

From the capital market perspective Trends and Opportunities in China's Aquaculture Industry



Presenter: Xiao Chen

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- Current situation and trends in China's aquaculture industry

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- Industry Chain Investment Analysis

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- China Aquaculture Chain Investment Map

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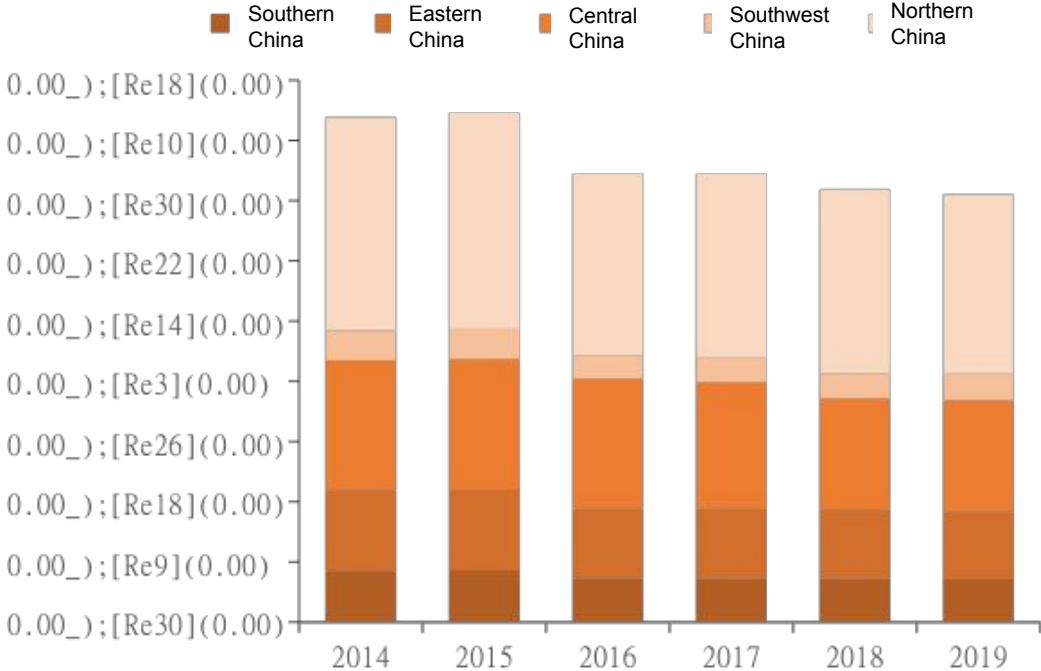
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1.1 Chinese aquaculture industry: limited area + regional + seasonal

Aquaculture area by region (million hectares)



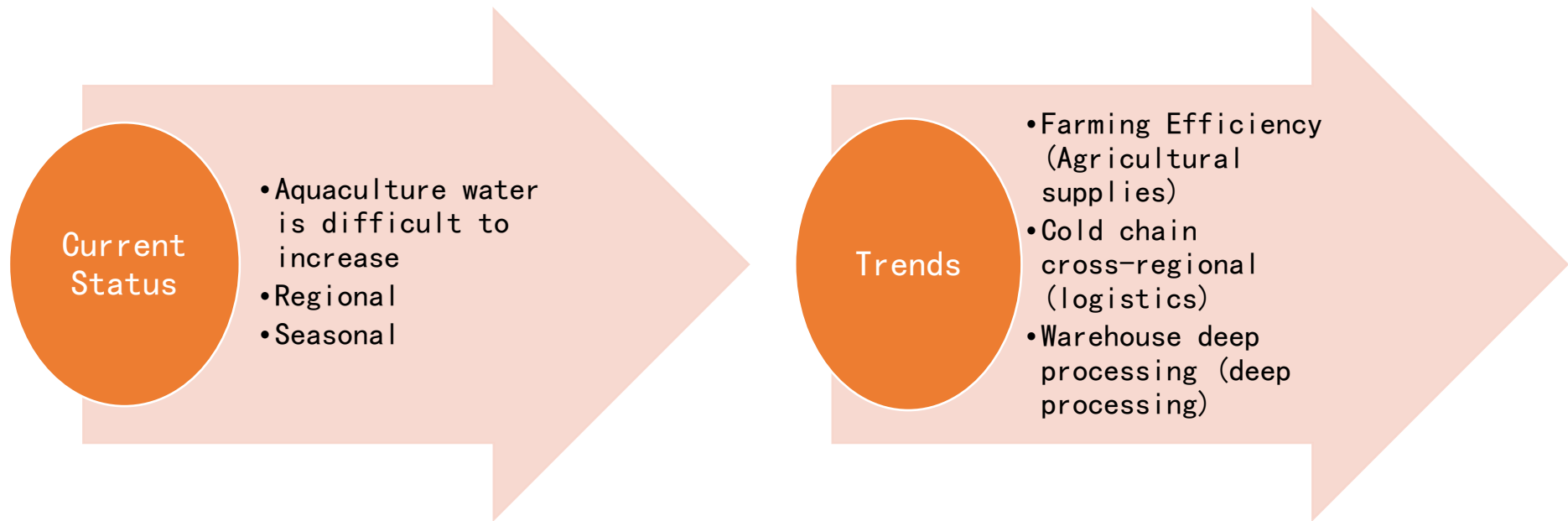
Source: China Fisheries Statistical Yearbook, Tianfeng Securities Research Institute

