

An overview of world supply, demand and trade flows with a focus on aquaculture products

- WAS 2011
- Natal, Brazil
- 6-10 June 2011
- Dr. Audun Lem, FAO



Outline

- **Current status of world supply**
- **Trade flows and demand**
- **The FAO Aquaculture guidelines**
- **Fish prices: an index**

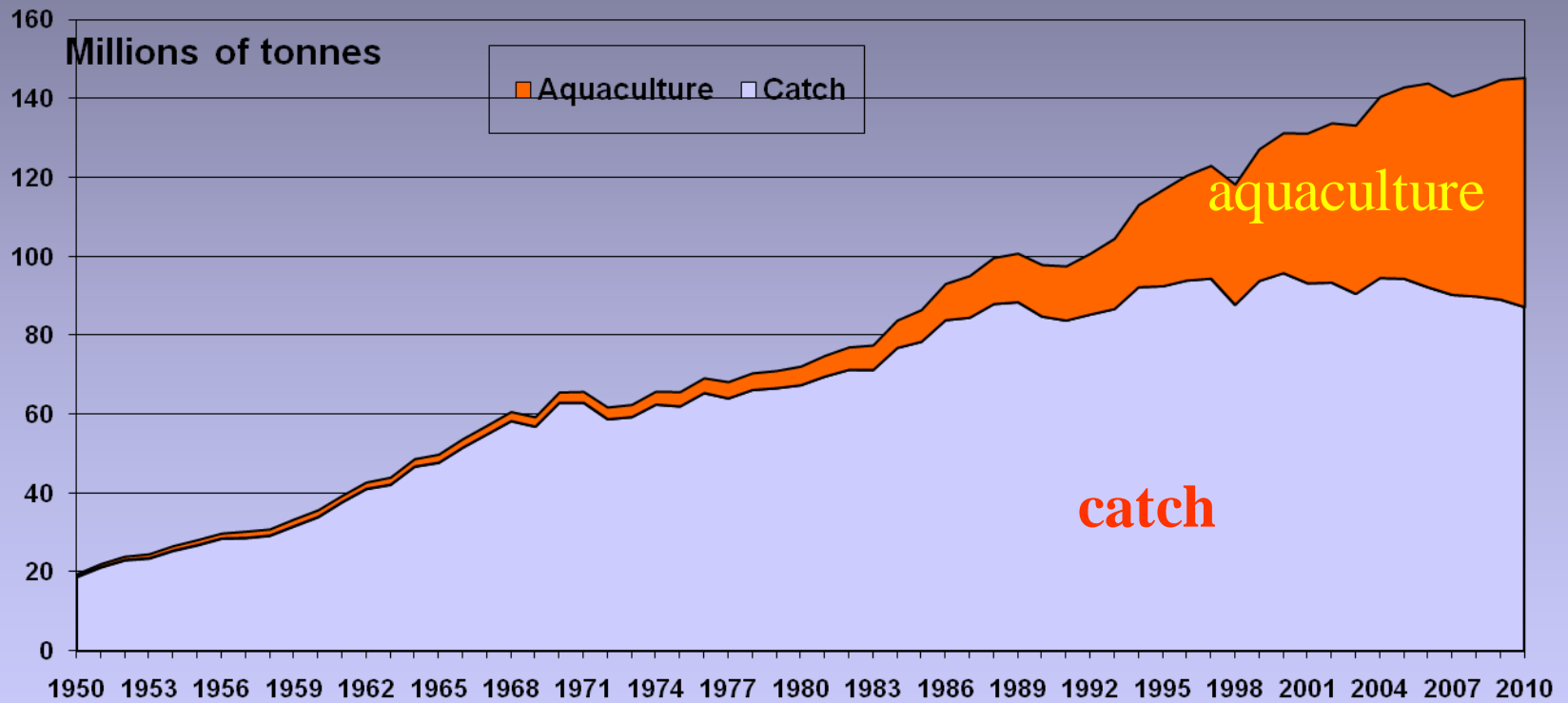
- **Conclusions**

CURRENT STATUS OF WORLD SUPPLY

World fish production

Million t	2009	2010e	2011e	2011/ 2010
Capture	89	87	89	1.8%
Farmed	56	58	60	4.0%
Total	145	145	149	2.7%

