

# Competitiveness of Namibian sheep production

## in the global context

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*agri benchmark* Beef and Sheep Network





stock



production



consumption



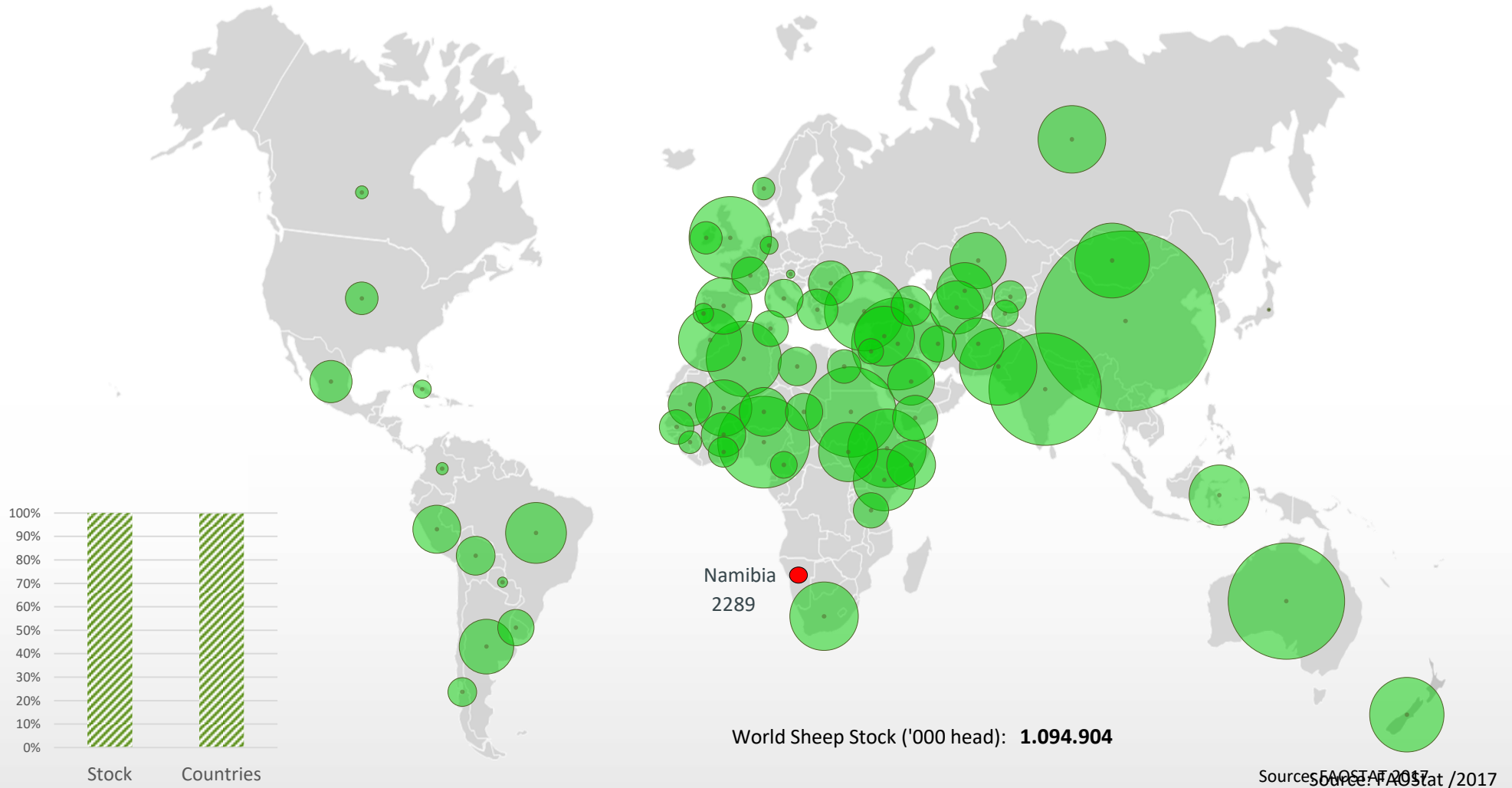
price



trade

## The context

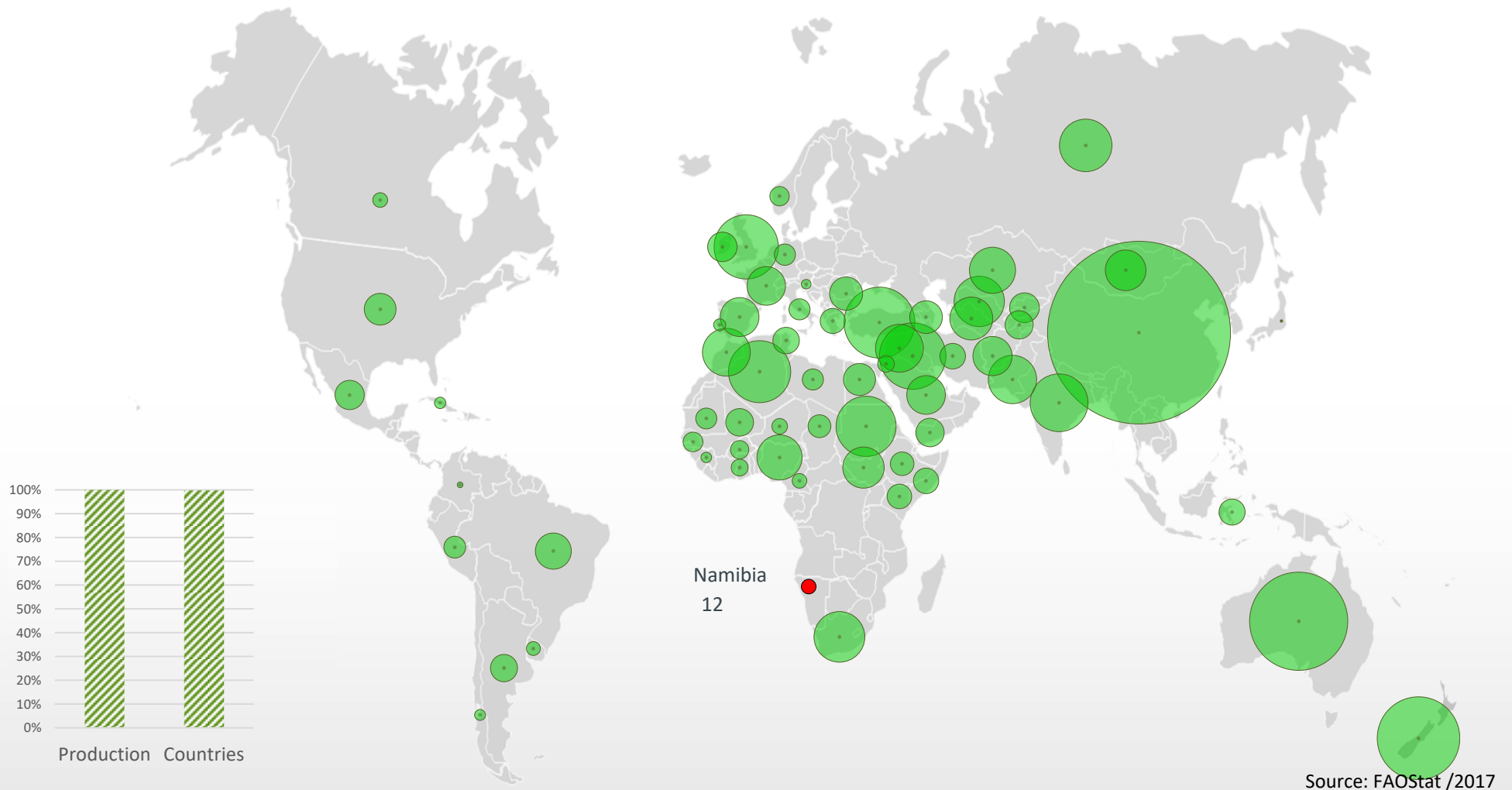
# Global sheep stocks 2016 (1,000 head)