A large aquatic feed group's quarterly share of feed sales by category in 2019

	Percentage	Aquatic feed	Poultry feed	Pig feed
2019Q1	19.6%	9.9%	21.4%	31.8%
2019Q2	24.2%	27.0%	23.1%	23.1%
2019Q3	30.1%	41.5%	27.0%	19.7%
2019Q4	26.1%	21.6%	28.5%	25.4%
合计	100.0%	100.0%	100.0%	100.0%

Source: China Fisheries Statistical Yearbook, Tianfeng Securities Research Institute

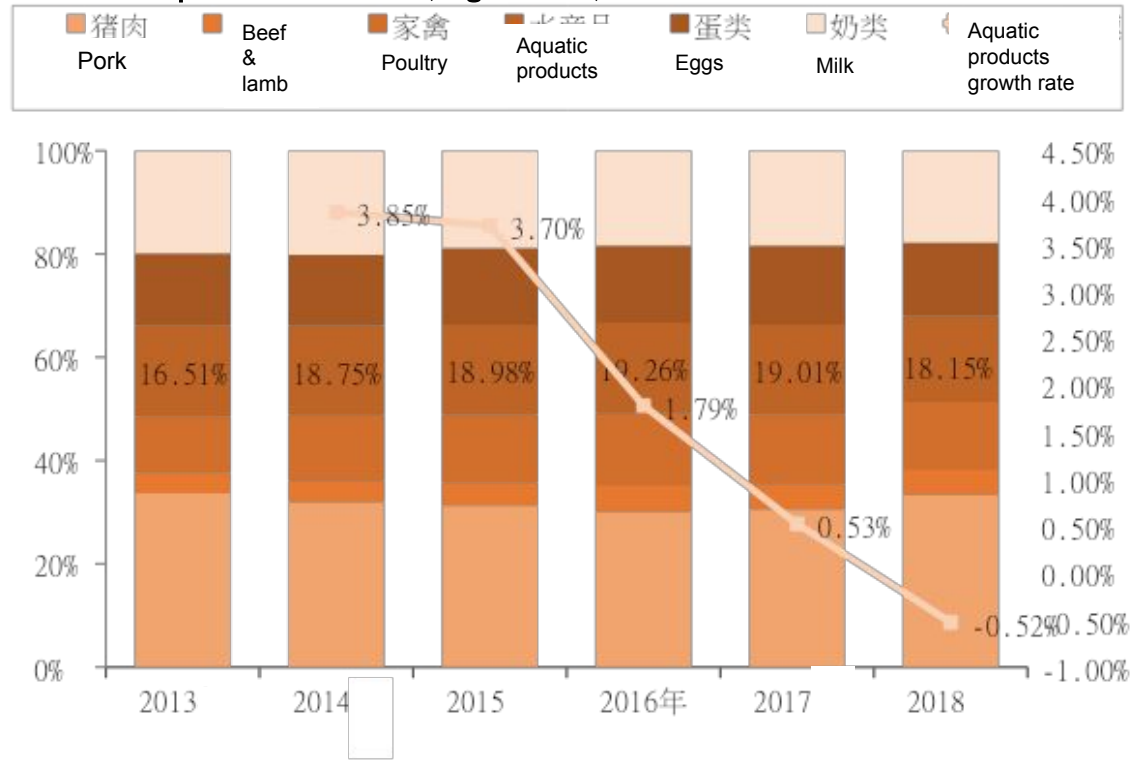
1.1 Chinese aquaculture industry: limited area + regional + seasonal