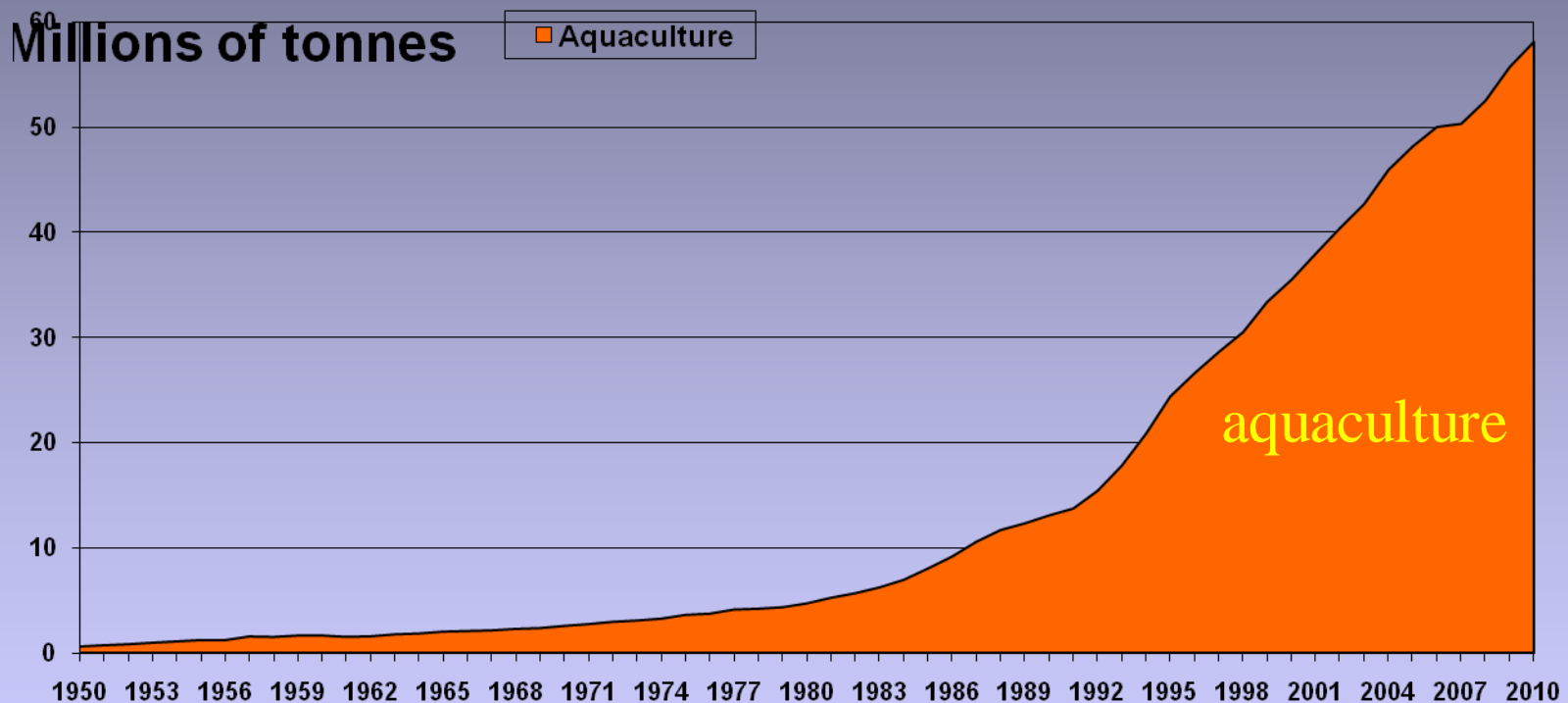
World Fish Production



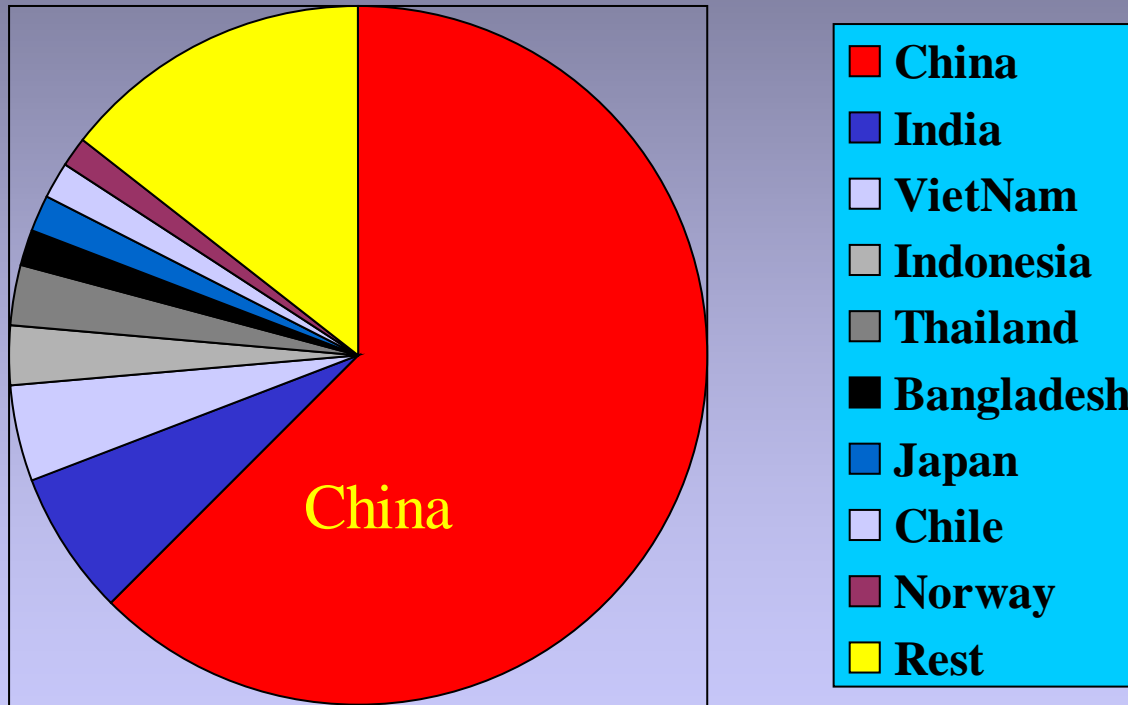
Per caput food supply

Kg/year	2009	2010	2011	2011/10
Food fish	17.2	17.3	17.4	0.3%
Capture	9.1	8.9	8.8	-2.1%
Farmed	8.2	8.4	8.6	2.8%