# Global sheep meat production 2016 (1,000 tons)



production

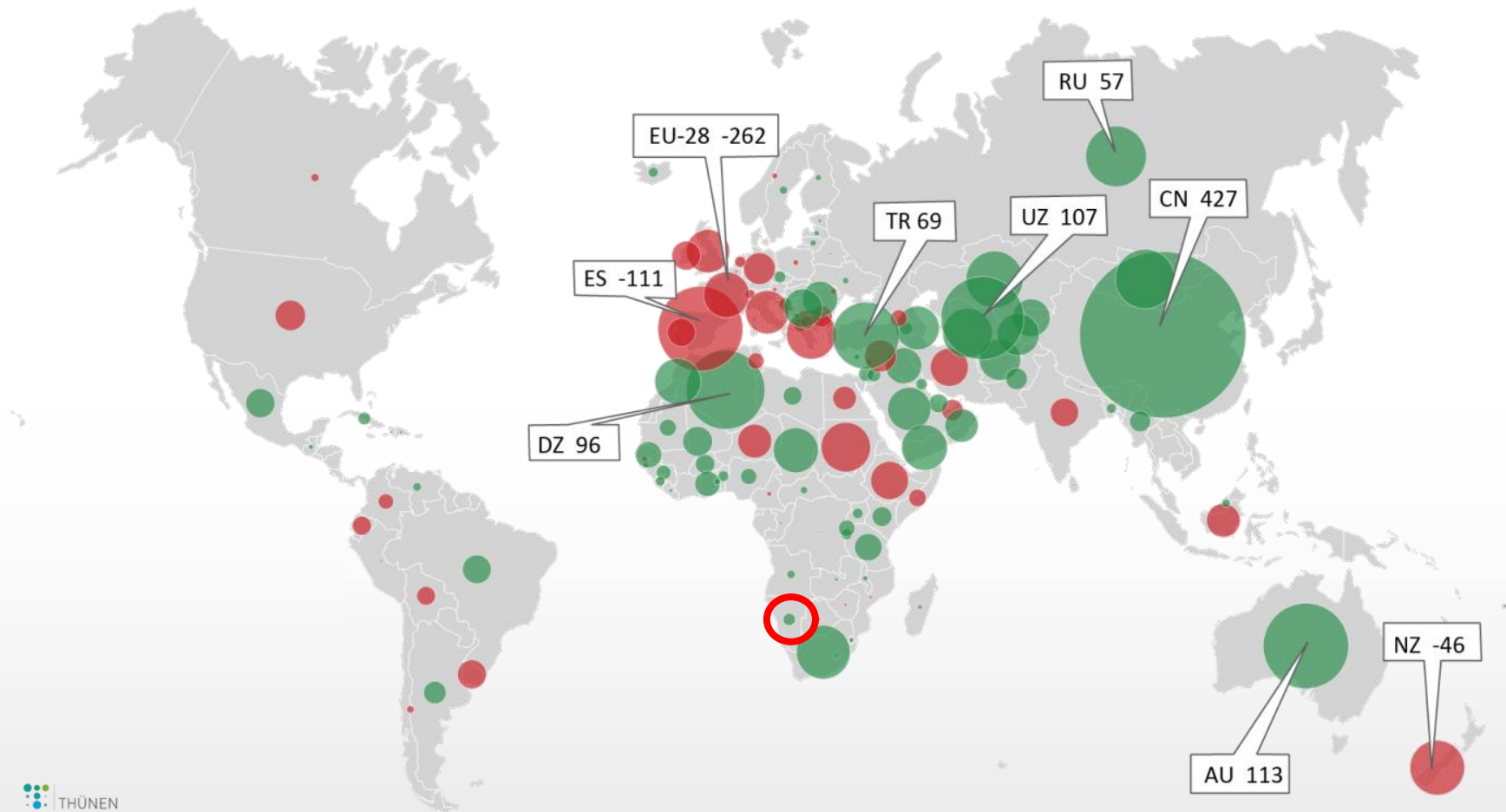


# Absolute change in global sheep meat production

(1,000 tons) 2014 - 2016 vs. 2004 - 2006



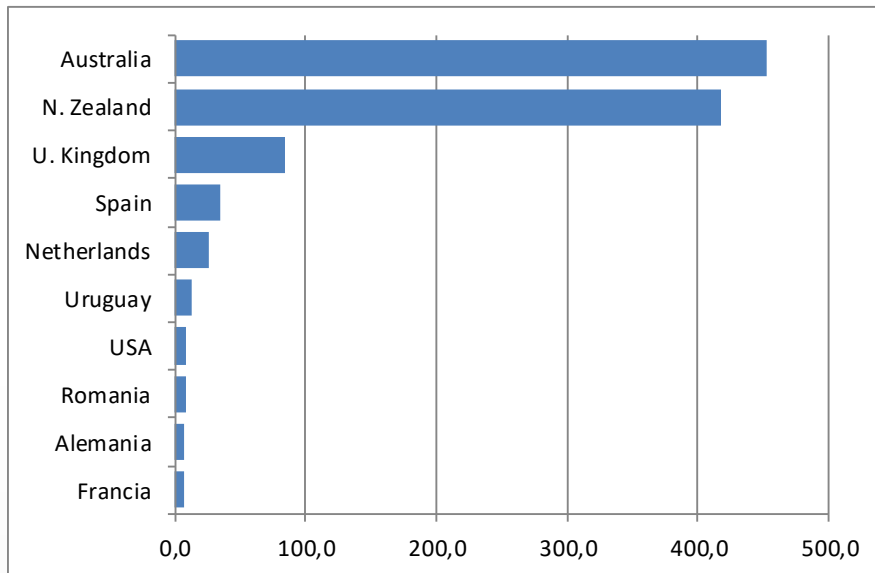
production



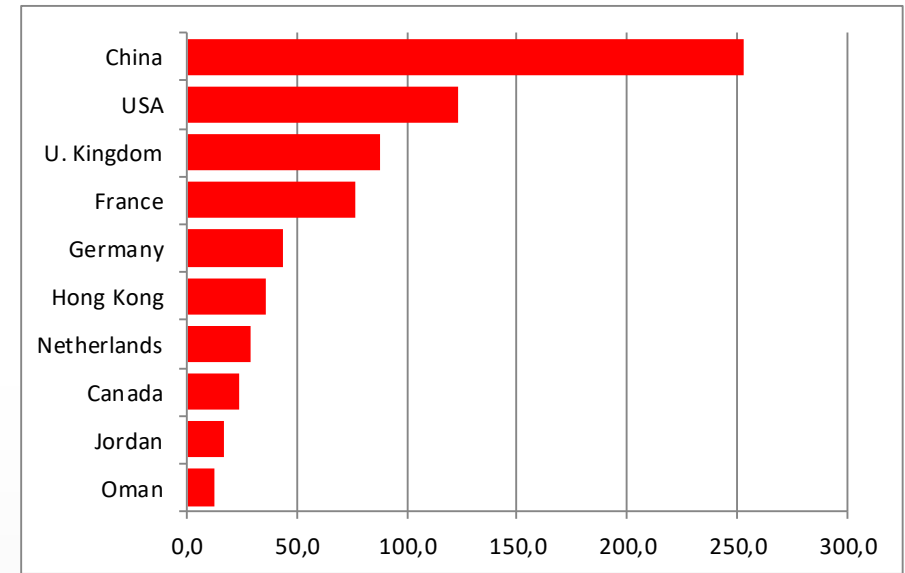
Source: FAOStat 12/2017, own calculations

# Trade (Main export/import countries)

Top ten Exports (million t)

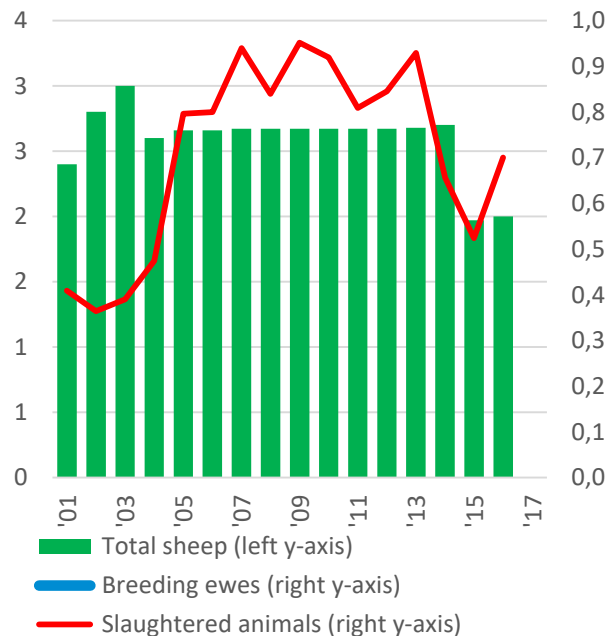


Top ten Imports (million t)

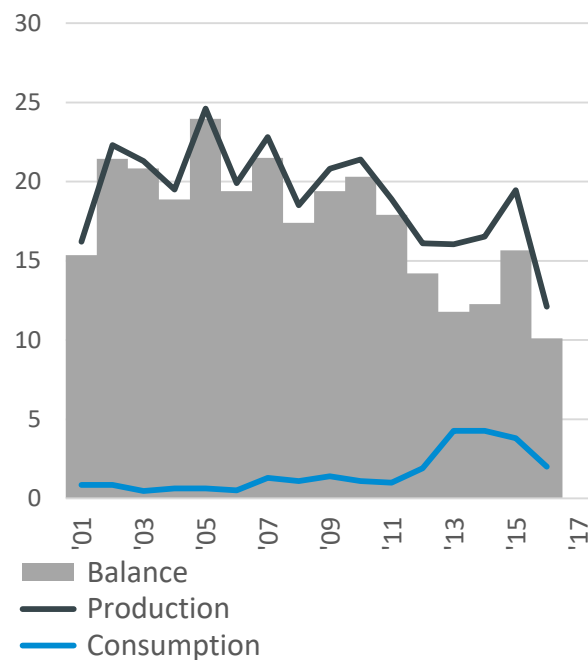


# NAMIBIA – Sheep variables evolution

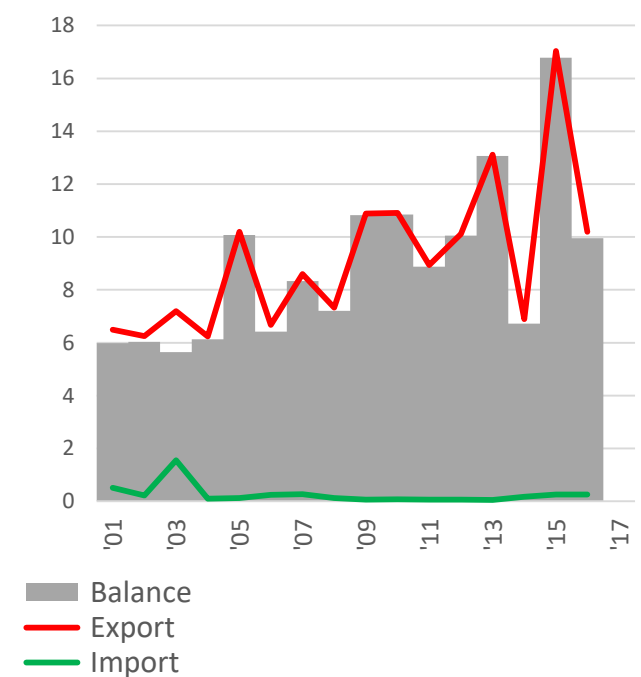
**Inventories**  
(million head)



**Sheep balance**  
'000 t



**Trade balance**  
'000 t





trade

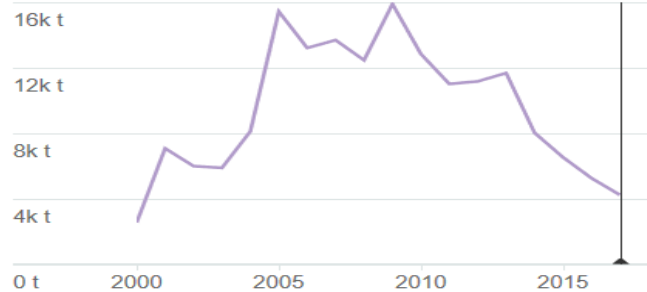
# Namibia – sheep meat exports 2017 (top 5 partners)

## TOP 5

1	Namibia to South Africa	3.5k t
2	Namibia to Norway	60 t
3	Namibia to Botswana	3 t
4	Namibia to Angola	1 t
5	Namibia to France	0 t