1.2 Consumption: internally driven, open industry space

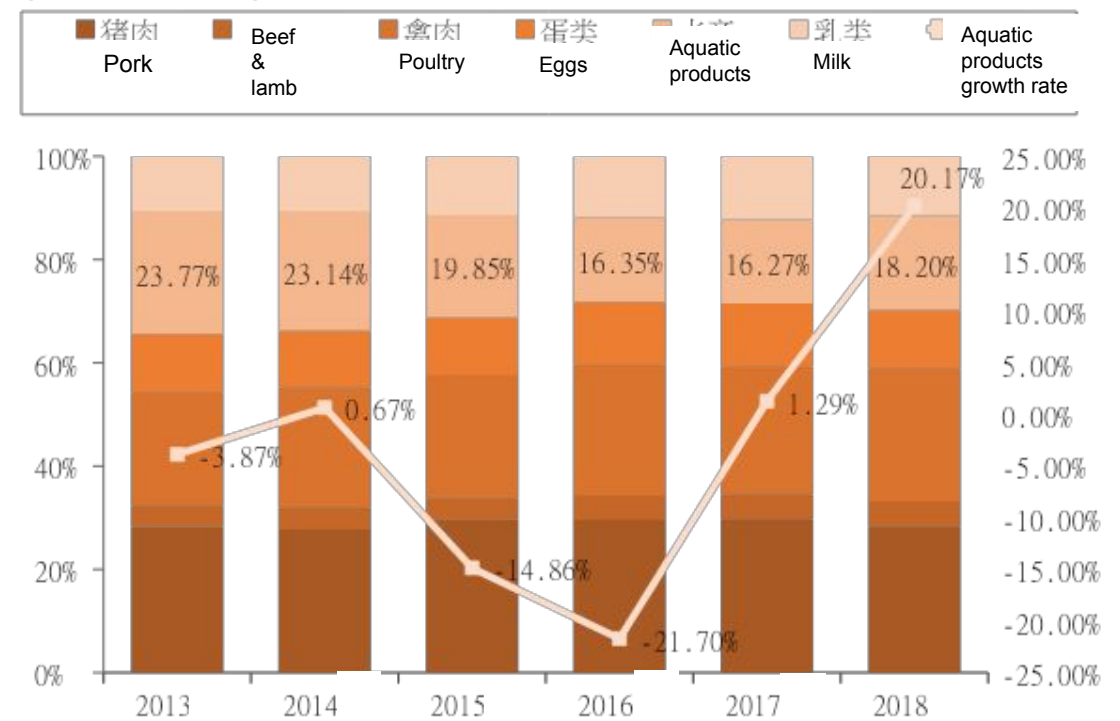
- Outbreak of non-fever swine fever, significant depletion of hog production capacity, and expected reshaping of resident protein consumption structure

Percentage of protein consumption per capita and growth rate of fish consumption in China (right axis)



Source: National Bureau of Statistics, Tianfeng Securities Research Institute

Protein consumption structure of Taiwan residents in China (growth rate right axis)



Source: Council of Agriculture, Executive Yuan, Taiwan, China, Tianfeng Securities Research Institute

1.2 Consumption: internally driven, open industry space



Who is consuming? Where is it consumed? Why are they consuming?

Consumer crowd, consumer scene, consumer culture

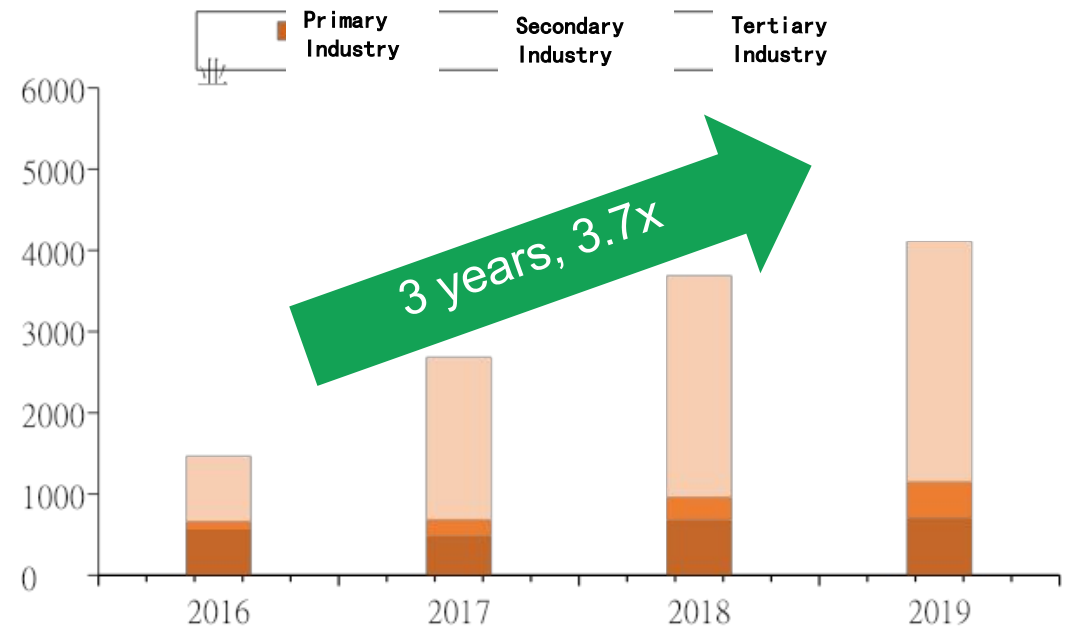
1.2 Consumption: internally driven, open industry space

Pickled fish market size (billions of yuan) and growth rate (right axis)



Source: Jiumaojiu prospectus, Tianfeng Securities Research Institute

National crawfish production value (billion yuan) and growth rate (right axis)