World aquaculture production 1950-2011: strong growth but slowing down



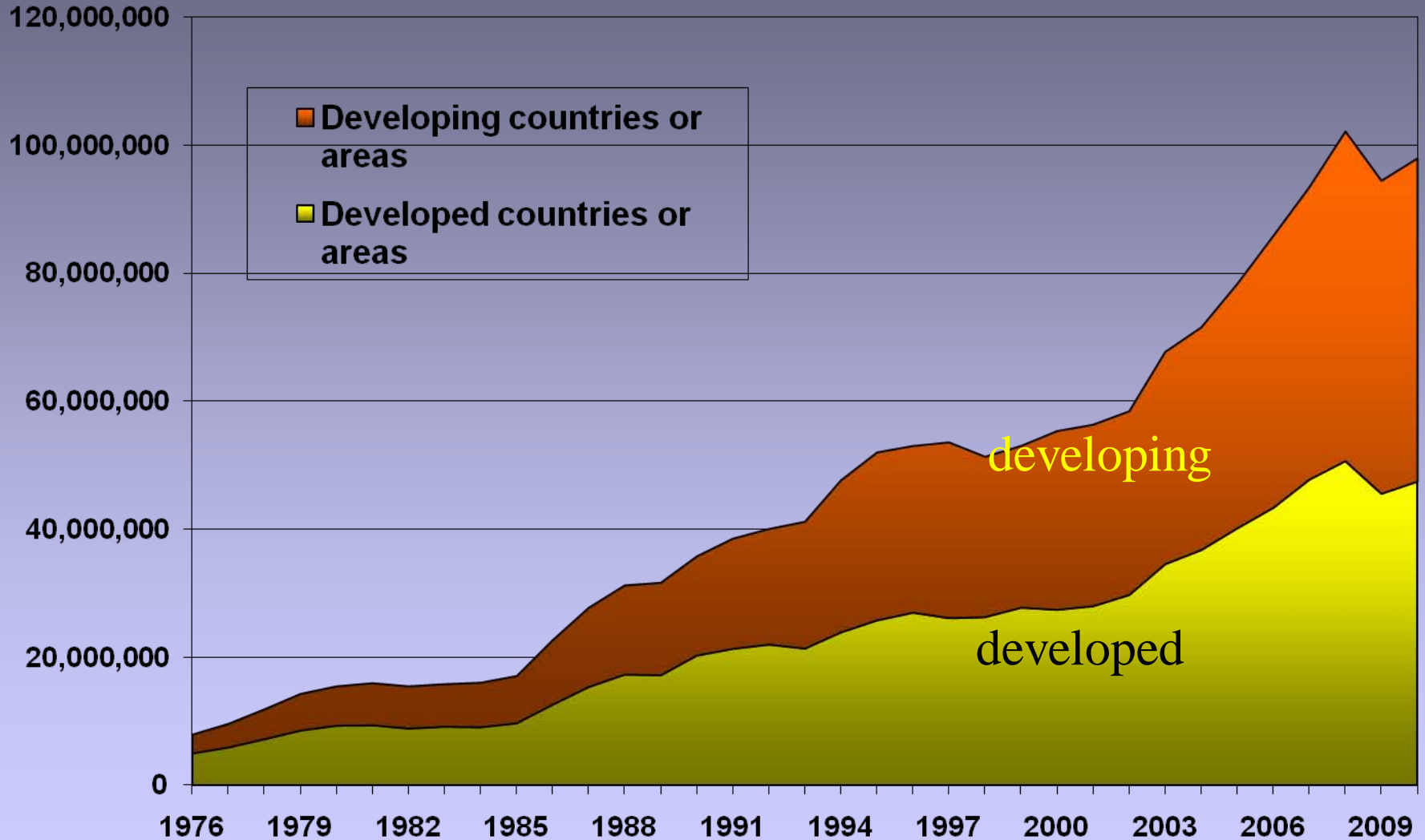
Aquaculture producers



WORLD TRADE

World Fish Trade: Export Value

- in 1000 USD -



LARGE EXPORT DECLINE

2009: USD 95.6 BILLION

- **2009: A difficult year for prices and margins**
 - - 7.5 % down in value (USD)
- **but 2009 volumes were only moderately down**
 - 0.6 % in volume (live weight conversion)
- **DEVELOPING COUNTRIES:**
 - 52 % SHARE OF EXPORTS

2010: new growth, new record

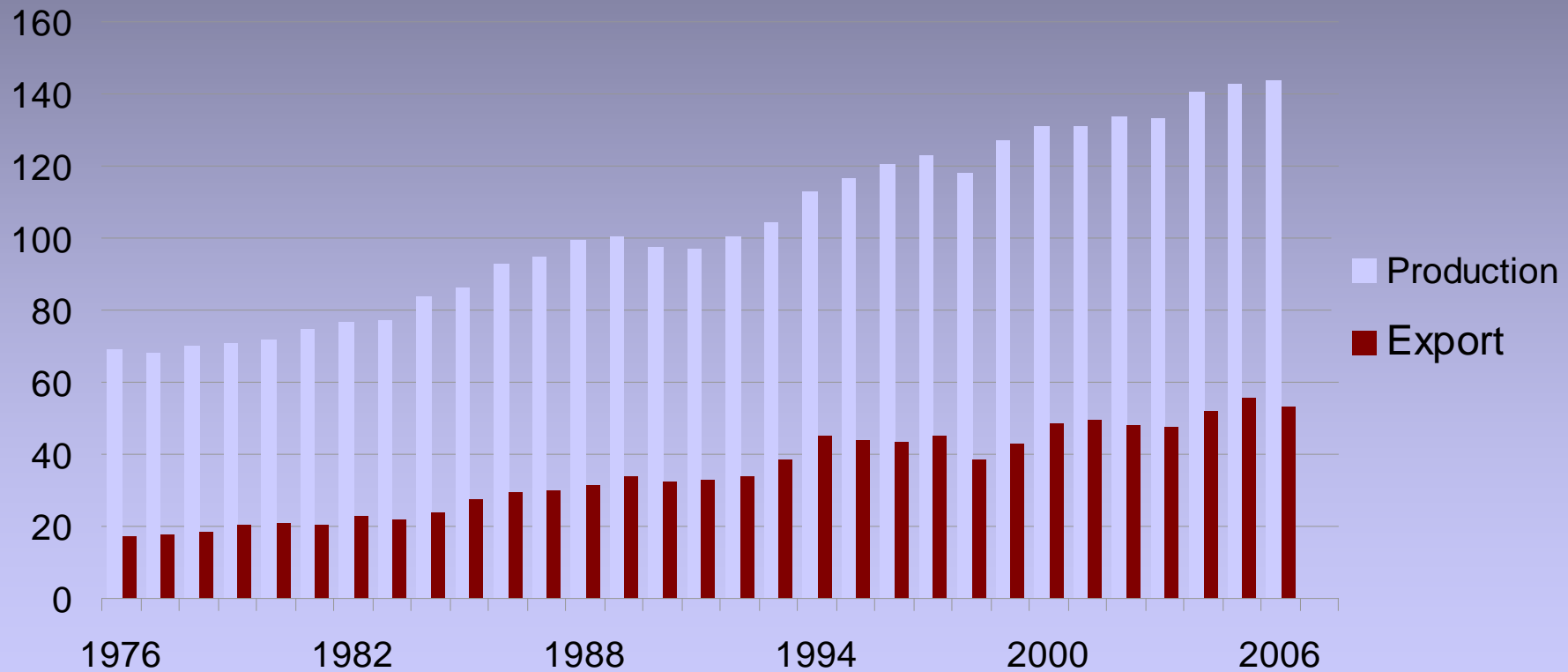
- ESTIMATED EXPORTS: USD 105 billion (+ 10%)
- Volume : 55.2 million tons (+0.5%)
- It is prices and margins that increase more than volume

