

## Aon seminar on land-based salmon farming

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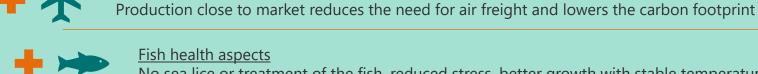
## Why all the focus on land-based farming? Many good reasons - Still, the conventional salmon companies play the waiting game..



Regulatory reasons Conventional growth is expensive and limited and less profitable in exposed areas



Environmental reasons - oceans No impact on the oceans, no fish escape, seabed footprint



Fish health aspects No sea lice or treatment of the fish, reduced stress, better growth with stable temperatures



**Consumer friendly** 

Other environmental reasons

Fresher salmon with production close to market



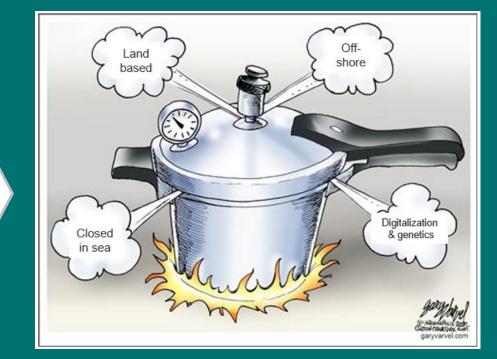
#### **Profitability**

The reasons above are drivers that could increase the price/kg and reduces the price. In the long term, when technological risk is reduced, the industry can become very profitable

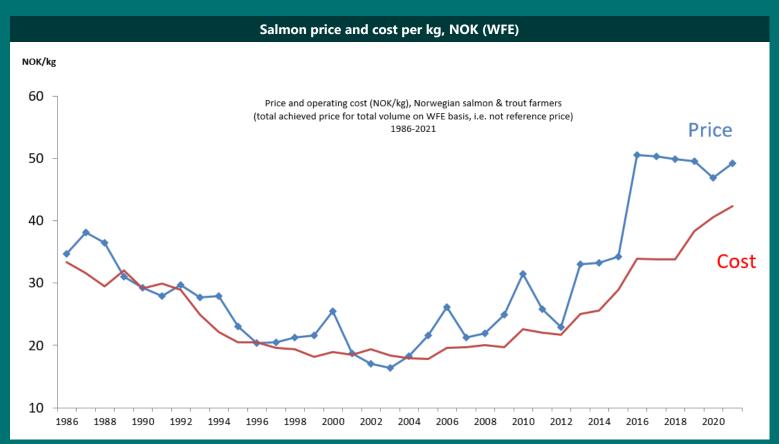
### In short: sustainability, different value proposal, lack of growth in conventional farming

## **Enablers**

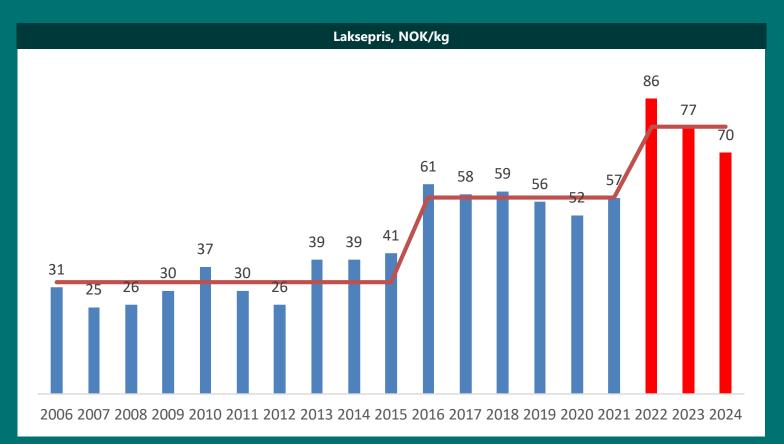
- High profitability
- Good long-term price visibility
- Clearly defined problems