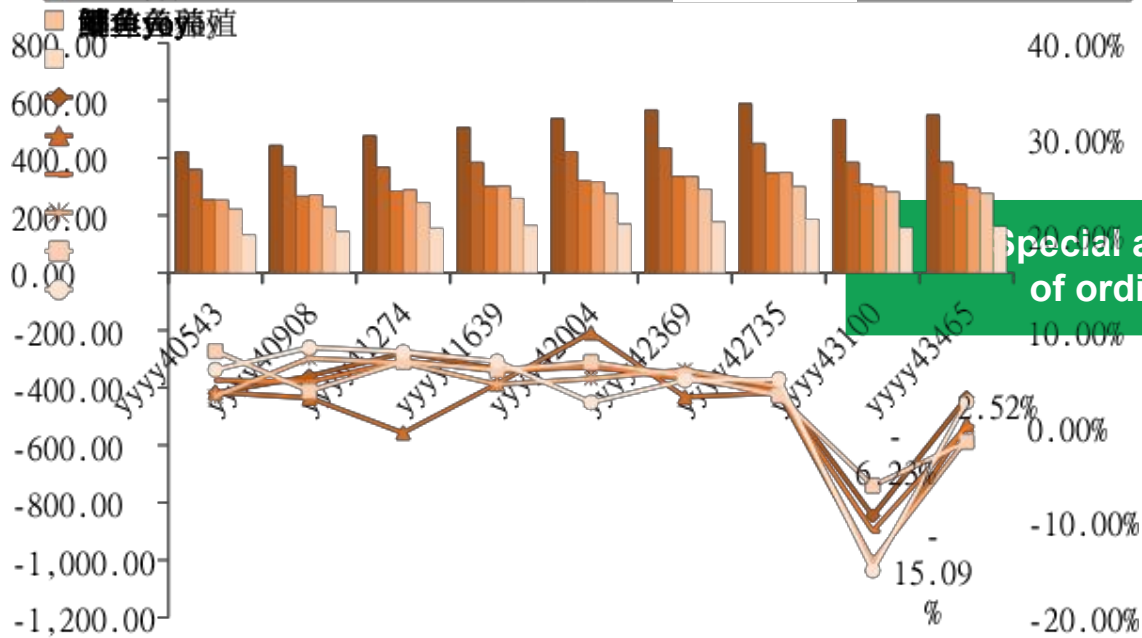
Source: China Crawfish Industry Development Report, Tianfeng Securities Research Institute

1.2 Consumption: internally driven, open industry space

- Consumption upgrade is the core factor driving the change of upstream farming structure.

Traditional domestic fish farming production (million tons) and growth rate (right axis)

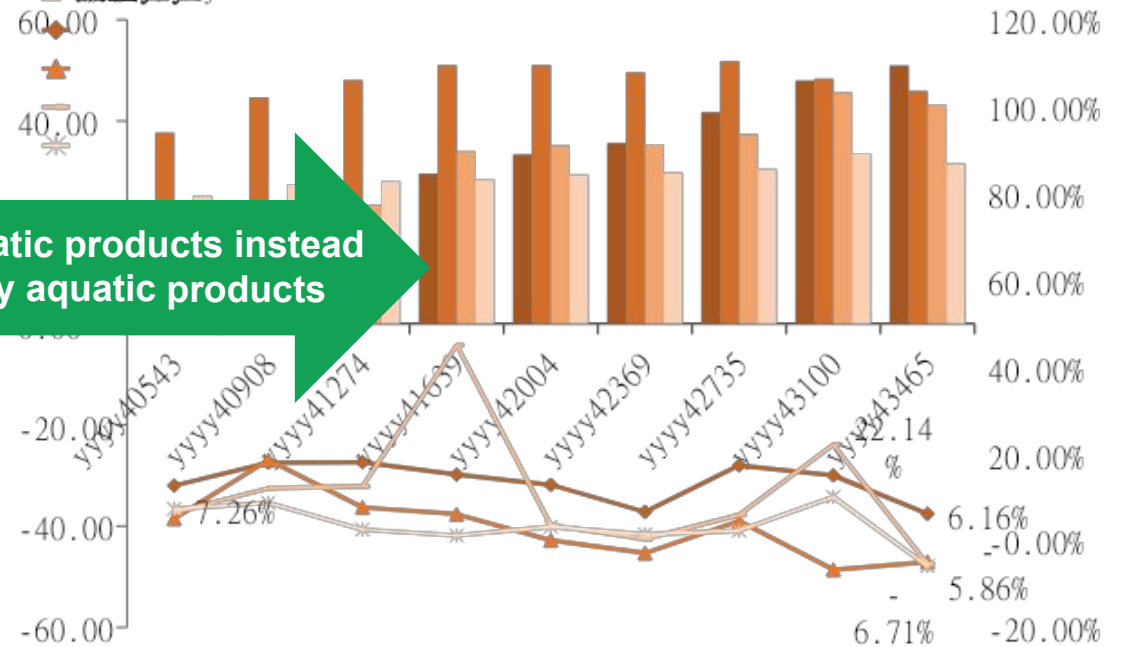
草鱼	Grass	Chub	Bighead carp	Carp
鲢鱼	Carp*	Tilapia	Grass carp yoy	Chub yoy
鳙鱼	Bighead carp yoy	Carp yoy	Carp* yoy	Tilapia yoy
鲤鱼				