Total weight

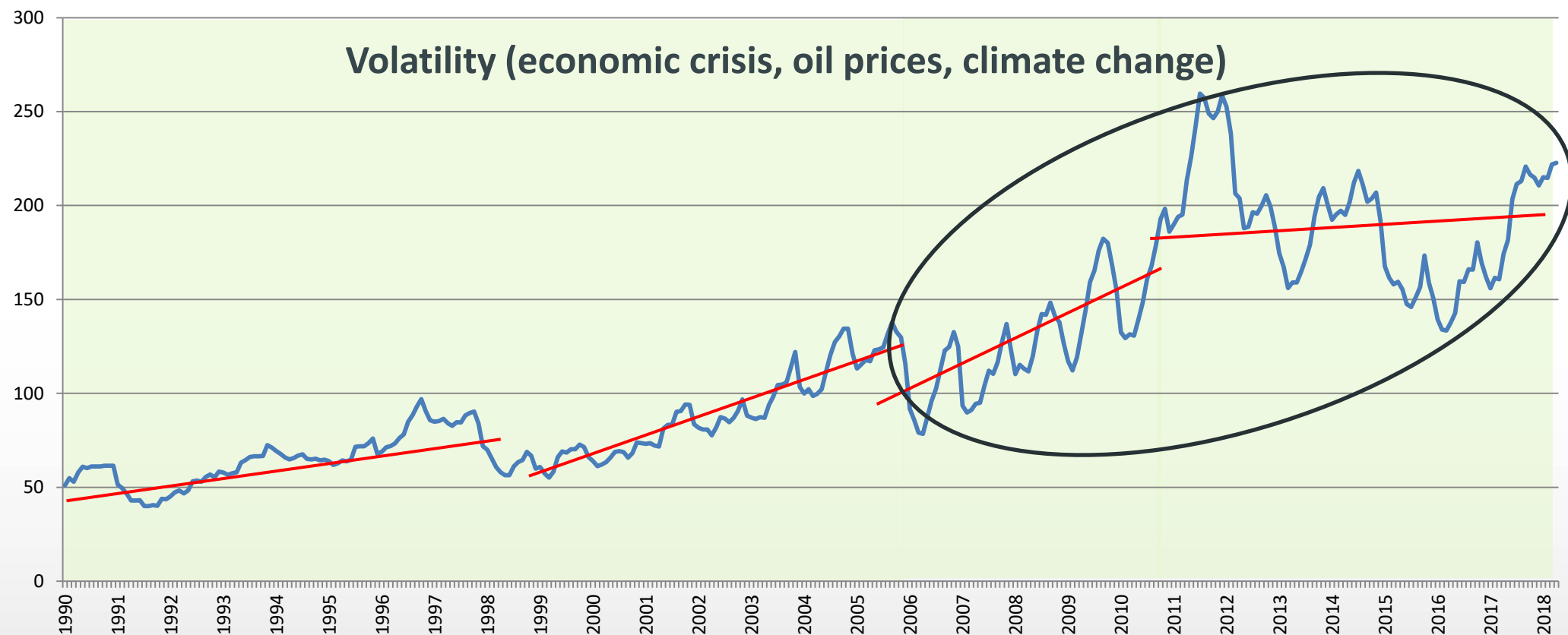
**3.6k t**





price

# Global sheep meat price evolution 1990 – 2018

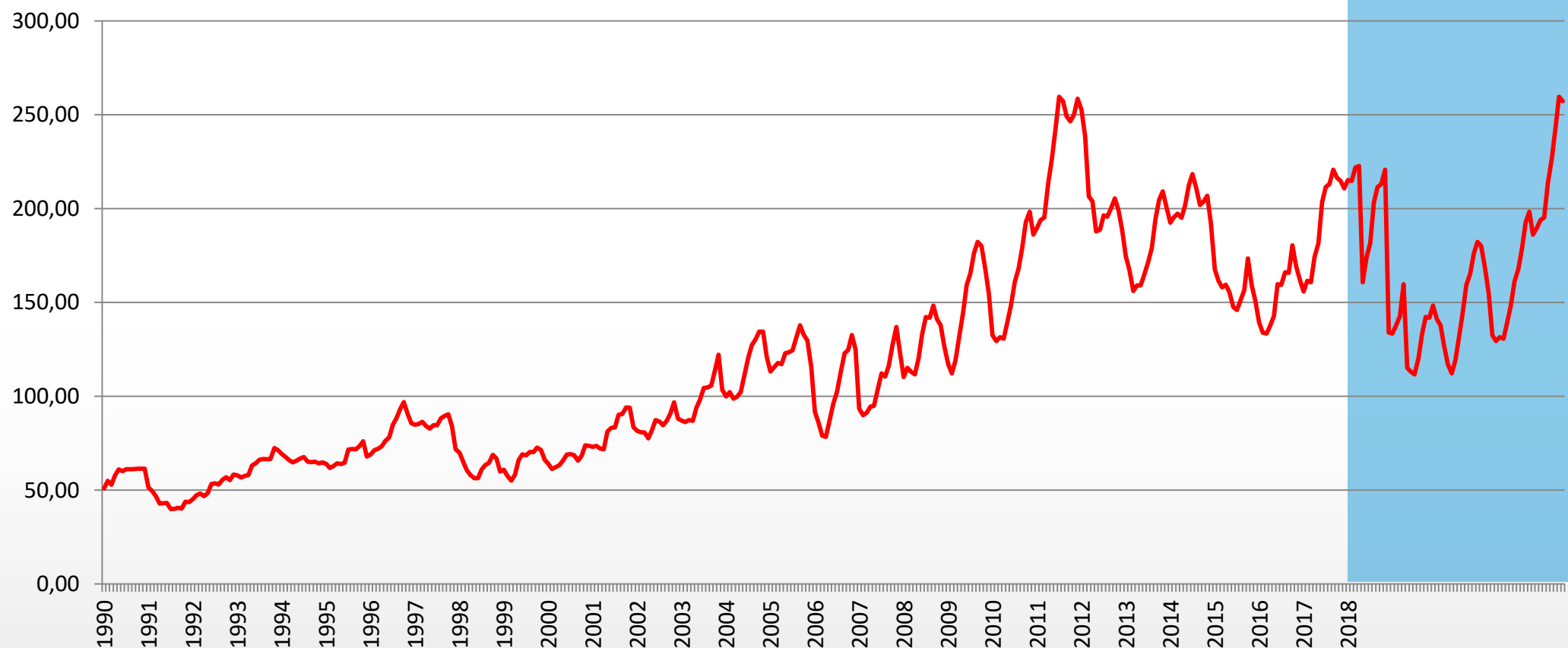


Source: FAO/Meat price index



price

# Global sheep meat price forecast 2018– 2022



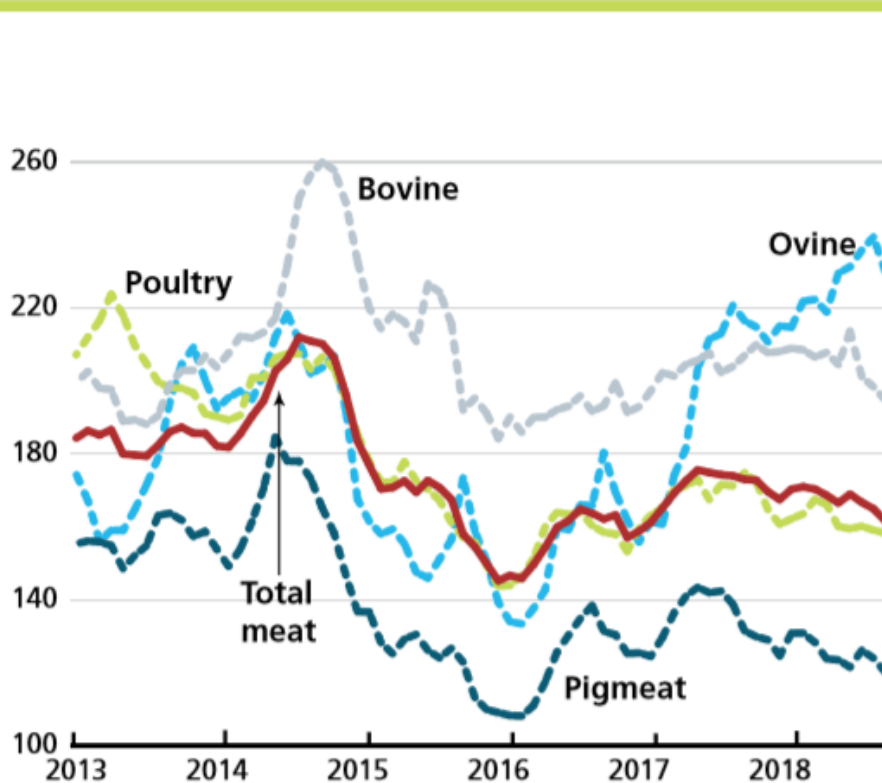
Source: FAO/Meat price index



price

## International meat price index for comparison

### FAO INTERNATIONAL MEAT PRICE INDEX (2002-2004 = 100)



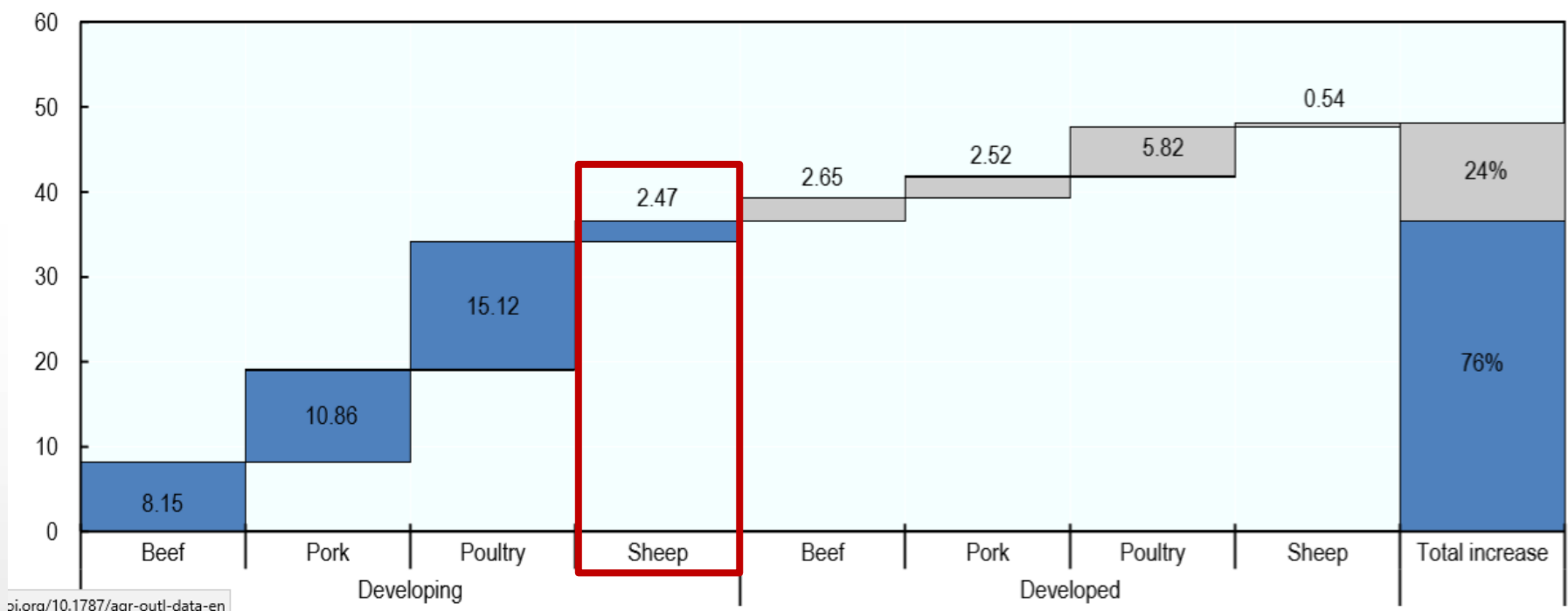
- High records pricing for lamb last 15 years (>40%), compare to chicken (6%) and pork (31%), may affect consumption

Source: FAO/Meat price index

# Forecasting production

**Figure 6.4. Growth of meat production by region and meat type**

- Sheep meat production will experience a higher rate of growth than that of the previous decade (growth done mainly by developing countries)

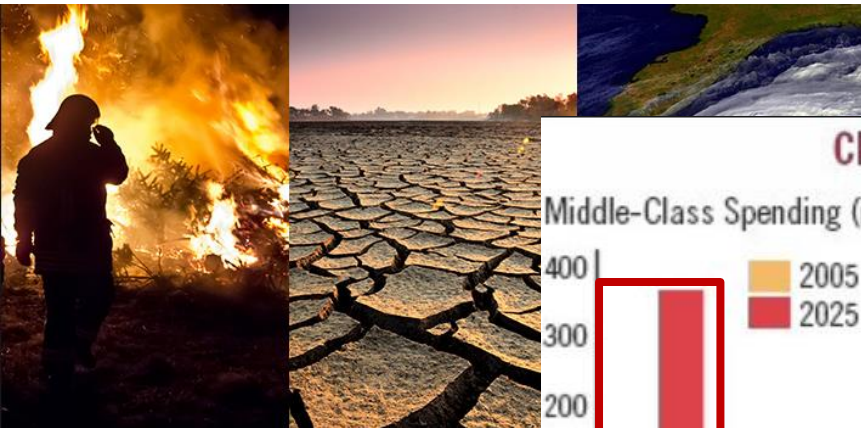


OECD-FAO AGRICULTURAL OUTLOOK 2018-2027 © OECD 2018

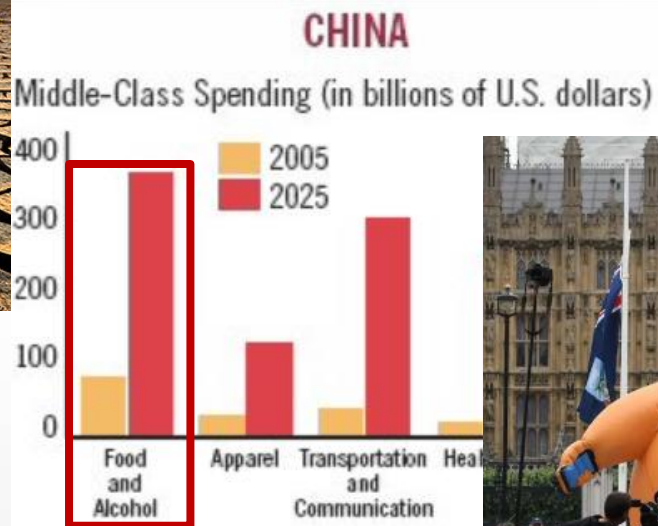
Source: FAO/Meat price index

# Trends and perspectives

Four major elements are (will) globally influencing production, consumption and trade