2011 forecast

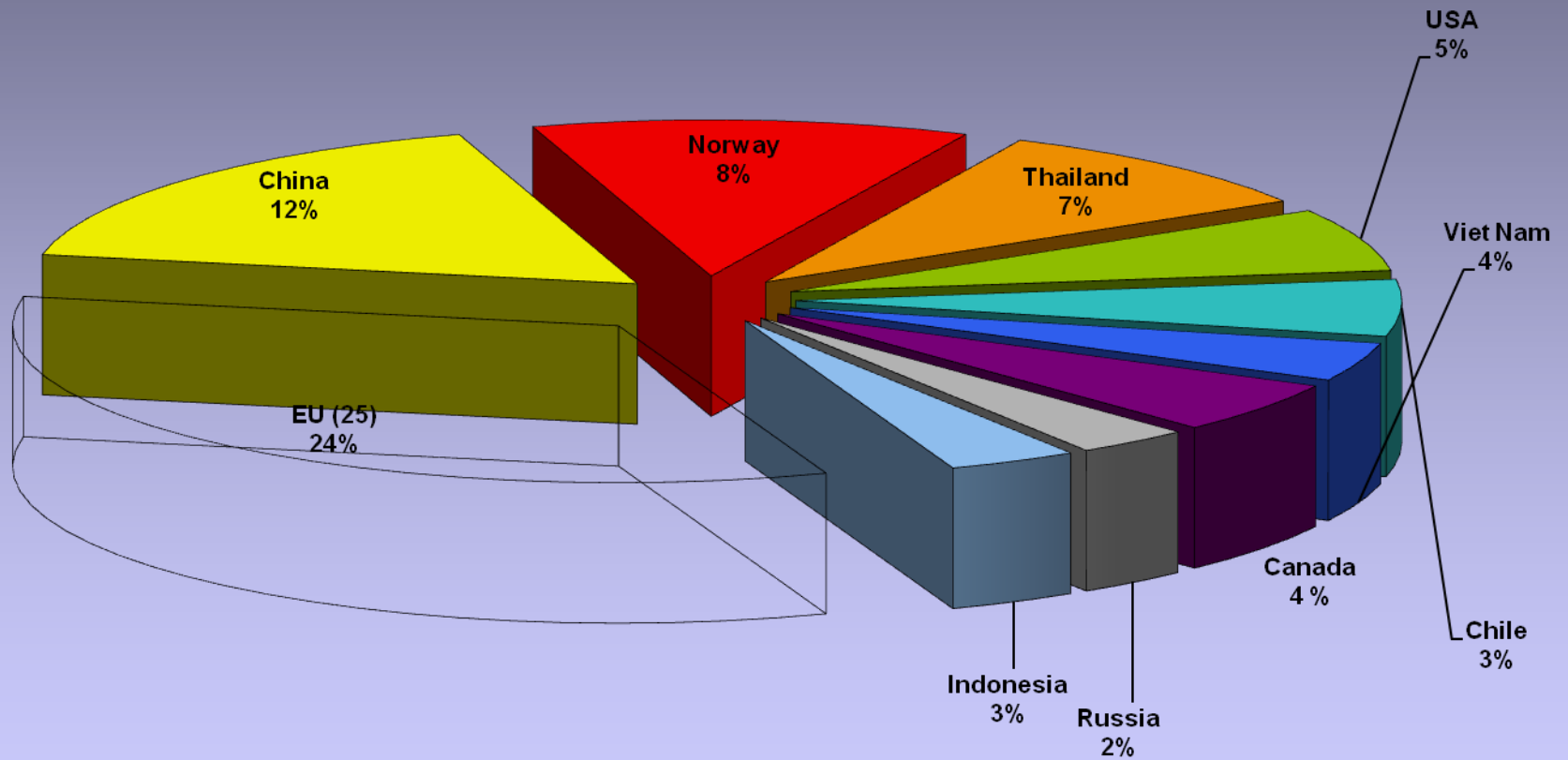
- Exports USD 108.4 billion (+3.1%)
- Export volume 55.4 million tons (+0.4%)
(live weight)