Source: wind, Tianfeng Securities Research Institute

Special freshwater fish farming production (million tons) and growth rate (right axis)

黄颡鱼	Pelteobagrus fulvidraco	snakehead	Perch	Mandarin fish
生鱼	Pelteobagrus fulvidraco yoy	Snakehead yoy	Perch yoy	Mandarin fish yoy
鮰鱼				
鳊鱼				



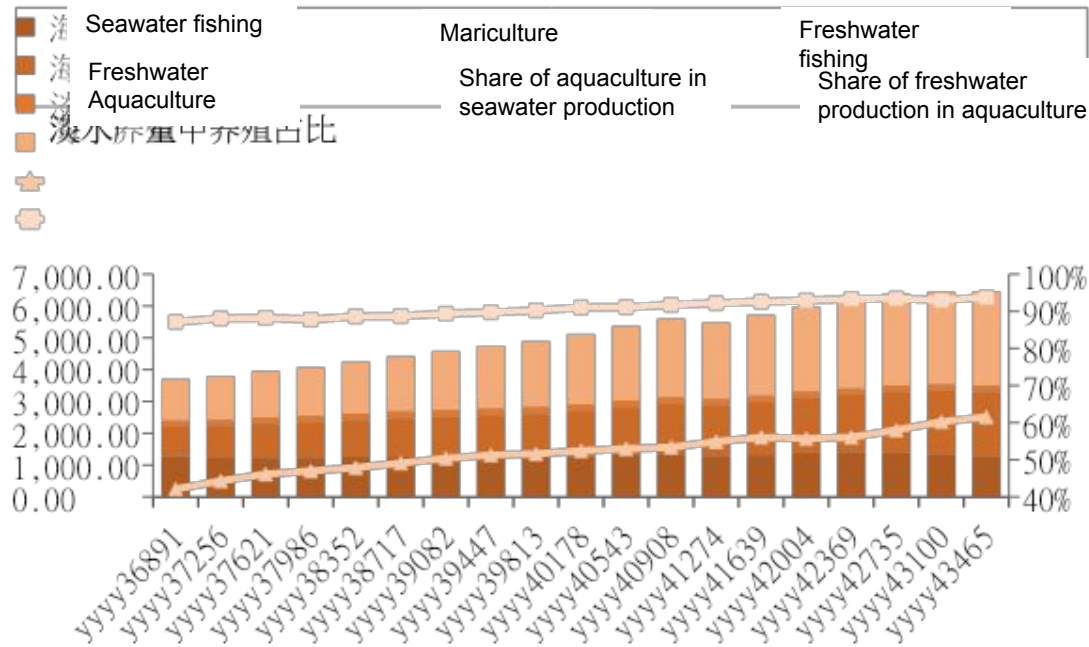
Source: China Fisheries Statistical Yearbook, Tianfeng Securities Research Institute

Special aquatic products instead of ordinary aquatic products

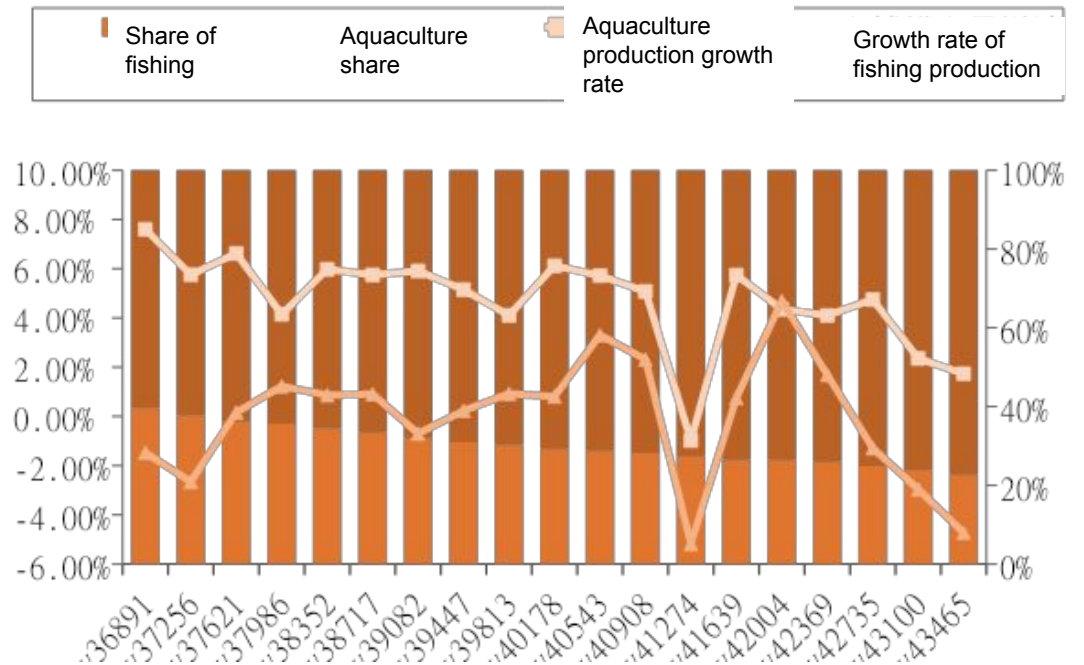
1.3 Technology: the means to achieve the impossible

- Before 1992, domestic aquaculture production was still dominated by fishing; both freshwater and seawater resources were relatively limited.
- Aquaculture technology (including seed breeding, industrial aquatic material development, breeding technology) and other continuous breakthroughs, aquaculture continues to replace natural production, and by 2018 aquaculture has accounted for up to 77%.