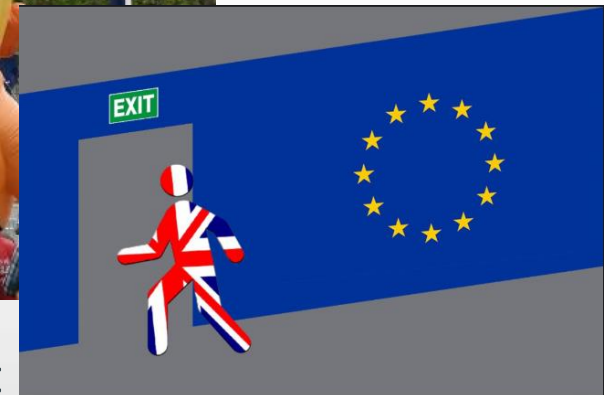
Climate change



Chinese middle class preferences



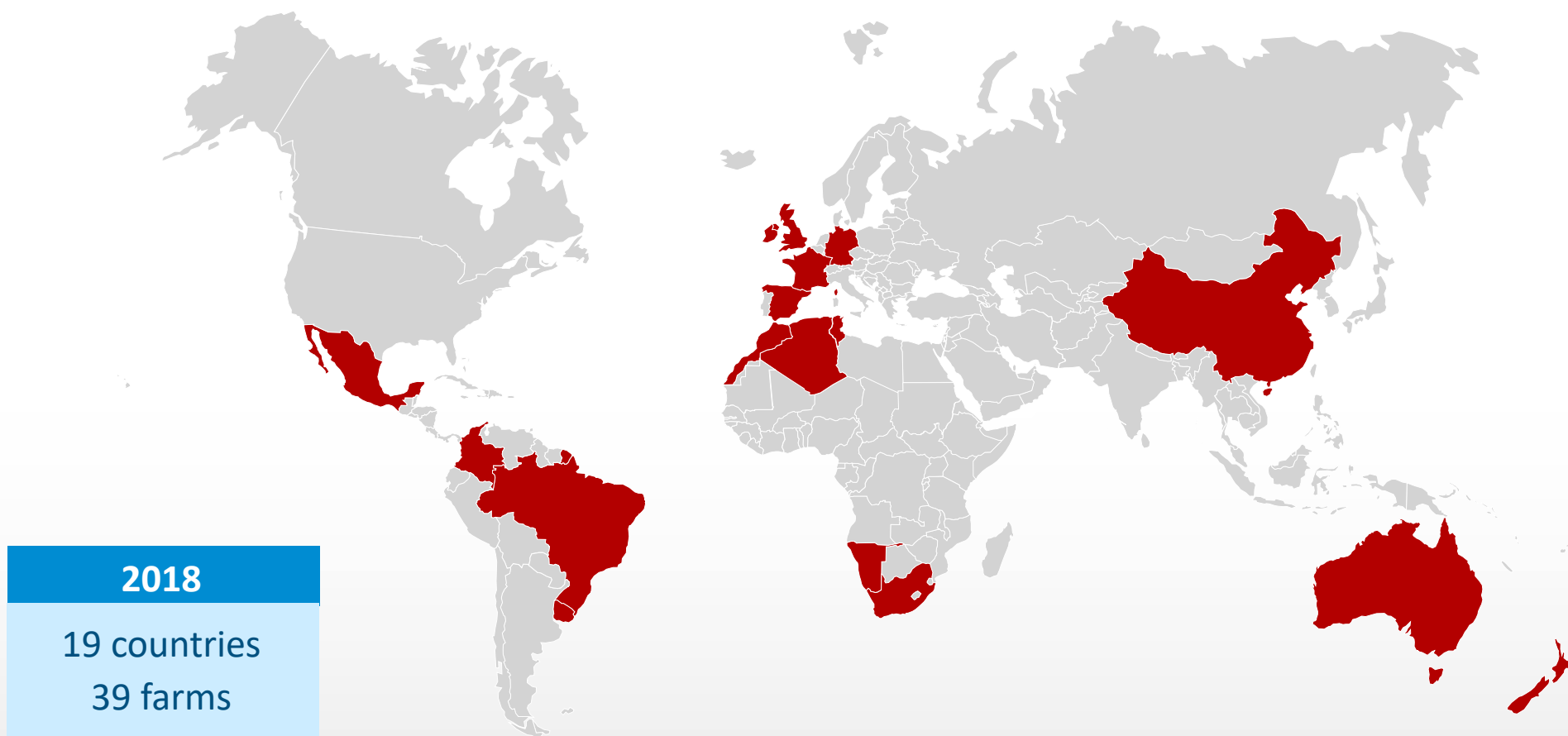
US – International policy trade



Brexit

# Behind competitiveness

## *agri benchmark* - Sheep network

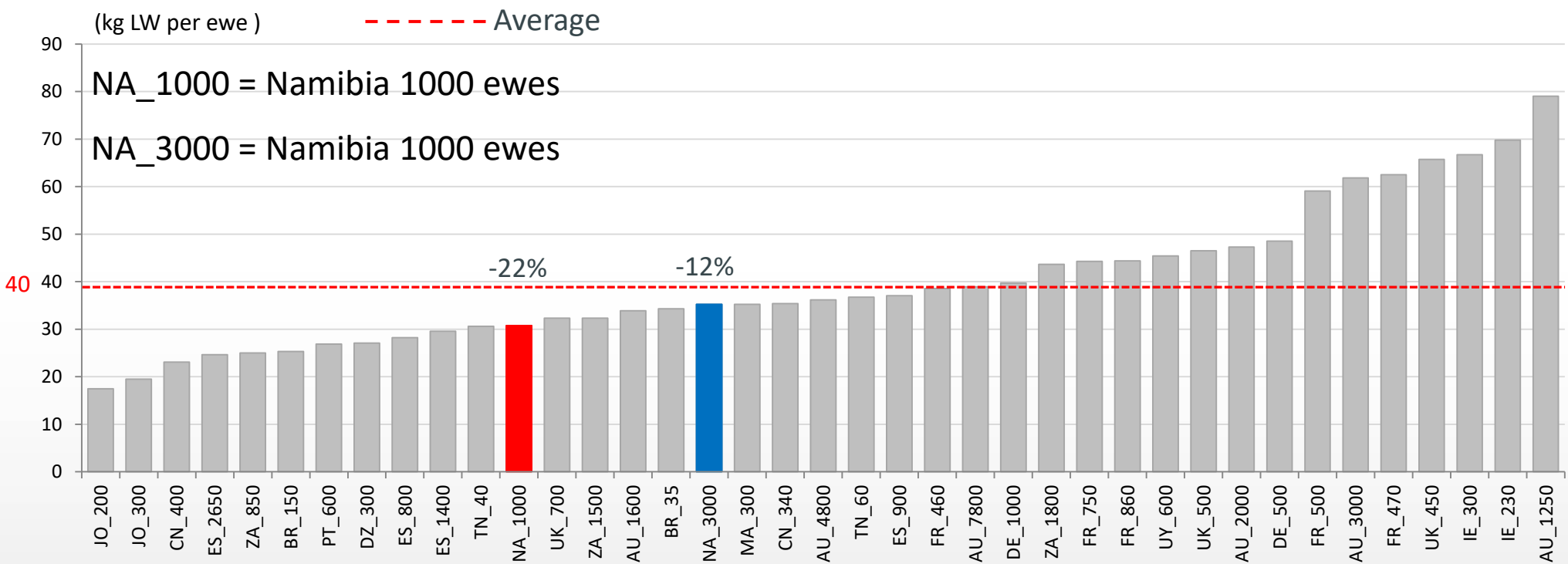


- Analyzing typical farms, production systems and their profitability.