Share of world fisheries production destined to exports

Million tonnes (live weight)



Main fish exporters 2010 (value)



Main fish importers (2009) sharp decline

- **Japan** **USD 13.3 bill.** - **10.7 %**
- **US** **USD 13.9 bill.** - **7.3 %**
- **EU** **USD 40.4 bill.** - **9.6 %**
- **Total big 3** **USD 67.6 bill.** - **9.3 %**

- **Total world** **USD 99.3 bill.** - **8.1%**

Main fish importers (2010) new record imports

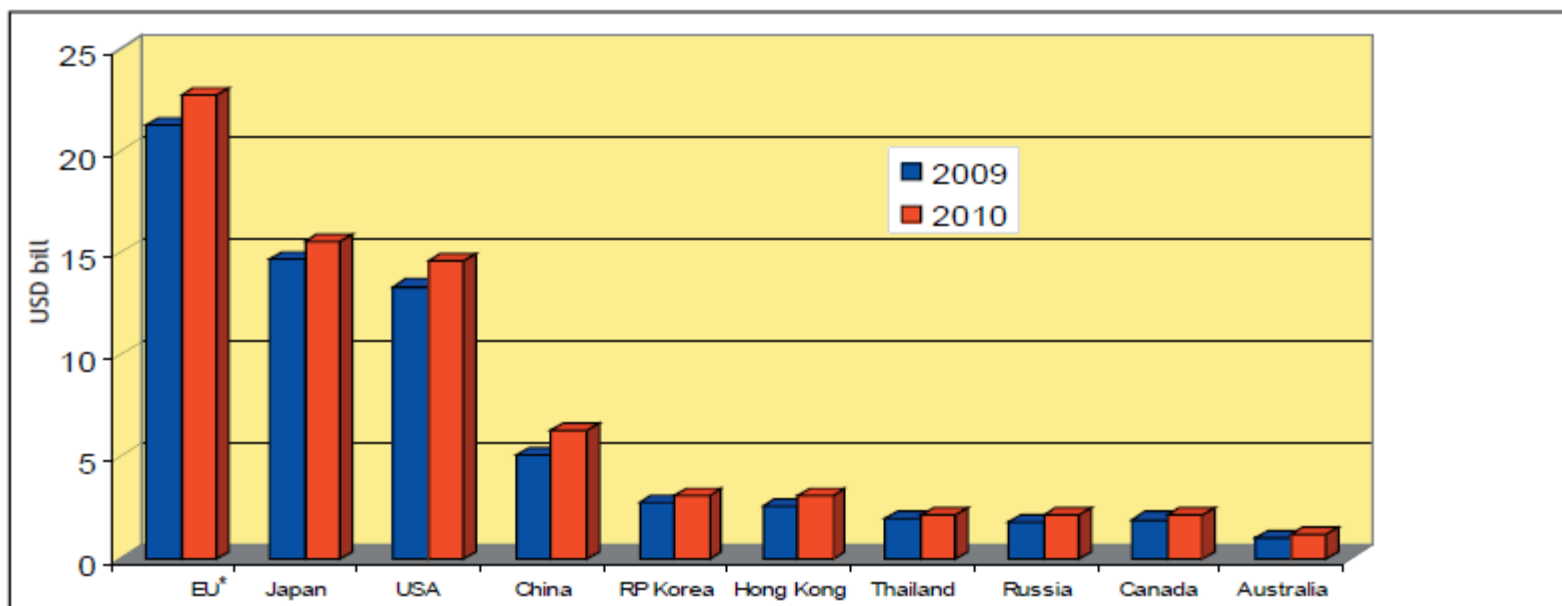
- **Japan** **USD 14.9 bill.** **+ 12.0 %**
- **US** **USD 15.5 bill.** **+ 11.5 %**
- **EU** **USD 43.0 bill.** **+ 6.4 %**
- **Total big 3** **USD 73.4 bill.** **+ 8.6 %**

- **Total world** **USD 109.7 bill.** **+ 10.5%**

Fish market trends

- **Japan**: long-term decline in fish consumption and imports Meat>fish .
 - high consumption but falling: 65 kg/kaput
 - below 3 million tons in 2007
- **USA**: long-term growth, is overtaking Japan as # 1 country
 - rising population and consumption /kaput 24 kg
- **EU**: long-term growth: # 1 market (EU 27)
 - expanding population, stable consumption at 20 kg
 - rising import dependence
- **New markets/emerging economies**
 - Strong growth; Brazil, India, Asian markets, Russia etc

Top-10 Importers



* Excludes Intra-EU trade

Source: INFOFISH

Distribution

- 68 % of world imports by three markets
- within these markets: supermarkets represent 50-85 % of retail sales
- concentration of sales whereas industry remains fragmented
- tendency in developing countries: urbanization
- at the same time: seafood retail net margins reportedly low compared to other food products

Future ?

