” and “a little” is defined to depict the grey zone
- We use the FSA’s method of valuation:
 - Especially land prices and building valuations differs using the FSA method compared to the book values
 - In total the FSA-valuation of assets is 16,3 pct. lower than the book values assessed by the farmers!

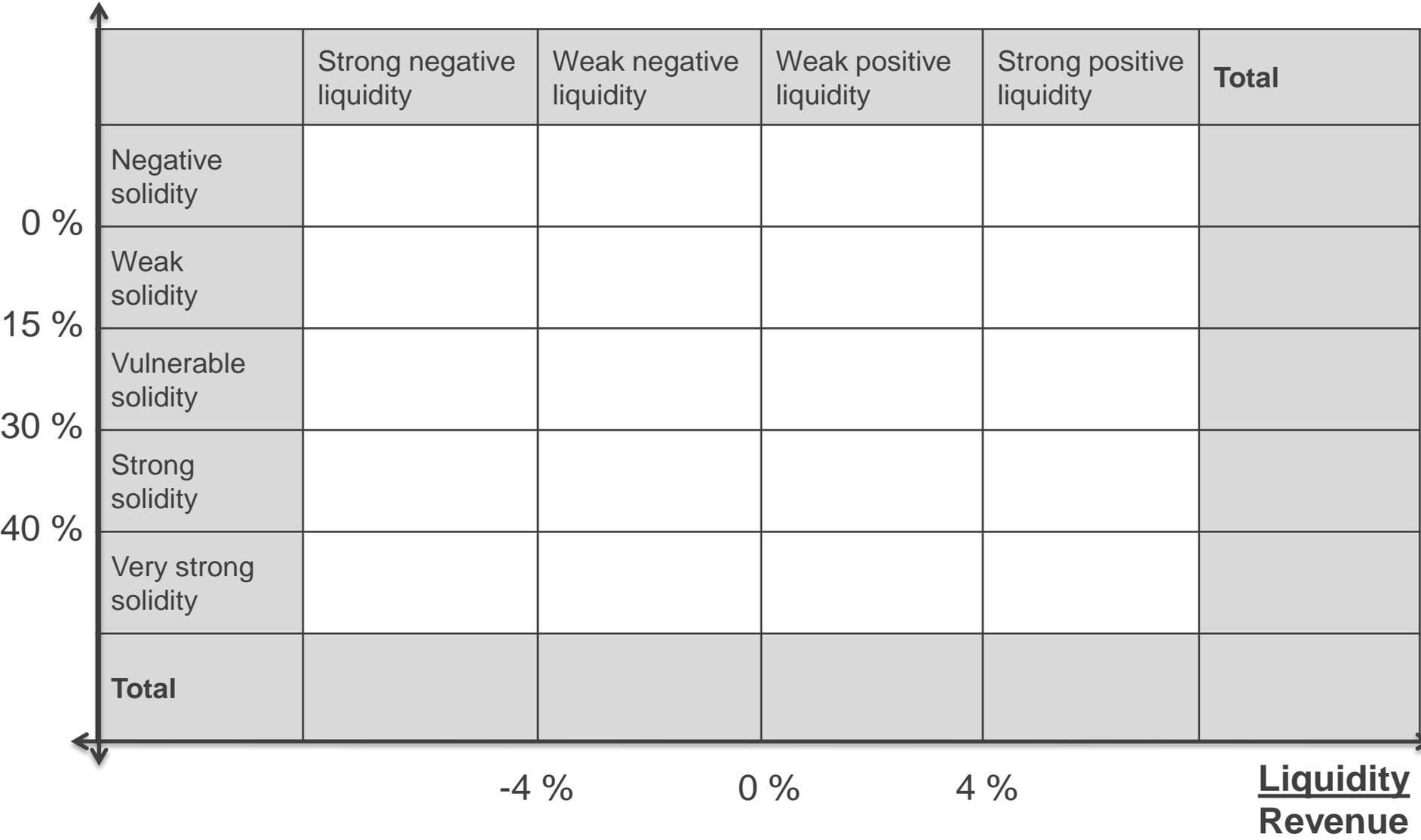
Credit constrains

Also product prices and interest rates has to be adjusted to get a “neutral” picture of the economic performance by the farms:

- The main product prices and interest rates are being business cycle adjusted to be able to evaluate the long term earnings
- The costs and investments are being neutralized by equalizing extraordinary cost
- All other elements are originated in the latest financial report