$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$

## Total live weight sold per ewe

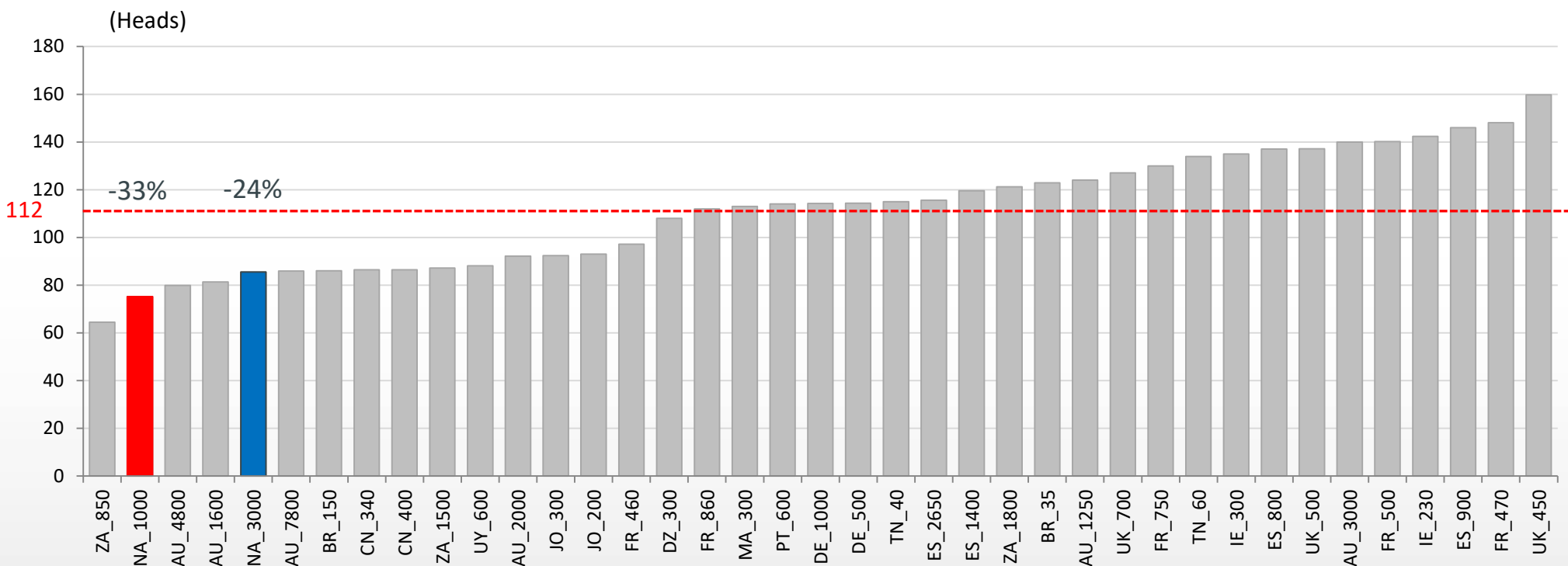


Source: agri benchmark dataset, preliminary results 2018

Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$

## Weaned lambs per 100 ewes and year

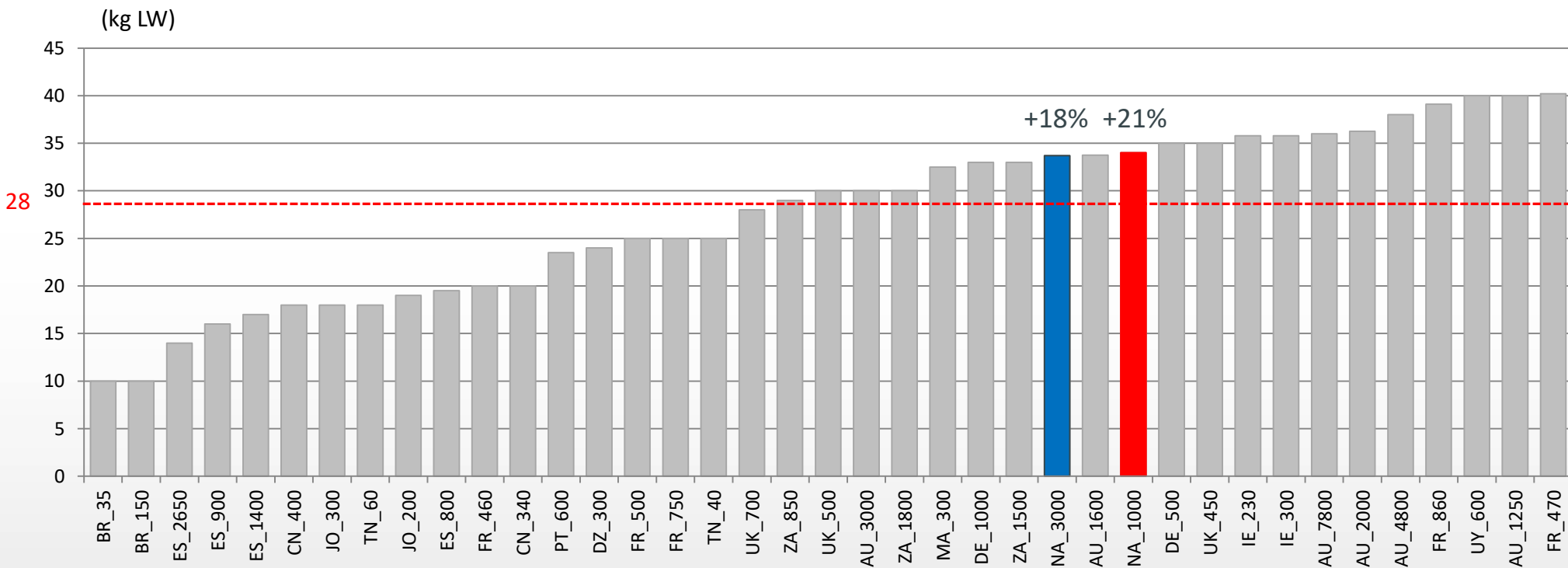


Source: agri benchmark dataset, preliminary results 2018

Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$

## Weaning weights

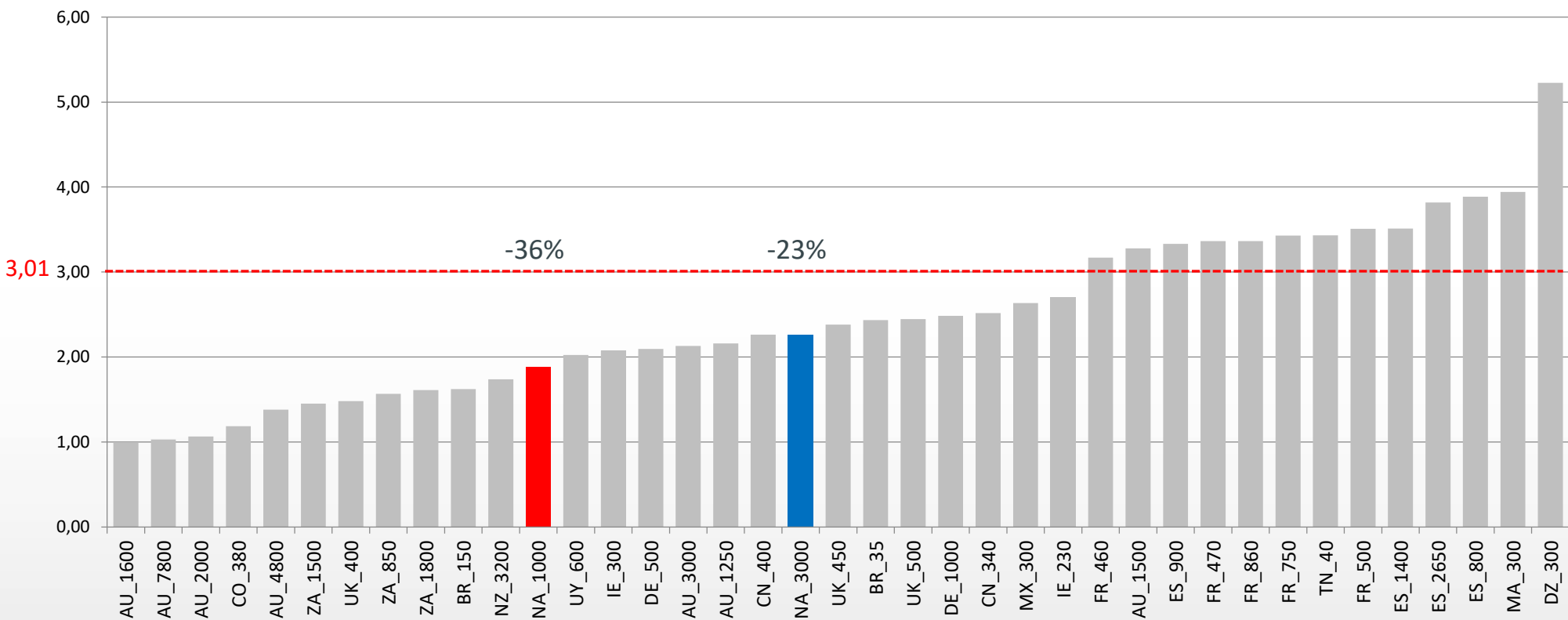


Source: agri benchmark dataset, preliminary results 2018

Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$

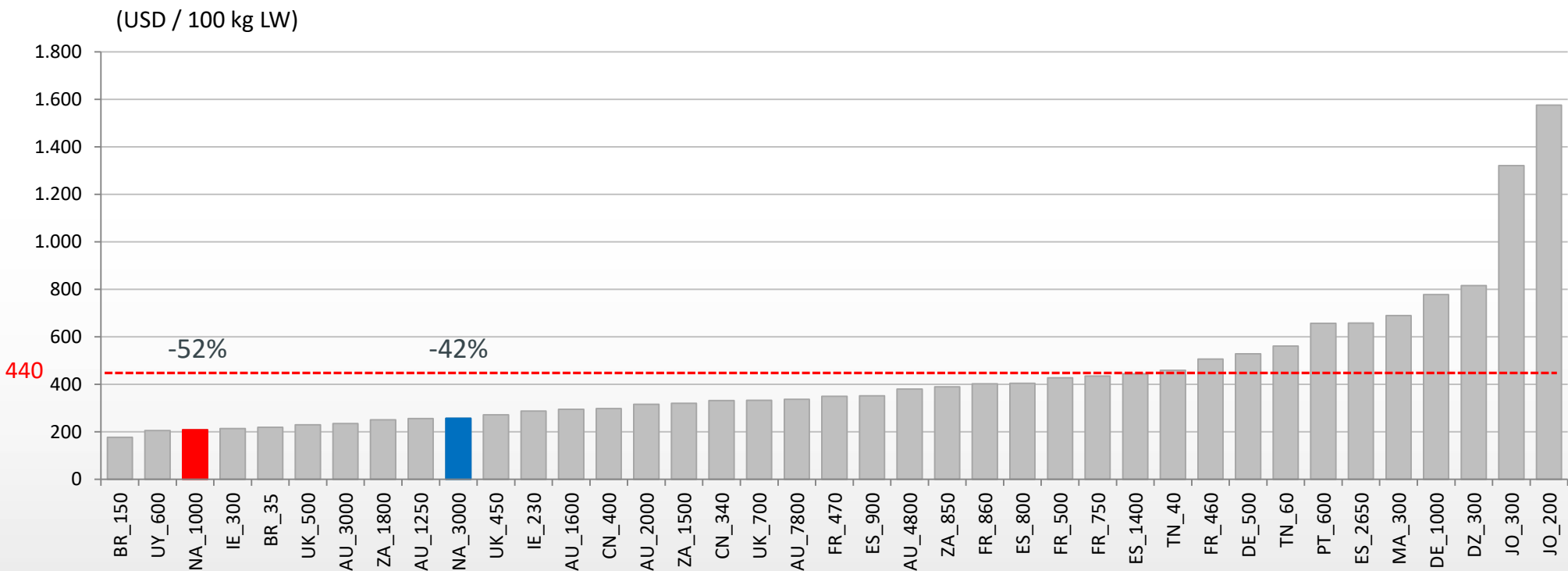
## Meat prices per kg LW



Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$

## Total returns of the ewe Enterprise

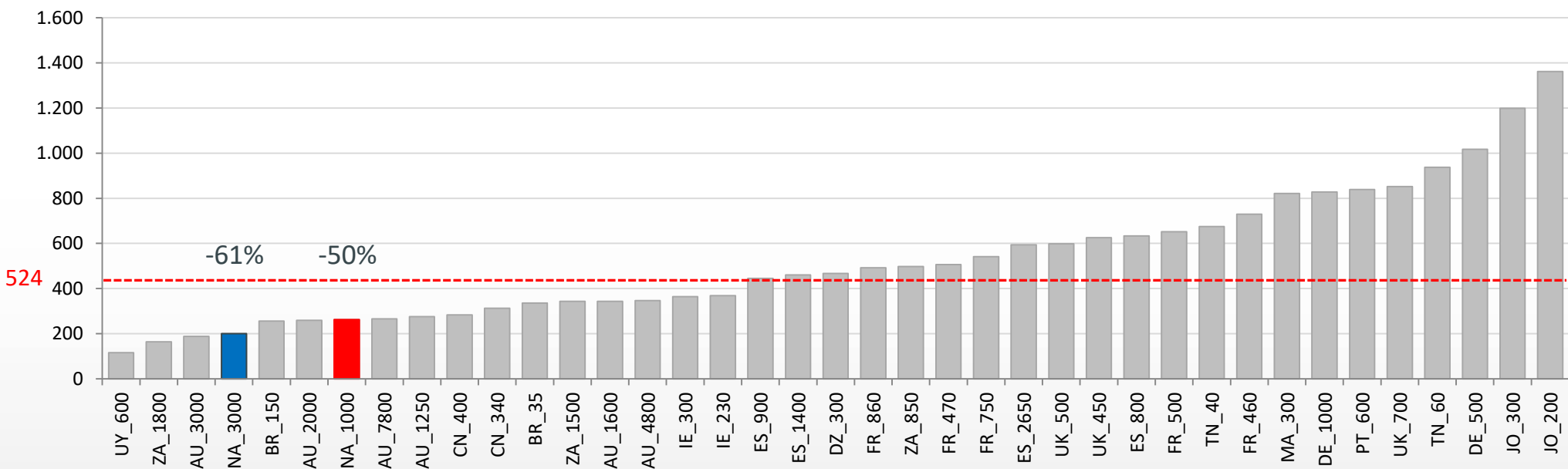


Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Revenue} - \text{Cost} = \text{Profit}$$

## Total costs of the ewe enterprise

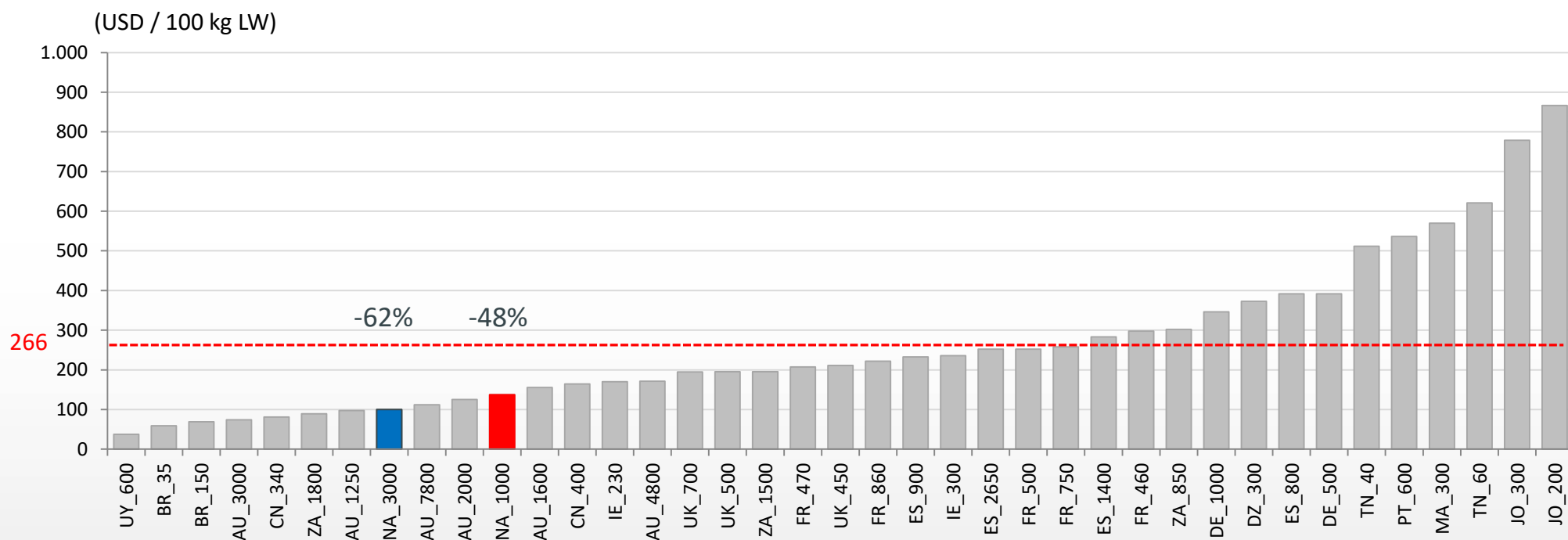
(USD / 100 kg LW)



Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Revenue} - \text{Cost} = \text{Profit}$$