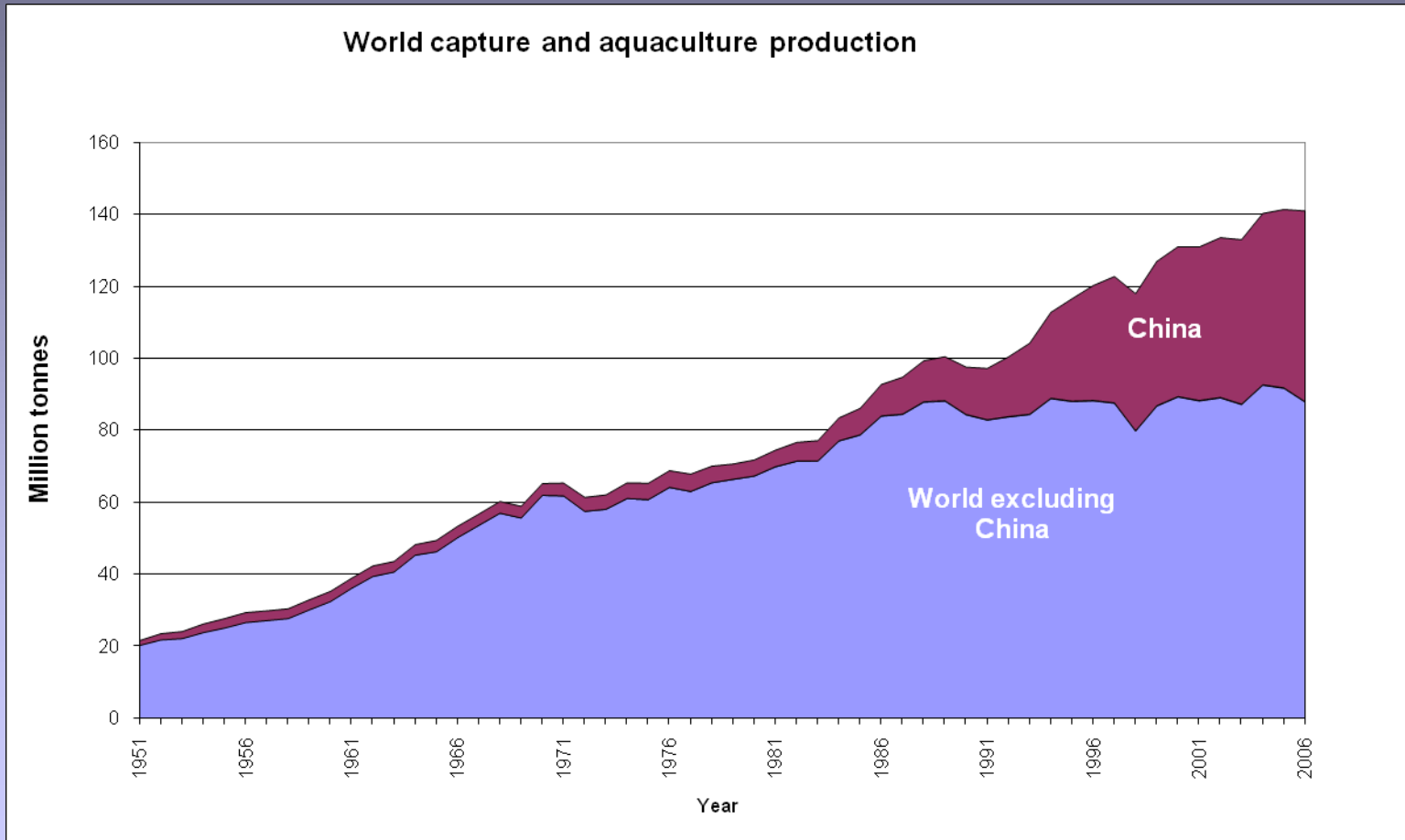
- Supply side: more concentration in aquaculture for some species (salmon, European bass/bream, turbot. Shrimp ? Catfish ? Tilapia ?)
 - focus on costs, economies of scale
 - focus on marketing and distribution
 - market and product segmentation
- Demand: retail concentration in developed and developing

ISSUES OF IMPACT

Global trend of outsourcing of both production and processing

- Asia (China, Thailand, Viet Nam)
- but also
 - Morocco (canning)
 - Poland/Baltic countries (marinades, smoking)
- Growing share of total production in developing countries, esp. of aquaculture
 - Europe, North America and Japan import farmed products from Asia, South And Central America

Role of China in production



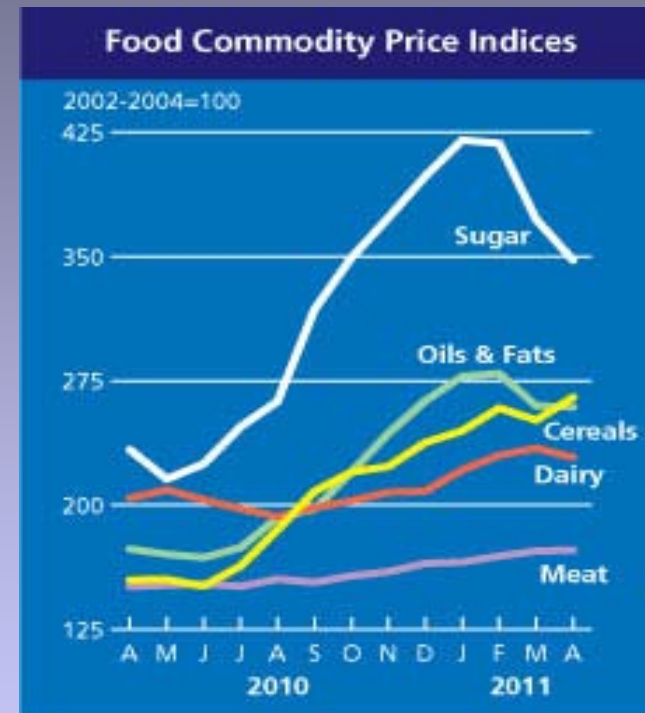
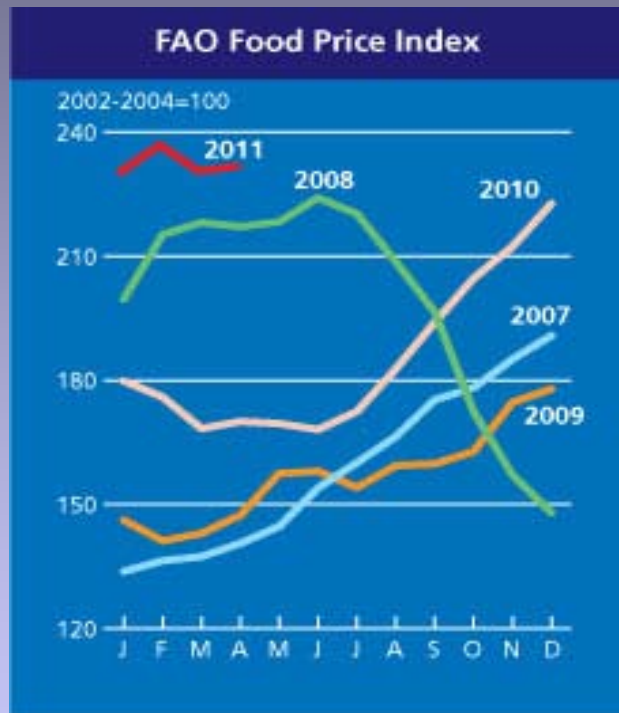
The next China: Viet Nam

