

Jonny Griffiths

savills

Experience with Spearhead International and Nuveen

Carried out research and appraisal projects on new countries, almonds and avocados in Iberia, vegetables in Poland

Built origination network across the world – professionals and locals

Co-ordinated due diligence for transactions across eastern and southern Europe

Implemented post-closing management on \$150 million worth of arable farms in Poland

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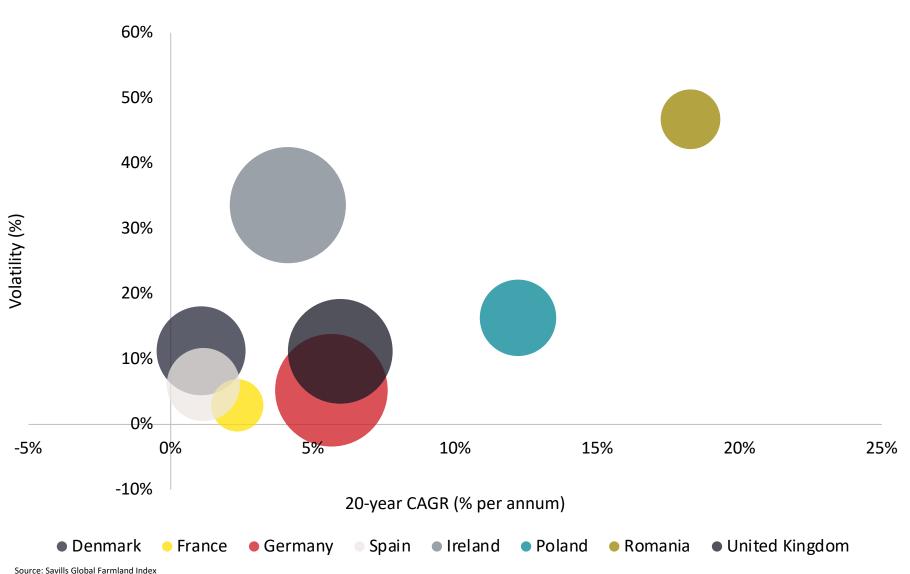
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Summary

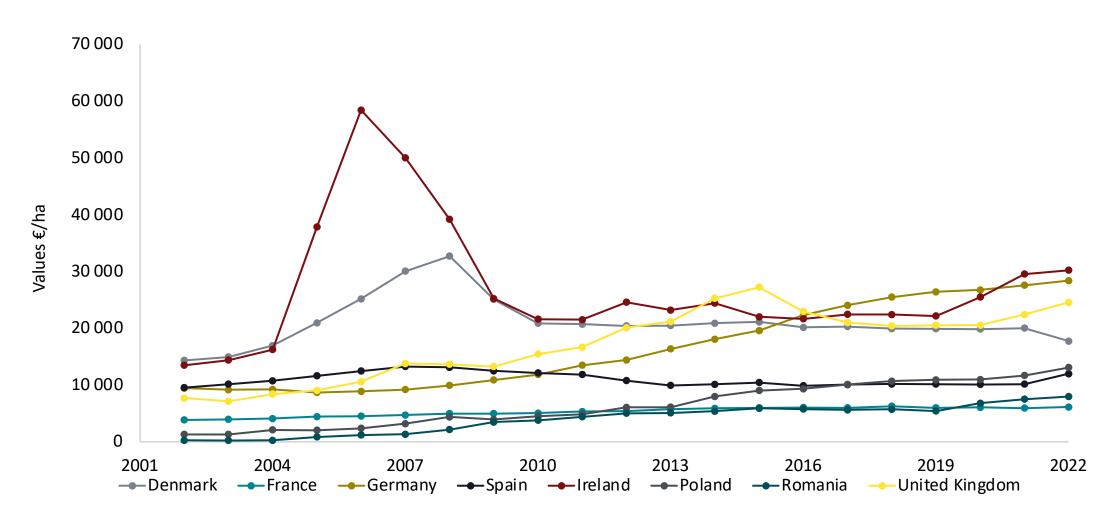
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- Most expensive land – north western Europe
- Central and eastern Europe - still at a discount, room for growth still
- Southern Europe – low growth, low volatility



Price behaviour





Source: Savills Global Farmland Index

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Key drivers - theory



Ricardo (1814)

 price is correlated immediately with farmer margin

Von Thunen (1826)