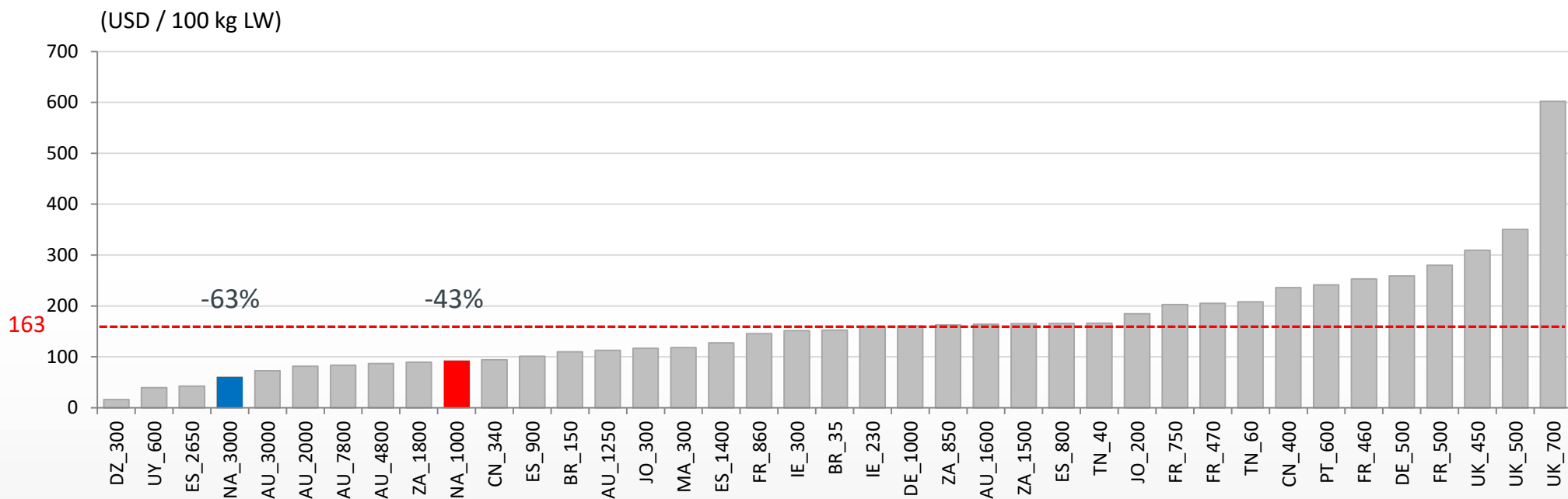
## Feed costs



Source: agri benchmark database 2018

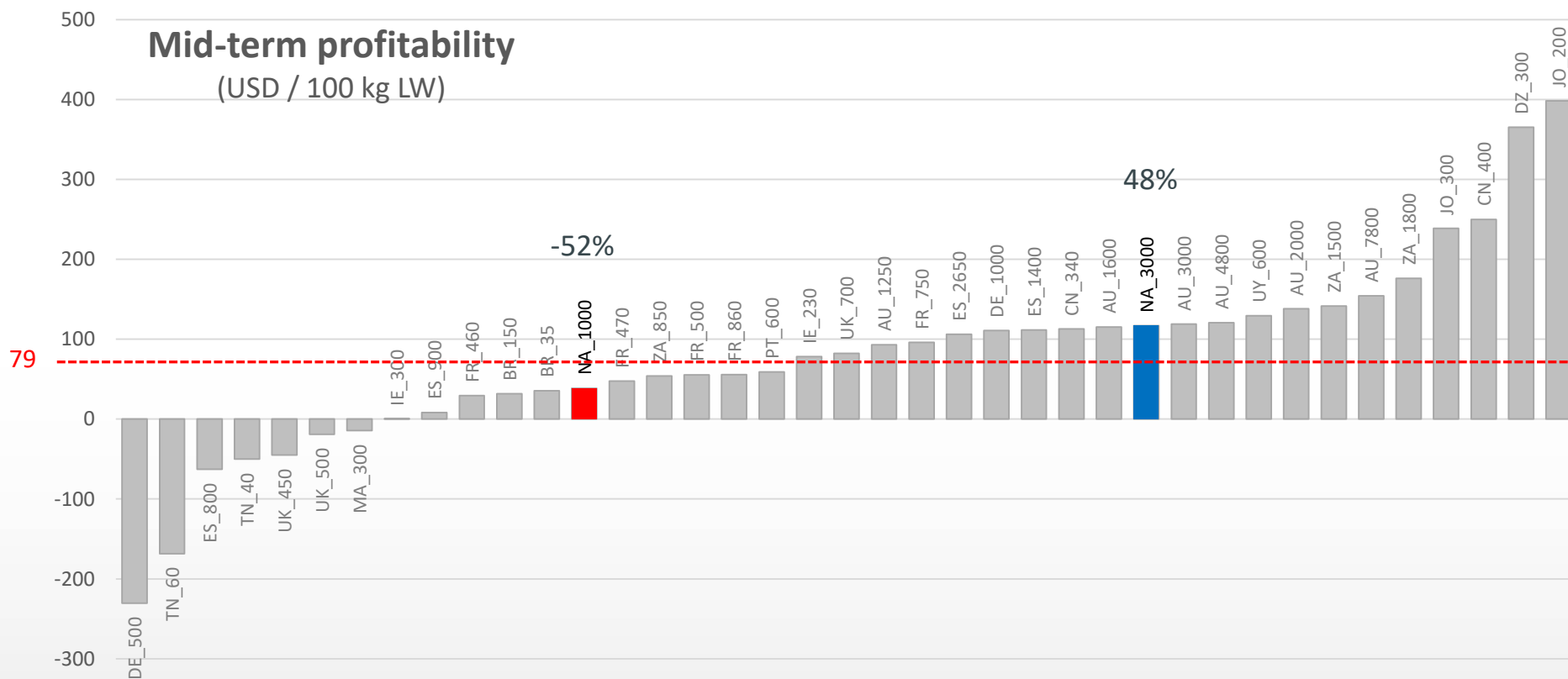
$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$

## Opportunity costs



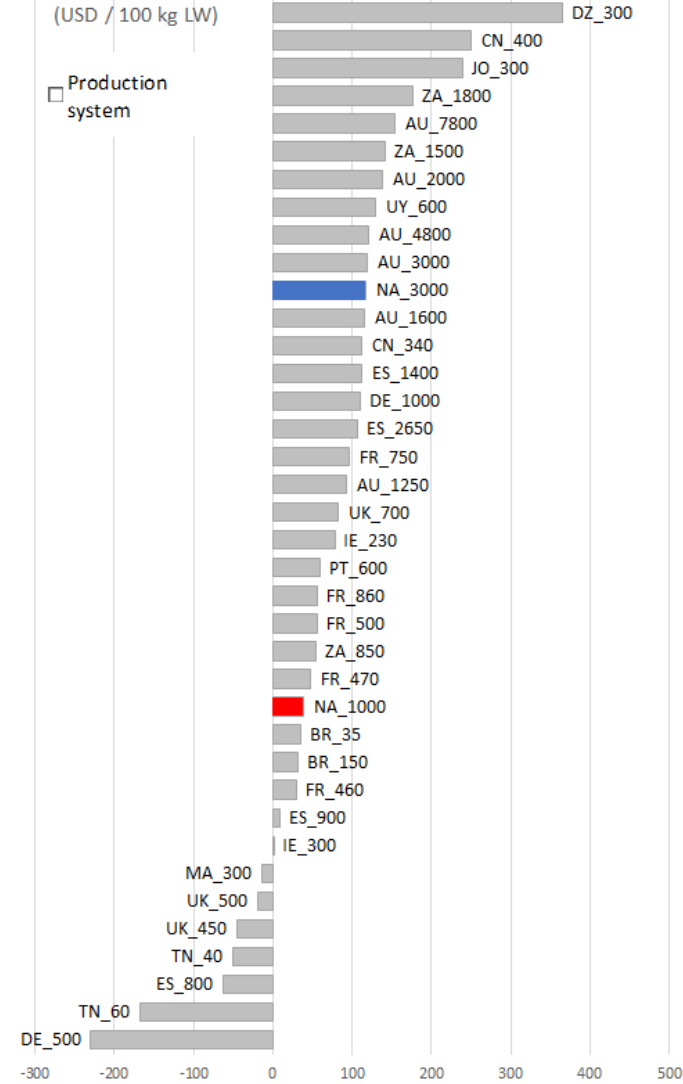
Source: agri benchmark database 2018

$$\text{Production} \times \text{Price} = \text{Return} - \text{Cost} = \text{Profit}$$



Source: agri benchmark database 2018

# Mid-term profitability



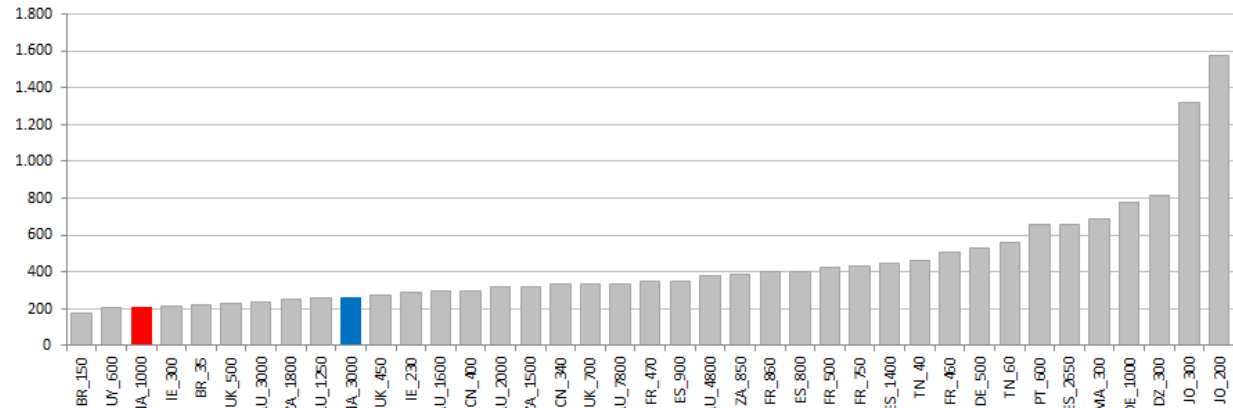
NA\_1000

NA\_3000



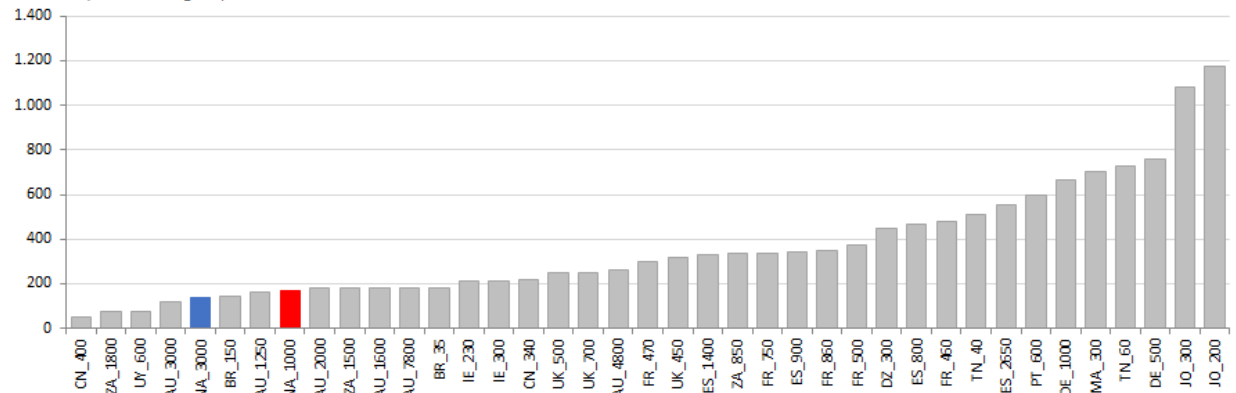
## Total returns of the ewe enterprise

2017 - (USD / 100 kg LW)