- 2010: Nr 5 among world exporters
 - much of which is farmed: catfish, shrimp
 - but also a growing importer (2010: USD 0.5 bill.)
 - reprocessing
 - domestic consumption

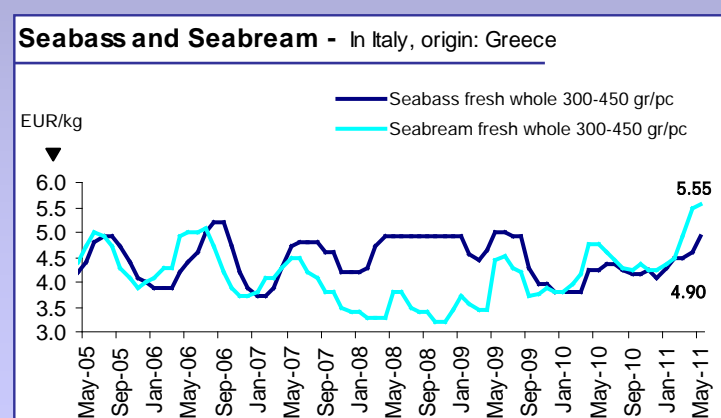
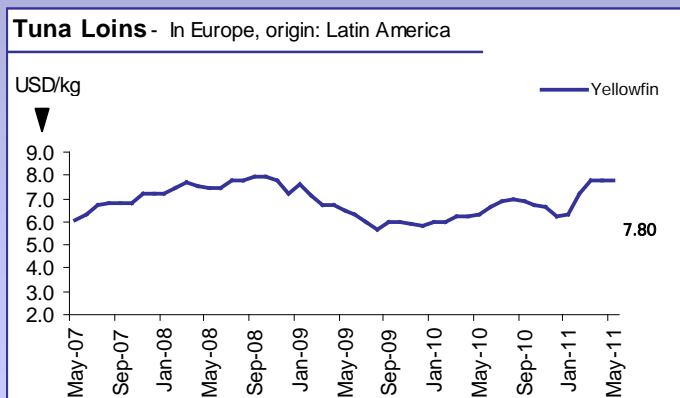
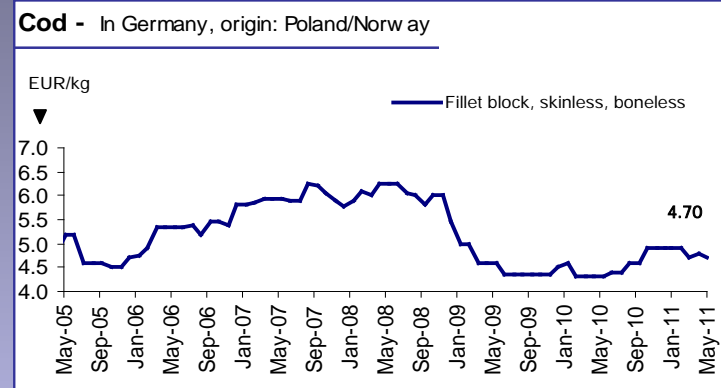
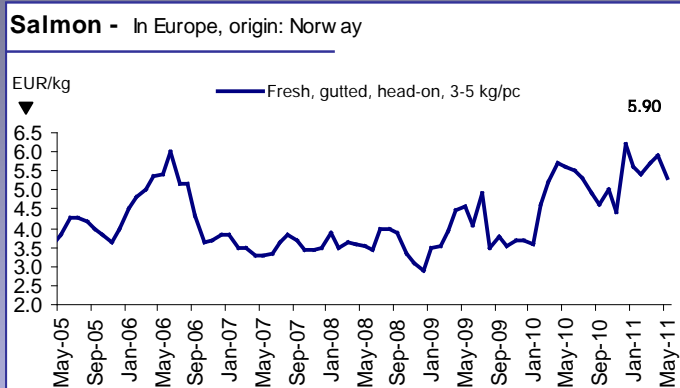
Commodity prices

- fish versus other food ?