Aquatic products seawater freshwater structure (million tons, accounting for the right axis)



Aquaculture fishing structure (growth rate left axis)



Source: National Bureau of Statistics, Tianfeng Securities Research Institute

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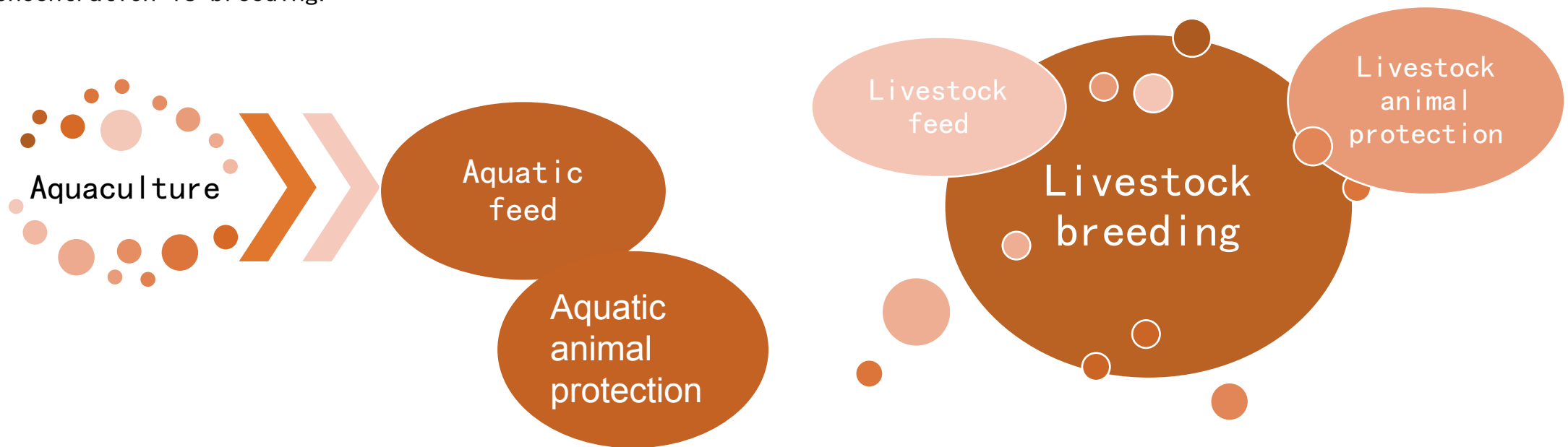
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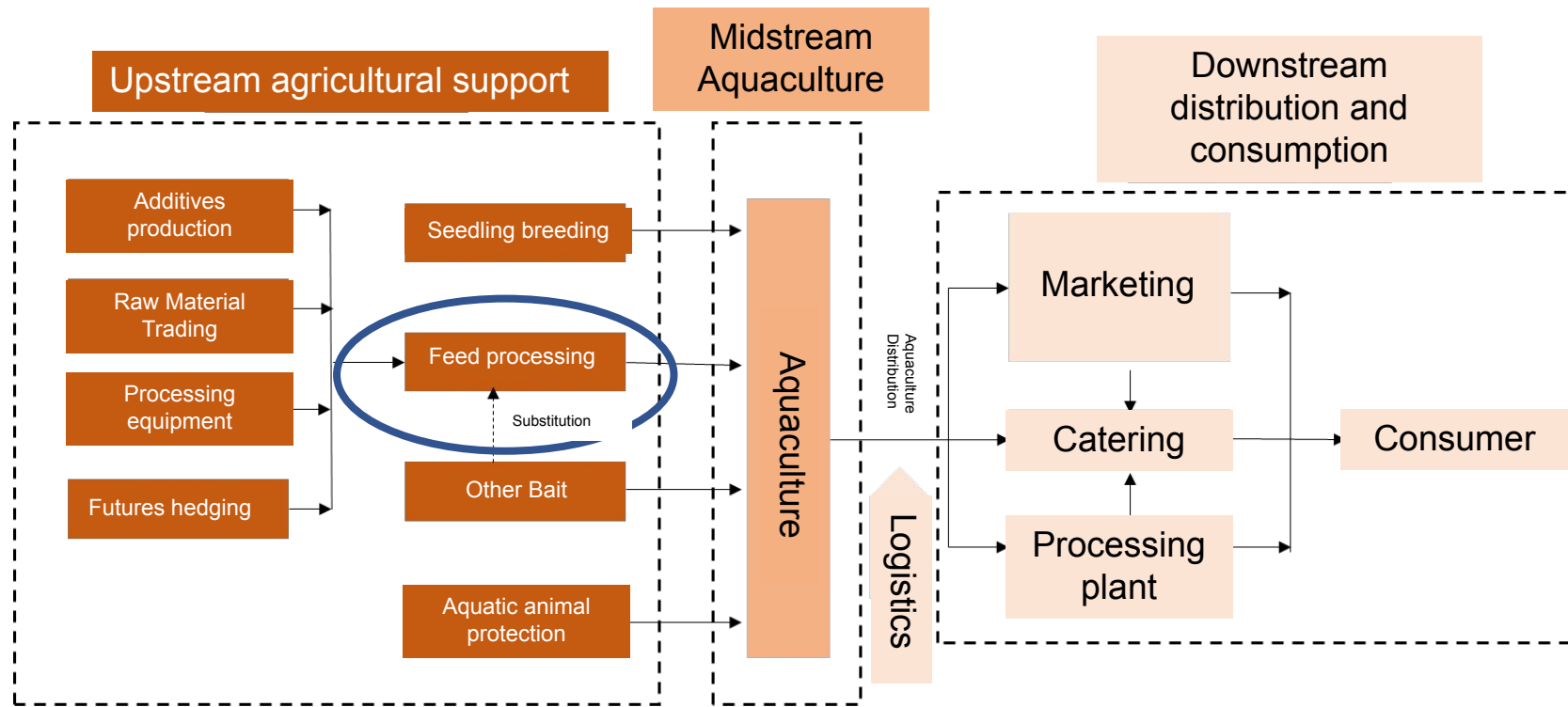
2.2 Aquatic track qualities: strong consumer attributes, different from livestock and poultry farming