 Ricardo's theory applies – distance from population also applies

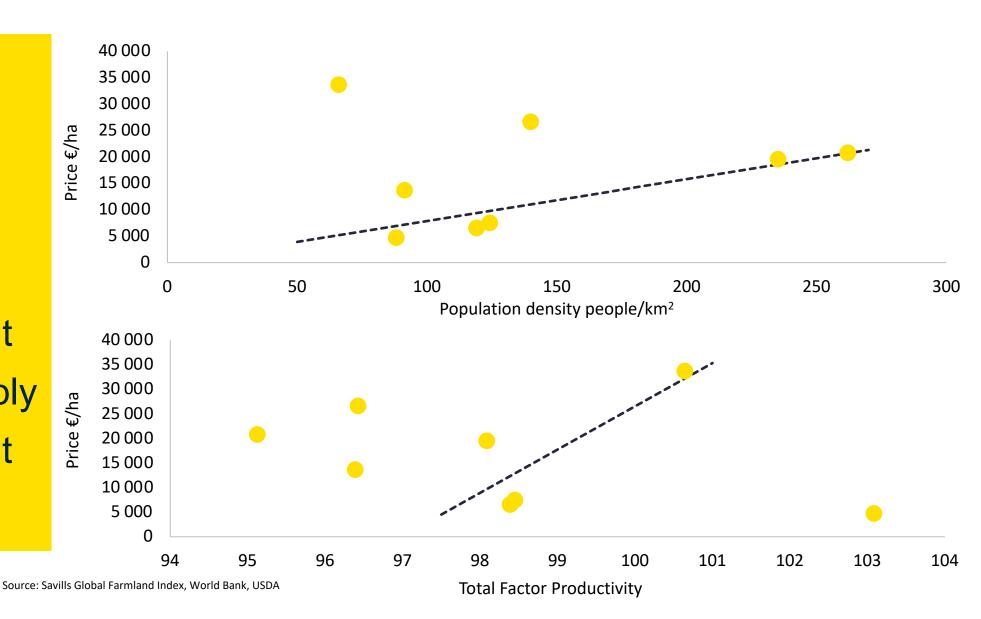
Asset pricing model

- income
- cost of capital

Key drivers



- Agricultural productivity
- Population density
- Business environment
- Money supply
- Government policy



Case study - Poland

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- North and west Poland - former state farms
- 500ha+,well consolidated
- Disparity with north-east Germany
- Same climate markets – but different value!

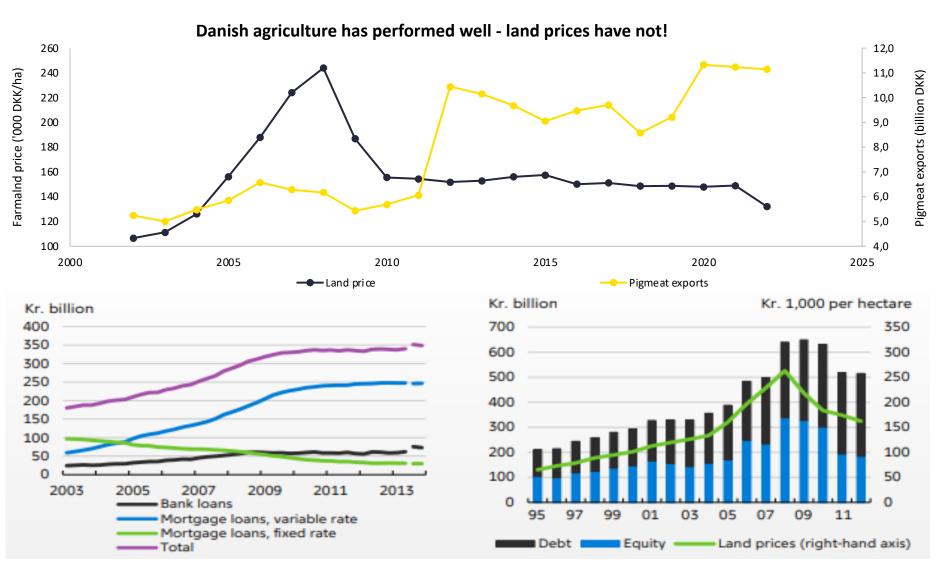


Source: GUS, Statiitisches Bundesamt

Case study - Denmark

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- Good sector fundamentals
- Major food
 exporter farms
 are profitable
- Farmers
 encouraged to
 borrow
- GFC loans called in
- Fire sales