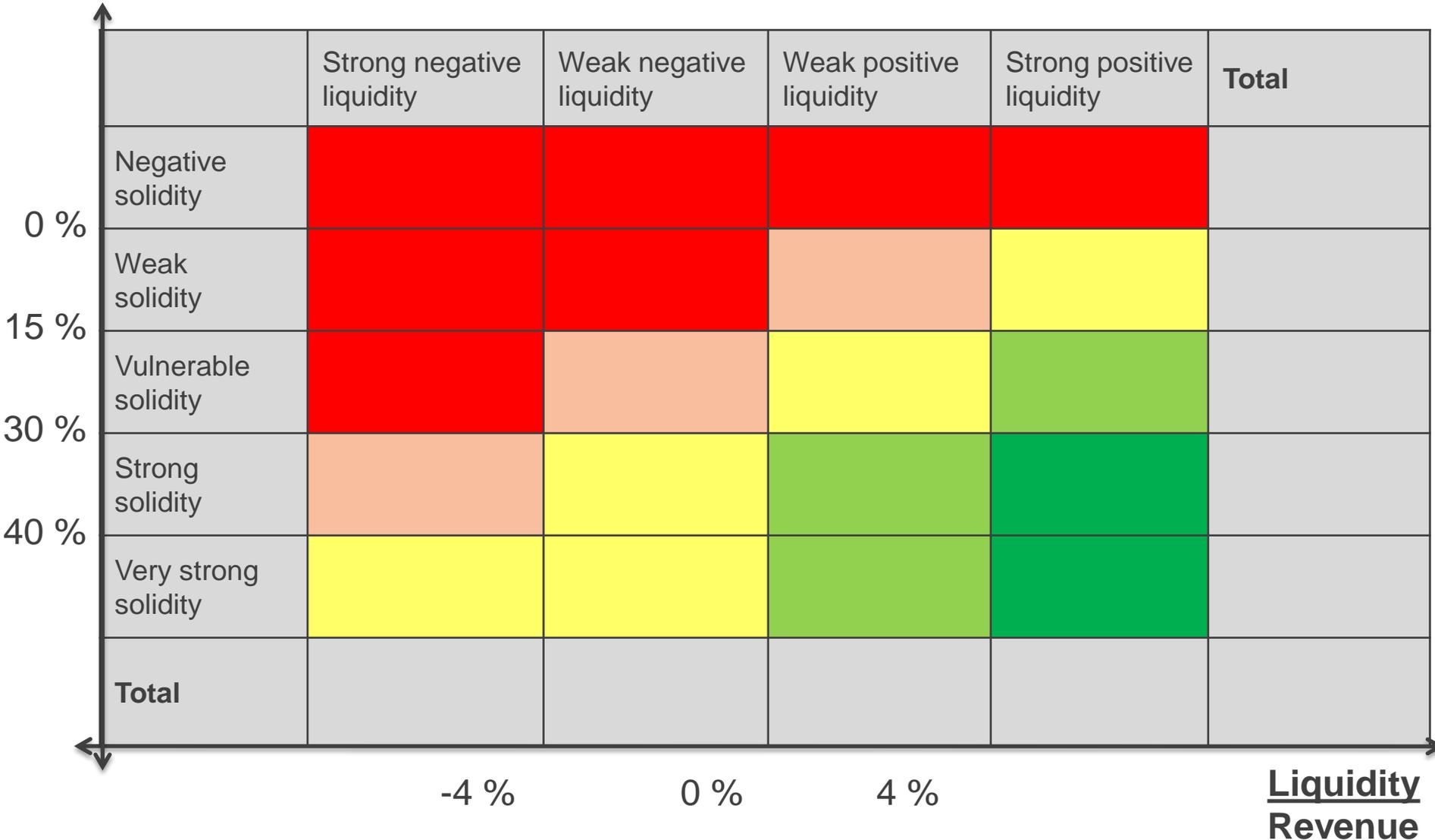
Classification of Danish farms

Solidity



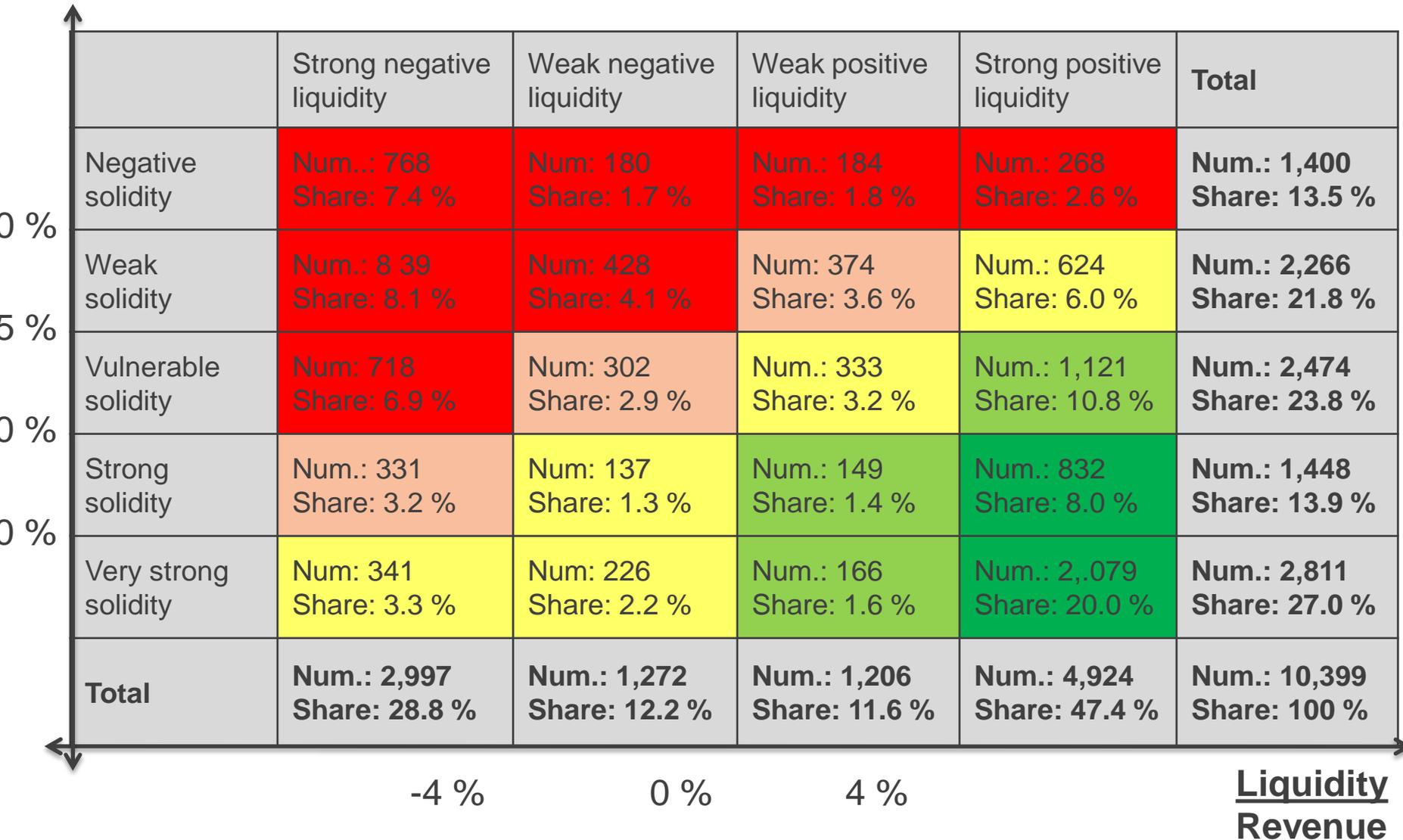
Classification of Danish farms

Solidity



Classification of Danish farms

Solidity



Credit opportunities summerized

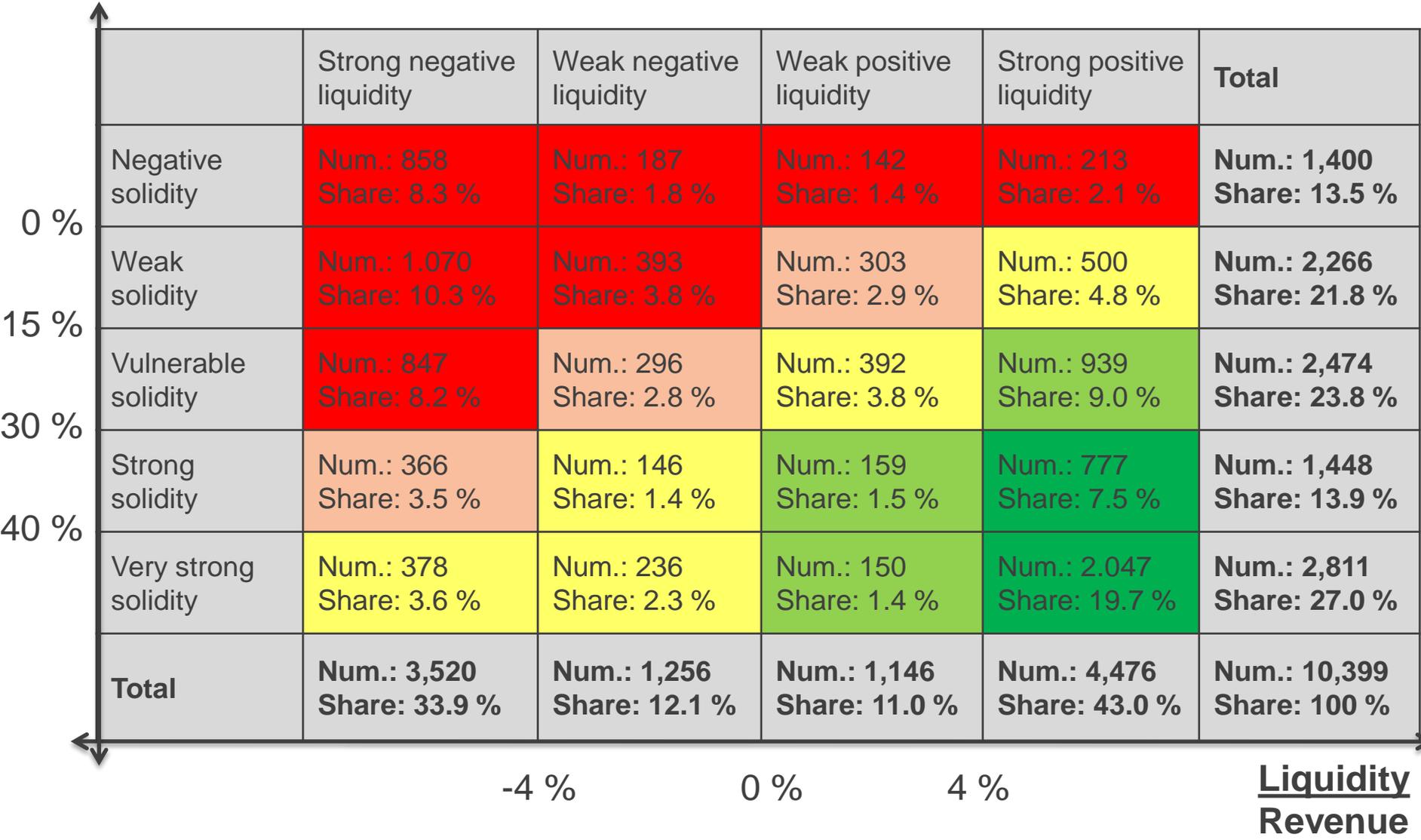
	Credit opportunity	Number	Share
Red	Non	3,386	32.6 pct.
Light red	Very limited	1,007	9.7 pct.
Yellow	Limited	1,660	16.0 pct.
Light green	Often good	1,436	13.8 pct.
Green	Good	2,910	28.0 pct.

A few characteristics of the groups

%	Share	Share of production	Share of high efficiency	Share of bank / mortgage debt	Farmers age
Red	32.6	39.7	39.8	26.2 / 63.6	47.9
Light red	9.7	10.4	52.6	16.4 / 73.8	50.3
Yellow	16.0	17.6	63.8	15.1 / 71.6	50.4
Light green	13.8	13.8	76.3	11.2 / 77,4	49.5
Green	28.0	18.6	74.0	8.6 / 75.2	53.7

Solidity

Distribution by 1 percent point rise interest rates



Credit opportunities before and after a increase in interest rates

Before	Credit opportunity	Number	Share
Red	Non	3,386	32.6 pct.
Light red	Very limited	1,007	9.7 pct.
Yellow	Limited	1,660	16.0 pct.
Light green	Often good	1,436	13.8 pct.
Green	Good	2,910	28.0 pct.

After	Credit opportunity	Number	Share
Red	Non	3,710	35.7 pct.
Light red	Very limited	965	9.3 pct.
Yellow	Limited	1,652	15.9 pct.
Light green	Often good	1,248	12.0 pct.
Green	Good	2,824	27.2 pct.

