Marine Harvest
“Is there any hope for Chile in the next two years”?

Havbrukskonferansen
24 November 2015
Perfect storm in Chile

- Rapid growth
- Biological issues
- Antibiotics & reputation
- Lack of smart regulations
- Slow consolidation
- Financing
- Currency
Rapid growth of Chilean harvest volumes…

Source: Kontali
…facilitated by unsustainable levels of antibiotics

Source: Sernapesca
MH Chile not immune to biological challenges

Source: Marine Harvest and Sernapesca
Profitability in Chile impacted by both low prices and higher costs (in NOK)

Source: Marine Harvest
Today’s regulations – no real impact

- Approximately 1,300 licenses issued vs ~ 600 licenses being used across production cycles. No limit on biomass.

- Regulations on mortality has led to farmers moving to poorer sites for the next generation.

- There are many other legal limits to what farmers can do and cannot do, but no real results.
After ISA no real change in industry structure

Source: Kontali
Note: Numbers of players producing 80% of the farmed salmon and trout
Restricted financing – magic cash?
Significant USD appreciation last 5 years

<table>
<thead>
<tr>
<th></th>
<th>USDNOK</th>
<th>USDBRL</th>
<th>USDJPY</th>
<th>USDRUB</th>
<th>USDCLP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>48%</td>
<td>127%</td>
<td>51%</td>
<td>112%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Source: Bloomberg
Chile – any hope the next two years?

Positives
- Tight global salmon supply
- Flat supply from North America
- Industry try to come up with suggestions to regulations

Negatives
- Authorities resist to make real changes in regulations
- Industry acts to slow, and complicates solutions

Opportunities
- Consolidation
- Currency
- Development of value added products
- Reduction in use of antibiotics
- New medicine against SRS and caligus
1. Split licences from locations

2. Assess total carrying capacity in each region (all species) – current level way to high

3. Divide carrying capacity on number of licences per region and let companies determine their best locations for farming salmon within each region. Apply x number of licences (MAB's) according to environmental carrying capacity per location

4. Monitor environmental impact per location

5. Set key biological indicators
   - Use of antibiotics
   - Number of sea lice treatments

6. Set a horizon, for example 10 years, and give the industry players incentive to comply, by rewarding growth
   - 5 percent per generation MAB increase on locations that comply with biological indicators
   - No growth or reduction of biomass if targets are not reached

What does it take to make salmon farming in Chile sustainable?
Thank you for the attention