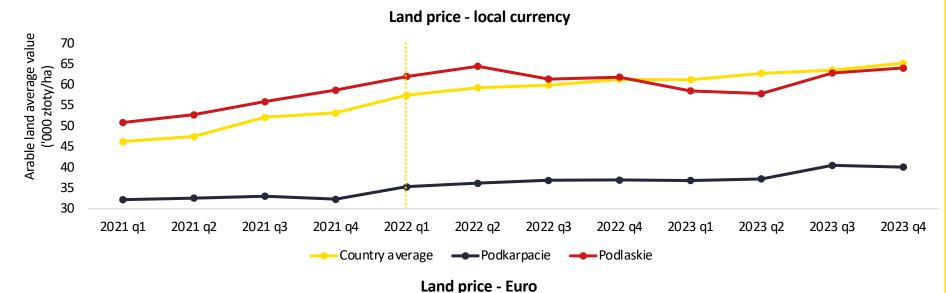


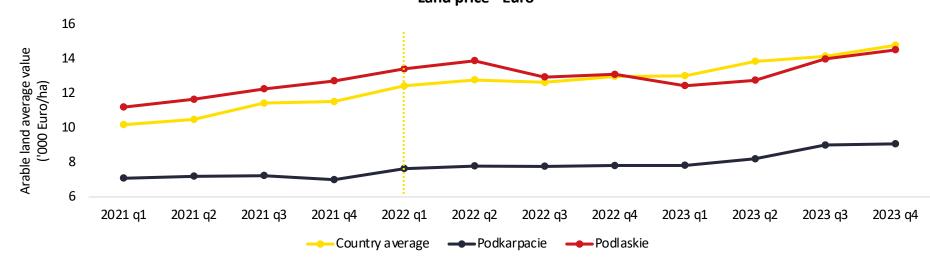
Source: Savills Global Farmland Index, FAOStat, Danmarks Nationalbank

Current drivers – geopolitical risk



- Ukraine war is Poland still safe?
- Country average says yes
- Risk perception
- Pre-war: Putin
 can invade
 Ukraine, Poland
 and Germany in
 a week
- Two years and still mainly in Donbas



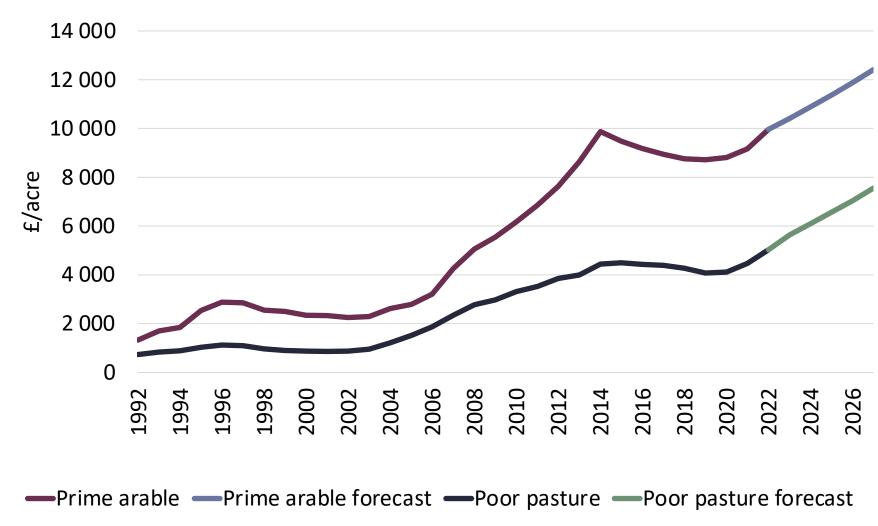


Source: Savills Global Farmland Index, GUS

Current drivers – natural capital



- Remove atmospheric carbon dioxide
- Tree planting, peatland restoration, rewilding
- Benefits prices of poorer land
- Other localised policies drive demand



Source: Savills Rural Research

Current drivers – water resilience - Portugal



- Portugal is increasing its irrigation resilience
- Alqueva lake opened in 2002
- Huge investment driver
- Land pre-2002 was dry - <€10k/ha
- Pioneers bought land before infrastructure in
- Steady growth €20k/ha in 2017, up to around €30k/ha today



Outlook



- EU world's largest ag producer
- Global food demand will grow
- No more land being produced
- Natural capital will lift less productive land

2100 population

9.2

BILLION

7.8 billion currently

2080 food consumption

3,200 CALORIES PER CAPITA

2,772 currently

2080 meat consumption

55.4kg

PER CAPITA

34.1kg currently

Arable land per capita in 2080

165

HECTARES

242 hectares currently

Source: UN FAO