## Cost of the ewe enterprise (Cash cost + depreciation)

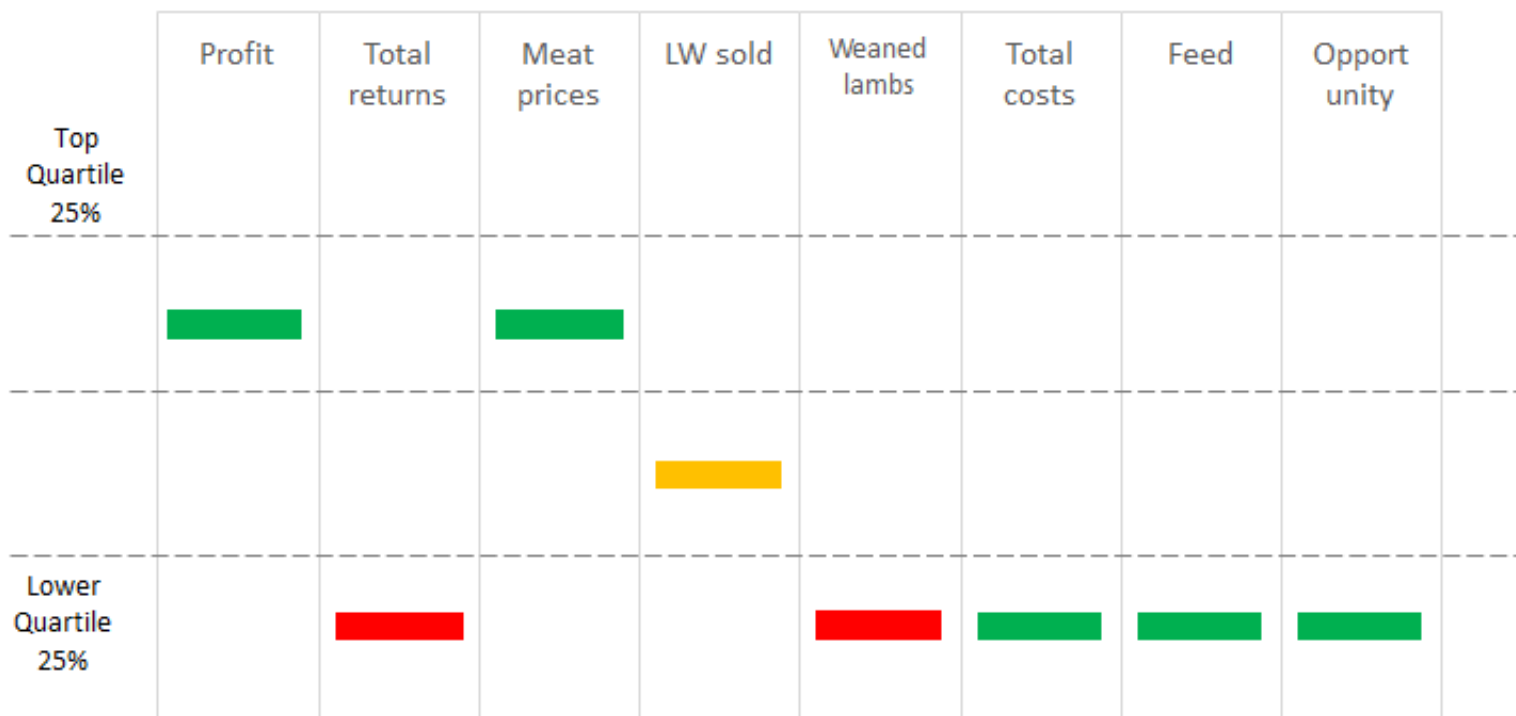
(USD / 100 kg LW)



Source: agri benchmark database 2018

# Final remarks – Efficiency - Namibia

## Position at the comparison



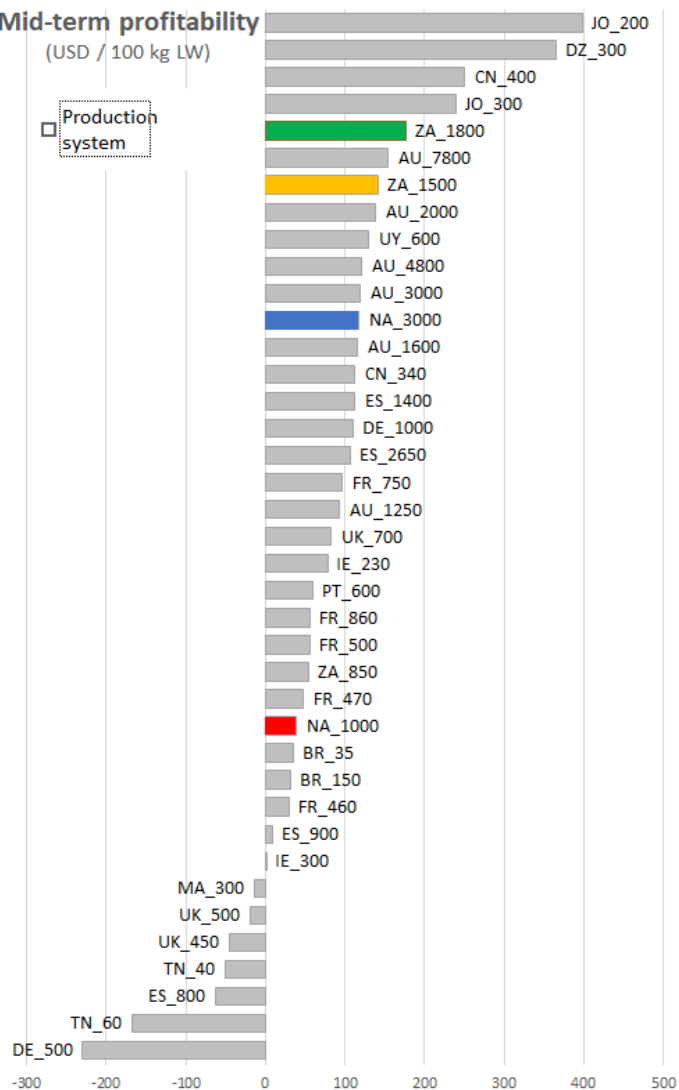
Source: agri benchmark database 2018

# Comparing Namibia (South Africa)

## Mid-term profitability

(USD / 100 kg LW)

□ Production system



NA\_1000

NA\_3000

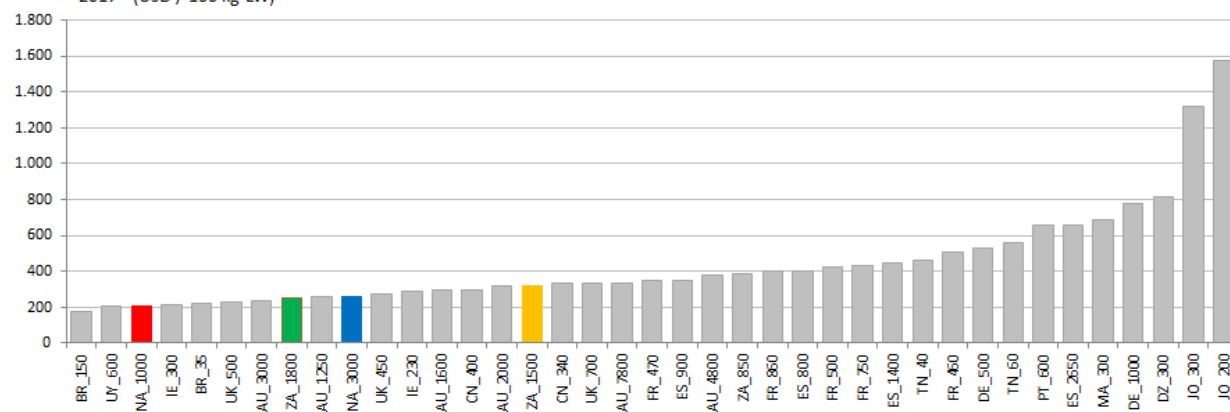
ZA\_1500

ZA\_1800



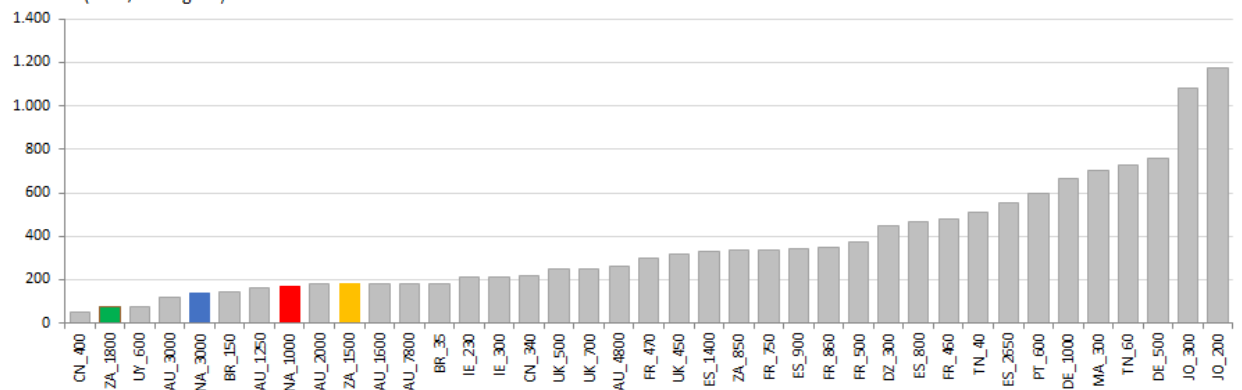
## Total returns of the ewe enterprise

2017 - (USD / 100 kg LW)



## Cost of the ewe enterprise (Cash cost + depreciation)

(USD / 100 kg LW)



# Comparing Namibia (South Africa)

NA\_1000

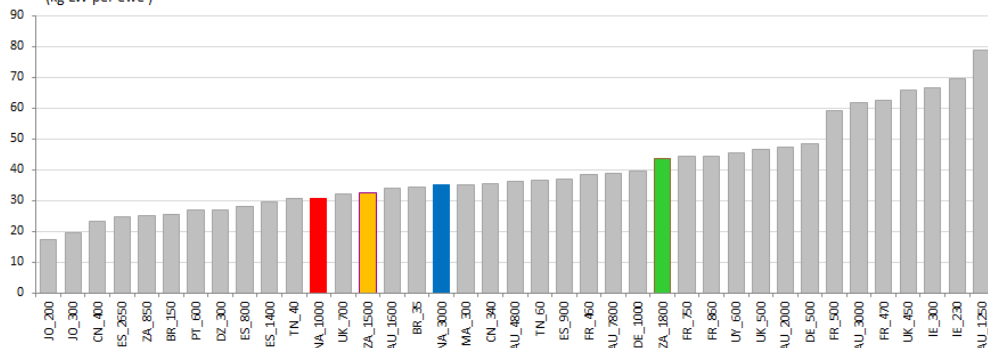
NA\_3000

ZA\_1500

ZA\_1800

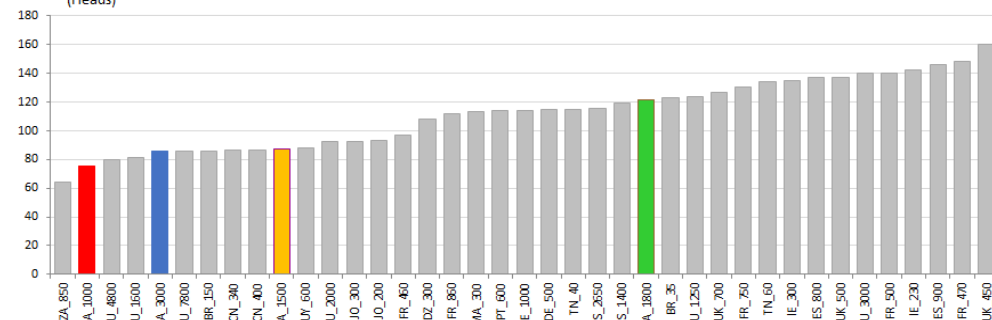
Total live weight sold per ewe

(kg LW per ewe)