Classification of milk producers

Solidity

**Liquidity
Revenue**

	Strong negative liquidity	Weak negative liquidity	Weak positive liquidity	Strong positive liquidity	Total
0 % Negative solidity	Num.: 357 Share: 11.3 %	Num.: 121 Share: 3.8 %	Num.: 108 Share: 3.4 %	Num.: 133 Share: 4.2 %	Num.: 719 Share: 22.7 %
15 % Weak solidity	Num.: 252 Share: 8.0 %	Num.: 182 Share: 5.8 %	Num.: 196 Share: 6.2 %	Num.: 248 Share: 7.9 %	Num.: 878 Share: 27.8 %
30 % Vulnerable solidity	Num.: 114 Share: 3.6 %	Num.: 98 Share: 3.1 %	Num.: 127 Share: 4.0 %	Num.: 354 Share: 11.2 %	Num.: 694 Share: 22.0 %
40 % Strong solidity	Num.: 52 Share: 1.7 %	Num.: 21 Share: 0.7 %	Num.: 54 Share: 1.7 %	Num.: 182 Share: 5.8 %	Num.: 309 Share: 9.8 %
Very strong solidity	Num.: 30 Share: 1.0 %	Num.: 24 Share: 0.7 %	Num.: 50 Share: 1.6 %	Num.: 456 Share: 14.4 %	Num.: 561 Share: 17.7 %
Total	Num.: 805 Share: 25.5 %	Num.: 446 Share: 14.1 %	Num.: 536 Share: 17.0 %	Num.: 1,374 Share: 43.4 %	Num.: 3,161 Share: 100 %

-4 %

0 %

4 %

Credit opportunities before and after a 3 cent fall in milk prices

Before	Credit opportunity	Number	Share
Red	Non	1,267	40.1 pct.
Light red	Very limited	346	11.0 pct.
Yellow	Limited	450	14.2 pct.
Light green	Often good	458	14.5 pct.
Green	Good	638	20.2 pct.

After	Credit opportunity	Number	Share
Red	Non	1,518	48.0 pct.
Light red	Very limited	303	9.6 pct.
Yellow	Limited	442	14.0 pct.
Light green	Often good	335	10.6 pct.
Green	Good	561	17.8 pct.

Classification of pig producers

Solidity
**Liquidity
Revenue**

	Strong negative liquidity	Weak negative liquidity	Weak positive liquidity	Strong positive liquidity	Total
0 % Negative solidity	Num.: 248 Share: 9.7 %	Num.: 44 Share: 1.7 %	Num.: 49 Share: 1.9 %	Num.: 98 Share: 3.9 %	Num.: 439 Share: 17.2 %
15 % Weak solidity	Num.: 264 Share: 10.4 %	Num.: 141 Share: 5.5 %	Num.: 128 Share: 5.0 %	Num.: 222 Share: 8.7 %	Num.: 755 Share: 29.6 %
30 % Vulnerable solidity	Num.: 195 Share: 7.7 %	Num.: 120 Share: 4.7 %	Num.: 116 Share: 4.6 %	Num.: 266 Share: 10.4 %	Num.: 697 Share: 27.4 %
40 % Strong solidity	Num.: 35 Share: 1.4 %	Num.: 35 Share: 1.4 %	Num.: 53 Share: 2.1 %	Num.: 142 Share: 5.6 %	Num.: 266 Share: 10.4 %
Very strong solidity	Num.: 43 Share: 1.7 %	Num.: 33 Share: 1.3 %	Num.: 21 Share: 0.8 %	Num.: 296 Share: 11.6 %	Num.: 393 Share: 15.4 %
Total	Num.: 786 Share: 30.8%	Num.: 373 Share: 14.6 %	Num.: 367 Share: 14.4 %	Num.: 1,024 Share: 40.2 %	Num.: 2,550 Share: 100 %

-4 %

0 %

4 %

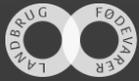
Credit opportunities before and after a 13 cent fall in pig meat prices

Before	Credit opportunity	Number	Share
Red	Non	1,039	40.8 pct.
Light red	Very limited	283	11.1 pct.
Yellow	Limited	449	17.6 pct.
Light green	Often good	340	13.3 pct.
Green	Good	438	17.2 pct.

After	Credit opportunity	Number	Share
Red	Non	1,261	49.5 pct.
Light red	Very limited	299	11.7 pct.
Yellow	Limited	367	14.4 pct.
Light green	Often good	253	9.9 pct.
Green	Good	372	14.6 pct.

Hope, I have inspired you to do some research – despite the initial use of time 😊





KNOWLEDGE CENTRE FOR AGRICULTURE

**Thank you for your
attention!**