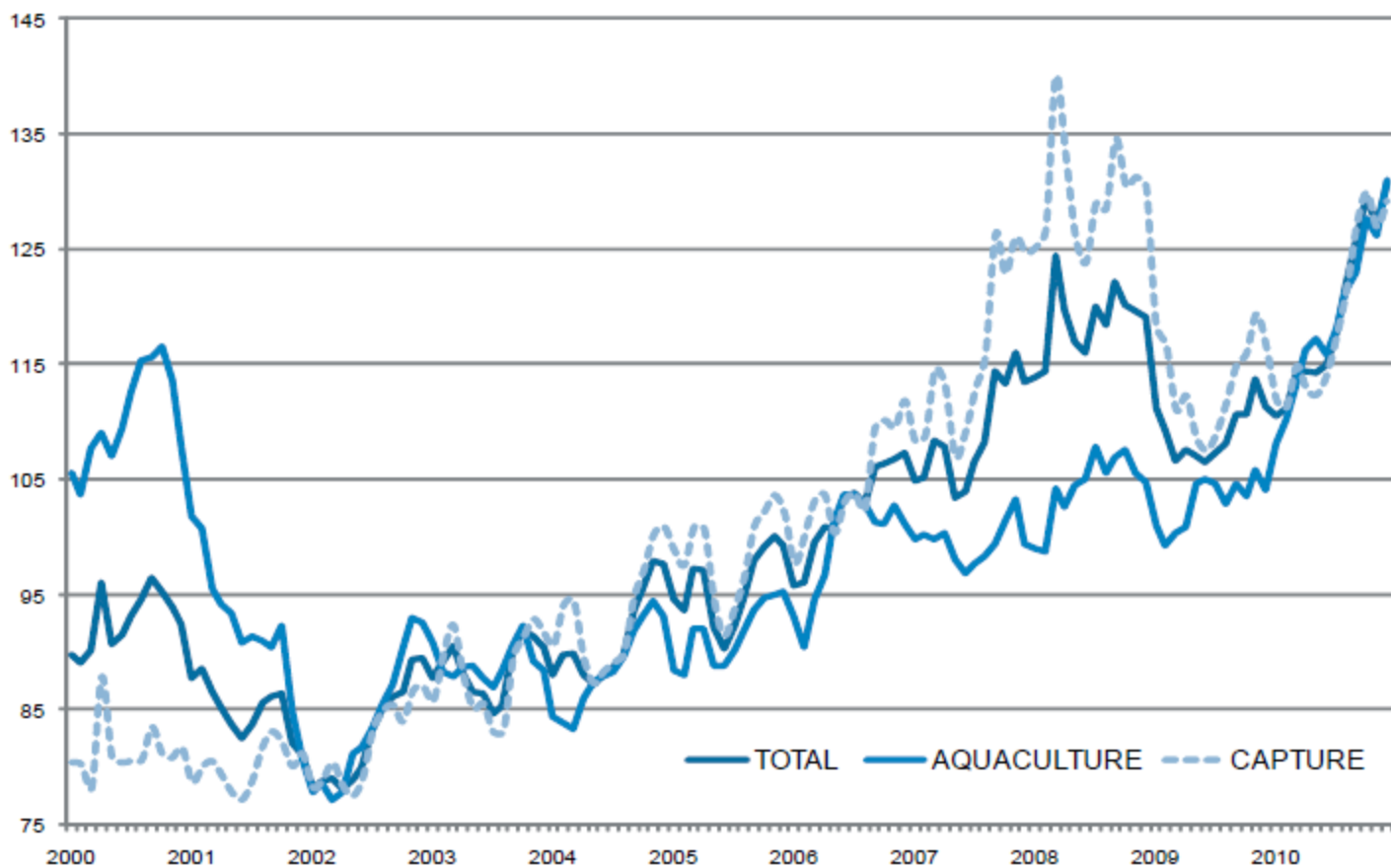
Food prices, excl. fish



And fish ?



The FAO Fish Price Index (2005=100)



Data Source: Norwegian Seafood Export Council

FUTURE FISH PRICES ?

- **DEMAND: slowly rising**
 - because of population growth
 - small underlying increase in per kaput consumption
- **SUPPLY**
 - capture: stable, not increasing in short/medium term
 - aquaculture: increasing but declining growth
 - unknowns: climate change, disease, but also technology improvements
- **PRICE IMPACT ?**
 - most probably slightly higher prices, esp for aquaculture because of feed
 - price cycles in commodity markets
 - industry profitability through product development, technological innovation and cost reduction, targeted marketing

AQUACULTURE FUTURE

- fastest growing food producing sector in the world
- accounts for almost 50% of global food fish
- 58 million tons of fish produced worth USD 100 billion (2010)
- Given the projected population growth, an additional 40 million tons of aquatic food needed by 2030 to maintain current per caput consumption.

Sustainable trade

- Trade in fish is governed by WTO trade rules (NAMA)
- Sustainability issues:
 - how to ensure sustainable production ?
 - how to ensure sustainable aquaculture development ?
 - how to ensure sustainable aquaculture trade ?

Aquaculture development

- many countries prioritize an export driven aquaculture development
 - export markets, economic activities
- but other elements are essential as well
 - social issues
 - environmental issues
- for long-term sustainable growth, all three elements must be included
 - an ecosystem based development
- NB: Aquaculture development is also a societal choice

FAO Guidelines

- *Responsible fish trade. FAO Technical Guidelines for Responsible Fisheries. No. 11. Rome, FAO. 2009*
- Draft guidelines: The ecosystem approach to aquaculture (EAA)
- **FAO Guidelines for Aquaculture certification**
 - approved February 2011 by FAO member countries

CONCLUSIONS

- Fish has always been a globalized commodity
 - but of higher importance for developing countries than most other commodities
- Fish production is increasing, but only thanks to aquaculture: 49 % share in 2011 in food fish
- Fish trade trend is positive: New record in 2010 and 2011 after difficult 2009
- Fish trade: big 3 import 68 % but in decline. Emerging markets.
- Outsourcing of production and processing
 - Rise of China and Viet Nam, and Russia
- Aquaculture will determine overall future supply
 - sustainable aquaculture developments must build on inclusion of economic, social and environmental criteria

THANK YOU