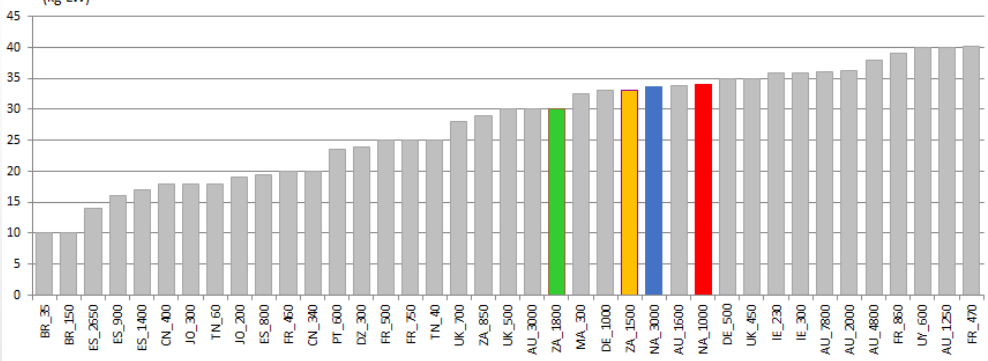
Weaned lambs per 100 ewes and year

(Heads)



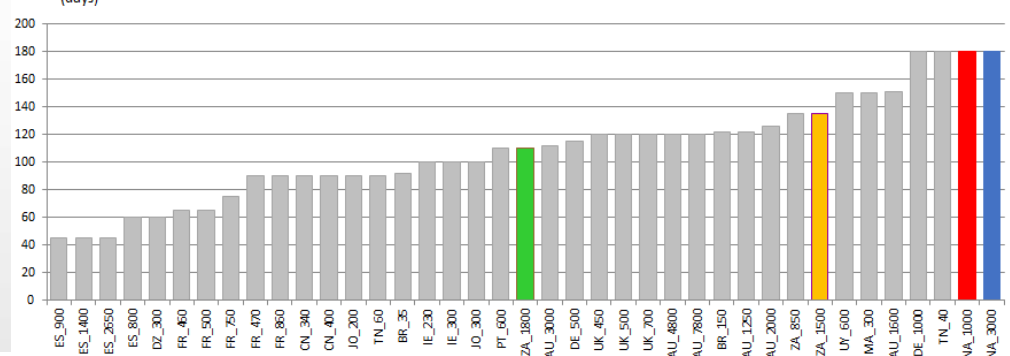
Weaning weights (average male & female)

(kg LW)



Weaning age (average male & female)

(days)



# Comparing Namibia (South Africa)

NA\_1000

NA\_3000

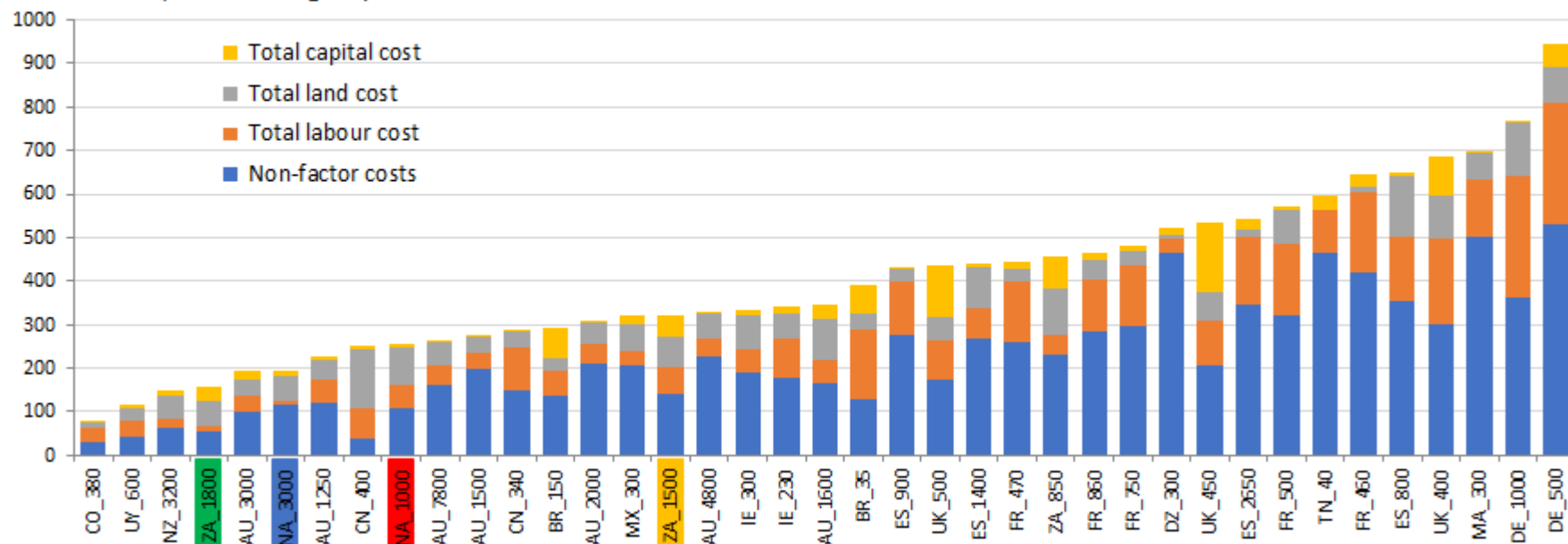
ZA\_1500

ZA\_1800

Total Costs (Factor and Non-Factor costs)

Time series

2017 - (USD / 100 kg LW)

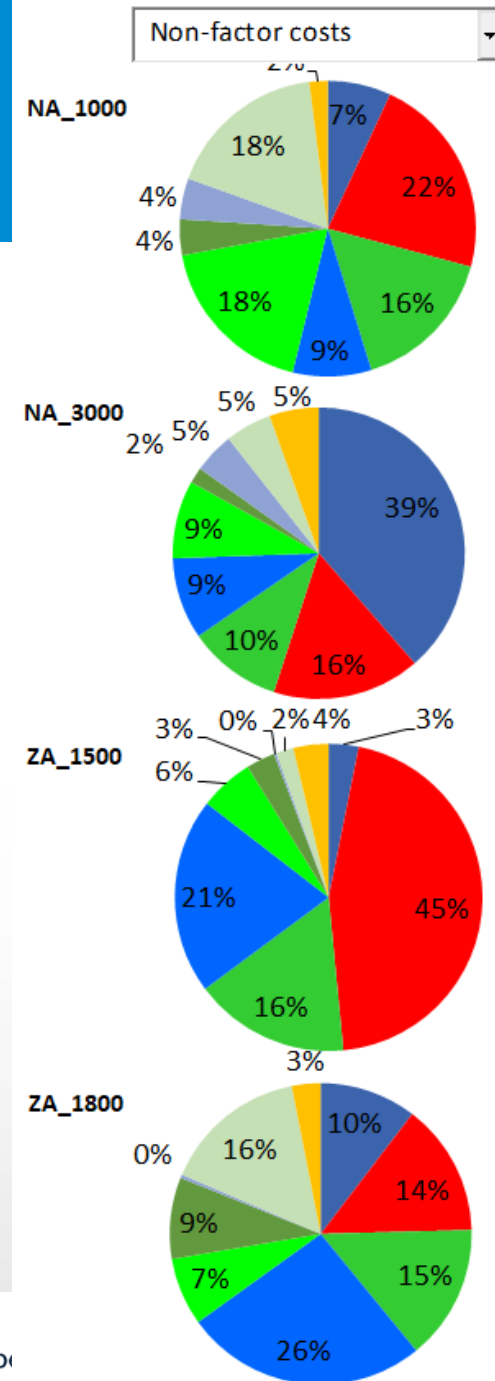


Source: agri benchmark database 2018

# Comparing Namibia (South Africa)

## Non-factor costs

- Animal purchases
- Feed (purchase feed, fertiliser, seed, pesticides)
- Machinery (maintenance, depreciation, contractor)
- Fuel, energy, lubricants, water
- Buildings (maintenance, depreciation)
- Vet & medicine
- Insurance, taxes
- Other inputs ewe enterprise
- Other inputs

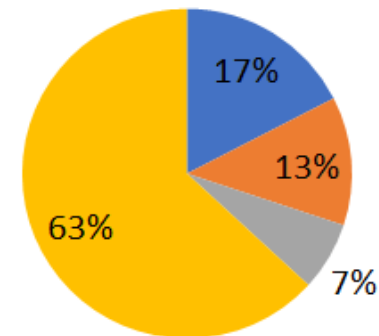


# Comparing Namibia (South Africa)

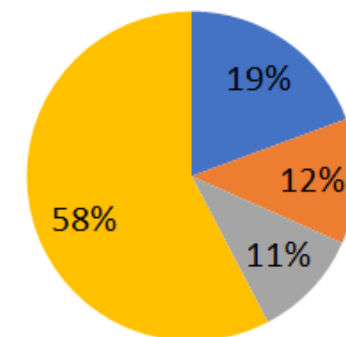
## Feed costs

- Feed (purchase feed, fertiliser, seed, pesticides)
- Machinery (maintenance, depreciation, contractor)
- Fuel, energy, lubricants, water
- Land cost

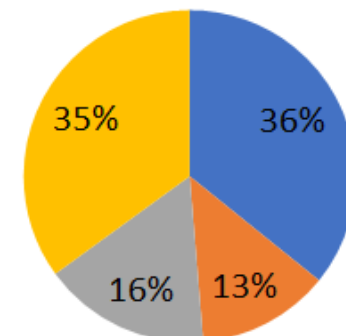
NA\_1000



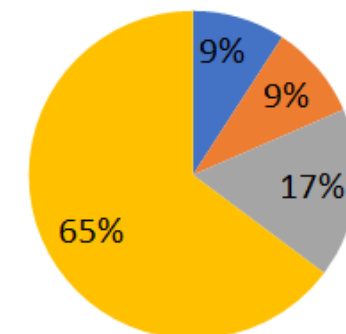
NA\_3000



ZA\_1500

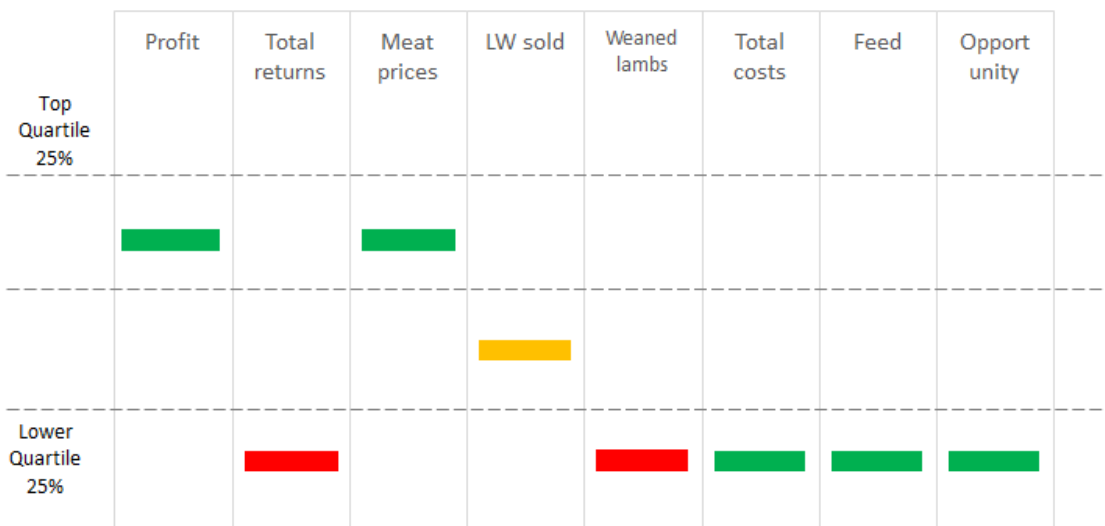


ZA\_1800



# Take home messages

## Namibian sheep farms



- Robust international demand (China) and long term high prices for sheep meat and wool
- Sheep meat as a market niche - premium only (high prices)?
- Production growth will be done mainly in developing regions (African role?)
- Sheep meat production, consumption and trade may be affected by climate change, Chinese economic growth, US policy trade and Brexit

# Competitiveness of Namibian sheep production

## in the global context

Ernesto Reyes

*agri benchmark* Beef and Sheep Network