- **Difference 1:** Aquatic biological characteristics, it is difficult to have economies of scale; farming concentration is low.
- **Difference 2:** many types of aquatic products, strong consumer attributes; livestock and poultry is a bulk product, strong cyclical properties.
- **Difference 3:** the highest degree of concentration in the aquatic industry chain is the feed, but also the most powerful node of the industry chain discourse; livestock and poultry industry chain is the highest degree of concentration is breeding.

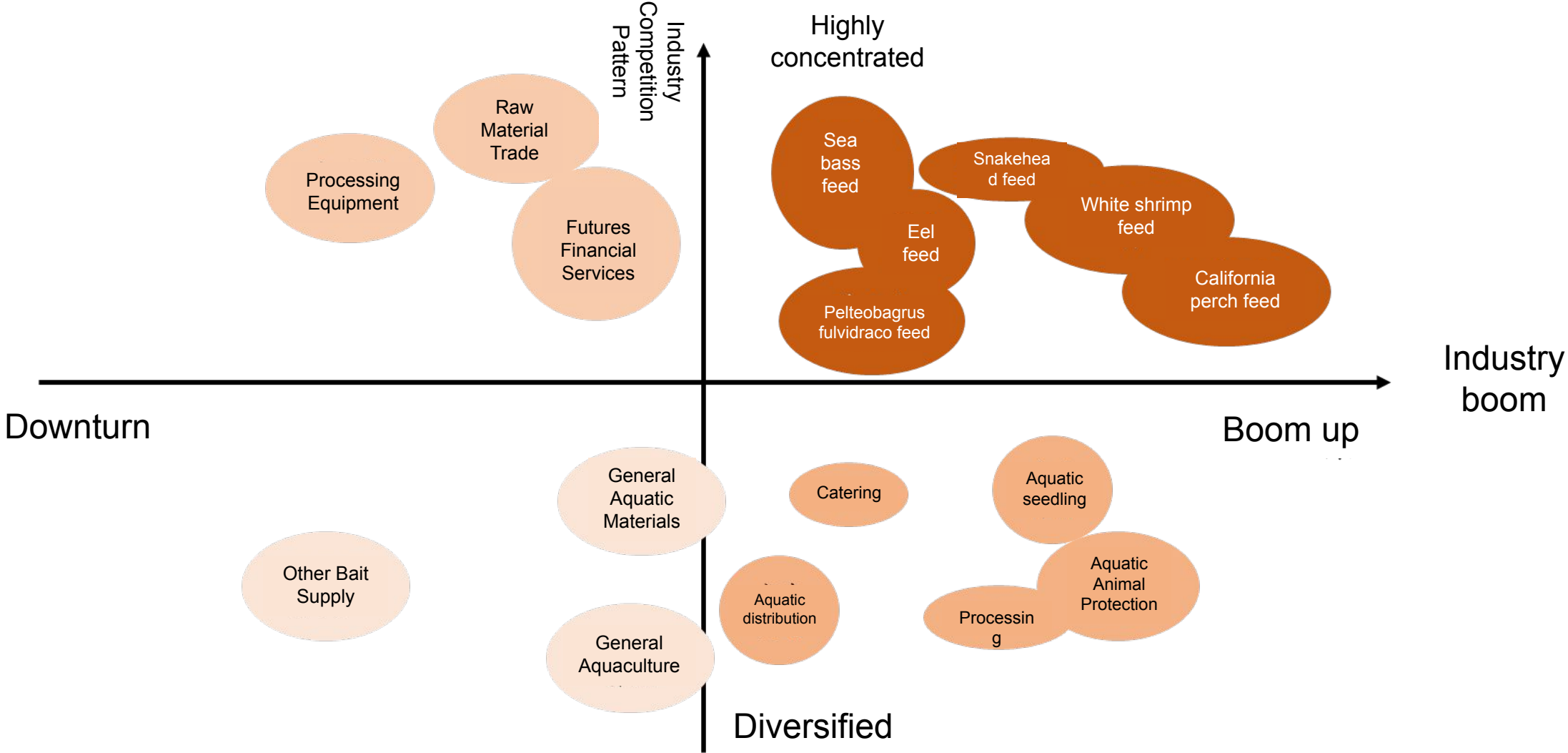


2.2 Aquaculture industry: many varieties, long chains, many sub-sectors

- **Aquaculture industry:** numerous breeding species, significant consumer iterative properties, alternating cycles, growth
- **Industry chain:** longer, upstream and downstream investment logic is completely different, upstream look at product power and service, downstream look at consumer trends and brands.



2.3 Aquaculture: Finding the golden track



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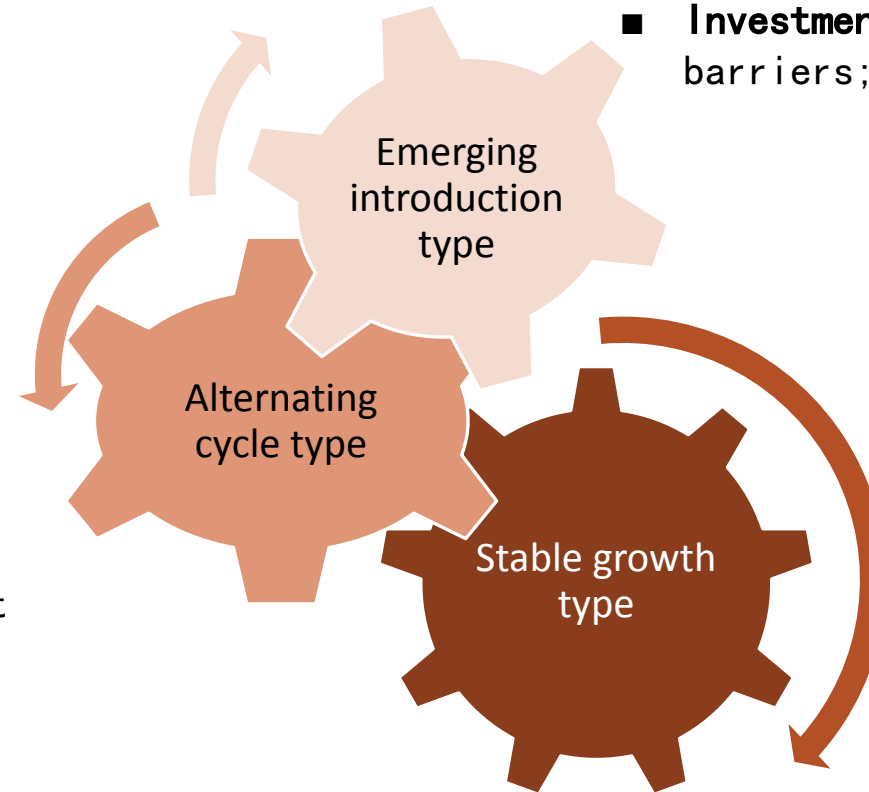
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3 China Aquatic Chain Investment Map

- Focus on **supply and demand leading indicators, volume, price and profit changes**
- **By aquatic species:** traditional domestic fish; mature category of special aquatic products (raw fish, sea bass, eel)
- **By industry chain:** traditional domestic fish farming, feed penetration rate of more than 90% of aquatic materials, raw materials trade
- **Investment strategy:** layout at the bottom, sell at the high



- Focus on **growth space, industry barriers**
 - **By aquatic product species:** Mandarin fish; bullfrog; crayfish
 - **By industry chain:** central kitchen processing for catering; emerging special aquaculture and feed; new types of seedlings; antibiotic additives
 - **Investment strategy:** large space, high growth, high barriers; high risk and high return
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- Focus on **growth stability and sustainability; cross-species capability; changes in the competitive landscape; profitability**
 - **By aquatic species:** multi-category special water (California perch, yellow catfish, white shrimp, crab, rhubarb, etc.)
 - **By industry chain:** breeding, special aquatic feeds, seeds of species with sustained growth in consumption-driven breeding; aquatic animal protection; aquatic food and beverage
 - **Investment strategy:** look for leaders; long-term allocation; time for space

Thanks for watching!



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