## High price & high cost in sea positive for land-based farming

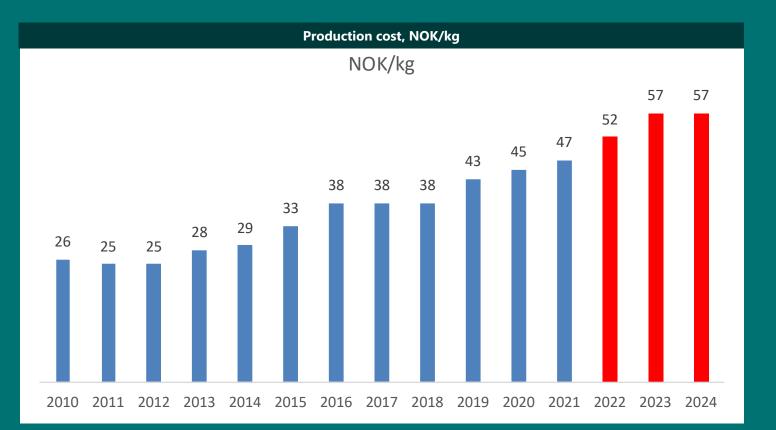


# Strong prices also ahead



Source: FishPool, DNB

# But cost will also pick up

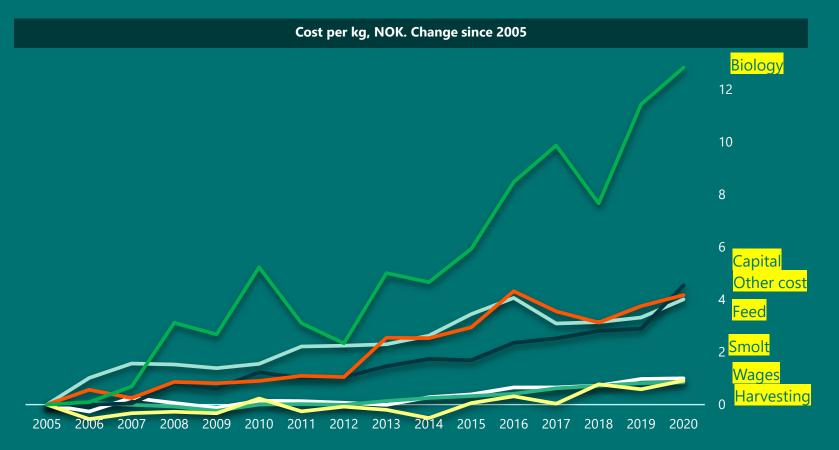


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Source: DNB Markets' Alex Aukner

## Biology has been the key cost driver





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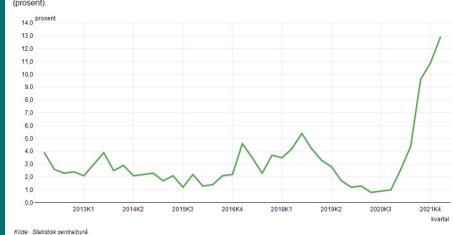
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- Fish feed index (NOK denominated)

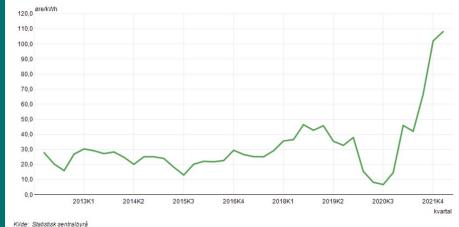
-Fish feed index (USD denominated)



Estimated trend in fish-feed prices (indexed from January 2010)







08662: Byggekostnadsindeks for veganlegg (1. kv. 2004=100), etter kvartal. Veganlegg, i alt, Endring fra forrige år (prosent).

#### DNB Confidential

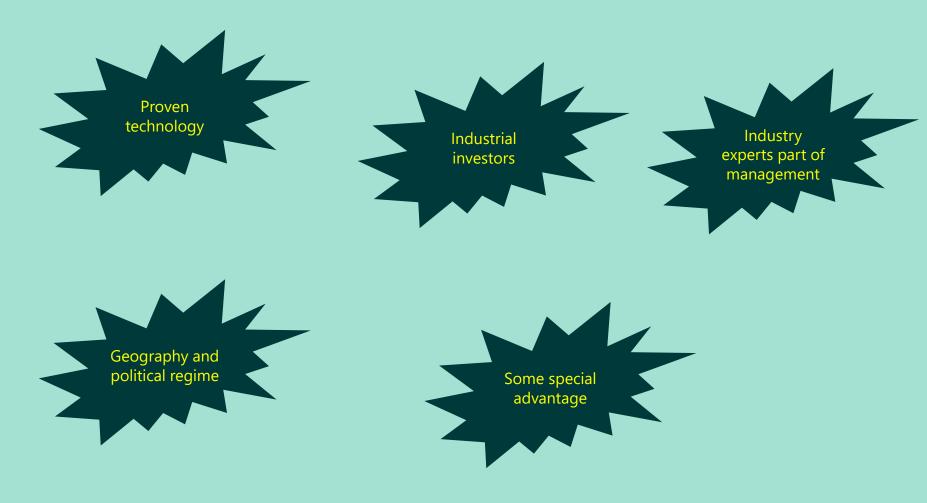
# End c BlackRock chief Larry Fink says Ukraine war marks end of globalisation

Boss of \$10th asset manager warns about inflation as companies reconfigure supply chains



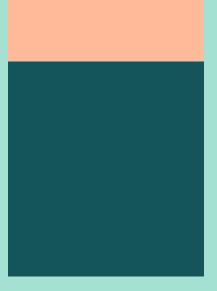


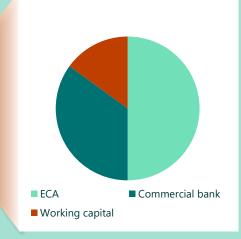
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# Debt financing of land based salmon farming

#### Simplified capital structure







Still a young industry, but promising developments in recent years - Many unknown unknows as we are still in an early phase

"There are known knowns; there are things we know we know.

We also know there are known unknowns; that is to say we know there are some things we do not know.

But there are also unknown unknowns — the ones we don't know we don't know.

And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones" – Donald Rumsfeld Technological risk

Technical

/Op. risk

Will we get to the "airplane system risk" where the important system simply doesn't break down? If the systems works fine in 90/100 batches, it is not good enough if all fish dies in 10/100

by the supplier?

large scale? Can the technology



Biological risk How does the fish deal with the density levels required on land over time? What if bacteria get into the tanks? H2S?

Does the technology work well enough on a

handle/produce the volumes/density promised

## DNB Bank is a global seafood player



Leading arranger of debt in seafood sector, and a full range of Investment Banking services offered